Corvinus University of Budapest

EXAMINING CONSUMER RISK PERCEPTION IN TOURIST TRAVEL BUYING IN THE SHADOW OF THE COVID-19 PANDEMIC

Ph.D. thesis

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Introduction

Consumers face several choices to meet their needs. In these situations, they have to consider whether their choice will actually be the best one and whether something will go wrong. To do this, they need to evaluate different outcomes. In the economic conception of microeconomics, the homo economicus, the individual is perfectly informed and can choose the most rational alternative that is also the best for his needs (Zak, 2010). In reality, however, individuals are neither perfectly informed nor perfectly rational.

Consequently, the individuals suffer from a lack of information and judge possible outcomes subjectively. Their lack of information may lead them to be uncertain about the outcomes. Furthermore, the results of outcomes may be far from positive. Thus, in addition to uncertainty, there is also the issue of the probability of potential adverse outcomes. According to the interpretation of marketing science, this combination leads to risk perception (Cunningham, 1967). We can speak of perception because the risk value is based on a subjective value judgment of the severity and probability of occurrence of a negative outcome and the certainty with which an individual can judge a decision situation to have one or another outcome. For this reason, we cannot speak of objective risk, even if it is present in a given decision, whether to a known or unknown degree (Mitchell, 1999).

This type of uncertainty increases in parallel with the consumption of goods that are difficult to know or try, that contain more experiential or trusted attributes, that are not purchased on a daily or weekly basis, or that are even higher in value than the average basket of goods. Goods that can be described in these terms are mainly services (Kenesei – Kolos, 2014). The purchase of tourist travel and holidays also meets these criteria. The purchase of a holiday per year is usually rare, for a higher price than the average expenditure. It is challenging to try out the service to be purchased beforehand, even if elements of experience on one's journey or trust through others can help judge it. Nor is it made any easier because when buying or booking a holiday for leisure purposes, several services (usually at least two) must be purchased and coordinated. Choosing how to travel, arranging accommodation and meals, and booking attractions, sights, and activities is a complex process with outcomes that are difficult to predict. In addition, all of these are difficult to try, intangible and heterogeneous services; therefore, not all services are standardised to the same level. These can pose many risks for those wishing to travel. The situation is not made any easier because individuals want to relax, careless and have fun

on holiday, typically at the expense of their time off work, and are even less likely to want to run into any problems. Finally, holiday buying itself is now typically done without the need for a tour operator, via the internet, on one's own. Thus, in addition to the realisation outcomes of holiday buying, it is an exciting challenge to manage the risks and dangers inherent in (online) purchasing. The topic of risk perception and security seeking in tourism is relevant in itself, as has been reinforced by the terrorist acts of recent years. However, the COVID-19 pandemic in early 2020 has put this topic in the spotlight. Overall, questions about how the perception of risk determines buying can be very relevant to the holiday purchasing process.

Individual, consumer or customer fears and concerns should be known, identified and grouped by the company to help them reduce their perceived risks. Of course, the company cannot influence everything on its own, but it can support the customer in most cases. There are many tools to do this. A customer-centric approach can help to ensure that the risk reduction tools are used correctly. One of the most costly and resource-intensive knowledge acquisition methods may be market research and market exploration. However, at the other end of the scale, there are insights from the entrepreneur's experience and friendly conversations, which can help develop tools to support customer problem management (Malhotra – Simon, 2009). At the heart of all of these is information acquisition. Information acquisition enables the entrepreneur to learn about potential customers' behaviours, value judgements, attitudes, perceptions, expectations and individual characteristics. After information gaining the firm can provide the customer with the tools to manage, or better still mitigate the perceived risk themselves. These tools may increase certainty, build confidence, reduce the chances of a negative outcome occurring, or compensate for it. All of these are based on communication and information because the potential buyer is also looking for information. Once informed, it is much easier to influence and control consumer behaviour (Kökény – Kenesei, 2021). In the area of influence and control, all elements of the 4Ps of the traditional marketing mix should be mentioned, not only marketing communication (promotion), but also pricing, product attributes, distribution channels (place), but also the additional P's in the case of services, i.e. elements of the physical environment, the service process and people, the staff. Each of these communicates and provides information to the consumer, even if most do so passively, implicitly. It may be easy for a company to influence consumer expectations and perceptions by using selective sales channels, dynamic pricing or guaranteed multilingual staff.

In the case of tourism services, the physical environment and proper management of staff are particularly important. Consumers' perceptions of the physical environment are more closely linked to prior expectations than those of staff, for whom expectations are more likely to be formed at the time of service use, as researchers have measured in the case of a restaurant (Wall - Berry, 2007). Furthermore, negative perceptions of staff are more likely to determine negative perceptions of the overall service experience than perceived low service quality related to the physical environment.

The thesis aims to investigate consumers' attitudes towards risk perception and risk management concerning their holiday purchases for tourism in the shadow of the COVID-19 pandemic. In the research, I sought to answer the question of what risks are perceived by the subjects concerning holiday purchase and realisation, how these risks are interrelated and how these risks influence the subjects' travel intentions. I also looked at how risk reduction is implemented into the context, what risk reduction strategy is used, what risk reduction tools are used in this strategy and to what extent these used tools depend on the subjects' individual or the external environment. And whether these tools can actually reduce or even increase the extent to which risks are perceived. Finally, I was interested to see how the perceived safety resulting from the combination of risk perception and risk reduction is related to the intention to travel, and how subjective the perceived safety is in the risk perception dimension. I examined the whole phenomena in the shadow of the coronavirus that has been present for the last two years.

I used an exploratory mixed methodology in the empirical part of the research. This method meant I first carried out a qualitative data collection using a structured interview technique in October 2020 for the summer 2020 experience. I then collected an extensive sample of quantitative data in May 2021 using an online questionnaire technique. In the qualitative research, I interviewed a total of 111 participants through the involvement of Corvinus University of Budapest students as interviewers, using a predefined interview guide (Appendix 1). I presented the results qualitatively and grouped them into dimensions, constructs and themes using three-level coding. I also quantified the data using magnitude coding so that the structured 111 interviews were processed qualitatively and quantitatively too. For the quantitative data collection, I reached out to students and their acquaintances of Corvinus University of Budapest via an online questionnaire (Appendix 2), aiming for an equal distribution in terms of demographics and an equal proportion of those choosing domestic and outbound destinations. The final sample after data cleaning and filtering was 539. The hypotheses were analysed using a covariance-

based structural equations model (CB-SEM). In addition to descriptive statistics, confirmatory factor analysis (CFA), direct and indirect effect tests, and moderating effects with between-group differences for a single effect were performed.

In the first chapter, I contextualise the dissertation topic on the basis of industry characteristics, which establishes the relevance of the dissertation concerning practical issues. In the second chapter, I detail the main findings of the academic literature for the analysis, with a particular focus on perceived risk, risk reduction factors and their interactions with purchase intention. In the third chapter, I discuss the methodology and main issues relevant to the research objectives. I will elaborate on the hypotheses after the qualitative research, as I have used qualitative research to refine the hypotheses, especially in the risk reduction context. Thus, the model under investigation will be presented in chapter five. I will detail the empirical results from the different methodologies in chapters four and five. Finally, in chapter six, I summarise the main findings, conclusions, literature linkages, practical suggestions, and limitations and future possibilities of the research. In the remainder of the introduction, I present the main objectives and the core literature.

Research objectives and main questions

The research aims to understand attitudes to and management of the risks inherent in the holiday buying and realisation process in the shadow of the COVID-19 pandemic. Buying a holiday, or booking a trip, means purchasing many different services. In making this purchase, the traveller may weigh up different decision factors. These may relate to the mode and means of travel, the types of services offered by the tourist infrastructure (accommodation, catering facilities, visitor areas and establishments), the competitiveness of the attraction and the enjoyment of the holiday. In assessing these dimensions, safety issues are included alongside quality aspects. Safety is a fundamental and necessary condition for the viability of a tourist destination (Michalkó, 2020). The need for safety has become more pronounced than ever due to the emergence of the coronavirus.

Researchers in recent decades have made a significant effort to understand the process of risk perception and its management (Bauer 1960; Cunningham 1967; Peter - Ryan 1976; Dowling 1986; Stone - Gronhaug 1993; Mitchell 1999; Sharma et al., 2021). When examining the tourism sector, the main focus is on purchases made through online

platforms. The reason for this is discussed in the introduction to this dissertation under industry characteristics. For this reason, it is inevitable to examine the online platform when studying the tourism industry. In addition, the spread of the internet has led to the emergence of new areas and types of risk (Cases, 2002; Naiyi, 2004; Ariff et al., 2014; Alcántara-Pilar et al., 2018). Platform or technology-specific perceived risk types have emerged due to the online space, which I have also described in the literature review. These perceived risk types can be divided into two groups: elements related to buying and risks related to the use of technology. The combined analysis of these two groups is still under-researched in the literature and lacks a deeper understanding of consumer behaviour. Lastly, the emergence of the COVID-19 pandemic has further intensified the prominence of certain types of risk perception or has defined it on its own, even making the entire buying process and the enjoyable holiday completely impossible (Taylor et al., 2020; Abraham et al., 2020; Sanchez - Canizares, 2021). For these reasons, it can be argued that the coronavirus pandemic has been a constant presence, like a shadow, in the whole process. Consumer fears of a pandemic have been studied by tourism researchers primarily using the framework already available (Godovykh et al., 2020; Abraham et al., 2020; Yu et al., 2021). However, other disciplines have already created their scaling frameworks to gain a deeper understanding of consumer risks and mental concerns (Ahorsu et al., 2020; Taylor et al., 2020). Thus, another novelty of the research is that I also try to integrate the specific fears associated with COVID-19 as a separate element in the overall model so that I can get a more accurate picture of the overall consumer risk perception by using the health (physical) and mental health (psychological) approaches. The thesis has the following objectives.

1. Understand all aspects of the holiday buying and booking process in the shadow of the COVID-19 pandemic, focusing on risk perception.
2. To understand the correlations between the types of perceived risk associated with the online space during the holiday buying and booking process.
3. To explore and understand the risk perception factors associated with fears related to the COVID-19 pandemic.

When making their travel decisions, tourists perceive various uncertainties and risks. These uncertainties are mostly related to the potential negative consequences that the consumer fears will occur (Yang - Nair, 2014). The traveller is uncertain about the

probability of occurrence or the severity of the negative consequence. The traveller will seek to maximize his certainty or mitigate the negative impact of the consequence by risk management (Stern et al., 1977). The extent to which the impact of the negative consequences underlying the various concerns ultimately needs to be mitigated, or the certainty of a good decision will be increased by the individual may already depend significantly on his risk-taking behaviour. The individual's personality, experience and other demographic characteristics may determine risk-taking behaviour (Czerwonka, 2019; Nicholson et al., 2005). As a result, the range of tools available to reduce risk perception should also expand according to the different types of perceived risk. The objective related to this area is outlined below.

4. To understand the impact of risk reduction tools on perceived travel risk.

Finally, after understanding the perceived travel risk, I would also like to explore the link with the purchase/buying or, in my case, the intention to travel in the research. The literature shows that perceived risk is always present in the purchase process. However, there is no objective level above which we can say that a person will not buy because they perceive too much risk, but below which they will (Zuckerman – Kuhlman, 2000). It is not even possible to define this precisely, and it may depend on environmental characteristics, situations, and individual factors (Nicholson et al., 2005). I want to explore the importance of individual factors by integrating risk-taking intention into the model, a factor that is almost absent in modelling perceived risk (Wang et al., 2015). The moderating effect of destination choice also appears at this point, as theory (Karl – Schmude, 2017) suggests that individuals prefer to choose a destination. Furthermore, those who choose a domestic destination may perceive less risk in a familiar environment than those who choose a foreign one (Csapó – Törőcsik, 2019). The research aim in this area is as follows.

5. To measure and understand the impact of perceived risks on travel intentions, considering individual differences.

The primary aim of the research is to understand consumer behaviour in the area under study. In addition, I would like to make recommendations for the actors in the

supply sector. Starting from the basic principle of customer-oriented market operation is necessary to understand consumers' processes, which is why I am also concerned with them. The growth in the proportion of Internet users, the role of tourism services in e-commerce and the challenges posed by the COVID-19 pandemic are all factors creating significant difficulties for companies in order to serve consumers in greater numbers and more efficiently. Companies can influence consumer perceptions and expectations and thus reduce risk perception. This reduction can be aimed at increasing the consumer's certainty or reducing the negative impact of the consequences. The challenges posed by COVID-19 can create fear in the consumer in these both areas. Companies need to understand how consumers make decisions on each of these issues so that they can effectively reduce their potential concerns and, at the same time, increase their willingness to travel. Whichever service provider does this first and effectively manages consumer behaviour will win the race for the consumer's money. Likely, the difficulties of the pandemic, the various crises and the related consumer experiences will be with us for some years. The effects will continue to be felt in the future as we examine different perceptions of travel. Supply-side actors will therefore need to find responses that will help them meet the difficulties and changing consumer needs that will arise during market operations. In this research, I will explore questions that will provide a more detailed understanding of tourism consumer behaviour in terms of the perception and management of risk.

Based on the research objectives, I have formulated the following five main research questions, which are explained in detail with their respective methodologies in chapter three.

Q1 What risks does the consumer perceive when booking a trip?
Q2 How are fears of the coronavirus linked to risk perception?
Q3 How are the different types of perceived risks related to each other?
Q4 What risk reduction strategies does the consumer use when purchasing and booking a holiday?
Q5 How does the intention to travel depend on the perceived risks and their management?

In the literature chapter, I will develop the issues along with these questions in line with the objectives. The research objectives are presented with a brief literature review in this chapter, and the research questions are detailed along with the research methodology in chapter three. The qualitative research findings are explained in chapter four. The hypothetical model related to the research questions is detailed in chapter five after presenting the qualitative results. I have built the hypotheses based on the literature and the qualitative research results.

1 Industry trends related to risk taking in travel buying

Before the literature review, in this chapter, I will present the industry trends and characteristics that help to put the research into practical context. In this chapter, I will identify the market findings and theoretical interpretations that supported the starting point of the research. The study of perceived risk is a long-standing, spanning some 50-60 years of international academic research, as will be seen in the literature review. The question may arise as to why it is still worthwhile to deal with this theoretical framework today and what more can be added. In this chapter, I would like to answer these questions. The chapter will show the positive and negative effects of the spread of the Internet on the tourism market. I will also look at the growth trends in e-commerce, the impact of COVID-19, and present typical industry data on the sale of tourism services, mainly in the EU.

1.1 The impact of the spread of the Internet

The Internet has changed the way the world works in the 21st century. It has a significant impact on all the elements of the external environment. It affects political structure and communication, economic structure and dynamics, social relations, trends in technological development and the preservation and protection of the natural environment. In addition to the profit-driven competitive sector, the network economy emerging due to the spread of the Internet is also affecting the civil sector, education, health and other areas of society, which interact with the behaviour of business actors. For example, in the case of the political environment, it can impact the expansion of democracy (popularity of social media), the empowerment of minorities in the social space, the inclusion of disabled people in economic life, and so on. It may also raise several legal issues: for example, in the case of legal environments, issues of intellectual property (free downloads on the Internet), privacy (tracking of Internet movements, loss of personal data), preservation of cultural values against less valuable elements, or the economic and communicative dominance of global tech companies, even against opinions (Nemeslaki, 2012).

In the economic environment, industries are implementing the role of the Internet in operations and development at different levels. In some economic sectors, the Internet determines to a lesser extent, while in others, it determines the operations predominantly.

New platforms have emerged in commerce, bringing new intermediaries and distributors, as has happened in tourism. With the growth of e-commerce and e-tourism, the roles and locations of intermediaries have shifted from being the physical centre of delivery to operating in the cyber web space (Jancsik et al., 2019). It has become easier to be informed, faster to make consumer decisions and more effective in influencing consumers. At the same time, consumers who were frightened by the sheer volume of information also emerged. As long ago as 2001, researchers (Kalakota – Robinson, 2001) asked what conceptual framework could describe the e-business phenomenon. They write about the industry infrastructure, technology and innovation as determinants of competitiveness; the study of customer needs and the monitoring of trends in these needs; the way and levels of customer value generation and their implementation in the business model; the reorganisation of business operations for successful embeddedness; the role of information management and its external-internal integration, including partner interfaces; and finally, the sixth theme, which covered the challenges of implementing information and communication technology (ICT) applications. These issues are still relevant today and define both the supply and demand sides of the market. In the case of supply-side developments, attention should be paid to maximising profits through a customer-oriented approach wherever possible. The customer-oriented approach also requires identifying customer needs, as the authors cited in the previous list have done.

The concept of e-business is linked to information and communication technology applications. The term e-business refers to business processes supported by ICT (Information and Communications Technology) applications. It is used in the literature to help companies meet and prepare for the challenges of innovation brought about by the Internet by transforming their business structures. The business transaction process can be broken down into three parts (Nemeslaki, 2012). The first is the pre-sale or pre-purchase stages, such as the request for or offer of a proposal, the terms of delivery, the information about the offer, the negotiation and the bargaining process. The second is the pre-sale or purchase stage, such as ordering, invoicing, payment and delivery. Finally, the third is the post-sale or post-purchase stage, such as customer service, warranty, credit management and after-sales service. To define e-commerce is necessary to decide which elements are appropriate to be carried out online (Nemeslaki, 2012) and to enter the world of e-business on that basis.

1.2 Characteristics of e-commerce in Europe

Substantial estimates of the volume of online sales in commerce were made before the COVID-19 pandemic but had to be recalculated in the wake of the pandemic. Nevertheless, look at some previously published data (Mosteller et al., 2014). We see that US e-commerce revenues were estimated at US$370 billion in 2017 (which would have been a 10% increase from 2013 data of US$262 billion), while according to Statista (2021), this was US$279 billion without digital services (transactions of physical goods), but almost double this to US$450 billion with digital services. US e-commerce represented an increase of around 14-15% per year, but even without digital services, there was a 10% increase. Looking at the figures after 2017, we can see that this growth was similar in the following two years, reaching up to $600 billion by the end of 2019 and $343 billion without digital services.

Earlier estimates had predicted similar growth for the US in the following years. However, the coronavirus pandemic arrived, and the year 2020 saw total sales, including digital services grow by around 32% to $795 billion while excluding digital services, the growth rate remained at 10%, reaching $375 billion. Interestingly, even the estimates made at the end of the first half of 2020 had to be revised upwards by about 10% 4-5 months later. The share of e-commerce in total retail sales has increased from 10-12% to 15%, reaching 20% by the middle of this decade. They estimate the growth of 6-10% in the coming years due to the economic downturn, but with growing digital service sales. Digital services include tourist travel and event bookings, financial transactions, food and drink orders, gambling and other substitute purchases.

The increasing proportion of internet users also influences these growing trends. Looking at data for the European continent, growth has also been around 10-12% year on year, rising to around 20% by 2020. Non-digital sales were $296 billion in 2017 and around $425 billion in 2020, while total e-commerce was $566 billion. While worldwide sales in 2020 already exceeded $3,000 billion ($3,256 billion), one and a half times the 2017 figure ($2,200 billion) (Statista, 2021). So overall, it can be said that 2020, instead of the usual average 10-15% expansion, has seen an increase of around 30% compared to the previous year.

The 2021 figures show a further increase of almost 20% compared to the previous year. In continental Europe, this represents a turnover of 665 billion US dollars. In the European Union, 440 billion US dollars and 3847 billion US dollars (Statista, 2022). Looking at the results, e-commerce is a dynamic growth area, especially since the

COVID-19 pandemic, with a market growth of more than 50% in two years. In 2021, compared to the 2017 estimate, sales were 48% higher than the forecast.

Even before the pandemic, growth in Hungary was more dynamic, at roughly 27-35% year on year. By 2020, it was 47%, and by 2021 it was 33%, almost reaching US$4,000 million (US$3,980 million), while in 2019, it had just passed US$2,000 million (US$2,032 million). In particular, electronics and beauty products sales have increased (Statista, 2022).

1.2.1 Trends in online tourism sales

Within the tourism sector, we saw a slightly expanding market globally before the coronavirus pandemic, with annualised turnover growth of around 1-5% from 2015 onwards, with a worldwide turnover of US$ 1868 billion in 2019. The turnovers compare to almost half by 2020 (US$ 1094 billion) and 70% by 2021, to around US$ 1300 billion. The picture more nuanced is that offline sales have fallen from 40% of the total weight in 2017 to 34% in 2021. In parallel, travel sites such as Booking, Expedia, Airbnb and Tripadvisor grew at an average annual rate of 10-15% on the revenue side until 2019, before falling back by 55-60% in traffic by 2020 (Airbnb only 30%). However, this decline was less than the approximately 70% drop in total tourism traffic, so we can expect the weight of online sales to continue to grow after 2021. Almost 1 billion bookings were made on Booking in 2019, before the COVID-19 pandemic, with a total of 1.5 billion international tourist arrivals in 2019 (400 million in 2020) (Statista, 2022). The 50% of international arrivals are in Europe. Worldwide, 59% of international tourist arrivals are by air, 35% by road and only 1% by rail. Leisure tourists make up 82% of all arrivals, while professional tourists account for 18%. In Hungary, 17 million arrivals were recorded in 2019, a drop of 75% by 2020.

Mobile apps for tourism have also been at the forefront of the download race. The most downloaded travel-related apps are Google Maps (106 million) and Uber (94 million), but next to them in the top spots are Booking.com (63 million times) and Airbnb (44 million), which are essentially apps for selling tourism services. While the most preferred mobile apps (WhatsApp, Messenger, Facebook, Instagram, TikTok) have hundreds of millions of downloads per year, travel apps, especially those listed above, also have a significant weight in the list of downloaded apps. Thanks to Trip.com, a Chinese online travel site and app, we can expect a dynamic increase in the number of

tourists from Asia in the coming years. These downloads are unknown, but they will continue to push the market towards online sales globally.

Accommodation e-sales, retail, and real estate activities have the highest share of e-sales. This industry data proves the relevance of the tourism sector for my thesis, as it is the sector with the highest levels of online shopping and sales. The share of e-sales in total turnover is highest for those selling accommodation, at almost 40%, i.e. almost one in two accommodation units is sold electronically. In the accommodation services sector, almost 100% of e-sales are made via web-based interfaces and applications, while EDI-type sales account for around 10%. EDI sales are most important for sales of longer value chain processes, such as in the manufacturing, transport and inventory sectors. Overall, the trends show that the highest share of e-sales is in accommodation sales, which are almost entirely conducted through the web (Eurostat, 2021). These elements also show that the accommodation reservations sector has the highest share of e-commerce and e-sales and that this sector has a very high share of purchases via web platforms compared to other sectors. Therefore, it is essential to address the online impact in this area.

1.2.2 Presence of technological tools in tourism

Tourists use the growing technological tools for different reasons. The main arguments favour using apps or other digital technologies in tourism tend to revolve around being informed faster and receiving instant notifications and warnings. However, some elements reduce the number of contacts (self-check-in, contactless payment, etc.). Finally, convenience features are also emerging for tourists, such as avoiding queuing or carrying documents (Jancsik et al., 2019). These tools can be differentiated along different supporting and hindering factors (Cserdi – Kenesei, 2021). More and more service areas are automated or uploaded to the cloud on an internet basis (Miskolczi – Kökény, 2022). Some authors, however, argue that defining a precise concept of smart at the academic level is still challenging because there is not yet an objective scale of what constitutes something „smart” (Wu – Cheng, 2018).

A significant trend is that the boundaries between business and leisure travellers are becoming less distinct, as the focus has shifted to how the business traveller feels during their trip. Digitalisation is also playing a role here, as 41% of business and 60% of leisure trips are organised online, so there is now less demand for face-to-face travel arrangements in many segments (Németh, 2019). Moreover, increasingly, the

organisation of events that form the basis of business tourism has also moved online, typically due to the coronavirus pandemic (Boros – Keller, 2022). At this point, meetings and 'mobility' are shifting to the online dimension.

One of the biggest trends and results of the combination of tourism and digitalisation is the rise of online sales in the travel sector. An excellent example to illustrate this is the change in market size of online travel agencies, which in 2020 was worth US$ 432 billion worldwide. It is forecast to reach USD 833 billion by 2025 (Statista, 2021). Today, many digital solutions are available to organise a trip and serve the traveller's experience.

I want to outline some of the essential trends briefly. For example, in the identification field, high technologies such as fingerprint and facial recognition systems or, even more recently, retina scanners are now being used. However, there are still untapped potentials, such as the information collected about the guest to collect data to provide a more exclusive experience. More than 50% of online bookings are made using a mobile phone. For this reason, mobile apps have great potential for searching and booking, keeping in touch with the guest, and as a platform for online marketing. Voice-controlled devices are also gaining ground, from voice search to the increasingly standard hotel equipment that the same technology can operate. The next big trend is chatbots, which can provide accurate answers to questions using artificial intelligence and are already being used by several companies in Hungary. The last trend, which is currently not very well known, is blockchain technology. This technology is designed to store and transmit data securely; for example, it makes it easier to transfer travellers' data between travel agencies, transport companies and hotels; practically everything can be done within one technology (Németh, 2019).

The role of digital solutions is designed to facilitate tourists' activities, even though certain aspects – lack of human interaction, security concerns, and other concerns – may weaken the positive attitude towards intelligent solutions (Cserdi – Kenesei, 2021). Innovative apps are appearing in cities in more and more European countries, providing information and helping to know the destination, and are increasingly playing a role in the hotel and catering industry. Artificial intelligence tools, robots, touch-free solutions, and innovations using tablets and smart devices are also appearing in modern hotels in many cities (Cserdi, 2022). The presence of operators on the internet and social media is essential to remain competitive, as they can use these platforms to share relevant information about themselves. This information helps them to stay in touch with their

target group. In addition, consumers expect to be able to use these platforms, as more than 90% of internet users in Europe aged 16-44 have a smart mobile phone (Kessel et al., 2021). In addition to hotels, some segments of cultural tourism are also building on new technologies. However, the challenge is to ensure that their use does not detract from the overall experience (Fehér et al., 2022). It is clear that the use of technology in tourism can have several benefits and added value, but that consumers face different challenges, whether in terms of difficulties in using the devices, loss of personal interaction or changes in the experience.

1.2.3 The supply transformation brought about by technology

On the eve of the fourth industrial revolution, we can say that different technologies are an integral part of our lives, and digitalisation is impacting society. However, it is essential to consider how we can shape this revolution in a way that benefits us both collectively and individually (Kökény – Miskolczi, 2022). This phenomenon is no different for the supply side, as an online survey shows that 15% of consumers surveyed worldwide want to go digital, and a further 13% would like to see existing basic systems modernised and integrated with technology (Statista 2021), so the supply side needs to go digital.

Kazandzhieva and Santana (2019) define e-tourism as an objective reality. Its rapid development and dynamics are causing significant changes in the traditional model of the classical tourism system. The creation of an e-tourism system is nothing but a digitalised logical sequence of all processes in the value chain of the tourism and travel industry (Kazandzhieva - Santana, 2019). According to a 2019 study, the revenues of the e-tourism market in Hungary will continue to grow, reaching up to 1.845 million by 2023, and the number of users will also increase (Happ et al., 2019). Of course, at that time, it was unknown what significant changes the next year would bring with the emergence of the epidemic.

However, a survey conducted in 2020 by the payment platform Adyen showed that digitalisation is not being prioritised, as the responses of the business tourism decision-makers surveyed indicated that, in general, companies are not spending more on digital development. Only 25% of respondents said they had developed a specific strategy for their company to address digital transformation, and only 12% said they were „at the forefront of digital technologies” (turizmus.com 2020c).

Our current understanding is that AI is present in many sectors, including tourism and its closely related mobility (Kökény et al., 2022), including in the search and retrieval of travel information, social media, the use of transport, and service design and delivery (Miskolczi – Kökény, 2022). This has also led to the creation of smart destinations, where all tourism-related platforms and information can be found and exchanged instantly (Máhr et al., 2022). In addition, the development of tourism destination organisations has also been driven by digitalisation replacing the one-way communication of the past with two-way communication. This is reflected in the fact that these organisations communicate with their consumers through social media, so tourists can form opinions and make suggestions (Jovicic, 2017). These destinations are, therefore, also vital for the tourism sector as the demand side allows consumers to shape their services based on the information provided, thus providing a guest experience that is vital for tourists (Tiago et al., 2021).

The needs of consumers within the tourism sector have changed significantly in this area. Tourists increasingly demand the aggregation of information and digital delivery of information (Reichstein – Härting, 2018). Today's travellers are resourceful and well-informed, generally well-versed in using smart devices and looking for experiences that are as unique as possible. They want to know all the information they need right away but also need help to find their way around, and they want tools that are easy to use yet practical (Németh, 2019). Online reviews are also a significant focus for travellers today, with many travel and tourism websites created to meet this need, the most visited of which will be Tripadvisor in July 2021. The number of reviews on this site has been multiplying yearly, from 200 million reviews in 2014 to 884 million in 2020 (Statista, 2021).

Today's travellers are exposed to many stimuli, making it harder to sustain their interest than in the past (Pinke-Sziva – Keller, 2021). Generation Y, the largest age group, represents 31.5% of the world's population (7.7 billion people). This generation's estimated purchasing power is USD 200 billion, making it an ideal demographic for travel companies. As expected, members of Generation Y often share their travels on social media, with many of them also getting inspiration on where to travel from travel influencers and bloggers. They even take recommendations from friends about destinations and book their trips with this advice in mind. Generation Y travels a lot, even during epidemics, with 57% considering travelling in such circumstances as a positive thing (Hernborg, 2021).

Finally, what is also important to mention from a supply-side perspective is environmental awareness, sustainability and environmental protection. The emergence of digitalisation is a significant contribution to the tourism sector's ability to reduce its ecological footprint, which is already having a positive impact. However, this impact will increase in the future due to the continuous development of smart devices and manufacturing innovations (Ásványi, 2022). A vital issue in sustainable development is aligning tourism activities with the UN SDG targets and the National Sustainable Development Strategy (NFFS – Nemzeti Fenntartható Fejlődési Keretstratégia).

1.2.4 Problems and concerns when shopping online – demand side

In tourism, the spread of the internet since the 2000s has enabled consumers to interact directly with service providers or the destination itself. This kind of opportunity first changed consumers' habits and behaviour and later changed how they communicate. The latter has led to broadening distribution channels and a broader understanding of the seller's communication, thanks to the many „acquired" media. Supply chains have been shortened, as I have already mentioned. It has become easier for consumers to find their way around, and alternative platforms have emerged, where user-generated content has come to the fore. Supply-side actors have become more directly accessible, making it easier for consumers to put pressure on them during or instead after the service has been provided (Pappas, 2016). As purchases have increased, consumers have become less thorough, which may have been induced by too much information available (Law et al., 2010). The trend analyses presented earlier have shown that most tourist accommodation purchases are made online, and it is worth focusing on the online space in addition to the offline space when exploring consumer concerns and risks. This shift to online spaces does not exclude the primary risk considerations associated with shopping but also creates a specific technological fear.

For an online purchase to occur, the consumer must trust the service provider, and the perceived risk must be low. These concepts are contradictory in meaning. Eurostat (2018c) analysed the concerns of European residents about online shopping in recent years. In general, shoppers did not raise any concerns in more than two-thirds of cases. The most common problems were „delivery slower than indicated", „technical error during ordering or purchasing", „delivery of the wrong or damaged product or service", „difficulty finding warranty and legal guarantees", and „lack of complaints or unsatisfactory response to complaints", „final price higher than indicated", „foreign seller

not selling in my country" and „fraud problems". These problems have occurred at similar rates and in similar order over the past decade (Ecommerce Europe - Ecommerce Foundation, 2017). It can be seen that there were already serious concerns about buying tourism travel online before the pandemic emerged.

In particular, the problems occurred during or after the purchase was made. However, there are reasons why individuals may not shop online. The most common answers are that the person „feels it is preferable to buy in person", „likes to see the product", „loyal to the shop", and „buys offline out of habit". In the following more extensive group, we find a specific risk factor, i.e. „payment risk or privacy issues", which is not a reason for not buying online. The third group is „lack of skills and knowledge", the fourth is „concerns about the arrival/return of goods, complaints/remedies", the fifth is 'no payment card to pay online", and the sixth is „parcel delivery problems" (Eurostat, 2018c). However, if we take a broader view of risk and focus on the fact that it is already a risk if the performance of a product or service has negative consequences, almost all of the elements listed above are risk dimensions.

As we have seen from the previous sub-chapters, technology uptake is expected to increase due to COVID-19. In addition to the risks listed above, mainly concerning personal data loss, lack of secure internet browsing, and the risk of falling victim to any cyber fraud is another primary concern for tourists.

1.2.5 The impact of the coronavirus on tourism

In addition to the substantial social and health damage caused by the COVID-19 pandemic, it has also caused severe problems for economies, including tourism. In the previous chapter, I explained that in 2020, the coronavirus reduced international tourist arrivals worldwide by around 75% and domestic arrivals by around 50% (UNWTO, 2021). In Europe, international arrivals fell by 70% in 2020 compared to a year earlier, while in Hungary, they fell by 74.9% (MTÜ – Magyar Turisztikai Ügynökség [Hungarian Tourism Agency], 2021). Similar declines were recorded in revenue, which in 2021 was not back to 2019 levels. Although online sales have fallen much more minor than offline, all platforms except Airbnb have experienced significant losses (around 50-65%). However, in 2021, these companies almost recovered to 2019 results. Around a third of people planned domestic trips in 2021, while two-thirds planned trips abroad. This result is around 10% higher than the proportion of domestic travellers in 2019 (Statista, 2022).

Regarding tourism spending, one in three of the money came from international tourists in 2019, compared to one in five in 2020. The spending share of leisure tourists has increased from 80% in 2019 to 82% compared to the amount received from professional tourists, which may also explain this previous discrepancy. The results show that domestic tourism has also fallen significantly due to the pandemic, but to a lesser extent than international tourism. Furthermore, a further emphasis on online sales is expected by 2021 (Statista, 2022).

The first quarter of 2021 was still not significant in tourist arrivals due to closures and low vaccination rates. In a survey (Statista, 2022) in March 2021 asking what the most important factors people would consider before travelling was, the highest proportion, nearly 40%, said vaccination. Also, essential considerations for just under a third of respondents were declining case rates in their home and destination countries and not having to undergo quarantine during or after the trip on arrival home. This suggests that these factors and physical restrictions could significantly influence travel in 2021. However, slightly more than a third of people felt identity, data loss and transparency risks associated with the various health cards. At the same time, digitalisation solutions and online shopping are increasingly supported, with much more dynamic growth than before.

The UN World Tourism Organization (UNWTO, 2021) continues encouraging a post-global tourism reset based on sustainability and innovation. UNWTO recently introduced a significant digital innovation based on an agreement with MUST Travel & Tech, which will run until 2024. It puts the tourism service as a digital tool that allows users to share their experiences to promote the sector's reactivation and sustainability. Already operating in 60 countries, MUST brings all the information of interest to travellers in one place. Integrating essential UNWTO information and analyses aims to become a leading tourism application and create new opportunities for destinations (UNWTO, 2021). In the summer of 2021, at the German Tourist Office's virtual event Knowledge Days 2021, expert speakers presented current trends, future developments and the use of digital tools in practice. The latest trends include language recognition systems, chatbots based on artificial intelligence and, for example, skills designed for smart speakers (turizmus.com 2021a). In Hungary, the Hungarian Tourism Agency Foundation's primary task is to monitor international trends and support digital transformation among tourism stakeholders (turizmus.com 2021b).

In the wake of the coronavirus epidemic, travellers increasingly seek experiences that minimise risk by reducing physical interactions and offering contact-free options throughout the journey. These include, among others, mobile hotel check-in, mobile boarding passes, biometric solutions, digital ticketing and contactless payment options (WTTC, 2021, p. 6).

Regardless of the epidemic, travel habits have changed a lot, such as the growing demand for self-service solutions. To meet this demand, robotic technology is an incredible innovation that can replace human staff, such as robot concierges, robot airport staff and even robot chefs. In air transport, robots can be used for security screening passengers and their luggage, in hotels for check-in and check-out, and even for concierge services, information and luggage delivery (Németh, 2019).

The COVID-19 pandemic has created a situation for the world that has affected tourism today in many ways. International travel restrictions and closures affected more than 90% of the world's population. With an almost total ban on community gatherings and mobility, tourism was virtually impossible and will have reached a standstill by March 2020. Only months later did it gradually begin to revive amid a high level of uncertainty, which severely dampens the motivation to travel in this largely trust-based sector. While the fear and uncertainty associated with travel in recent decades have been linked to a relatively small number of geographically defined locations, the pandemic has become a global threat and, as a consequence, the security of protection against the coronavirus has become a key factor influencing travel decisions. The decision may be not to travel or to change the circumstances of travel (Raffay, 2020).

The COVID-19 pandemic has dramatically reduced demand for one of the past's most famous urban tourism destinations, as tourists avoid crowds and crowded urban spaces, which can usually become hotspots for fear of infection, instead of open, green rural areas. In addition to the fear of travel, various restrictions such as night-time curfews, changing or closing opening hours of restaurants and bars, and limiting the number of people participating in various activities have all led to a decline in the popularity of urban tourism. InterContinental Hotels & Resorts, one of the world's largest hotel chains, reported that RevPAR fell by 53.4% year-on-year and occupancy by 30%. Occupancy figures improved with the arrival of summer but are still far below the 2019 figures (MTÜ, 2021).

According to the European Travel Commission (ETC) survey of December 2020, the emergence of the COVID-19 vaccine is driving interest in domestic and international

(intra-European) travel (ETC, 2021). The 32% of respondents travel in the second quarter (April to June), and 52% plan to travel in the next six months. At the same time, people's confidence in air travel is growing. Leisure is the leading tourist destination, followed by visiting relatives, friends, and business travel. The report shows that high health and safety standards give people confidence and peace of mind and make travel more enjoyable (MTÜ, 2021).

By the end of my empirical research (end of May 2021), three waves had taken place in our country. The first wave lasted from March 2020 to June 2020, with an average of 30-50 new cases per day. The second wave started on 1 September 2020 and lasted until January 2021, peaking in early December. At that time, the average number of new cases per day was around 4000-5000. Then the third wave started in February 2021, with a peak at the end of March. The average number of new cases per day was around 5000-6000. Mass vaccination was available from February 2021, and national coverage increased steadily. May figures reported a monthly average of 50% of those receiving the first dose, while 35% of the population had already received both doses of vaccine.

Overall, this introduction shows that online technology was becoming increasingly popular even before the pandemic. Many tourism services already used online platforms or solutions, but the pandemic has made them even more critical. Tourism will move even further towards contactless travel and new hygiene standards. Passengers will want to know that it is safe to board a flight and that they can enter the destination they are visiting. New security protocols will be needed based on digital identification and biometric technologies (Raffay, 2020). During the pandemic, many tourist destinations had to close, but not wanting to lose revenue completely, they tried to introduce more and more online solutions. Virtual tourism is not an entirely new phenomenon, with ever more sophisticated AR (Augmented Reality) and VR (Virtual Reality) solutions now offering a similar experience to the original for those who are attracted to this type of virtual travel and experience. After the sudden shutdowns in spring 2020, this is virtually the only option left to 'see' or 'tour' many attractions, and operators have responded relatively quickly. Many of the world's famous museums have made their guided virtual tours available free of charge. Illusionary services have also appeared, which try to give the impression that the tourist is consuming the tourist article.

An example is Flight to nowhere, which was first launched in Europe in Hungary in October 2020, when participants were able to board a flight from Budapest to Budapest within the country's borders, following all the regulations but not crossing the border

during the air traffic restrictions (Kökény – Kökény, 2021). According to Christian Laesser, Professor of Tourism at the University of St. Gallen, virtual tourism is only a temporary solution (Laesser – Müller, 2020). However, it has also proved very popular due to its accessibility and high level of implementation. Although feedback suggests they did not provide the same experience as if visitors had been physically present, they could still be used to create satisfying experiences. Digitalisation had not disappeared entirely after the closure (when tourism operators were allowed to open), and operators are, in most cases, trying to maintain or develop these innovations. However, travel, the challenges posed by the pandemic and the (sometimes mandatory) learning and use of new technologies entail many risks and have brought the issue of consumer risk assessment back into focus.

2 Literature background to the analysis

Web 2.0 has also opened up new channels for the flow of information in the tourism sector. These have much less impact on companies than their own or paid content. Consumers must decide for themselves what they can do to reduce their risks. Tourism operators must manage information on their own and purchase communication platforms with information from additional acquired new platforms. In the future, the value of analyses and academic publications on consumer risk management strategies and (online) trust-building by companies may be appreciated.

Based on the industry characteristics outlined above, it can be seen that the tourism sector plays a significant role in e-commerce, both on the supply and demand side. These industry analyses mainly do not address deeper consumer characteristics. Most segmentation based on demographic characteristics can be detected. However, areas are emerging in the academic literature that makes understanding consumer behaviour easier. There are three main themes based on which I have structured the theoretical framework. The first is an explanation of the concept, types and forms of perceived risk in the traditional sense. This is the category in which the bulk of the academic literature appears from the 1960s onwards. The traditional approach to perceived risk is most associated with shopping and consumption. The rise of the online space impacted marketing research in the early 2000s, and researchers also addressed consumer risk perception in e-commerce more widely addressed by researchers during this period. From this period onwards, more research has also focused on risk perceptions when purchasing tourism services offline or online. Among the types of risk perceived online, the literature has addressed the factors expressed in the traditional elements but has added additional categories that are more in line with the traditional elements. However, these are more specific risk perceptions related to shopping or consumption. The researchers also looked at technological risks and consumer concerns in the online space. In the second section of the theoretical review, the chapter on perceived risks related to the online space was structured similarly to traditional risk perceptions. Finally, at the end of the theoretical summary on risk perception, I summarised the risks associated with COVID-19 and the impact on shopping, focusing on tourism consumption. This is followed by a presentation of risk reduction tools, mainly for traditional and online risk communication. The topic of health risk reduction has been minimally developed up to the end of the dissertation, so I have included a few studies in the risk communication chapter on the COVID-19

pandemic. Finally, at the end of the literature review, the risks associated with tourism services, with a particular focus on consumer risk perceptions, are summarised.

2.1 The concept and areas of risk in marketing and tourism literature

When faced with a buying situation, an individual perceives a certain degree of risk when deciding to buy a particular product or brand. Early authors in the 1960s and 1970s recognised that consumer behaviour and uncertainty are influenced by perceived risk. Consumers' goals and methods of satisfying their needs influence the extent to which they perceive risk. Researchers have isolated the factors, types, and measures of perceived risk, consumers' risk management, risk reduction factors and techniques, and consumers' preferences to reduce risk.

2.1.1 Conceptual components of perceived risk

In classical decision theory, risk is generally considered an element reflecting the distribution of possible outcomes, probability, and subjective values (Mitchell, 1999). Perceived risk was first mentioned by Bauer (1960) as a factor influencing consumer decision-making, a phenomenon he defined as „consumer behaviour is risk in the sense that any action of the consumer will result in consequences which he cannot predict with any approximate certainty, some of which are likely to be unpleasant" (Bauer, 1960; 1967; p. 24). This brought risk and its study into the circular flow of marketing and behavioural science. At first, it was presented primarily as a hypothetical psychological construct that Bauer used to explain phenomena such as information seeking, brand loyalty, and reliance on others to make purchasing decisions. Initially, the conceptual background and theory of perceived risk did not differ from that used in statistical decision theory, psychological theory or (public) economic theory found in previous studies. An excellent example of this is that even today, for example, in an article with a solid financial focus, such as the one examining the effectiveness of weather derivatives in reducing the cash flow volatility of natural tourism businesses, we can see similar elements, but with mathematical descriptions and equations, as the risk dimensions used in marketing theory (Tang – Jang, 2012).

Alongside Bauer, another approach of the era (Kogan – Wallach, 1964) considers risk as a mixture of two slightly different aspects: a 'chance' aspect, where the focus is on probability, and a 'hazard' aspect, where the focus is on the severity of negative

consequences. This is partly in line with Bauer's (1960) approach, which also focused on the negative aspects, but, here, uses a mathematical approach to describe it (in an objective way). Kogan and Wallach (1964) also rely on data and mathematical logic. On the one hand, they present 33 measures of cognitive judgement, ability and personality variables, and on the other hand, they present the results of their analysis of the relationships between decision variables. In addition, the analysis adopts a moderator variable approach, where the sample of subjects is divided into subgroups based on three theoretically relevant variables: anxiety, defensiveness and gender. The research defined the decision-making behaviour of people with defensive anxiety instead of those with less motivational anxiety. The defensively-anxious subject is insensitive to relevant environmental factors, which not only gets them into trouble personally but also has inevitable negative consequences for their decision-making behaviour. Another finding is that for people with high anxiety, failure of a risky strategy leads to increased reinforcement of the strategy rather than its abandonment (Solomon, 1965). Thus, they increase their perception of risk through their anxiety. Anxiety, in turn, may be an equally perceived danger for a subject with a defensive attitude.

Cunningham (1967) describes risk in terms of two elements similar to those presented earlier, which are (1) the amount that can be lost (the amount at stake) if the consequences of an action would not be favourable, and (2) an individual's subjective sense of certainty that the consequences will be unfavourable (probability). The amount or stake that can be lost depends on the importance or magnitude of the goals to be achieved, the severity of the penalties for non-compliance, and the number of resources committed to achieving the goals. This, thus, shifts the perception of risk in a highly subjective direction. The outcome or value of all risks is determined by a 'multiplicative combination' of uncertainty and the risk of consequence. In a study of car brands, Peter and Ryan (1976) similarly defined total risk as the product of probability and negative consequence, i.e. the probability of negative consequence is the (total) risk. This finding suggests that consumers with a high-risk aversion tend to perceive something as more or less risky based on the potential loss they experience when choosing products and brands.

These results support the hypothesis that the importance of loss can be determined based on prior considerations, especially the definition of loss for the individual (Yates, 1992). That is, perceived risk may be a predictor of brand preference for market segments in which this definition of importance is high. Moreover, it is noteworthy that internal consistency values decrease significantly for the probability of loss scales and increase

significantly for the importance of loss scales. These results suggest that loss probability is a phenomenon of handled risk and that loss importance is inherent risk. These concepts will be discussed in more detail later.

In summary, loss importance may be more useful as a segmentation variable than a multiplicative perceived risk model component. This way of thinking could currently solve many potential scaling problems. In addition, the probability of loss could be a phenomenon of inherent risk. I think it is important to note that Mitchell (1999), in his extensive analysis synthesizing and evaluating the literature on perceived risk, where systematized the literature prior to his study through the comprehensibility, predictive ability, reliability, validity, practicality and usefulness of the perceived risk models contained in it, found the two theories summarized in this paragraph, namely Cunningham (1967) and Peter and Ryan (1976), to be the most valuable. Subsequent authors have extended the respective models through these theories.

2.1.2 Determining the value of the perceived risk

Dowling (1986) has compiled the work of the previous two decades into five different equations for determining and thus calculating the value of perceived risk. These models have formal parallels with subjective expected utility models in psychology and behavioural models widely used in marketing and psychology. Typical of these prescriptions is that they approach decision-making from the information processing perspective. In the first and second categories, the value of the perceived risk is obtained so that in the first case, the perceived risk is uncertainty itself, while in the second case, the perceived risk is equal to the product (combined value) of uncertainty and the expected (negative) outcome. It follows that the selected negative consequences are part of the basic structure of any perceived risk measure and are of primary theoretical importance. However, the study notes little guidance on the number and type of negative consequences to be included in the observed risk measures. There may be negative consequences between products and services or between products and services themselves.

It is debatable whether there is always a complete negative consequence set that should be used in all cases. A uniform negative consequence set assumes that we are talking about homogeneous cases of purchases, both in material and personal terms. This would be the opposite of a subjective approach because the harms of the consequences

could appear as objective factors, which would again be a classical economic approach. According to Dowling (1986), most previous studies that have taken a simple approach to calculate perceived risk have uniformly treated the negative consequences. This can be resolved, in his view, by attempting to write up the aggregate value of perceived risk using equations that include the number of types of loss (‘i’ to ‘n’), so a sum function is needed in which ‘i’ ranges from 1 to ‘n’ (still a linear approach). Such an equation could be a summed aggregate equation of uncertainty and negative consequences, a summed equation of loss probabilities, or a summed equation of loss probabilities and loss importance. In each case, it should be noted that each element is assigned an index „i”, i.e. it can be seen that several elements are added together with different weights, from which the aggregate perceived risk value is obtained. This is a good reflection of the need to be able to talk about different perceived risk types for each product category and also of the need to have all perceived risks in any case because there may be several risk factors (probability of loss, uncertainty about negative consequences, or the importance of losses may be more than one) in a decision. This means that even if there are elements for which one of the elements in the equation is zero, it will not zero out the whole equation. So, there may be risk perceptions that do not affect all types of risk perceptions, but overall the result is that an individual perceives some risk.

Stone and Grønhaug (1993) find a significant difference between the (perceived) risk that influences consumer choice and the risk interpretations of other disciplines. In studies dealing with (economic) economics, psychology, and statistical theory, the theory of risk is related to both possible positive and possible negative consequences of a choice, as in the case of lotteries, where we consider both profit and loss at the same time and try to calculate a profit from these mainly by a mathematical approach. On the other hand, risk influences consumer behaviour and focuses primarily on the possible negative consequences. This theoretical approach is partly related to the theoretical approach to satisfaction. We try to avoid possible negative consequences because the desired outcome of our consumer decision should be satisfied, which is the positive outcome that is hoped for and expected, as opposed to playing the lottery. Mitchell (1999) further adds that perceived risk powerfully explains consumer behaviour because consumers are often incentivised to avoid mistakes to maximise the utility of the purchase.

The conceptual background of perceived risk has changed partly since then, mainly due to the popularity of online transactions, but it remains primarily based on the theory presented and the sub-factors discussed later. In the past, perceived risk was mainly

sought in the avoidance of fraud, avoidance of harm (performance) and lack of assurance of product quality (brand). Overall, it can be seen from the initial main theories presented that perceived risk has several components. This prompted the researchers to investigate the individual dimensions further to delimit the framework of perceived risk from the general risks that Bauer (1960) had already presented in his initial study detailing risk's philosophical and theoretical content.

2.1.3 The conceptual definition of perceived risk - Objective and subjective risk

Bauer had previously (1960) strongly emphasised that he was only concerned with subjective (perceived) risks and not with „real world" (objective) risks. Unlike actuarial mathematics or accounting, where vast amounts of accurate historical data are available to estimate the risk of events, the average consumer has limited information, requires fewer tests, and has limited reliable memory. In many cases, consumers are faced with a completely new purchasing situation (or do not recognise a previous situation) that they have never encountered before. This makes it almost impossible to assess the risk accurately. Even if the consumer were to calculate the risk accurately, the behaviour would not be motivated by objective risk but by the consumer's subjective impressions and value judgements. Any measurement of risk perception must be developed with these limitations in mind.

Here it matters a lot that individuals are not perfectly rational and do not have all the information (Koltay – Vincze, 2009). This idea was previously confirmed by other authors (Stone – Winter, 1985), who argued that objective risk could only be present in the case of physical risk. This theory works with the limitation that a doctor can be objective in their opinion, but a financial expert certainly cannot give an objective picture of financial risk.

According to Mitchell (1999), this is all a philosophical issue that depends on the researcher's perspective and mindset. The tenet of scientific realism is that the world exists independently of how we perceive it. Therefore, scientific realists would look for objective risk in a given situation. However, the relativist perceived risk seeker would not accept the existence of objective risk, arguing that risk is relative to the perceiver and therefore cannot be measured beyond that. This is the fundamental point of difference. The two schools of thought are united in practice by the need to measure subjective risk, namely the risk perceived by the consumer and motivates behaviour. Relativists seem

happy to accept the use of realist scientific tools to analyse risk, philosophically providing the knowledge that they are trying to measure the individual and the relativist perspective. All this means that subjective risk can cover objective risk in part or whole if we look for a philosophical sense of the relationships. It is hard to get to it directly from a measurement point of view. The author argues that objective risk should exist in theory but lacks the measurement and perceptual ability to do so. Experts use specialised measuring tools to measure time, money, and, to some extent, physical damage. Psychosocial and social risk is more difficult to calculate. Although, in some cases, psychometric scales could be developed to measure such phenomena, the risk is so complex and potentially changeable that it is difficult to measure accurately. It is challenging to know and thus measure an objective measure of risk, but this does not mean it does not exist. Only subjective or perceived risk can be measured and straightforwardly.

Partly preceding Stone and Grønhaug (1993), Kindler (1987) wrote that the study of perceived risk is a marketing discipline rather than classical economics precisely because it is the lack of information that can give rise to a sense of uncertainty, which presupposes bounded rationality and a lack of complete information. Moreover, Kindler (1987) even goes beyond this theory to suggest that it is not risk but uncertainty that describes consumer behaviour. This is related to the lack of information, making it impossible to accurately estimate the severity and probability of negative consequences. In the case of risk, the probabilities are known and can therefore be analysed mathematically. For this reason, he considers perceived risk to be a more accurate formulation than simple risk. Perceived risk, in his view, can only be subjective because the probabilities are estimated only by the consumer based on his value judgements, rather than being an objective probability based on a large amount of observation. All this suggests that perceived risk is somewhat subjective because it depends on the consumer's values, individual characteristics, experiences and other psychological and sociological values. Because of this subjective estimation of probabilities, we can talk about risk management, in which the individual judge value and contribution.

2.1.4 Handled and inherent risk – Primary types of perceived risk

It has been suggested earlier that perceived risk can have types and dimensions. Bettman (1973) separated the elements of perceived risk into handled and inherent risk. Handled risk is the degree of conflict a product class can generate when a customer

chooses a brand from a product class in a typical shopping situation. The inherent risk is the latent risk that a product class carries for the consumer – the innate degree of conflict that the product class can trigger. The author found that inherent risk increases if multiple product qualities are perceived, if brand choice within the product class is essential, and if the perceived price was paid when the product was purchased. Inherent risk is reduced by the number of good products and the average quality of the product class. The perception of handled risk increases with an increase in inherent risk decreases if there is much appropriate information about the product if this information is helpful if the consumer trusts these sources of information, and if there is adequate knowledge of the brands in the product category. Handled risk represents the final results of information acquisition and risk reduction processes for the inherent risks. This shows that good trust in the brand can reduce the inherent risks through handled risk (doubts about performance, high price, concerns about questionable quality). Furthermore, the importance of loss operates at the level of inherent risk, while the probability of loss operates at the level of handled risk. For example, financial loss due to poor fuel economy should be equally important to the consumer in deciding which car to choose. However, the probability of this loss is expected to vary across brands. This means that the importance of loss varies by market segment and product.

This idea was further developed by Dowling and Staelin (1994), who divided perceived risk into two parts. The first reflects the risk one perceives in buying any product in a given product category. They define this as product-category risk (PCR), similar to the inherent risk. They also formulated that it is highly dependent on the individual how much risk he perceives overall concerning a particular product category. The second component of the overall level of perceived risk is related to the product assigned to the product class. The second component of the overall perceived risk is referred to as product-specific risk (SR), similar to the handled risk.

Also important is the notion of acceptable risks associated with a product category and the specific product within that category (Dowling – Staelin, 1994). The acceptable risk level is the lowest product-specific risk level at which the subject would prefer to request additional information when responding. Their study is one of the first to evaluate acceptable risk levels' impact on consumer behaviour empirically. The model includes risk reduction activities. For example, if the product-specific risk is lower than a person's acceptable risk level, it is assumed that the person's search behaviour is not affected by product-specific risk. A new method has been used to estimate risk using an ensemble

methodology in which the value (i.e., risk utilities) is estimated for each potential consequence, product characteristic, and each individual.

2.1.5 Other types of perceived risk in the traditional, offline space

It can be seen that, from the very beginning, the study of perceived risk has been subject to grouping criteria, which I have already described (philosophical: subjective-objective; perceptual: handled-inherent risk). Calculating the value of perceived risk alone, we can see from the equations that it can be a multidimensional element. In addition, Roselius (1971) opened the way to calculate risk reduction (a combination of losses and risk reduction elements) by representing losses. The categorisation of losses also suggests several elements of perceived risk, as confirmed by the results of researchers on risk reduction strategies, who all stress that it may depend not only on product categories but also on the types of risk, which risk reduction element is taken into account more or less by consumers. The combination of these factors led to the identification of perceived risk types as early as the 1970s. There had already been an earlier grouping of risks associated with the product, uncertainty about where and how to buy, the extent of the financial, psychological and social consequences, and the subjective uncertainty experienced by the consumer (Cox – Rich, 1964). This initial typification was still in practice, the sophistication of the concept of perceived risk, but it provided a reasonable basis for further research.

In the types of perceived risk, researchers initially distinguished between the financial and the socio-psychological groups (Cox, 1967). Roselius (1971) elaborated on the existing elements of social as ego loss, physical as a hazard, and time and financial (but performance-related) perceived risk. Jacoby and Kaplan (1972) worked with the five elements of risk (financial, performance, physical, psychological, and social) that had become classic based on the results of previous years and a sixth total risk but measured separately. Interestingly, the time element did not appear in their study as it did in Roselius's (1971) study. Each element was measured on a Likert scale from 1 to 9 (1 – low risk, 9 – high risk) according to the different product types. They categorised the products according to this scale, showing that they are perceived as risky differently for each risk element. Interestingly, high-value products such as sports cars are always the riskiest. Aspirin and vitamins are only highly valued for physical risk, while everyday products (shaving brushes, toothpaste, deodorant) were almost always at the bottom of the list, i.e. with the lowest risk score. The size of expenditure and the purchase frequency

may be differentiating factors in risk estimation. What is also interesting is that the five risk perception factors can be ranked in descending order of risk: performance, financial, social, psychological, and physical.

Simpson and Lakner (1993) break down risk into slightly different but similar elements. They identified performance, physical (personal), social or social psychological and economic risks when ordering clothing from a mail-order catalogue. The economic risk was a slightly more specific concept than before. The economic risk was higher for respondents who did not or rarely bought by post than those who bought by post more frequently. Exactness is characterised by a lack of information and choice, meaning that economic risk is felt by those who cannot go to several shops in person, compare prices and quality of products and try on clothes in person. Even now, the latter (the possibility of trying on) is a risk for this purchase.

Complementing their formulation (Peterson et al., 1989), economic risk arises from the monetary loss associated with purchasing a product. This includes the loss from making the wrong purchase decision (performance risk) and the loss from buying a nonreturnable product or paying for a product and not delivering it. Social risk is the extent to which others reject our purchase decision because they find it careless or socially unacceptable. It also reflects consumers' concern about the image projected through their behaviour. Performance risk involves consumers' perception that a product or service may not meet expectations. Such risks are more pronounced when consumers do not have the opportunity to try the product or service before purchase. Physical risk includes the possibility that the product or the purchase process may cause physical harm to the consumer. An exciting feature of the Peterson et al. (1989) article is that it ranked the then-available sales channels in terms of the amount of risk content, on a scale of 0 to 100, with „100" being very risky. The riskiest (with a score of 74) was accepting an offer received over the telephone, followed by meeting an agent at home (with a score of 44), a sales party or product purchase (37), and a catalogue received by mail (32). Respondents considered the least risky to be a purchase in a store, with a score of 13. All of these results are in contrast to Simpson and Lakner (1993) and also predict risks associated with online shopping.

Returning to the categories, Valla (1982) identified five different categories: technical, financial, delivery, service and long-term relationship risk with the supplier/customer. These anticipate the perceived risk elements that have emerged, partly due to the online expansion. It also points to the possibility of entirely new approaches to

replace a familiar paradigm. Stone and Grønhaug (1993) examined the relationship between the six distinct types of risk (social, time, financial, physical, performance and psychological) analysed separately earlier and how they influence overall risk. This issue had previously been under-researched, and these concepts were not subject to multivariate regression. It is concluded that financial risk is most influential on total risk, while psychological risk is a mediating element for other risk elements concerning total risk.

2.1.6 Source and characteristics of uncertainty

The vital question of where the much talked about uncertainty comes from is posed by Mitchell (1999). First, consumers are often unclear about their needs, purchase goals, acceptance levels and the importance of the goal. They do not know whether the speed or the colour of the car they want to buy is more important. Second, consumers may be uncertain about the range of decision alternatives, i.e. the number of suitable cars and the relative importance of brand attributes is not precisely known to the consumer. This is interpreted as the uncertainty of knowledge. Thirdly, consumers may be uncertain about the predictive validity of the attributes that can be estimated in advance, i.e. the extent to which they can predict future performance. Fourth, consumers' perceptions of their ability to accurately judge the level of performance they experience are described as a confidence value, which indicates how confident consumers are in placing a signal or factor in a good or bad category. Fifth, it can be difficult for consumers to make a comprehensive brand evaluation in terms of which brand is the better of the ones they choose, which is called choice uncertainty. Finally, the potential difference between the expected and the experience of outcomes: for example, not only do preferences change over time, but also the context within which a product is similarly experienced may also differ from the expected.

All this suggests that there are more than two elements to perceived risk. It is also worth noting that perceived risk and uncertainty can be distinguished from each other at the level of the potential loss. This goes with the fact that uncertainty is not associated with probability, i.e. the negative consequences of a purchase decision are perceived to be different, whereas uncertainty is a more stable state (Becker – Knudsen, 2005).

Risk models can sometimes be further improved by considering the impact of self-confidence on risk perception (Siegrist, 2021). Two types of self-confidence have been identified. General self-confidence is the confidence or self-assurance that a person has

in any situation, while specific self-confidence is the confidence that a particular person has in making a purchase decision (Siegrist, 2021). In the study mentioned above, many researchers found that the links between general self-confidence and perceived risk are weaker than the links between specific self-confidence and perceived risk and argue that general self-confidence is essentially a measure of personality and can hardly be expected to be related to specific situations to the extent that specific self-confidence can, but still can, carry through specific events.

In contrast, Hisrich et al. (1972) reported statistically significant differences between general and specific self-confidence and perceived risk. The relationship with the former was linear, whereas the relationship between specific self-confidence and the perceived risk appears asymptotic. As specific self-confidence increases, perceived risk decreases but then flattens out. Consumers perceive some risk when choosing a business, but in the absence of expertise, they cannot eliminate this uncertainty, i.e. this lack of expertise can be helped by confidence, which flattens the decreasing perceived risk curve.

Those who lack confidence, therefore, tend to buy branded products because they get this expertise with brand loyal, while those with higher confidence are more likely to switch brands and try new ones. Moreover, as previously shown, brand loyalty can reduce the overall and thus the perceived risk of certain risk elements (especially time, psychological and social), i.e. it is a proven tool for people with lower self-confidence (Bruwer et al., 2013; Hsiao et al., 2010; Mitchell, 1999), while for people with higher self-confidence, switching brands does not seem to worsen the situation and does not induce significant risk aversion.

Expertise is usually associated with being well-informed (Feick – Price, 1987; Clark et al., 2008). Consumers who are called experts in this way are referred to as „market mavens", which refers to people who have information about a wide range of products, shopping locations and other aspects of the market and who initiate conversations with consumers and answer consumers' questions about market information (Feick – Price, 1987). They are a minority of consumers who can have a very significant influence on the majority. This influence is most likely to impact other consumers' trust and confidence positively. However, market-mavens primarily increase their self-confidence in the certainty of obtaining adequate market information, the certainty of making choice decisions between different products and brands, the certainty of positive outcomes of social interactions in the market, and the ability to recognize and effectively manage persuasion tactics, and the decisiveness of relationships with the

opinions and rights of others in the market (Clark et al., 2008). This area has no demographic differences, but personality is the determinant. In particular, one is more likely to become a 'market maven' if one has open and extroverted personality traits (Clark et al., 2008). The literature has also shown that consumers with this type of confidence are less likely to be 'distracted' from the purchase decision process and are better able to objectively assess the risks involved (Feick – Price, 1987; Clark et al., 2008). It may be that an individual's objective value judgement or perception of objectivity may drive the interpretation of risk based on subjectivity through this theory. This objective value judgement is, in turn, a level of expertise, which may appear both as a risk mitigator (or a judge of the exact value of perceived risk) or as a determinant of the optimal level of risk-taking.

2.1.7 Risk propensity as an element modifying risk-taking

The willingness to take risks has only been touched upon in this literature review. Primarily in the previous chapter on risk reduction and trust. That is, if there is a high level of trust in a purchase intention, and thus a reduction in risk aversion, the risk of buying a product or service becomes acceptable. However, the role of risk-taking intention or risk-averse behaviour in models dealing with risk aversion is much more complex. It has not been addressed much in the international literature, but those researching it have come up with rather formidable results. The study of this dimension brings in the philosophical and psychological dimensions to a considerable extent. For this reason, the relationship of this factor with personality types has been investigated by several researchers (Czerwonka, 2019; Antoncic et al., 2018; Chipeta – Surujlal, 2017; Nicholson et al., 2005; Nicholson et al., 2002; Caspi et al., 1997). However, it has often been examined concerning risk perception and risk reduction based on previous meta-analyses (Nicholson et al., 2005; Nicholson et al., 2002).

The most widely used approach to risk-taking propensity was formulated by Sitkin and Pablo (1992), which states that it is the individual's current propensity or attitude to take the risk or possibly avoid it. To examine attitudes, Wang et al. (2016) simplified the concept even further by calling the attitude itself risk-taking or risk-avoidance. A deeper exploration of the literature in the early 2000s (Nicholson et al., 2005; Nicholson et al., 2002) indicated that risk-taking intention has two basic orientations. One school of thought considers risk-taking to depend on the degree to which it constantly changes depending on the decision situation, while the other considers it to be a permanent

dispositional property that the individual brings. The former theory of variation says that whether one takes or avoids risk is always linked to a reference point, to the acquisition of value or utility. If individuals are already in the field of gain, they tend to avoid risk, whereas if they are in the field of loss, in this asymmetric space, they take the risk (Nicholson et al., 2002). The other steady-state approach, which has become more traditional over the decades, considers individual characteristics in the intention analysis. These are intrinsic characteristics that transcend situations, such as personality, values, socio-demographic factors or perhaps the general self-confidence mentioned earlier. These can help overcome specific decision difficulties if the confidence, expertise and knowledge required to make the decision are absent.

Some authors go even further, based on what is considered a consistent approach, that risk-taking is a lifestyle, with risk-seeking at its core (Zuckerman – Kuhlman, 2000). Medical evidence for this phenomenon has been found by studying enzymes in the central nervous system (Geen, 1997). Those who are more risk-seeking are also more likely to value risks less. These people can also be impulsive based on personality traits (Zuckerman – Kuhlman, 2000).

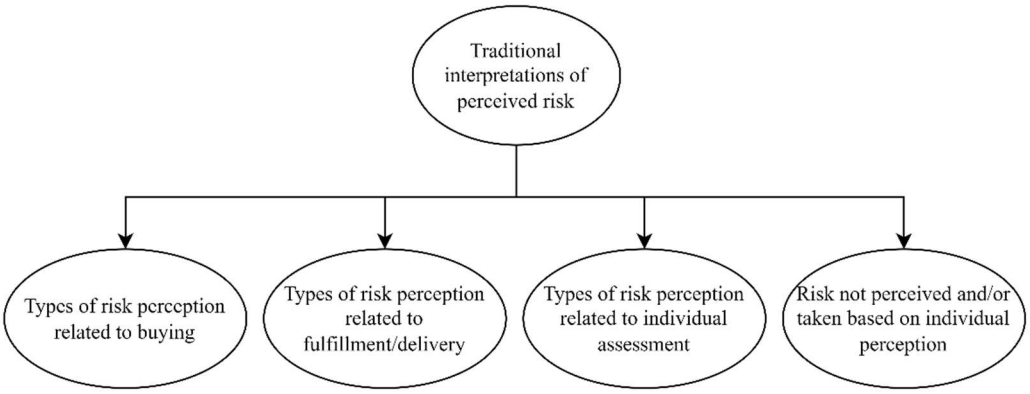
Research that describes the entrepreneurial trait as a characteristic of risk-takers (Yurtkoru et al., 2014; Stewart – Roth, 2001; Stevenson – Gumpert, 1985) supports this constancy. Some attribute the risk-taking attitude more to men (Czerwonka, 2019; Nicholson et al., 2005; Kowert – Hermann, 1997) or to certain nations where the distance from power may moderate risk-taking (Antoncic et al., 2018). Furthermore, along with personality traits, individuals with extraversion and openness, as well as low awareness, tend to be more likely to have higher risk-taking, mainly due to a feeling-focus (in the case of extraversion and openness) or a more straightforward breakdown of cognitive constraints due to a lack of awareness, and thus a preference for impulsive and reckless actions (Czerwonka, 2019; Nicholson et al., 2002; Hogan – Ones, 1997). Neurotic individuals are characterized by lower risk-taking intention because of their significantly lower resilience than other traits (Nicholson et al., 2002). Sometimes we see a blending of the two tendencies when examining personality types, as a constant characteristic of the individual rather than the resilience in a given situation, for example, in the case of an individual with an open personality. What has been less addressed in the literature is what it would mean to combine the two approaches, tendencies, i.e. whether someone can change a characteristic that is considered a constant based on one's current attitude to a given situation. However, Cho and Lee (2006) argue that this could be an alternative

approach, where we try to attribute a behavioural tendency to risk-taking based primarily on past performance.

Individuals perceive the risk of a given situation differently, a perception that can significantly determine their risk-taking intention (Baz et al., 1999). Namely, it is this perception that can determine whether that risk perception is considered to be too much or even acceptable. This disposition can influence risk perception because it can induce bias or relativization (Brockhaus, 1980). It is all a matter of weighing who gives what probability to positive and negative outcomes (Wang et al., 2015). Previously, Weber et al. (2002) argued that risk-taking is not necessarily related to risk perception and the probability of the outcome occurring but to the value of positive and negative outcomes. However, Wang et al. (2015) showed that increased risk-taking intention decreases the degree of risk perception. This reflects the results of Caspi et al. (1997), as they identify the degree of risk-taking with the stress response, and this stress can be caused by uncertainties in the probability and outcome of the situation, which is the perception and evaluation of the risk itself. There is scope for further research in this area, especially if we consider whether risk-taking intention can be interpreted holistically, how it relates to the variable of trust, whether it can change with the progression and proximity of the situation, and whether it is possible to define this factor of objectivity (there is a certain level above which an individual no longer takes risk [Nicholson et al., 2002 dimensions]) in a context where risk perception is described as a subjective dimension. Perhaps this factor is more the ability to perceive or not perceive risk, as Baz et al. (1999) suggest. Perhaps only the types of risk perception that can be judged almost objectively (physical risk perception – Stone – Winter, 1985) can be taken or judged too?

I have summarised the interpretative dimensions of risk perception based on the traditional approach in Figure 1.

Figure 1. Traditional interpretations of perceived risk



Source: own editing

2.2 Perceived risk in the online space

The focus on studying consumer behaviour concerning online shopping is due to the growth of internet usage. Today, many people shop online, as seen in the earlier trends. However, it was only in the early 2000s, or more precisely at the turn of the 20th and 21st centuries, that researchers with a marketing focus began to investigate the impact that the Internet, which had become fully widespread by the late 1990s, particularly in developed countries, could have on consumers. In the tourism industry, global distribution systems that helped travel agents and tourism service providers – airlines, hotels, tourist facilities, and car rental agencies – to find Internet-based interfaces were already emerging and spreading in the 1980s (Jancsik et al., 2019). Meanwhile, online shopping was not yet growing as dynamically as had been thought. Even then, researchers were already concerned with several innovations or likely future trends, such as solar cells, nuclear fusion, biotechnology, gene manipulation, artificial intelligence, robotics, space travel or virtual reality. All of these have changed our lives and our attitudes to reality since or even before then. At the end of the 20th century, it was predicted that there would be no need for physical shops in 40 years, around 2035-2040. Cope (1996) based this on the fact that about as many people do not like to go shopping as they do not like to go to the dentist. The option of shopping from home was seen as convenient.

One of the best-known early studies of consumer attitudes to shopping online was by Jarvenpaa and Todd (1996). Based on earlier research by Simpson and Lakner (1993), they took four risk factors as a base case: economic, social, performance and personal risk. They added privacy risks to these. It is interesting to note that in the Simpson and Lakner (1993) research, which I have also presented, these dimensions were analysed

under different names, with the personal risk being presented as physical risk and social risk being considered as a psychological risk. The former may be due to the personal loss that occurs when shopping online, which may be physical; for example, the loss of bank card details may cause stress. Privacy risk perceptions reflect how consumers perceive the loss of privacy and other important personal information (passwords) when purchasing products of their choice due to information collected by service providers or a third party.

In the results of Jarvenpaa and Todd's (1996) article on performance risk, consumers expressed concern about the difficulty of knowing whether a product is performing as expected. This risk was seen as very similar to the problems associated with buying from a catalogue or over the phone, as was the case for economic risk in Simpson and Lakner (1993), who saw the lack of a trial as more economical. Around 30% of participants cited concerns about credit cards as the essential personal risk associated with online shopping. This was raised frequently in the focus group sessions, although some participants thought the actual risk was overestimated. A related concern, although mentioned much less frequently, was privacy. Consumers generally thought that shopping online was not different from shopping in a catalogue and would have the same problems. A few respondents also noted the economic risks associated with doing good business. These comments were related to the difficulties of effective comparison shopping. No one mentioned the expected social risks, such as possible rejection by friends and family of this new way of shopping.

To summarise, the main risks perceived by consumers at the time were product performance and personal risk of credit card loss. These may have been influenced by factors mentioned by respondents, such as the difficulty of browsing the web and the lack of price comparison. The lack of adequate customer service was mentioned by many. Burke (1997) summarises this by saying that (online) businesses will also need to reduce risk to encourage more people to buy online. In his opinion, online shopping will be popular because it is convenient; you can browse product information in person, create your product or service, and enhance the shopping experience. All this, however, will only be successful if the perceived risk is reduced. The question is whether, today, when online shopping is popular, it is associated with a lack of risk perception or whether the proposition that all and some risks are certainly observable is valid.

2.2.1 Identification of new perceived risk types and sources

The trends show that online shopping has taken off, while many risk elements are still being addressed by researchers today when looking at the factors that influence online shopping. Jarvenpaa and Todd (1996) even mention that the two dimensions of personal risk and privacy risk seem more related to Internet transactions. The personal (or payment, but not economic) risk lies in the fear that individuals will enter their credit card numbers online. Furthermore, the privacy risk is that personal information is collected without the individual's knowledge. These initial findings suggest new forms of risk have emerged concerning the internet.

According to Cases (2002), security and confidentiality issues not only represent a natural barrier to product development, but the customer has several questions about delivery, purchase and possible surcharges for returning the product. These various risks are an obstacle to expanding this new way of shopping. The author draws on Roselius' (1971) approach to risk reduction, which I have also presented. A risk reduction strategy in the online space is defined as a strategy developed by the consumer that consists of possible risk mitigants that are likely to reduce the level of risk until it reaches a level judged low enough for the consumer to decide to purchase the product. Cases' (2002) approach is limited to examining the risk-mitigating behaviour of the consumer prior to the purchase decision.

The sources of risk may influence the evaluation of risk reduction strategies. For this reason, Cases grouped risk types according to the online space. The author asks whether the traditional risk elements are similar in the online space. Cases (2002) notes that a correlation can be established between the two essential risk components (fear of negative consequences and uncertainty [Bauer 1960]). Consequently, he suggests that there may also be a correlation between the later risk components, which I have discussed in more detail in the section on risk types. The author noted that previous research had not addressed the source of risk. Therefore, it seems logical to conclude that the risk associated with each dimension may be increased or that other risk types may be present in this context. Cases (2002) recalls an earlier article (McCorkle 1990) which found that for financial, social and performance risks, the source of the risk matters, while for risks related to time and resource use (how much the potential consumer trusts catalogues and information sources and how comfortable he or she feels when using them), the way of purchase is the determinant. However, very little work has been done to identify risk dimensions in e-shopping. In this context, the risk is characterised by three elements, the

remote source (namely the location of the transaction), the interactive means of sending the message and the online mode of command. Customer confidence in the new shopping environment depends on interpreting these three elements.

Cases (2002) conducted in-depth interviews at the beginning of its research. The interviews had two objectives in the research. First, to analyse risk assessment based on remote transactions (including electronic shopping) and second, to study risk reduction in similar shopping situations. Four potential sources of risk can be interpreted in the context of electronic shopping: product-related risk, the risk from remote transactions, risk from using the Internet as a shopping method and risk from the location of the transaction (website). Interestingly, it is worth noting that Naiyi (2004) includes three sources: fraud, information and product risk, although platform risk is not included. Returning to the four sources, eight risk dimensions can be identified. Home delivery risk is associated with all home purchases. The financial risk is increased by the additional cost of delivering the product. The physical risk was not identified in this study because the subjects were placed in a clothing shopping situation, a product category that is not harmful to health. The psychological risk was also eliminated because it was not evident in the interview data. Except for security and confidentiality issues, which appear to be directly related to the Internet, the other dimensions are little different from those I have previously identified in the literature. The sources of risk suggest that the risk from the product includes performance risk. Time, financial and transportation risks are associated with remote transactions. The internet source adds social, privacy, and payment risk, while the website adds source risk. It also develops these classic risk elements conceptually, which I summarise below.

- Performance risk: customer disappointment with product performance expectations
- Time risk: time spent buying the product and time lost in case of a wrong purchase
- Financial risk: money lost in the event of a wrong purchase, additional costs for delivery or replacement of the product
- Delivery risk: the fear of not receiving the product on time or at all, or of taking a long time to deliver
- Social risk: Fear of how friends and family will react to using the internet as a shopping method

- Privacy risk: Loss of consumer privacy and information, and loss of anonymity online
- Payment risk: Possible negative financial consequences of entering a credit card number online
- Source risk: Fear of the level of credibility and reliability of the website

Another research (Almousa, 2014), looking at six elements of risk (financial, social, performance, time, psychological and privacy risk), found that privacy and psychological risk are the essential elements in online shopping, closely followed by performance and financial risk, as in previous research. Furthermore, online shoppers and non-shoppers showed significant differences in all six constructs, but the most considerable differences were observed for privacy and psychological risk. The sample of non-buyers scored higher on all six risk dimensions than the sample with previous experience in e-commerce. The researchers need to examine perceptions of perceived risk, prior behaviours and the conceptual frameworks and consumer interpretations behind risk reduction strategies.

The importance of the other two factors from the classical and new online risk elements was pointed out by Mamman et al. (2015), who wanted to demonstrate that perceived risk of financial and information security negatively affects online shopping. Their research showed significant results only for information security. This is due to the nature of the respondents (college students) and the improvement in the Nigerian financial system in credit card security that makes consumers confident. Students are also not rich people and therefore do not buy expensive items online. Using a questionnaire with a more significant number of respondents and a broader demographic context could improve the influence of financial risk in their opinion.

Ariff et al. (2014) also investigated the decrease in online purchase intention through other perceived risk factors. By including alternative risk factors (product risk, out-of-delivery risk, convenience risk – although the first one has similar content to performance risk), their finding showed that product risk, financial risk and out-of-delivery risk are dangerous and negatively affect online shoppers' attitudes. It was found that convenience risk – convenience risk refers to consumers' perception of risk that a purchased product requires much time and effort to repair and modify before it can be used, a meaning that is a further elaboration of time risk (Chang - Chen, 2008, based on

the study authors' elaboration) – positively influences consumers' attitudes. This is partly related to the fact that shoppers trusted the online seller and found the site less confusing. It also means that consumers were less concerned with the non-convenience aspects of online shopping, such as handling returned products, and that they judged the quality of products by what was presented on the online seller's website, which overrides any negative perceptions. Online shoppers' attitudes towards online transactions were found to have a significant favourable influence on the direction of online shoppers' behavioural intention, i.e., if attitudes were negative (influenced by risk factors), then purchase intention decreased. If they were positive, then they increased. This result is similar to the characterization of risk-taking as an attitude (Wang et al., 2016), which can override or even ignore everything. Furthermore, it may point out that risk perception is also an attitude with an adverse effect, but it can be overridden by an internally or situationally positive attitude, which is risk-taking itself.

Overall, if consumers can keep their data under control, they feel safer and more confident as they conclude that they have taken enhanced security and privacy measures. As in the traditional space, the main factor that confuses consumers when shopping online is the fear of the unknown. Because online commerce takes place in a virtual environment, e-business managers need to implement privacy and security measures to protect company assets and sensitive customer information from unauthorised attacks (e.g. hacking, phishing). An effective way to protect a website (e-shop platform) against unauthorised access (hacking) is to implement a combination of authorisation models. In addition, partnering with a third party is of utmost importance, as it indicates that the company's security measures protect the e-shopper's privacy. This is a critical strategic issue that demonstrates the credibility of the e-commerce company and enhances e-shopper confidence, privacy, refunds, delivery, etc., and this is the presentation of a policy, internal policy on payment method logos and communication options (e.g. email form, email address, phone). In addition, an e-commerce company should allow customers to assess its credibility. This can initially be achieved by allowing product samples to be ordered. In this way, customers can ascertain the quality of the products, the delivery performance and the delivery time. In addition, they can also send the consumer a confirmation SMS or email of the purchase, which also increases the sense of security. For intangible products, i.e. services, it is mainly the positive or negative feedback through word of mouth (WOM, eWOM) that influences the perception of safety (Vos et al., 2014). This is why the tourism industry first saw the emergence of a plethora

of review sites in the late 2000s, which can strongly reduce risk aversion, which is not all due to online technology alone, as I have shown for services.

2.2.2 Tourism differences in perceived risk of online shopping

In this chapter, we will see the quantitative studies presented to examine the perceived risks associated with online travel booking. Tourists today rely predominantly on the internet to make travel decisions and to purchase travel products. In this light, websites have become the most important medium to create a positive impression of a destination through safe and satisfying online experiences. However, some travellers remain reluctant to buy travel products online because of the risks involved. Risk is a critical element of online shopping (Figure 2).

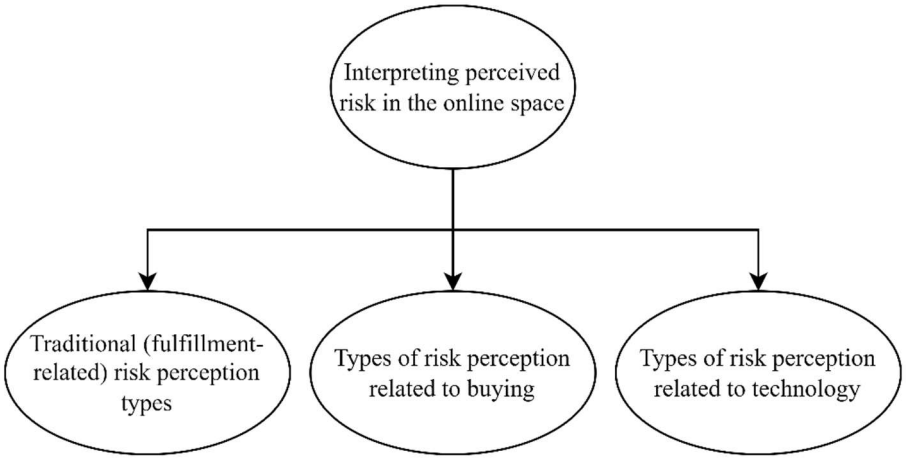
Online tourism risk elements overlap with general online shopping risk elements, offline tourism risk elements and classical marketing risk elements. Here too, the impact of risk on satisfaction and trust is reflected, which also influences purchase intentions. Cognitive and affective appraisals of the purchase intention go through many processes (Alcántara-Pilar et al., 2018). The focus of the research I described at the end of the tourism chapter also appears in the study of perceived risks in online tourism. In the online space, research is complemented by the type of information technology device (smartphone, tablet, laptop, computer) through which browsing and shopping are done. Although this can be linked to Cases' (2002) platform (internet source) risk identification, it goes a little beyond that as a device risk. Moreover, these tools can not only help with shopping or searching for information, but their use during the trip (taking photos, checking in, watching a movie, etc.) can increase the positive experience at the destination (Alcántara-Pilar et al., 2018).

Dayour et al. (2019), on the other hand, redefined the classic and tourism offline risk elements from the perspective of smartphone use (e.g., the destination-related risk element for a smartphone is theft, and the time risk is that individuals may lose much time due to the potential complexity of navigation and browsing). The authors, therefore, classify the classic elements more as technological risks, while the tourism-related ones are those related to the destination. This is similar to the fourfold breakdown in Cases (2002), which also shows different risk perceptions for product, purchase, technology and platform. One of the main findings of their research is that respondents said they preferred to make payments via a computer. After all, they considered it too risky to do so via a

mobile phone because they had less trust in their smartphones, websites are not all responsive, and there is a smaller screen which may mean that not all information is displayed correctly. Thus, lower trust in the smartphone reduced the intention to buy. In addition, another important finding of the research is that more innovative travellers shop online more or use all innovations when shopping (and shop from a smartphone more often) are significantly more likely to shop online.

Perceived collection of personal data via smartphones (from third or supply actors) contributes positively, while the degree of consumer innovation, trust, and visibility contribute negatively to perceived risk (Park – Tussyadiah, 2017). In this study, which focused on accommodation booking, the predictive validity of perceived risk was also confirmed as it significantly explains perceived usefulness, attitudes and behavioural intentions when booking mobile travel. The results also showed that perceived risk associated with the mobile booking of travel products is a second-order variable significantly related to time, financial, performance, privacy and security, psychological, physical and asset risk, excluding social risk.

Figure 2. Interpretations of perceived risks in the online space



Source: own editing

2.3 The emergence of the COVID-19 pandemic in tourism research on perceived risk

The terms crisis, catastrophe, and disaster – often used in parallel in the domestic and international literature – are described by two approaches in tourism (Jászberényi et al., 2020). One is the external crisis, which indirectly impacts tourism, typically affecting other industries. Despite the spill-over effect of such a crisis, it usually reaches tourism in the first or second stage. The other case is when, due to the direct impact, we speak of a „tourism disaster", which can be called an internal crisis. In this case, there is typically some tourism problem, structural or management mishap, unexpected event that can directly cause injuries (even death) to tourists, damage to cultural heritage or other negative consequences. External and internal crises often go hand in hand, with one triggering the other. The COVID-19 pandemic and its effects can be described as an exogenous, external crisis.

One of the essential criteria for the success of the tourism sector is the confidence of travellers, i.e. consumers. This is a long process and a susceptible area. Furthermore, if this very high confidence (complexity of services, high-value goods that are rarely bought, as I have already explained, because of the difficulty of buying a tourist package or holiday) and challenging to build is damaged, the part of the sector that is perceived as being at risk or in which consumers have lost confidence could then be in a prolonged crisis. Travellers seek destinations where they can relax, not worry, have a good time and thus trust the destination (Garg, 2015). This phenomenon goes back to what was written earlier about tourism being firmly based on personal interactions. Travel and holiday

shopping is a rare frequency item in the consumer basket of the population, so there is less experience with them, and they also account for a higher proportion of discretionary income. Finally, the tourism sector is strongly service-based, so the challenges specific to services (HIPI principle) present supply-side operators with additional difficulties in developing the degree of demand-side confidence they can enjoy.

In addition to external and internal crises, we can also distinguish between hard (sudden), soft (weak) and stealth crises in terms of magnitude and timing (Jászberényi et al., 2020). The first of these is the one that best describes the type of pandemic COVID-19, as it was an unforeseen, unexpected event that had a powerful impact not only on tourism but also on many other industries. This category includes most natural disasters and, therefore also, health crises. There are no early warning signs in these cases, making the consequences even more severe and the recovery process even longer. It can be seen that, in addition to epidemics, travellers may also fear earthquakes, tsunamis and terrorism, which can fundamentally shake their confidence in a location (Garg, 2015).

Regarding how they develop, the literature distinguishes three types of tourism crises (Jászberényi et al., 2020): those arising from or in a destination, those arising from competitors, and those generated by visitors. Epidemics are typically described in the latter category, i.e., the tourists spread the crisis and cause more severe outcomes. The COVID-19 pandemic is an international, global crisis in terms of its geographical scope. In terms of its temporality, it can now increasingly be classified as a long-lasting crisis. Although this is a relative term, the truly accurate description is a protracted, long-lasting crisis lasting more than a year. Moreover, in terms of the magnitude of its negative consequences, it is a permanent but gradually intensifying and irregularly recurring crisis.

When choosing a tourist destination, an essential factor is to find reassuring answers to security fears. Such responses include reducing health risks. In this case, mitigating hygiene and epidemiological safety risks is a priority (Tokodi – Ritecz, 2020). In addition to hygiene factors, food safety is typically another essential consideration during travel. This problem is mainly linked to water consumption, so avoiding products linked to this consumption may be necessary.

Health crises are as old as humanity itself. The last 100 years have seen the return of long-discovered diseases such as cholera, plague or yellow fever, and the emergence of the Spanish flu. The 21st century has seen regional and sometimes global epidemics linked to SARS, H1N1, MERS, Ebola and Zika (Jászberényi et al., 2020). New international regulations and procedures have emerged in the last 15 years, as experts

have identified a real risk of a significant pandemic wave sweeping the world. A decade and a half ago, in 2006, the World Bank estimated the negative economic impact of a pandemic at $800 billion. Since 2009, the World Health Organisation (WHO) has made five disease declarations.

1. the 2009 H1N1 (or swine flu) pandemic,
2. the 2014 polio declaration, the 2014 Ebola outbreak in West Africa,
3. the 2015-16 Zika virus outbreak,
4. as of 17 July 2019, the Ebola outbreak in Kivu, which started in 2018,
5. the coronavirus epidemic from 30 January 2020.

All these phenomena have a significant impact on tourism. In tourism, which can also be seen as an industry of well-being, people seek peace, tranquillity, recharging, security and stability (Csapó – Törőcsik, 2019; Garg, 2015). This sector is particularly vulnerable when one of the abovementioned welfare elements is threatened. This may be reflected in a health situation, where governments may introduce social distancing measures to avoid a potentially severe pandemic, which poses a significant challenge for a tourism industry based on high personal interaction, especially in terms of service. They may restrict international travel or recommend to governments which countries to avoid (Lee et al., 2012; Leggat et al., 2010). One of the causes of the rapid spread of epidemics is the airline industry, which increases the risk of infection by transporting people from anywhere in the world quickly and visibly. International experience has shown that quarantining and closing regions dramatically reduces the risk of a pandemic developing and the virus losing its habitat.

This is not the first time coronavirus has threatened our world (Neuburger – Egger, 2021). In the early 2000s, a severe outbreak of coronavirus causing acute respiratory syndrome (SARS) broke out, followed by the emergence of another coronavirus, Middle East Respiratory Syndrome (MERS), less than ten years later. In addition to the current pandemic, two other active epidemics threaten humanity. One is Ebola, which has been ongoing since 2014, and the other is MERS-CoV, which has been present since 2012. In terms of international tourism, researchers have looked at SARS (2003), H1N1 (2009), Ebola (2014) and Zika (2015-2016). Typically, in each case, regional closures and World Health Organization (WHO) recommendations and recommendations were used in the

research examining a destination. The estimated global economic cost of SARS was US$100 billion (McKercher – Chon, 2004).

More specifically, China, Hong Kong, Vietnam and Singapore have lost US$20 billion in GDP and 3 million jobs in tourism (Jászberényi et al., 2020). Mexico was the hotspot for the 2009 H1N1 outbreak, so tourist occupancy dropped to around 20%, with many airlines withdrawing flights. Within weeks, the destination declined, and tourists, especially Europeans, were slow to return. During the Ebola outbreak, the African continent was the first to be put under quarantine before reports of the virus spreading to the United States and Europe (Cahyanto et al., 2016). Many charter flights between Europe and Africa were suspended. The previous annual tourism growth of 4-5% turned into a similar decline, and West Africa lost $3.6 billion per year between 2014 and 2017 due to a decline in trade, closed borders, cancelled flights, lack of foreign direct investment and the inability to attract tourism.

Moreover, the Zika virus also threatened the 2016 Rio Olympics, not only because of the risk of infection but also because of unclear information about it. However, 6.6 million international tourists arrived in Brazil in 2016, 300,000 more visitors than in 2015. Tourism operators then made efforts to ensure the safety of tourists on their own, and many hotels and restaurants started spraying mosquitoes in their areas on their own. Near Hungary, the impact of the measles epidemic in Romania in 2016-2018 was significant (Tokodi – Ritecz, 2020). Although the virus has not been detected in the population in Hungary, apart from an isolated case, hundreds of cases have been recorded in Romania and Ukraine.

In terms of international tourist arrivals, there was a 0.4% decline in the SARS epidemic and a 4.0% decline globally during the global economic crisis (Jászberényi et al., 2020). This suggests that tourism as a system is resilient to external crises, but the chapters describing the context show that this was quite different in the case of the current crisis caused by the Covid-19 epidemic, with a decline of about 75% in 2020. Thus, the impact of the crisis on tourism supply and demand is significant and, from a research perspective, holds many novelties. Thus, among the international studies included, it is also worth considering those that have not only analysed the impact of the health crisis but have also looked at the consequences of other significant crises. Of course, the literature listed here has shown that these health crises have already impacted consumers' perception of risk.

According to the literature, terrorism has (or has had) the most negative impact of all the significant types of a crisis affecting tourism. In addition, economic, political, technological, socio-cultural, and, as we have seen, health-related external crises are also mentioned in the literature. Among the most challenging and severe crises to address, terrorism is ranked first in the literature (Michalkó et al., 2020). This is also linked to the trust issues discussed at the beginning of this chapter.

Among the three primary conditions for the existence of tourism, the literature lists safety, receptiveness and welcoming (Michalkó, 2016). No natural (mass) tourism can develop if one of these is missing. The presence of each of these elements increases traveller confidence. External crises, on the other hand, are primarily a threat to security. To sum up, if one of the three main factors listed above, which constitute the primary conditions, is significantly influenced by a crisis or even eliminated, then we can observe severe consequences during a crisis. Furthermore, the coronavirus that broke out in 2020 has severely undermined all three elements of tourism conditionality.

2.3.1 Interpretation of health risk perception

Between January and April 2020, the new coronavirus caused a worldwide pandemic of very severe acute respiratory syndrome symptoms. The virus was identified in the Chinese province of Wuhan on 31 December 2019, but there had been similar cases before that in early December. On 30 January 2020, the World Health Organization (WHO) announced the cause of the outbreak, and on 13 March, it was announced that the centre of the pandemic was now in Europe. By mid-March, most European destinations had closed their borders. At the beginning of March, travel to Asian countries was already not recommended for tourists, but this could not last long, as, on 19 March, all air traffic was suspended for European tourists (Neuburger – Egger, 2021). Earlier, on 24 February, the European stock markets had already shown a massive drop in airlines' financial results (Kökény et al., 2021). Thus, there were already visible signs of an economic downturn in tourism in February, and in March, the sector came to a complete standstill in Europe.

In the case of health hazards, Floyd et al. (2000) identify risk perception as the perceived risk consisting of the perceived susceptibility to a disease and its perceived severity. This type of susceptibility does not appear earlier or later in the case of generally perceived risks, but it does in health situations because it indicates the perceived risk of getting sick, i.e. some negative consequence occurs. However, this is a measure of the

likelihood of an adverse event. Moreover, severity is in line with the traditional perceived risk assessment of the extent of the negative consequence. In effect, we define the same initial Bauer (1960) or Cunningham (1967) interpretation of perceived risk, which is otherwise described in the same way today (Yu et al., 2021). It is important to note that the susceptibility referred to here is not the one I discussed earlier, i.e. the issue of susceptibility to risk perception through risk-taking intention, but still essentially parallel.

Perceived health risk can also be differentiated. Just as Tokodi and Ritecz (2020) identified two main dimensions for health security (epidemic situation and hygiene), Peric et al. (2021) identify four different segments when articulating perceived health risk. Two of these, destination and travel health security (epidemic situation) and hygiene conditions experienced in accommodation (hygiene), are very similar to those described for health security. However, two additional elements, the health system of the destination and health insurance, are added, mainly bringing into the interpretation the possibility of care and a systemic sense of personal security. It is also due to these latter elements that the authors write that perceived health risk is quite similar to physical risk perception. This has been previously defined by Kozak et al. (2007) as health risk implies the risk of harm to one's physical reality. Thus, they perceived this as the most critical risk factor concerning travel intentions since who would want to get injured at the exact time while going for recreation.

In parallel, some assess health risk in an extended way concerning physical well-being so that the threat of terrorism, the political situation or natural disasters may also influence people's perception of health risk (Bentley – Page, 2008). The issue of a terrorist threat or political stability as a perceived health risk for sports tourists has emerged strongly in recent years (Kim et al., 2021). Thus, it is necessary to think about health risks in more nuanced terms, and it may also be essential to discuss susceptibility to illness and the potential severity of illness when using the term when focusing on pandemics (Gupta et al., 2021).

Other authors (Chua et al., 2021) use a division along the lines of the health risk of a pandemic, as I explained above, i.e. the negative outcome is explained by severity, while the probability of occurrence is explained by susceptibility to the disease. However, a third dimension, which includes mental fear and anxiety about the disease, is called perceived psychological risk. By treating perceived psychological risk within health risk, the authors introduce a new concept by bringing in people's psychological and physical states, endowments and situations. This suggests that prior to perceived health risk,

antecedent variables may influence the magnitude of perceived risk. Ahorsu et al. (2020) elaborate on this when they say that those with higher mental anxiety scores and more depressive tendencies on the Hospital Anxiety and Depression Scale (HADS) – often used to measure anxiety and depression – are also significantly more psychologically fearful of the coronavirus, more withdrawn and more stressed when it is mentioned. Taylor et al. (2020) refined this further by suggesting that there may also be multiple domains of mental distress, such as fear of infection, fear of contact with potentially infected objects or surfaces, fear of foreigners who may be infected (which could also be defined as xenophobia related to the disease), fear of the socio-economic consequences of the pandemic, compulsive control and reassurance about the potential dangers of the pandemic, and traumatic stress symptoms associated with the pandemic (e.g. nightmares, distressing thoughts).

2.3.2 Related elements of health risk perception: anxiety and risk management

Sanchez-Canizares et al. (2021), in a study of health risk perception, distinguished two groups of individuals concerning physical condition: low-risk, quasi-healthy individuals and high-risk individuals (with diabetes, cardiovascular disease, cancer, respiratory disease). Their research observed that the two groups perceived significantly different, albeit moderate, health risks, which interestingly had a more negative impact on attitudes and travel intentions in the low-risk group. The authors answer that the higher risk group includes people who are more aware of their condition, more attentive to and understand all precautions (information as a risk reduction tool) and thus more able to control (or feel more in control of) events.

I feel it necessary to stress that the issue of risk-reduction behaviour, which goes against logic, is at stake in this interpretation. The more prepared one is, the more one knows about something, its probability of occurrence and the impact of the negative consequence on oneself, and the less one perceives risk (Stern et al., 1977; Derbaix, 1983; Mitchell – McGoldrick, 1996; Vos et al., 2014). This is also why risk perception or trust dimensions are increasingly being incorporated into the Theory of Planned Behaviour framework, where behavioural control is one of the most influential factors (Sadiq et al., 2021; Bae – Chang, 2021). As for the place of behavioural control in the model, the right direction seems to be if behavioural control is a pre-cursor to risk perception or a completely separate element in research like COVID-19, as Bae and Chang (2021) could not show whether affective or cognitive risk perception significantly influences perceived

behavioural control, while Sadiq et al. (2021) identified it as a separate factor in the model.

The illustrated example also shows that the relationship summarised above (too much information reduces risk perception), which has been in place for almost four decades, does not always hold, as there may be situations where too much or inauthentic information gathering makes someone more uncertain and susceptible to perceive risk. This type of uncertainty is often not based on cognitive elements but on affective elements (Godovykh et al., 2020). It is sometimes difficult to distinguish between physical and psychological risk perception. For this reason, multi-dimensional research is increasingly being used in many areas of marketing. The authors (Godovykh et al., 2020) identify cognitive, affective, personal and contextual components as the main determinants of health risk. These can cover differences that people bring with them, i.e. socio-demography, cultural background, values, knowledge and understanding, and psychology. These can influence risk perception differently, particularly in the case of health risk perception, which researchers often describe as a complex physical and psychological risk. Risk perception itself may not necessarily only influence travel intentions but also, depending on the individual, satisfaction, confidence and choice preference (Godovykh et al., 2020).

The results of Sanchez-Canizares et al. (2021) should be further nuanced because they examined the control of perceived behaviour from the theory of planned behaviour. The results suggest that when consumers felt in control, they had stronger travel intentions. This 'situational control' may be higher for those who, as individuals, are also attentive to the threat or some aspect of it because of the potential for a more severe, negative consequence than average. Thus, a lower negative value in absolute terms in this case also means that the higher risk group perceives the manageability of the situation as better than their perceived risk. This means that the negative effect of perceived risk on purchase intention can be interpreted through the issue of control, even reduced.

Moreover, this approach is essentially the essence of risk reduction. One such tool in the case of health risk perception could be disease prevention measures such as keeping a distance of 1.5 m, wearing a mask, quarantining and avoiding personal interactions (Liu et al., 2021). In addition to the use of control variables and behavioural theory, attempts have also been made to describe cognitive coping attempts using Protection Motivation Theory (Nazneen et al., 2021). In this case, after the detection and occurrence of a hazard, a cognitive assessment process is made, where the value of the risk and the value of

coping options are assessed, and then a protection motivation is made, which may lead to the abandonment of the trip in response. This was also the case in the cited study of the COVID-19 pandemic, where individuals decided not to travel for tourism by enumerating and listing risk reduction (protection measures) – vaccinations, hygiene, and safety after risk assessment measures.

In summary, the more information an individual has that helps and increases his/her sense of control, the lower his/her risk perception will be. However, this does not imply that (1) the more information there is, the more risk aversion is reduced, or (2) risk mitigants precede risk perception. Instead, in the latter case, it may represent a moderating effect on the relationship between risk perception and purchase intention from the risk mitigant's perspective. Thus, if we accept that an increase in confidence is also a risk-mitigating element, then the place of confidence may also play a moderating role in this relationship. In turn, socio-demographic and psychological antecedent variables may further shape the results of models measuring risk perception and its management.

2.3.3 Temporal implications of the COVID-19 pandemic for risk perception

I begin this block with the theory of the period, which is most relevant to Golets et al. (2020). According to them, the severity of the disease (negative outcome) seemed to be significant in the short term, mainly within six months to a year, although their research was done at the time of the first wave when everyone considered the coronavirus to be a fast-moving but severe virus. While the probability of getting sick has been one to two years, in 2022, it can be stated that it could be three years long, with varying rates, but observable and thus a threat to humans. In 2020, Golets et al. (2020) thought that the probability of occurrence would determine the health risk estimates of subsequent research. Thus, someone who thinks (thought) that we will have the coronavirus for a long time will have a lower intention to travel between epidemic waves than someone who thinks the opposite.

Furthermore, this suggests that if the strength of a virus decreases over time, it significantly reduces the perceived risk. However, if a virus stays with us for a more extended time – in the case of the coronavirus, which has been with us for more than two years – it can leave permanent scars on people's willingness to travel, reducing it, regardless of the possible diminishing strength of the virus, particularly in groups where individuals have spent the last two years more in the shadow of COVID, either through

illness or significant tragedy, by postponing travel and not enjoying the high jinks, or by living in a constant state of caution and fear. However, this caution and precaution can also protect travellers from future risks, as they can be more prudent in planning their future trips (Matiza – Kruger, 2021) and thus be more confident travellers in the long run due to more positive experiences. This confidence does not mean more people will travel after the COVID-19 pandemic than before, but it may still happen, but a further qualitative improvement in safe travel is possible.

People can also be grouped into clusters depending on their level of risk perception. An attempt to do this was made during the first wave of the coronavirus (Neuburger – Egger, 2020). They looked at the DACH countries (Germany, Austria, Switzerland) and found that even at the peak of the first wave when near maximum values for perceived health risk were measured, three groups (Calm, Cautious, Fearful) could be distinguished. This threefold stratification goes beyond the two endpoint clusters of Floyd and Pennington-Gray (2004) – high and low perceived risk. The sample followed a normally distributed curve along these three groups for the first time when the first cases occurred in Italy, i.e. almost two-thirds of the sample was in the 'middle', Cautious group. At the second time point, at the end of March 2020, two-thirds of the sample were already in the 'Fearful' group. Two weeks elapsed between the two data collections, so all this points to a moving and significantly changing event that researchers, and thus myself, are trying to investigate, which could seriously alter the extent of risk estimates. Although these fluctuations may change over time, a new news story or a rising wave of the disease may move many individuals in the Cautious group into the Fearful group.

There is less dependence on demographic characteristics in these clusters in the above research, in contrast to Floyd and Pennington-Gray's (2004) clustering, where typically younger people, women and the unemployed felt at risk of travelling after 11 September 2001. Today, it is not certain that young people are the ones who perceive greater risk, as a representative Hungarian study conducted in 2019 showed that older people, along with those with lower education and women, have a greater need for safety (Csapó – Törőcsik, 2019). Although the study does not address the fact that risk perception may be higher for the younger age group, they are labelled as more brave', which may be more related to risk-taking.

This long-term 'readiness' also complicates the mental side of health risk perception, so it is conceivable that after a while, the increase in levels of anxiety and depression studied by Chua et al. (2021), Taylor et al. (2020) and Ahorsu et al. (2020),

among others, could increase risk perception. This was also pointed out by Xie et al. (2021), who found that an increase in Perceived Waiting Time may increase perceived risks, as it is not known how long the pandemic will last, whether the risks to the individual will decrease over time, even though the pandemic is not over. This uncertainty, and the passage of time under similar conditions, reduce the willingness to travel, as I have previously indicated (Golets et al. 2020).

The passage of time may also make people more patient (Matiza – Kruger, 2021). Patience is an essential factor in the theory of perceived waiting times, as the virus may have a positive effect on this element, as people have learned to sit at home for long periods. Furthermore, this patience also improves people's caution, as the cited research (Matiza – Kruger, 2021) shows that consumers became significantly more cautious during the epidemic than before. However, this does not mean that they do not want to leave their homes during such a period (Kökény – Kökény, 2021) and thus become more accepting of the situation.

The perceived risk of time is further focused on by examining perceived value, as Sen Küpeli and Özer (2020) argue that the consumer's goal is to increase perceived value, which he or she can enhance by minimizing risk. In order to minimize risk, much time can be used to gather information. This raises the question of whether the maximum potentially realizable value is worth spending too much time on, where the tipping point is, and what the potential reward is. Thus, not only does the passage of specific time contribute to the evolution of risk perception during the COVID-19 pandemic, but the extent of the realizable value itself may also shape the perceived risk segment in time (time wasted).

For the preceding reasons, during the two years following a coronavirus outbreak, people with high levels of resilience, i.e. mental resilience, will perceive lower risk and thus be more likely to travel (Zheng et al., 2021). Typically, resilience is addressed by authors when examining the supply side (Cartier – Taylor, 2020; Buultjens et al., 2016; Calgaro – Cochrane, 2009) as a critical factor in recovery from the crisis. Thanks to studies on mental characteristics, resilience is also increasingly becoming a research focus. This factor may also be linked to patience, acceptance or value judgements, which means that studying the time dimension may be necessary for research, not only as a risk perception element.

2.3.4 Managing the risks of the COVID-19 pandemic

The media is one of the significant influences on the decision to travel. Perceived risk is also based on a lack of information or negative news (Chemli et al., 2020; Csapó – Törőcsik, 2019). Risk management requires new or additional information processing, similarly to risk reduction. Furthermore, information, sources and credibility play an essential role in the final decision. Public opinion can be significantly shaped by the information available, whether in a positive direction, such as resilience or confidence or in a negative direction, such as risk perception (Page et al., 2006).

Ideally, the information provided would be adequately managed and give people a realistic picture, but this is almost impossible in the Internet age. The media also significantly impacts the image of a tourist destination (Toanoglou et al., 2021). The author cited distinguishes three types of media exposure during a health crisis: the perceived risk enhancer, which is destructive to the destination's image; the continuous control and management of media and communication with a strategic approach; and thirdly, the tourists' sensitivity, a group of news stories communicating adverse shocks. Damage to the destination image is one of the significant problems, as it has a major impact on the purchase, i.e. the intention to travel (Ahmad et al., 2021), especially in a post-crisis period. Of course, this does not mean that negative news should not appear, and providing ethical, responsible and thorough information about the actual situation and the state of the health system can speed up the recovery time later.

Media can be a precursor to consumer confusion, which is a precursor to risk perception. This is particularly true for television and social media with generic content (Chemli et al., 2020). In summary, it is crucial when managing media that the traveller sees information as a risk-reducing tool rather than an enhancer. However, managing these tools is not easy in the internet age, and often the consumer decides for him/herself whom to believe or who believe. This latter point is reflected in the research of Rather (2021), who highlights the positive aspect of social media as an important communication channel for brand engagement. Through this platform, groups and communities can be formed that consider the brand (even if it is a tourist destination) as an expert and accept their credible information. However, there is also a very similar principle at work, where this group or community gives voice to the message of another 'brand'. Thus, in my view, collecting information and managing information sources are both mitigators and enhancers of risk perception.

It is crucial that the media also act as a mediator in transmitting professional advice, as individuals need to be prepared for the journey in terms of health (Felkai, 2021). Information on the professional use of specific protective equipment is as important as reporting on the evolution of the pandemic. Solutions that give the appearance of illusion but provide travellers with health measures during the tried and tested service before they even take up the travel option can be good examples of this (Kökény – Kökény, 2021).

In addition to the media, the behaviour and incapacity of governments can reduce or even increase the perceived risk (Abraham et al., 2020; Li et al., 2020). Researchers have found that some blame governments for the spread of the virus, which can influence individuals in tourism and in choosing future destinations. This may be mitigated by previous experience with a destination that a tourist has already visited, is safer for them, and therefore would prefer to return to it rather than a new destination they are unfamiliar with. If threats to a destination cannot be mitigated permanently, tourists may avoid it in the long term for various reasons (Agyeiwaah et al., 2021), such as the H1N1 virus or terrorism, whose presence has made certain areas entirely unacceptable for tourists.

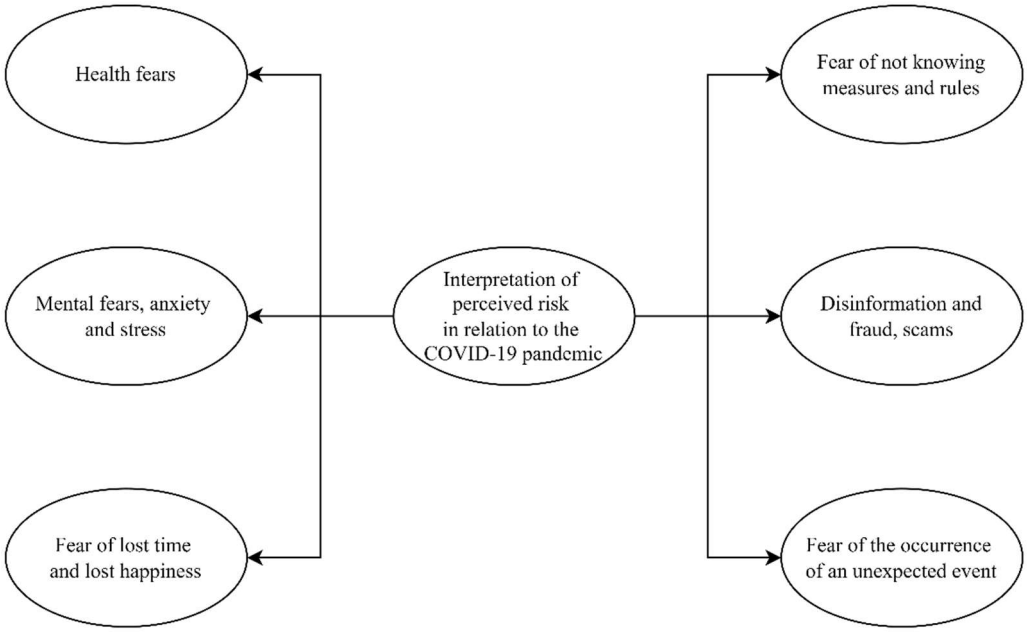
A dysfunction or negative image independent of government, and hence declining international tourist arrivals, can be compensated for by promoting domestic tourism, but this can only be effective if the threat is addressed in a way that is perceived to be competent by the government (Agyeiwaah et al., 2021). Perceived risk can then be shaped by the perceived positive or negative impact of the threat, thus increasing or decreasing risk perception. Moreover, this impact can have a comprehensive spectrum (economic, social, technological, job loss, etc.) that is difficult for a government to cover (Agyeiwaah et al., 2021). This also indicates that risk perception has its own perceptual and preconceived terrain (as in the holistic interpretation, where online shopping is a risk factor). Li et al. (2020) praise the Chinese government in this respect. Even though the virus originated in their country, domestic tourism and Chinese people's willingness to travel were later positively affected by what they considered to have been the confident and effective handling of the pandemic situation.

Government assistance can help in communication to improve tourism's image, consumer compensation, political attitudes to support the sector (Kovács et al., 2021), or new domestic destinations (Page et al., 2006). It can also act as an incentive to develop smart tourism and its tools or promote slow tourism services (Wen et al., 2020, Pécsek 2014) during the pandemic. This could also distract travellers from the pandemic situation. A government can also advocate for the interests of travellers. In the case of the

Chinese, there were several instances of perceived hostile – sometimes racist – attitudes from Chinese tourists, such as not being served because they were Chinese and „they are the reason this whole pandemic happened" (Rahman et al., 2021). In addition, a solution could be to promote package holidays or to steer tourists in this direction, as tour operators are subject to rigorous guarantee conditions, are heavily regulated by the EU and have to pay substantial compensation for any failure to perform (Jancsik et al., 2019; Rahman et al., 2021). In the current adverse situation, the interests of travellers are better represented through package tour operators, and they are better compensated for any inconvenience. Governments can also protect their own nation's travellers by promoting this more conscious shopping (Rahman et al., 2021). They can also develop destination management organisations. As we saw earlier, in many cases, a destination can be the primary decision factor for travellers. A post-pandemic recovery, possibly sub-pandemic, could be helped by strengthening the various domestic destinations and local supply management organisations (Nod et al., 2021).

Figure 3 summarises the interpretive domains of perceived risk associated with the COVID-19 pandemic.

Figure 3. Interpretation of perceived risk in relation to the COVID-19 pandemic



Source: own editing

2.4 Risk reduction strategies

In marketing literature, the risk is considered a negative outcome that prevents the achievement of objectives. In a narrower sense, the concept of risk is closer to uncertainty (Kolos, 1998). The literature considers that risks can be primarily reduced or managed (Stern et al., 1977). According to Roselius (1971), risk reduction is the reduction of the impact of uncertainty on decision-making. He listed different risk reduction strategies. Solutions may include brand loyalty, brand image (well-known brand), trying or free samples before buying, considering the image of the store, preferring to buy under warranty, having a buy or comparison, buying the most expensive product, observing word of mouth (WOM), seeking testing by an official body or institution and endorsement, i.e. preferring customers, advertising faces, celebrities with a similar character to the consumer. Attitudes towards the use of these 11 risk-reducing elements were measured and analysed across four types of loss. These elements are time loss (if a product breaks down, the individual wastes time to have it repaired or replaced), dangerous loss (some products are dangerous to one's health or safety if they break down), ego loss (if a product is found to be faulty, the individual may feel incompetent or others may feel incompetent) and finally money loss (product failure may lead to money loss). In practice, the elements supporting risk reduction should cover these four

elements of loss, according to the study. The article also explains how these loss perceptions and the perception of support for risk-reducing elements may differ for different individuals and products. Risk mitigation can be carried out by the consumer (demand side), but it can also be facilitated by the seller or vendor (supply side).

Stern et al. (1977) argue a little later that risk management is generally described as the use of pre-purchase perceived risk reduction methods that reduce perceived risk until the level of perceived risk reaches a level acceptable to the individual consumer and consistent with his or her purchase objectives. The most common method is considered to be information gathering. This also implies, in part, that consumers can increase their risk by seeking different information about a product. They may also directly do this, i.e. they may pursue risk in their repeated purchases, but this was not well supported by a study at the time (Deering – Jacoby, 1972). Stern et al. (1977) write that Roselius' (1971) study includes both consequence and uncertainty mitigants but ignores one of the main risk reduction methods, advertising. In their view, this may have been omitted because the early literature (notably Bauer, 1960) saw branding as the most crucial element that could reduce perceived risk (by increasing specific or even general self-reliance). This finding was supported by subsequent research, including that of Roselius. Risk reduction methods require different amounts of time, effort and cost. Likewise, when a company offers guarantees or promotional messages, it can use them to reduce perceived risk. It can be precious for marketers to know that brand loyalty, endorsement, or purchase is a preferred risk reduction strategy for one market segment, while for another segment, for example, a higher brand image or the opportunity to try something out is the preferred risk reduction tool. It would also be essential to understand how the consumer creates these preferences. However, it can also be seen that these kinds of positive associations can be part of brand identification (e.g. we know that brand XY's messages are trustworthy or it uses practical and realistic images, etc.). So, in the end, Bauer has a good grasp of the brand's focus on risk reduction from the beginning.

Later authors, mainly based on Roselius (1971), proposed additional risk reduction tools to the 11 listed by Roselius. Derbaix (1983) introduced the advice of a salesperson to minimise perceived risk, while Greatorex and Mitchell (1994) introduced some new risk mitigants: buying a cheaper brand, special offers, packaging information and consumer magazines. The latter pair of authors also pointed out that the effectiveness of risk-reducing elements may vary across product groups and that, for a more accurate

picture, it is preferable to conduct in-depth interviews with consumers rather than repeated questionnaire surveys.

Derbaix (1983) also categorised products into two and three groups. The first two groups are the sought-after products (e.g. clothes), whose characteristics can be determined by inspection before purchase, and the experiential products, whose latent characteristics cannot be determined until after purchase. In the case of experience products, he distinguished between durable products (electronic gadgets, cars – especially back in 1983!) and non-durable products (shampoo, detergent). He found a distinction along these lines because for desirable products, the purchase is the best risk mitigant, while for non-durable products, brand loyalty and brand image are the best risk mitigants, and for durable products, money-back guarantee and store appearance are the best risk mitigants. Unfortunately, however, all authors did not rank the importance of each risk mitigant in general terms or according to specific situations. This shortcoming later emerged as a niche area when examining online purchases. Furthermore, the issue of risk reduction is not separated from the brand.

Mitchell and McGoldrick (1996) also stress that two general approaches to risk reduction can be applied. One is to increase the certainty that the purchase will not fail (reducing the probability of uncertainty), and the other is to reduce the consequences of failure (reducing the probability of negative consequences). The balance tends to tip toward increasing certainty, and most of the strategies identified in the literature are applied this way.

The authors (Mitchell – McGoldrick, 1996) have further categorised these as being personal (family, friends, colleagues' opinions, sales advice, etc.), impersonal (TV advertising, packaging, etc., mainly marketing communication elements), and other risk reduction strategies. In their article, they summarised that further grouping could simplify or clarify strategies (e.g. buying the most expensive or cheapest product if price information is the clarifying element to simplify risk reduction). In addition, an important question is how long it takes to access a risk reduction strategy or tool and what the cost of doing so is for both the consumer and the company. This can also be exciting because these costs, mainly marketing costs, can be built into the purchase price. Furthermore, the use of these strategies is not defined for different product categories, i.e. a consumer may have a risk reduction expectation when buying a product that is not relevant, unavailable or would not be necessary, but still wants to reduce his risk in this way, based on his previous experience with other products.

Risks can also be purchase-specific only, i.e. different risk reduction strategies can be used at different stages of the purchase (problem identification, search, evaluation of alternatives, purchase, post-purchase behaviour – Bauer et al., 2016). Finally, it was also stressed that it might be worthwhile to investigate which risk-mitigating strategic tool should be ignored in any case in order to reduce risk even slightly because there might be people who choose a product or service precisely because it is risky and therefore do not want to encounter specific risk-mitigating tools. This may be particularly relevant in the case of tourism because when typifying tourists one may encounter categories of people who fall precisely into the „explorers" or „adventurous" type (for more information, see Jancsik et al., 2019). In addition, certain tourism products (adventure tourism, disaster tourism, sports tourism) may also be examples of risk-taking (Irimiás et al., 2019).

2.4.1 Further dimensions of risk reduction

Mitchell and Greatorex (1993) added additional elements to the risk-reducing elements for services, including consumer guides, promotional material, warranties, sales promotion, free trials, discounts, prizes, experience, the opportunity to compare prices, celebrity endorsement, word of mouth, advice from friends, family or experts, and brand image. Their results confirm that services are riskier than products and are mainly due to the additional uncertainty associated with buying services. The financial loss was the most critical loss, and brand loyalty was the most crucial risk driver (except for hotels). Nevertheless, the latter is partly identical to the results of the first research on risk reduction (Roselius, 1971), where brand loyalty is also the most important, although the results may be biased by the fact that only university students were interviewed and not several age groups. According to the authors, the most significant difference between services and products in terms of uncertainty is the variability of services.

For each risk element, Bruwer et al. (2013) find a difference between those in the high and low-risk segments. The highest perceived risk dimension, namely financial risk, did not differ across risk segments, while the segment with higher perceived risk showed higher social risk than the segment with lower perceived risk. The higher perceived risk value segment was also characterised by more psychological risk. Information seeking was the most crucial risk reduction strategy (for wine choice) used across seven wine drinking occasions and the only one with a significant effect. In addition, respondents perceived less risk when drinking wine with friends and relatives than when wine was given as a gift, consumed for business purposes or drunk to celebrate. There was also a

significant difference between the groups in the high and low-risk segments only in these two cases. All these results focus on social risk, even if social connectedness can be a risk-reducing tool.

Finally, it is worth mentioning the early categorisation by Stern et al. (1977, p. 313), which highlighted the differences in the use of risk reduction strategies caused by the respective risk types and product categories. In it, they derives the components (measurement scales, calculation methods) and types of perceived risk (time, psychological, or later social, physical, performance, financial, etc.) and the perceptions associated with them from the concept of perceived risk already presented here. These elements then merge again in the measurement of perceived risk, followed by the behaviour of consumer risk management. This is broken down into risk reduction strategies and their methods, risk extension, and enhancement. All this is interesting because it also suggests that it makes sense to treat each of these elements together in risk reduction and risk extension, but with a different prefix, as Mitchell and McGoldrick (1996) have emphasised.

2.4.2 The relationship between perceived risk and trust – Trust as a risk reduction tool

Understanding trust without examining its relationship to risk would be incomplete. The reverse is also true – the study of risk would be incomplete without the study of trust. It is difficult to imagine a situation where there is no risk. A certain degree of trust is also necessary for everyday activities. The level of trust required can vary depending on the level of risk, whether actual, perceived or implied, which leads to an individual deciding whether or not to trust. In short, a risk exists when there is less than a 100% probability that things will occur in the expected, positive way. This predicts that there will always be some degree of risk, which is matched by trust and vice versa (Mayer et al., 1995). This stems from the complexity of things, issues and events, which brings with it the need for simplification, which individuals can best do through trust (Siegrist, 2021).

It is a valuable starting point for marketers to develop strategies to gain consumer trust and to help potential customers build enough trust to enter into a transactional or longer-term relationship. If customers have sufficient trust in an organisation or its products, it can exceed their perceived level of risk. It is just a matter of finding the balance between the two. This implies that risk-reducing strategies are also trust-

increasing strategies, with the difference that trust-increasing strategies can be two-way (i.e. they cannot be developed only from the customer's perspective, as in the case of risk-reducing strategies), which means that they can also be more potent than the effect of risk reduction strategies (Harridge-March, 2006). The literature also shows that there is much overlap between these strategies, and to some extent, a trust is also a risk-reducing tool, as it is all in the individual, both in terms of risk detection, risk reduction and building trust. This is to say that trust is a substantial risk reduction factor rather than a more robust risk reduction strategy. Building trust can also be understood as one of the measures that precede risk perception (Siegrist, 2021), which is then activated in the consumer at the moment of risk perception (in a good case).

The impact of risk reduction has not been measured on validated scales. In a few cases, the factors that may influence risk reduction, mainly from the side of the company's activities (e.g. use of a 'trusted website' badge, known brand, use of known people in marketing campaigns), have been measured to reduce consumers' perception of risk (Bruwer et al., 2013; Kim et al., 2009; Mitchell – McGoldrick, 1996). This is why the theory holds that trust impacts perceived risk. A few researchers, however, argue that this direction is not so clear-cut because when approached from the individual's perspective, it is evident through the degree of risk that consumers will trust, and then their purchase intention becomes positive (Corbitt et al., 2003; Corritore et al., 2003; Lim, 2003; Lee et al., 2007). However, these directions in the online space are ignored by researchers and take as clear-cut the negative effect of trust on risk, i.e., if trust increases, perceived risk decreases.

Gefen et al. (2002) were the first to discover that trust and risk in the online space were treated as a one-dimensional construct, in contrast to the tradition of previous decades when these factors formed a multidimensional, complex structure. As a result, it was difficult to measure what each sub-dimension, such as trust, was part of what factor, what the relationship was, and what the relationships between risk and trust were in the first place. Looking at the period before the advent of information systems, it was in the mid-1990s that the links between perceived risk and trust began to be investigated. Mayer et al. (1995) went so far as to suggest that it is not at all sure that trust is a separate element because it is possible that trust is a part of the risk or vice versa and that risk is an end product of trust. Taking this line of thought further, their research suggests that the essence of trust is the degree of risk-taking willingness, while perceived risk itself is the

probability of positive and negative outcomes. The implication is that risk appetite can also be a measure of trust in a given situation.

The literature has explored all three of these linkages: (1) risk mediates the relationship between trust and purchasing behaviour, (2) risk moderates the relationship between trust and purchasing behaviour, (3) trust and risk have independent effects on purchasing behaviour (Siegrist, 2021). For this reason, critics argue that qualitative data collection could be a good way to explore the issue, rather than the many quantitative studies. Interestingly, Gefen et al. (2002) do not mention (indeed, they describe that they found none [p. 6]) the case where trust mediates the relationship between risk and purchasing behaviour. Presumably also because most of the papers suggesting this were written after this study (Corbitt et al., 2003; Corritore et al., 2003; Lim, 2003; Lee et al., 2007), although this does not answer why Siegrist (2021) ignores this direction in its paper. When the effect of trust on behavior is mediated by risk, we can talk about how trust can have a risk-reducing effect, thereby increasing the positive direction of purchasing behavioral intention. In the first place, trust acts to reduce uncertainty, with which it can generate positive effects on behavioural intention in the long run. This approach can be reinforced by the conceptual explanation in the interpretation of trust that trust does not in itself entail risk-taking, but rather refers to the extent to which one is willing to take risks (Mayer et al., 1995). Indeed, an increase in certainty (when we can predict the probability of an outcome with increasing certainty) does not necessarily imply the disappearance of negative consequences. In the case of a moderating relationship, the basic proposition is that the effect of confidence on behaviour is different when the level of perceived risk is high or low. This means that trust is relevant when risk perception is high, and not relevant when it is low. All these approaches were empirically tested by Kollock in 1994. Finally, in the case of the independent elements model, where trust and risk perception act simultaneously but independently on behavioural intention, the level of trust exceeds the threshold of perceived risk, and then trust is associated with risk taking. More specifically, in such a way that reaching a certain level of trust may make the consumer feel that his risk perception is lower.

Subsequently, especially with the expansion of e-commerce, studies have appeared in parallel which have started to investigate the inverse relationship between risk and trust, i.e. when trust is the mediating element in the effect of risk on behaviour. Then, the authors (Corritore et al., 2003) argue that low risk perception increases trust in the situation. This is done by exposing the buyer to a stimulus, which stimulus individual

tries to judge through its manageability and controllability. If they perceive that they have difficulty controlling the situation, the outcome of which may be risky, or have little experience with it, they will perceive the situation as risky and thus their confidence in the purchase or situation will be reduced. Lee et al. (2007) go less theoretically into the reasons, they interpret the basic setup rather as trust being the mediating element between perceived risk and purchase intention. They base this idea on the fact that, as I have shown above, trust is a factor that reduces perceived risk when making purchases. For this reason, risk perception may not be directly linked to purchase intention, but only through trust, which may strengthen (in the case of a low trust value) or weaken (in the case of a high trust value) the effect of risk perception. Thus, they say the same as many of the previous authors, but they do not describe trust as a prior variable in the model, but rather it becomes the mediator. This idea also reflects the point I made at the beginning of this chapter that all risk perceptions will certainly be in the individual's actions. Furthermore, the authors (Lee et al., 2007) thought that the reason for this is that it is really the financial-performance type of perceived risk (they also examined this factor) that makes one feel a certain degree of risk because of the importance of its factor (mobile banking) and thus also requires a certain degree of trust, which can then help to move beyond the perceived risk. Similar thinking has been done previously by Corbitt et al. (2003).

It can be seen from this trend that they are broadening the scope, not starting from the direction and probability of the outcome of the situation, but from the fact that the purchase itself is undoubtedly a risky activity (because of the introduction of new technology, because of inexperience, because of a high-value purchase or because of the provision of confidential information). Furthermore, in my view, this approach assumes more strongly the types of risk perceptions than the more prevalent trend of examining the inverse relationship, where the perceived risk is a mediating or moderating element in trust and purchase. As Gefen et al. (2002) put it, this more prevalent line of inquiry would require that there are also types of trust per type of perceived risk, rather than a holistic trust being measured. However, the seldom-used approach presented above also presents the possibility of looking at risk perception and trust globally, or at least only at the latter. This can be helped by the understanding trust as a risk mitigant rather than as a moderating or mediating element in the relationship between risk perception and purchase intention, as we have seen in the earlier authors.

Moreover, this approach also reflects the construction of the concept of trust, which says there can be a general trust (confidence, self-confidence) and a specific trust

(knowledge, expertise). Thus, in my opinion, this alternative direction contributes more to the use of the precise concept of trust because it can represent both an aggregate, general and a type-specific, specific interpretation of trust, as I have described earlier in the discussion of trust. If not on this issue, a consensus had emerged by the 2000s that the effects of trust and risk on behaviour could not be represented in the model without each other, i.e. it is necessary to include both factors, possibly supplemented by the behavioural control factor from the theory of planned behaviour (TPB) model. Although the 'classical' linkage, in which risk perception is the mediating or moderating element, is used by far more research, it can be argued that science has voted in favour of this type of linkage (Siegrist, 2021).

The early literature also showed (Rotter, 1967) that trust is an interpersonal element, where the word, promise, verbal or written statement of an individual or a group or organisation can be relied upon and trusted by another party. All this underlines that both parties (in this case, seller and buyer) are responsible for establishing trust. Thus, it can be argued that a company's risk mitigation strategy can be primarily concerned with building trust. This can be done through brand attributes, warranty commitments, the use of certificates and trademarks, or the possibility of a trial period. Chadwick (2001) argues that evidence of trust in an e-retail organisation can be found in several elements. Most notably in the 'trust marks' (i.e. trusted brand names, celebrity endorsement of the product, display of trademarks on the website promoting the security of financial transactions, 'website of the year award' seal, etc.), brand name, delivery, navigation (the way customers find information on the Internet, website), communication and presentation, and technology. However, he acknowledged that most analysts limit e-commerce trust to issues of privacy, risk safety and trustworthiness. These strategies are all more likely to impact other perceived risk factors. 'Trust marks' impact most on the physical, psychological, financial and performance factors; brand name on the performance and financial; performance also on these factors; navigation on the time, performance and financial factors; communication and appearance on the financial and performance factors; and technology on the technology, financial and performance factors. If a consumer is committed to shopping online but does not trust a particular company, the wide choice in the online environment can easily 'transfer' loyalty to another company, thus reducing customer loyalty. Therefore, a lower engagement environment requires online retailers to make every effort to appear trustworthy and attract and retain online shoppers, reducing their risk (Harridge-March, 2006).

Lee et al. (2007) concluded that it is not possible to decide from the literature exactly which direction of the relationship is correct when examining the risk and trust factor (although they did find several cases where risk is a mediating or moderating element), so they tested the link through the Technology Acceptance Model (TAM). They assumed that trust was the mediator between perceived risk and purchase intention, which thye could verify, as they found a significant result when looking at the relationship between risk and trust (negative direction). In contrast, they found no significant relationship between risk and purchase intention. They confirmed his results by finding a significant (positive direction) relationship between confidence and purchase intention. This was simply a mathematical interpretation.

Overall, an accurate formulation would be that there is some relationship or correlation between trust and perceived risk, but it is not clear which is the cause of the other (Siegrist, 2021). General confidence can be detected, which is mainly related to self-confidence, self-assurance or a general optimism that can help an individual through specific dilemmas and decision points if he or she lacks the necessary confidence and expertise in the issue or the surrounding environmental conditions (Mou et al., 2017; Dryhurst et al., 2020). This may, of course, also lead the individual to experience negative consequences, as the outcome of the decision may not be positive. As we will see in the next chapter, this approach is closely related to risk-taking, a constant state, a taken personality type, and a set of values in the individual. In the case of general self-confidence, as in one interpretation of risk-taking, we can observe a link with optimism.

On the other hand, specific or social confidence looks at the connection of a given decision to previous patterns, experiences and one's own values, i.e. the individual is trying to find clues to hold on to and trust. However, they do not always find these and then turn to their 'global' experiences and values, i.e. their general self-confidence, which, when it reaches a certain level, is the one to take the risk. It can also increase confidence beyond expertise if an individual assumes the risk, even if there is none. In other words, moral information may be more critical than performance information. This means that knowing that another person intends to harm a third party is a more decisive argument for risk perception taking than knowing that he or she is capable of doing so. So it does not make someone less confident to be afraid of something, but it may delay their final decision on the situation. This line of thought also highlights the difficulty of defining the place of confidence in models dealing with perceived risk. However, here too, some

possibility of risk is assumed in advance, just as Lee et al. (2007) identify the purchase itself as a risky situation.

2.4.3 Risk reduction in the online space

The risk-reducing elements may also be different from those previously recognised due to the online expansion, according to Cases (2002). In addition to the classic and additional traditional elements (which I have written about at length in the chapter on risk reduction), Cases (2002) discussed a total of 15 risk reduction tools, including a few additional factors, after its in-depth interview research mentioned earlier. It also grouped these according to the four sources. The source of the product could be information from sales, price information, previous experience with the product, comparison of products, the preview of the product and purchase of a well-known brand, and brand loyalty. Remote transactions include the possibility of exchanging the product, a money-back guarantee, the existence of a local retailer (parcel delivery point, department store) and a telephone conversation with the seller. Due to the internet source, a risk reduction tool could be payment security, verbal conversation and remote contact (email, webcam, etc.) – finally, the reputation of the website and previous experience or knowledge of the website. Except for online payment security, the other risk-mitigation tools are not very different from those classically listed for shopping. The buyer always needs someone to contact, and brand, reputation and familiarity are central elements. Overall, the known nature of the risk mitigation elements has remained. Only the way they are expressed has changed (e.g. eWOM, chat rooms instead of reputation enhancement). There may be differences between the elements in the different sources of risk and risk dimensions.

When looking at the literature from the 1960s, 1970s and 1980s, Cases (2002) came to the main finding that increased risk levels significantly impact the intention to use private information sources. Examples include word-of-mouth advertising, product previews and the use of consumer experiences. This suggests that when we have a higher perceived risk associated with a sales platform or source, personal risk mitigating elements are more prevalent than when we have a lower perceived risk. That is, if the role of personal attachment risk mitigants is higher, then that area, source, or platform may be riskier.

In parallel with the popularity of internet use, privacy notices have also emerged as a way for companies and platforms to reduce the perceived risk of users, in addition to

protecting user rights. A study (Milne – Culnan, 2004) examined the reasons and situations that lead consumers to read privacy statements or use alternatives. The results showed that privacy notices are part of an overall strategy to manage the risk of disclosure of personal information and that consumers tend to read notices to manage the risk. The finding that consumers tend not to read privacy notices when they have previous experience with a company suggests that privacy notices should be the most important for websites that are not strongly branded or new. Reasons for reading privacy statements may be to ask customers for sensitive information, curiosity about how their data will be used, to prevent unsolicited email messages, to prevent any risk, or some people may 'just read' them. One of the most common reasons for not reading is that they find the statements too complicated, lengthy and legalese. Overall, privacy statements can be part of a risk reduction strategy depending on different situations and consumers. However, their excessive complexity and length may confuse consumers.

I mentioned earlier that the prioritisation of risk reduction tools might be different in the traditional and online spaces. Tan (1999) examined the effectiveness of some risk reduction strategies that Internet marketers could use to promote online shopping among consumers. The results showed that Singaporean consumers who have a higher risk aversion than others tend to perceive online shopping as a risky activity. This interpretation is similar to the previously presented Baz et al. (1999) research where risk-taking and risk aversion were considered as risk perception per se, with only either low or high values. Internet marketers, however, can rely on attractive reference groups to increase risk avoiders' commitment to a product. This is the most effective tool for these groups because they can look up to a reference group or person with a positive image of them as an expert. In addition, the reputation of marketing professionals, the image of the product brand and unique guarantees are also effective risk managers for potential online buyers, according to the research, as opposed to money-back guarantees, which are higher than traditional ones. This shows that more personal elements can appear as a risk reduction tool for online shopping than traditional shopping. This could mean that online shopping was perceived as riskier than traditional shopping. Tan (1999) explained this difference by arguing that the internet was a more specific and specialised platform at the time compared to other ways of shopping in terms of risk reduction.

However, it seems likely that these differences can be attributed to the cultural context in which the survey was conducted, as the data were collected from students at the University of Singapore. Tan's (1999) work is nevertheless a first step in investigating

the risk-reducing utility of Internet shopping. In addition, one limitation of the study is that it only considers the overall level of perceived risk, whereas later Cases (2002) also showed that risk-averse preferences might depend on specific determinants of risk.

2.4.4 Prioritisation and connectivity issues of risk reducing factors in the online space

In the previous chapters, it has been mentioned that the risk mitigation tools are not ranked according to their importance. In this chapter, we will see that this is still found to be complicated by researchers. Thanks to internet shopping, different segments have been identified, primarily according to the level of consumer experience, in which different risk mitigation tools may be essential. Cases (2002) was the first to address this. The author categorised consumers according to the frequency of their online purchases, the time between two online purchases, the amount spent and the length of time since the first purchase. The author addressed only two elements of perceived risk: the importance of the loss and the likelihood of the loss (previously, most interpretations have been similar). Respondents were asked to score risk mitigation strategies according to their usefulness on a scale of 1-7. The situation was the purchase of an online jacket. The author formed clusters by looking at the order of importance of the dimensions of perceived risk and the risk reduction tools and then looking at the correlation between these and the individual characteristics of the consumer to form the clusters. This resulted in four different groups. The first group of individuals, which comprised one-third of the consumers, was called the „brand trust" fantasy; these people try to increase the likelihood of a good purchase by choosing a known brand or remaining loyal to a brand. The second group, who make up a quarter of respondents, can be classified as 'guarantee seekers'; these people try to reduce the negative impact of the likely consequences of a wrong purchase by using helpers such as a money-back guarantee or the possibility of replacing the product. The third group, consisting of the most significant respondents, was labelled „minimal safety seekers"; these people perceive low risk and low utility for several risk mitigation aids. Finally, the fourth group, with the lowest proportion of respondents, can be described as the „maximum safety seekers" group, perceiving high risk and utility levels throughout the purchase.

The third and fourth groups contrast the utility attributed to the different risk mitigation tools (Cases 2002). Their risk perception behaviour can explain this contrast at the general level and in terms of performance, privacy, source and delivery risks. Two

different risk reduction tactics characterise the first and second groups. The first group is described as aiming at increasing the certainty of a good purchase, while the second group is more concerned with reducing the adverse consequences of wrong purchases. The overall level of perceived risk is lowest in the first group, particularly in terms of the performance and resource dimensions.

On the other hand, the second group shows a similar pattern, but the need for a guarantee as a risk mitigation tool does not seem to correlate with perceived risk but can be explained by the lack of experience in online shopping. The exact composition of the group shows that the experience of these shoppers does not exceed two years, and most of them have made only one or two purchases during the year. Consequently, the lack of first purchase experience or recent experience may be an explanatory factor for the importance of the warranty claim.

Shopping experience and shopping frequency In the study by Doolin et al. (2005), both the perceived risk and perceived benefits of online shopping were significantly associated with the amount and frequency of online shopping. The loss of social interaction when shopping online also reduces spending and purchases. Reducing perceived risk may be the key to successful sales. To minimise perceived risk, consumers often need to adopt a variety of risk reduction strategies in their opinion (rather than talking about two-way reduction, as discussed earlier). In terms of product risk, these may include brand awareness or the seller's reputation as a guide to product quality. They can also rely on seller offers, such as money-back guarantees, to mitigate the risk of making the wrong purchase decision, partly overcoming the lack of physical ability to check the product during an online purchase transaction. All this shows that, fundamentally, the company can do as much to mitigate risk in the online space, not just the consumer.

Interestingly, Vos et al. (2014) refer to new risk mitigants in e-commerce (such as cheaper brands, special offers, package information, and consumer magazines) as trust factors. This goes back to the study of Ha (2004), who investigated the impact of factors such as security, privacy, brand name, word of mouth, experience and information on brand trust. The researcher found that brand name had the most significant positive effect, but the word of mouth or experience significantly adversely affected brand trust. However, all this should be evaluated so that negative means most positive and vice versa for inverse scales.

A similar result was obtained by Corbitt et al. (2003). The results of their research suggest that people are more likely to buy from the Internet if they perceive a higher

degree of trust in e-commerce and have more experience using the Internet. Customers' trust level is likely influenced by perceived market orientation, site quality, technical reliability and the user's web experience (risk mitigation tools). People who perceive higher levels of site quality appear to have higher market orientation and trust in e-commerce. In addition, people who are more confident in e-commerce are more likely to participate in e-commerce. Positive word-of-mouth advertising, money-back guarantees and partnerships with well-known business partners are the three most important risk mitigation strategies and tools. A detailed analysis of risk types suggests that people are more concerned about performance, financial and time risks when shopping online and less about social and psychological risks. Typically, in these studies, risk perception affects the degree of confidence, as opposed to the confidence seen in most literature regarding perceived risk. As I have shown earlier, this may nevertheless be the right direction to take when interpreting risk reduction and confidence in models measuring risk perception.

Gefen et al. (2002) summarised that perceived risk was typically a mediating element in the relationship between trust and behavioural intention in the earlier literature, which was still primarily concerned with the offline space. If not meditating, it is moderating, or the two influencing factors are independent. The consensus is that studying perceived risk cannot work without analysing trust. In the years that followed, the dynamic growth of e-commerce led researchers to suggest that trust was the mediating element in the effect of perceived risk on behavioural intention. It followed Tan's (1999) research when shopping online was still so novel that people had a higher perceived risk associated with shopping in the online space than if it had been done offline. They perceived the whole process as risky as a starting point, as Corritrore et al. (2003) point out in their interpretation of it as a situation. When this is the case, the reverse of the classical approach, a sense of control, appears as a critical indicator. Indeed, control reduces risk and risk perception is higher in the absence of control. When the sense of control is complete, the user or consumer does not need to trust anything because he does not perceive any risk (Corritore et al., 2003). To illustrate, if a person buys a more expensive product that he has never bought before and finds that the website has little information about payment and no offline representation of the company, individual may mark the transaction as risky because he/she has a low sense of control and thus minimal trust in the website. According to the authors, a sense of control can also be enhanced by a sense of authenticity and ease of use and low-risk perception.

Lim (2003) takes a more straightforward approach to the story. The author sees the perceived risk as always present because whatever the consumer does, he or she may perceive risk concerning something, and this idea is the essential starting point throughout the thesis. Earlier research, which said that trust requires at least two parties (principal and fiduciary – buyer and seller), was taken further by Lim (2003), who saw that this situation may not always exist, especially in the online space, where it is not so clear who the other party is who is making any guarantee of the sale. Because of the strict approach to the notion of trust, Lim (2003) believes that trust is a secondary element and that risk perception is more likely to influence the buying process. Furthermore, this idea also explains that individuals try to find some personal grip in the online space. Wakefield and Whitten (2006) expand on this by arguing that risk perception is present due to the complexity of the purchase, reduces the purchase intention and causes a distrustful attitude. In the present, this can be helped by the development of trust, which can, for example, help customers to share information about themselves more freely and thus dare to buy. This is somewhat parallel to the „market mavenism" described earlier, whereby the abundance of information leads consumers to adopt an expert attitude, which makes them more confident in facing the challenges ahead.

Similarly to the acceptance of mail-order offers presented earlier (Peterson et al., 1989), in the case of online shopping, those who do not shop online have higher perceived risk scores than those who do (Kim et al., 2009). This is particularly true for the performance, safety, financial, psychological and time risk dimensions when purchasing airline tickets, while there is no significant difference between social and physical risk (Kim et al., 2009). In the same study, the researchers found that online shopping was more important for online shoppers than non-shoppers regarding risk reduction strategies. The study found that the reputation of the online vendor, a well-known brand, symbols of security approval (by which they mean licenses and credentials), and recommendations from family and friends were preferred among risk reduction strategies when purchasing airline tickets online. Nevertheless, a wide choice of risk mitigation tools can separately mitigate different types of perceived risk (Lam et al., 2017).

Concerning internet security, Vos et al. (2014) note that e-commerce companies can also enhance security through their improvements, which can reduce the perceived risk in the minds of consumers. Examples of such measures could include login security or third-party verification. Security can consist of four elements: measures taken by the company and the consumer: authentication, authorisation, encryption and verification. A

logon security system can be seen as a combination of authentication and authorisation models that allow competent persons to act and prevent unauthorised activities. In addition, consumers should take personal security measures such as using antivirus software, using a secure browser, shopping in controlled online stores, and using complex passwords. Finally, the consumer should look for components in online shops that prove the authenticity of the payment standards (SSL, SET).

2.4.5 Demographic differences in perceived risk and risk reduction

A study by Kim et al. (2009) also showed that respondents' perceived risk when purchasing airline tickets differed along demographic characteristics. The authors mention what I have described many times before, that due to the subjectivity of risk perception, different perceived risk dimensions may have different importance for consumers due to their individual and socio-cultural characteristics. In addition, as before, the researchers here also highlight the importance of experience as a purchasing platform (Internet), and the product or service purchased (frequency of use). The results also showed that only the importance of the experience of purchasing online differs significantly between the risk reduction strategies of online airline ticket buyers and non-buyers. Online purchasers rated the experience of „shopping online" as significantly more critical than non-purchasers. For the other non-significant cases, it can be said that „reputation as an online seller" is the most crucial risk mitigation strategy for online airline ticket buyers.

On the other hand, a „well-known brand" was the most critical risk mitigation strategy for non-buyers. In terms of demographic differences, it can be seen that the overall risk perception was higher for women. This is similar for individual items, especially in the performance, safety and psychological dimensions. Single people also perceived a higher performance risk than married people. Meanwhile, married women had a higher perceived physical risk than single women. Respondents (university students) perceived higher performance, financial, social and physical risks than others. Respondents in the 18-30 age group perceived higher performance, financial, social and physical risk compared to respondents aged 31 and over.

The results also indicated that respondents' perceived risk differed significantly from performance, financial, physical and general risk across income levels. Respondents with income levels below $50,000 perceived more remarkable performance and financial

and general risk than respondents with income levels of $50,000 or more. Respondents whose income level was less than $10,000 perceived greater risk financially than respondents with income levels of $50,000 or more. The researchers found significant differences among respondents in Internet use. Respondents who had used the Internet for five years or less perceived more remarkable performance, financial, psychological and overall risk than other groups.

A recent study (Panwar, 2018) also found differences in online risk perceptions along demographic variables, identifying income and gender as the two most important factors that can significantly impact consumers' perceptions of online shopping. For gender, significant differences were found for each risk element examined (financial, product, delivery or delivery, time, personal information), while income was only for product and personal information risks.

In Figure 4, I summarise the dimensions of risk reduction revealed by the two main groupings. In one group are those risk mitigants whose design is more likely to be driven by firms, while in the other group are those driven by consumers and their perceptions.

Figure 4. Dimensions of risk reduction

Source: own editing

2.5 Tourism aspects of perceived risk and risk mitigation

Perceived risk in tourism involves psychological, sociological, cultural, economic and other disciplines (Cui et al., 2016). In tourism, not only the severity of risk can indeed increase, but also the attention and caution of individuals concerning risk. Since we are mostly talking about services in tourism purchases, individuals may be concerned about the service's outcome and process. In evaluating this process, the subjective dimension of the individual is also critical, which is considered difficult to evaluate. This is why the authors cited, based on Sonmez and Graefe (1998), have introduced that tourists can judge tourism risk by expanding and narrowing the tolerance for subjective emotions, objective values and cognitive risk perception.

The assessment of perceived risk is more challenging for services than for products because we can only make complaints about our dissatisfaction during or while using the service. This follows from the four main specificities that characterise services: variability, simultaneity, immutability and intangibility (Kenesei – Kolos, 2014). In the case of services, the physical environment plays a significant role. Hotel service delivery, for example, contains and requires a significant number of tangible and intangible components, which make it a little easier to capture service performance objectively. In addition to the visible elements, the host offers safety and psychological and physical comfort (Ariffin et al., 2011). It is worth mentioning the findings of Wall and Berry's (2007) research that consumers' perceptions of the physical environment are based on prior expectations of the service, while those of the staff are shaped and formed during the service and are all dominated by the effects of physical environmental attributes. Moreover, a negative staff experience does not translate into a negative experience in a positive physical environment, but a positive staff experience can partially translate into a positive experience in a hostile physical environment.

The main critical point is the heterogeneity and intangibility of services, as these are the main factors that reduce certainty when using a service (Laroche et al., 2001). The perishability is also a problem because it is most related to expectations, i.e. as the service „deteriorates", there is a fear that the performance is no longer such as to cause satisfaction (i.e. better than expected). Furthermore, the intangibility would make psychological and sociological factors more critical because of personal involvement, so this factor is more vital for services than for products (Mitchell – Greatorex, 1993). The authors also mention that financial risk is strongly associated with purchasing a hotel room. In contrast, physical or health risk is more likely to arise, for example, when buying a fast food meal, so there is a distinction between high and low-risk elements (Bruwer et al., 2013). Bebko (2000) also highlighted intangibility as a critical factor, as it reduces the quantity and quality of information available. Inseparability can be further increased when a service is implemented online. Simultaneity can also be a risk in terms of predictability and timing.

The tourist package is a complex offer of services. Transport, accommodation, meals and guided tours all add to the sense of uncertainty due to their heterogeneity, as discussed earlier, and together they add to the sense of uncertainty. Despite all the efforts of supply-side operators, consumer satisfaction depends on many factors beyond their activities. On the other hand, partly, the excitement generated by this uncertainty leads to

the re-consumption of tourist packages (but not precisely the same ones). Mitchell et al. (1999) found that „reading independent travel reviews about the destination" (to increase certainty) and „buying some form of travel insurance" (to reduce the negative consequences of consequences) are the most effective risk reduction strategies when purchasing a travel package. Consumers' judgements in this area are very subjective and based on experience because of the service factors involved and because people rarely buy travel packages. Experience is a significant risk mitigant, but in this case, due to its lack of accumulation and the constant variability of new destinations and services, it does not significantly reduce the perceived risk. Likewise, complaints are challenging because they are also entirely subjective, not even comparable to a previous case. Another characteristic of services, non-storability, increases the opportunity cost of non-repeatability because no amount of compensation can compensate for lost time and opportunity in the event of an underperforming service. Interestingly, last-minute bids increase risk aversion, mainly due to opportunity cost (Mitchell et al., 1999), because it enhances the sense of a past and unrepeatable experience.

2.5.1 Tourism safety as a building block for traveller confidence

As I explained earlier, security is a third element of the primary conditions of the tourism system, alongside the capacity and willingness to receive (Michalkó, 2016). This approach implies that where there is an armed conflict, the safety of the local inhabitants is not guaranteed, some institutionalized threat is present, or any severe emergency occurs, the public health situation is not adequate, or the living conditions are very different from those of the arriving tourists, the vast majority of tourists will avoid the place (Michalkó, 2020) whether this avoidance happens on its own or is forced due to various physical constraints. Furthermore, an attack on the information-communication tools of the tourism sector may also appear, so such an attack in cyberspace indirectly but indirectly attacks personal data and confidential information through the tourism service platform. This threat can also scare away travellers from a destination or from consuming a tourism programme.

As Michalkó (2020) puts it, tourism safety hypothesizes a marriage of two definitions. Tourism implies people's temporary, but not permanent, mobility beyond their residential and permanent working environments. On the other hand, safety is an indispensable basic need that posits the minimization of threats to the individual or community. Safety is thus the factor which, in the concept of tourism safety, enables the

tourism market to operate on a guaranteed basis. This guarantee is also essential when considering services since services' complexity, heterogenity, and unpredictability require a high degree of trust between the service provider and the consumer of his creation. As the tourism market is primarily made up of a set of services, it is essential to develop this trust, for which a guarantee is a necessary step. Therefore, it is necessary to constantly monitor, control and anticipate the situation, whether on the part of service providers, organizations, public authorities or governments. Of course, it is not always possible to control or guarantee the security of a situation; just think of environmental disasters, where even a possible forecast would not have meant that the crisis could have been foreseen to any extent. Furthermore, there are situations where the traveller himself becomes the cause of the deterioration of the security situation. The most obvious example is the health crisis caused by the current pandemic period.

In parallel with safety (and then security), the concept of safety is also discussed in the scientific literature on tourism (Yang – Nair, 2014), whereby safety is compromised when health is compromised due to injury, accident, disaster or other harm that affects humans but is not manufactured occurs. In other words, the COVID-19 pandemic is also a threat to this integrity, to which the Hungarian literature uses the word 'safety'. Moreover, the term integrity quickly leads to the risk assessment sub-dimension of perceived physical risk, which I will discuss later. This makes it challenging to find the exact location of health risk perception, whether physical risk, safety risk (as security) or safety risk as intactness. In my research, I will use the two definitions together for tourism safety as an intertwined pair of definitions, as in many cases do the authors of the most recent book on the subject, Tourism Safety, published in 2020 (Michalkó et al., 2020).

As in many areas, differentiation has emerged in tourism security. They distinguish (Michalkó, 2020) between public, health, consumer, technical, and orientation safety. In many cases, the consumer is aware of these risks individually, obtains information about them and tries to reduce the probability of their occurrence or the extent of the negative consequences (taking out insurance). However, the tourist may also become a victim if he/she knows the potential risks but does not take responsible action. It is also possible to see the risk elements but not to recognize them. Finally, tourism products may determine the traveller's consumption choices precisely because of the desired excitement of the risk, even as a tourist attraction. This may be the case for adventure tourism, active tourism, the search for extreme sports or disaster tourism if the trip is made in this way to a destination that is still alive or still dangerous. In conclusion, it is also worth pointing

out that what used to be adventure travel is now seen by many as more of a hazard, so the safety-danger tolerance zone is increasingly shifting towards safety, with minimal consumer adaptability or preparedness.

However, dealing with this kind of consumer transformation is necessary, as the image of unsafe and dishonest destinations and service providers can be seriously damaged by an unpleasant experience (Ernszt – Németh, 2020). In tourism, one of the foundations of marketing theory is also at work, in which a guest returns to a destination when he or she has had a good time and is left satisfied. The cornerstone of this is that the tourist feels safe and secure. Here, we can safely think of all the sub-segments of safety, but if we interpret it in a broader sense, then 'treating the guest well', treating them fairly, can also be part of consumer protection (Ernszt – Németh, 2020). The European Union protects consumers in its Charter of Fundamental Rights and Hungary in its Fundamental Law. This includes ensuring conditions of fair economic competition, combating dominant positions, the right to life, health and safety, guaranteeing the possibility of legal enforcement or ensuring the right to information under identical conditions of the law. Typically, most consumer protection cases are related to travel, the use of means of transport or the ordering of tourist services. The former is mainly related to the physical safety of the traveller, but also to financial loss (excessive pricing by a transport operator) and loss of time or delay, which results in consumer detriment. The latter, i.e. poor service, is the result of a perceived lack of quality or performance compared to what was promised. These loss possibilities are mainly related to accommodation and catering. Operators in the secondary tourism superstructure can also guarantee safety and fairness to the traveller. A retailer, a souvenir shop or a pharmacy are just as essential and trustworthy elements in the tourist's journey as the components of the basic infrastructure or the sale of attractions and the primary tourism superstructure.

With travel contracts and package tours, it is much easier to deal with any problems that arise, even on the spot, reduce losses and seek compensation. For independent travellers, however, this is more difficult but can have a severe negative impact on the opinions expressed on online review platforms (Jancsik et al., 2019). Overall, the most prominent consumer protection issues around physical, time, financial and performance risks. Mitigating these factors increases the likelihood of the traveller's intention to return because they feel they are being listened to, treated well and safe (Ernszt – Németh 2020). Among the main types of perceived risk discussed earlier, psychological and social risks appear among the softer risks.

2.5.2 Analysis of perceived risks associated with buying in the tourism literature

According to Sönmez and Graefe (1998b), perceived risk in tourism is determined by external, internal and demographic factors. External factors include information sources, while internal factors include the tourist's attitudinal and risk-related experiences. Demographic ones typically include age, gender and educational attainment as segmenting factors (Karl, 2018; Karl et al., 2020), but other demographic characteristics may also be examined alongside them. All of these determine the degree of perception relative to the actual risk (the interpretation assumes that there is an objective risk, of which I can only perceive a part due to subjectivity). They also contribute to subjective assessment; significantly lower educated and women have higher risk perception, according to one study (Park – Reisinger, 2010). Karl and Schmude (2017) emphasise the examination of subjectivity, not forgetting the previous segmentation. They add that risk perception is influenced by these characteristics and the image of a destination as safe and protective. They argue that it is impossible to disentangle a destination's essential characteristics (be they objective or other-derived attributes) that determine how an individual will perceive risk. This indicates that the researchers believe that people choose destination rather than other characteristics such as tourism service providers, attractions, etc., when making decisions. This has been shown particularly for areas affected by terrorism (Floyd et al., 2004).

The last line of thought was refined by Yang and Nair (2014), who argue that individuals arrive at three levels of worry as a behavioural trait after direct stimulus items. At the first level, perceived risk is triggered by a known probability event, while an object triggers fear. The second level is diffuse, abstract feelings, including uncertainty and anxiety. Uncertainty is related to the perceived risk but with an unknown probability. Anxiety is related to fear without direct stimulation from a concrete object, which relies on the subject's imagination and fantasy. The third level is concern, a cognitive response associated with anxiety and uncertainty. Concern is essentially a negative state of mind about uncertain futures and outcomes. Although, to some extent, this type of state of mind contributes to the awareness of managing risk and fear (Larsen et al., 2009). This reinforces the idea that individuals only choose a destination.

Williams and Baláž (2013) found significant differences between mass and individual tourists regarding sociodemographic characteristics, general and tourism-specific risk tolerance, and risk management ability, both natural and illusory. Age and general and tourism-specific risk tolerance were linked to risk. In their view, tourism may

be more characterised by uncertainty rather than perceived risk, as I have alluded to earlier. It would also be essential to assess the competence of consumers, who can or cannot mitigate risks due to their circumstances. The inseparability of travel products and services is another source of uncertainty. Travellers must be involved in producing travel products or services, and interaction at this stage is essential for a successful travel experience. While the production and consumption of the trip are simultaneous, travellers must first purchase and then enjoy what they have purchased, thus increasing the perceived risk (Kim et al., 2009).

In the 1990s, destination-based and recreation-based risk factors (Roehl – Fesenmaier, 1992), and later Reisinger and Mavondo (2005), were used to identify 13 factors: cultural, equipment or functional, financial, health, physical, political, psychological, satisfaction, social, aircraft hijacking, bombing, biochemical attack, and time. The authors later reduced these to terrorism (aircraft hijacking, bomb blast, biochemical attack), health and financial (equipment or functional, financial, health, physical), and socio-cultural (psychological, satisfaction, social, time) risk elements. These elements were found to influence anxiety or safety significantly, depending on whether the respondent was a foreign or domestic traveller. For foreign travellers, the risk of terrorism had a significant adverse effect on perceived safety and, to a lesser extent than for domestic travellers, a positive effect on perceived anxiety. The health and financial risk factor had a slightly more substantial, significantly negative effect on perceived safety for domestic travellers.

In contrast, the socio-cultural risk factor had a slightly more substantial, significantly positive effect on perceived anxiety levels for domestic travellers. In addition to these, other risk elements have been identified by previous authors in addition to the classic perceived risk elements in tourism (artificial risk, natural disasters, car accidents, etc. – Michalkó et al., [2020]). Furthermore, in the online space, perceived risk has also been identified as a transaction cost and a perceived security element in a study (Kim et al., 2011), affecting purchase intention, trust, and satisfaction.

Based on this, Simpson and Siguaw (2008) decomposed each perceived risk factor into tourism-specific sub-factors, i.e. they did not create new factors, but rather, based on the classics of the marketing literature presented earlier they added tourism-specific sub-factors to the existing risk dimensions. The physical factor was subdivided into health and well-being and crime subfactors, the performance factor into transport, travel, tourism service provider and destination characteristics subfactors, the financial risk into

monetary and wealth loss (purse theft, etc.) subfactors, and the social factor into concern for others (for your child, your fellow traveller, etc.) and concern for others (thieves, lousy staff, unfriendly people, etc.) subfactors. The study found that physical and performance-related risks were the most prevalent, with respondents identifying health and well-being and travel and destination environment risks most frequently. The physical risks most frequently mentioned were accidents and general safety and security issues. Among the typical performance risks, risks specific to the travel and destination environments, such as roads, traffic and weather, were the most frequently reported. Traffic performance, such as car breakdowns or flat tires, was another commonly observed performance-type risk. In addition, the authors found significant differences in socio-demographic and socio-cultural dimensions among respondents. They also identified manageable risk elements that destination managers can manage, such as crime, travel service provider performance, travel and destination environment, property crime, concern for others, and unmanageable risk types: health and well-being, transportation or travel performance, general traveller fears, monetary risk, and concern for others. The consumer should also manage the latter, even by choosing another destination where these elements are less risky.

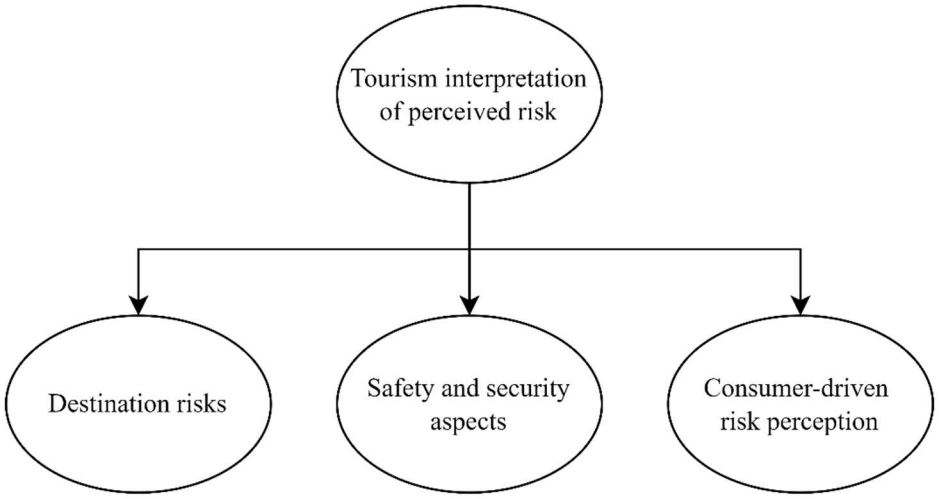
Cui et al. (2016) included the sub-dimensions of perceived risk as objective risk factors, as opposed to the subjective dimension, which included characteristics that influence an individual's perception, such as demographic and psychological characteristics. The latter term is a little imprecise since the perceived risk is a subjective judgement (hence the term perceived risk and not just risk, as I have already explained). Apart from this, the authors say that in the field of tourism, we can distinguish at least five, but more likely, seven sub-dimensions, which are, in order of importance: psychological risk, social risk, economic or financial risk, physical risk, equipment risk, time risk and opportunity-loss risk. The perception of performance risk is found in the five and six-factor models, and the perception of health risk is also observed in the five-dimensional construct. Physical risk perception is considered to be one of the essential elements in risk assessment, which may be explained by the fact that it is the underlying hazards behind this dimension that are easiest for subjects to judge, weigh its severity and decide whether it is still an acceptable hazard or whether it has already exceeded it. As Stone and Winter (1985) put it, physical risk perception is the most easily objectively judged (and they even assumed exclusivity) type of risk. These results, in turn, reflect those presented at the end of the previous chapter on risk-taking intention, that risk-taking

intention can require objectivity so that the types of risk that can be judged can be taken. This points to why the COVID-19 pandemic has brought the perceived risk factor to the centre of attention in consumer behaviour studies.

In recent years, the role of perceived risk in travel decisions has been studied concerning destination safety (Michalkó et al., 2020). In essence, tourism risks started to be better studied after the terrorist attacks of 11 September 2001. As a result, physical risk came to the fore, as opposed to the earlier holiday-specific, destination-specific, financial, and psychological risks (Bayramov – Agárdi, 2018). This cited article shows that risk tolerance plays a vital role in travel booking.

From the preceding, it is clear that research is being conducted in several directions on the relationship between risk and tourism. Three strands can be identified if one breaks down the studies on the perceived risk in tourism into groups (Figure 5). One looked at the risk of specific destinations or events primarily from a safety perspective as an impact assessment after a terrorist attack. The other group includes studies that examine the effects of crime and personal security on travel, travel intentions and travel satisfaction. Finally, the third group includes research on the tourism-related aspects and behaviours of the classic risk elements found in the marketing literature, which have been described in detail previously.

Figure 5. Tourism interpretation of perceived risk



Source: own editing

2.5.3 Risk reduction in tourism

Many packages differ in terms of country, mode of travel, length of stay, type of accommodation, nature of food and range of activities (Jancsik et al., 2019; Kökény – Kenesei, 2019). Behind it, all are different providers, prices and choices. These can threaten the consumer's basic needs or bring out their deep-seated fears. The emergence of social risks may also accompany all this. In addition, the purchase of an extended trip is one of the most expensive assets to buy after buying a home and a car, so the financial risks and the time cost of efforts to reduce this risk can be high (Mitchell et al., 1999). In addition, when travelling, people interact with various travel products or services, such as accommodation, travel, food, activities and events. Potential travellers are uncertain whether each product will perform as expected, leading to concerns about product performance. Thus, if a flight is delayed or the staff at the accommodation are rude, the overall experience can be spoiled, thus reducing traveller satisfaction.

For this reason, these can be risk elements in their own right. Finally, contact with the local population, unexpected accidents, terrorism, non-conformity with the reference group or unpredictable weather can be considered risk factors (Mitchell et al., 1999; Hsu – Lin, 2006; Kim et al., 2009). Looking at the picture more holistically, however, it can be argued that these listed factors are essentially perceived risks of the destination (Karl, 2018; Dayour et al., 2019)

In tourism, a touristic interpretation of the two basic strategies of risk reduction (consumer behaviour change and information seeking [Hales – Smith, 1991]) has emerged in current research (Adam, 2015; Michalkó, 2004; Harper, 2001). Consumer behaviour change appears to avoid or minimise a potential (negative) impact (using local guides, avoiding crowded places, adapting to local customs, minimising late night walking, taking out more insurance). Furthermore, the search for information is typically based on seeking the opinion of the most trustworthy – usually a close relative, friend or acquaintance. However, they may also be accompanied by a search for relevant and highly recommended posts from travel experts, agencies online, or by word of mouth advertising, not only online (Adam, 2015). Information on service providers' websites (Lin et al., 2009) or accurate and easy-to-understand information on purchasing options (Pappas, 2016) may also reduce risk aversion. However, security labels and privacy policies may not be an apparent risk reduction (Lin et al., 2009), as they have no effect, research suggests. Moreover, images can reduce risk perception due to the intangibility of services (Koernig, 2003; Tasci – Garner, 2007).

Technological innovations that can even reform how a service provider is operated – thus mitigating the risks posed by the new type of pandemic COVID-19 – can also be essential risk mitigators (Shin – Kang, 2020). Kim et al. (2021) showed that demand for robot-operated hotels was higher than for personally operated and serviced units during the pandemic. The importance of disinfection and cleanliness on the physical environment side of service can also significantly reduce risk perception (Zemke et al., 2015). The latter is the most commonly sought by travellers in online reviews (Xie et al., 2014).

If not yet, individuals' travel habits are increasingly influenced by online reviews, messages (E-WOM) and opinions about a destination or hospitality industry (Xie et al., 2021). Empathy is another crucial factor highlighted by respondents in the cited research as an important influencing factor when choosing a travel destination or reducing risk perception. Empathy has the potential to push risk messages into individuals' minds (in the case of high-risk aversion) and motivates them to travel again. In the case of empathy, it is not only the emotional elements that need to be considered but also the cognitive dimension, and it is, therefore, possible that this is linked to the acceptance of a higher risk dimension through value judgements. This logic is similar to risk-taking intentions (Karl, 2018). Notably, empathy induces risk-taking for an external party, and not only for one's own potentially achievable outcomes.

3 Research questions and methodology

My research focuses on exploring, understanding and describing the relationships between risk perceptions and risk-reducing factors associated with travel buying. I look at the process in the context of travel intention. In addition to understanding the relationships between the two main dimensions (risk perception and risk reduction), I wanted to explore these two subjects in depth and understand the basis of these factors. In the model, I examined additional elements, such as risk-taking intention or different perceptions between domestic and international travels, which may further moderate certain relationships.

As a result of this exploration and insight, I use both qualitative and quantitative data collection and analysis methods throughout the research. My research topic was primarily determined by the emergence and evolution of the coronavirus, so data were collected at several points in time. In addition to collecting data at multiple points in time, I also investigated attitudes towards travel buying by first asking subjects about their experiences retrospectively after the travel and secondly asking about characteristics related to the process when planning the holiday. The former horizon was an exploratory and descriptive study of summer holiday 2020 using qualitative research after the event occurred, while the latter perspective described characteristics of prior attitudes towards summer holiday planning in 2021 using quantitative research. In my research, I investigated the risk perception aspect of travel buying. This process was determined by both the risks of the buying process and the risks to the travel itself, the holiday and the relaxation. For this reason, I have tried to look at risk perception from several angles and present the additional dimensions involved.

The first theme of this chapter continues with the objectives and primary questions of the research. This sub-chapter presents the research dilemmas to which I have tried to find answers with my research findings. It is also in this block that the questions underlying my qualitative research appear. I will then describe the methods used for data collection and analysis. The presentation of the quantitative model I set out to build and the hypotheses that underpin it will follow the presentation of the qualitative results in chapter five. At the end of my chapter on research methodology, I will discuss the sampling method and the time horizon of the empirical research.

3.1 Research aims and questions

My research aims to understand and learn about attitudes to and management of the risks inherent in the travel buying and delivery process in the shadow of the COVID-19 pandemic. In the introduction, I have already outlined in detail my research objectives based on the main findings of the literature. In total, I have identified five main research objectives for my research. It is important to emphasize that, even though my research strongly represents the impact of the coronavirus on risk perception, I aim to apply my results to similar crises in the current context and in „peacetime". Consequently, in addition to examining risk estimates related to the COVID-19 pandemic, I have integrated several other risk estimates into my model. I have sought to explore other areas in detail in the literature primer and measure them in my empirical research. For this reason, my objectives also tend to focus on areas beyond coronavirus to a greater extent.

I will present my research questions tailored to these objectives, complemented by the research methodology I will use. My objectives with the content of risk perception (the first, second and third) are intertwined in the three main areas (perceived risk of travel buying, perceived risk of online space and perceived risk of the COVID-19 pandemic). The types of perceived risk can be divided into two groups: those related to buying and those related to the use of technology. The combined analysis of these two groups is still under-researched in the literature and lacks a deeper understanding of consumer behaviour (Sharma et al., 2021; Keller – Tóth-Kaszás, 2021; Csapó – Törőcsik, 2019; Cui et al., 2016). Finally, the emergence of the COVID-19 pandemic has further intensified the prominence of certain types of risk perception or has determined it on its own, even making the entire buying process and the enjoyable travel impossible (Taylor et al., 2020; Abraham, 2020; Sanchez-Canizares, 2021). My first three research objectives seek to address these issues. From the literature, it was clear (Stern et al., 1977; Czerwonka, 2019) that information acquisition is at the heart of risk reduction, whether it is related to trusted brands, increasing a sense of control or overall orientation. However, it is unclear what tool is part of reducing the risks of a specific situation and what is a risk-reduction element, but it may be independent of the situation. Thus, my fourth objective concerns the resolution of this dilemma. The critical issue of my complete analysis revolves around the subject of risk perception and risk management. I explore these areas in detail in my previous four research objectives. However, the fundamental connection of the research as a whole to practice is through measuring travel intention. I am exploring consumer behaviour in detail to see to what extent travel intentions can be increased through

reducing risk perceptions and negative approaches. Hence, my outcome variable, my last wholly dependent variable, is the travel intention factor. My related objective is the last one.

1. Understand all aspects of the travel buying and booking process in the shadow of the COVID-19 pandemic, focusing on risk assessment.
2. To understand the correlations between the perceived risk associated with the online space during the travel buying and booking process.
3. To explore and understand the risk perception factors associated with fears related to the COVID-19 pandemic.
4. Understand the impact of risk reduction tools on perceived travel risk.
5. To measure and understand the impact of perceived risks on travel intentions, taking into account individual differences.

I have five main research questions linked to this set of objectives. This area includes the study of dimensions that several authors have already analysed in the literature. There are, however, dimensions such as a thorough understanding of the exact system of correlations between risk perception types, exploring the links between general risk perception (perceived risk of travel buying) and thematic risk perception types (online space and perceived risk of the COVID-19 pandemic), and defining the meaning and impact of risk reduction strategies that are still under-researched. Furthermore, the vast majority of the cited authors have conducted descriptive, quantitative analyses, from which it is not easy to understand the underlying causes. I would thus like to answer my main questions in this context through a mixed approach of qualitative and quantitative data collection.

I will use a qualitative research methodology for the first research question to explore what characterises consumers' perceptions and the importance of risk. In doing so, I will also try to answer the question raised in the literature (Cui et al., 2016) – which may also be helpful for practical solutions – which risk perceptions are important when and how important they are in the holiday shopping process.

Q1. What risks does the consumer perceive when booking a travel holiday?

My second and third questions focus on the context, the effects, and the influencing effects. Consequently, I have used quantitative data collection and analysis tools for this part. This method helped me to translate the links identified in the qualitative research into numerical correlations. I was greatly helped by the validated scales used as measurement tools in my research. I was then able to define hypotheses for the correlations based mainly on the literature review results. These questions were designed to address the second and third objectives.

Q2. How are fears of the coronavirus linked to risk perception?

Q3. How are the different types of perceived risks related to each other?

The fourth theme, related to my research objective, was explored through one question. I then examined the impact of risk reduction strategies and the basis of the risk reduction strategies factor. From the literature, it was clear (Stern et al., 1977; Czerwonka, 2019) that information acquisition is central to risk reduction, whether related to a trusted brand, increasing a sense of control, or overall orientation. However, many research questions can arise for this topic. The relevant question (Q4) is the first one I will try to answer through qualitative research. The exact placement of risk reduction strategies in the model is an entirely novel finding because risk mitigation instruments have been measured as a differentiating element in most previous literature (Bruwer et al., 2013). For this reason, to accurately construct the risk mitigation strategies factor and to understand the possible outcomes of the risk reduction phenomenon, I need to explore the related issues qualitatively. Once this knowledge and exploration are done, I can more easily place the relevant factors in a quantitative model along the literature linkage. It seems that risk reduction strategies are a complex mix, so it may be worthwhile to form a common factor from the different instruments. However, due to the ambiguous effects of the risk reduction phenomenon, there may well be risk reduction elements or instruments that can either increase risk perception or approach risk reduction from a more general perspective. I will try to analyse the connections and differences in my qualitative research, in the quantification of my qualitative research and finally in my quantitative research.

Q4. What risk reduction strategies does the consumer use when purchasing and booking a travel?

The critical issue in my whole analysis is around the subject of risk perception and risk management. I have explored these areas in detail in the previous four research questions. However, the research's fundamental link to practice is measuring travel intention. I am exploring consumer behaviour in detail to see to what extent travel intentions can be increased through reducing risk perceptions and negative approaches. Hence, my outcome variable, which is my last wholly dependent variable, is the travel intention factor. Linked to this is my fifth objective. My fifth research question thus concerns how the whole process, which is the result of risk perception and management, influences travel intention and in what contextual system. Finally, I also investigated two moderating factors related to the individual circumstances of the overall framework. I tried to cover personal characteristics for one factor, which was possible through risk-taking intention. This factor has also not been dealt with in a model-integrated way (Meertens – Lion, 2008), especially not in a well-constructed moderating way (Kusumasondjajaja, 2015). Based on the latter research and the results of my qualitative research, I hypothesize that risk-taking intention may be a moderating factor for a process and, later on, an effect on travel intention. The other moderating factor is related to an external element, the choice of destination in a domestic-foreign context. I based this hypothesis on the research of Karl and Schmude (2017) and Csapó and Törőcsik (2019) and then on my qualitative results for the hypothesis construction. In answering this question, I thus draw on both my qualitative and quantitative research findings.

Q5. How does the intention to travel depend on the perceived risks and their management?

The research questions were first answered mainly through qualitative research. However, I also used them as a basis for developing the hypotheses and theoretical model that underpinned the quantitative research. In developing the quantitative model, I also drew on the results of qualitative research in addition to the literature. In the following chapters, I will present my mixed experimental research method and two data collection and analysis methods.

3.2 Mixed methods strategy

My research aims to extend existing theory and to discover and organise new elements. The theory suggests that the degree of perceived risk is shaped by individual characteristics and the environmental elements that influence it, while firms are better placed to reduce perceived risk. Consumers use and perceive these elements to reduce their perception of risk. Individuals' propensity to take risks differs due to socio-demographic, psychological, experiential or value factors. This factor may moderate the relationship between perceived overall risk and travel intention. My research questions are both exploratory and descriptive. Based on the literature review, I have identified the main trends, but some areas still need to be explored qualitatively before integrating them into a model. These areas represent the risks associated with the COVID-19 pandemic in terms of the total perceived risk, the effects of risk mitigation strategies on the types of perceived risk in the theoretical model and also in this model the location and indirect effect of risk-taking intention on travel intention. This exploration may help to understand accurate consumer perceptions of coronavirus and represent affective factors for perceived risk that have been less addressed in the literature. Qualitative analysis may even help to identify deeper meaning clusters for other elements of perceived risk. Nevertheless, I believe that I can also make more extensive recommendations for companies by conducting exploratory research. Furthermore, quantitative modelling will help me describe and understand the explored findings and complement the theory, which can be used to investigate risk perception in this area more accurately.

The literature distinguishes three research design approaches within mixed methods (Creswell – Creswell, 2018; Edmonds – Kennedy, 2017). These are convergent, explanatory and exploratory designs. Sometimes, the convergent design is also broken down into triangulation and nested designs (Heiselt – Sheperis, 2010). The essence of this design is to combine qualitative and quantitative data and to use them to infer the results. In an explanatory design, researchers obtain the quantitative data first, then the qualitative data, and try to find explanations for the relationships based on the latter. This research design is usually used for theory building and development. The third research design is exploratory, where researchers first obtain qualitative data and then test the instruments and scales they have created on a large sample to see if they work as well as the small sample data. It is used for scale development and design, especially when the quantitative part is the main focus. If the qualitative part is more emphasised, then theory building can be done with quantitative extensive sample testing, or if both parts are emphasised, then

the sample is the same, and the qualitative results are tested on the same in quantitative form (usually used in medical treatments) (Edmonds – Kennedy, 2017). My analytical structure is closest to the mixed strategies' exploratory research design approach. I would first like to explore and understand the topic in more depth from qualitative data and then conduct a quantitative analysis on a more prominent and more easily describable topic from this sample. Then, in the second phase of the research, I will test the final model on a large sample. This will be researched in a standard set of factor relationship testing and theory building because I want to test the instruments and integrate the theory into the current models.

For the analysis, I need to conduct exploratory research to understand the background of consumer behaviour. I would then like to test the relationships between the possible characteristics that emerge in a large sample. This requires a mixed research methodology. This methodology can be justified if I want to visualise and substantiate a new element in a very 'strong' way by mixing qualitative and quantitative methods (Creswell – Creswell, 2018). This can strengthen the understanding of the relationships between phenomena in addition to outlining the relationships. The method involves collecting qualitative and quantitative data per the research questions. The advantages of using this method are that different perspectives can be more easily compared, qualitative results can explain quantitative results, and the instruments created are more understandable after qualitative data collection. They can be used to provide a complex explanation of the background of the empirical model after an extensive sample quantitative analysis. In the case of challenges, the most noteworthy is the time-consuming nature of the research and the need for the researcher to be adequately trained in both methodologies. In addition, it is worthwhile to visualise the results in several models by thematic groups and then integrate them into a sizeable overall model for ease of understanding (Creswell – Creswell, 2018).

In the following chapters, I will also explain in more detail the theoretical background of the qualitative and quantitative research methods used within my mixed research method. I will then also describe the instruments used. In order to answer the first part of my research questions, I need to conduct primarily qualitative research. These questions mainly concern understanding consumer perceptions of perceived risks, the exploration of consumer perceptions of risk reduction strategies and, overall, the understanding of risk perception and its types in the purchase, decision and implementation process. To obtain this information, I conducted structured in-depth

interviews, the results of which were analysed qualitatively and descriptively after quantifying the data due to the sample size obtained. Through quantitative data collection, I aim to measure emerging trends that have appeared in the literature to date and integrate the results of qualitative data collection into a model. Moreover, in the case of modelling, it is the theoretical model in which I test my hypotheses and construct the sizeable descriptive framework.

3.3 The nature of qualitative research

Qualitative researchers are concerned with understanding people and things and attributing phenomena to their lives. Qualitative research is inductive. Researchers then develop concepts, insights, and understandings that characterise the data rather than focus on collecting data to evaluate prior models, hypotheses, or theories (Taylor, 2016; Saldana, 2013). Research is designed to ensure a close fit between the data and what people say and do. Qualitative methods are less standardised or objective than other research approaches. Thus, qualitative researchers have flexibility in how they design their studies, which may manifest in how they analyse and represent themselves in the research (Taylor, 2016; Saldana, 2013).

Before choosing whether to conduct qualitative or quantitative research, it is worth asking ourselves the following questions, best illustrated in Silverman's summary (2013). First and foremost is „what exactly am I looking for?" because different questions require different methods to answer. Next, is „what focus do I want to investigate my topic?" do I want to study the phenomenon or situation in detail, or am I primarily interested in standardised and systematic comparisons? The following relevant issue is „how have other researchers dealt with this topic?" it matters a lot to what extent I want to align my project with the literature. The literature I have explored is primarily quantitative, with one or two exceptions where they have investigated the behaviour of the researched in different samples (Alcántara-Pilar et al., 2018). The fourth theme, a more practical issue, is „what practical considerations should I choose?" for example, how long my study might take and whether I have the resources to study the issue in this way, or whether I can get access to the single case I want to investigate in depth. Whether quantitative samples and data are readily available – all practical considerations that may influence the research methodology. Finally, it is worth looking at ourselves, „what seems best for me?" – Am I committed enough to a particular research model incorporating a particular methodology? Do I know what research methodology looks good (Wellington et al.,

2005)? My view is that good quantitative research does not work without qualitative exploration. The general aim of dissertations is to achieve new insight or modelling and development. All this cannot work without qualitative research to understand the subject and analyse the behaviours more closely.

Qualitative research is regularly categorised in the wrong way. For example, in many quantitatively oriented social science methodology textbooks, qualitative research is often considered a relatively minor, inferior methodology because it can only be a suitable method of analysis where there is no emotional attachment to the subject being researched, which can inadvertently occur with any qualitative research method where subjectivity plays a more significant role than in quantitative methods (Lerum, 2001; Singleton et al., 1988) It is therefore often suggested that qualitative research should only be considered in the early or 'exploratory' stages of a study. From this perspective, qualitative research can be used to gain a deeper understanding of a topic before large-scale sampling and calculations are undertaken (Silverman, 2013).

Qualitative research also has other associated risks, such as the possibility of researcher bias and often a much greater potential to bias or confuse respondents. Therefore, there needs to be a well-thought-out ethical framework when a researcher uses a qualitative approach and often, permission must be obtained from the organisation or individual before starting the research (Brunt, 2017; Gyulavári et al., 2014; Malhotra – Simon, 2009). In addition, some other ethical rules need to be adhered to. If a researcher conducts in-depth interviews, he or she may learn very personal things about the researched subject, who may not want or want to reveal them. To overcome potential difficulties, you should draw up an informed consent form detailing what you are doing in the research, the research procedure in which the respondent will be involved, and how the data collected will be handled. Failure to act ethically should not be justified by the fact that a new context has been discovered by the researcher, which makes it necessary to publish extra information about it without the research respondent's knowledge (Brunt, 2017; Gyulavári et al., 2014; Malhotra – Simon, 2009; Mauthner, 2002).

Various analytical approaches are used in the qualitative research literature, of which positivism, naturalism and constructionism are briefly discussed here, based on Silverman (2013). Positivism involves a research process model that treats 'social facts' as 'there', independent of the participants and the researcher's actions. For positivists, the goal is to produce valid and reliable data regardless of their research context. Positivism is a philosophical realist perspective because it assumes that there is a real world,

regardless of how the researcher investigates it. Although positivism is the most commonly used philosophical stance in quantitative research, it is also found in most qualitative research designs.

According to early anthropologists and the ethnographers who followed them, positivists sought „illegally" to identify the content of participants' reports with the social world. In contrast, naturalists 'want to go out and observe the field'. For them, 'social facts' are found less in social structures and more in shared meanings and understandings. As a model for qualitative research, naturalism focuses on the factual characteristics of the object under study. The strength of naturalism is its representational simplicity. For example, naturalistic ethnography relies on the following tasks: entering the context, establishing rapport, recording observations in the light of social scientific concepts (such as social status and group dynamics), and presenting the results (Bryman, 1988). Over the past four decades, interviews have become the preferred research method of naturalists. They believe that qualitative research aims to understand the 'life experience' in the 'life world'.

A critical insight of constructivism is the emphasis on the constructed-ness of knowledge, i.e. the recognition that facts are socially constructed in specific contexts. Empathic understanding is the goal. How people see things is what is meant by „what?" and „how?" questions. Research methodologies include grounded theory, narrative, and discourse analysis (Silverman, 2013).

All three philosophical elements are present in my research. At the beginning of the research, the naturalistic approach will be the characteristic when I use the method of structured in-depth interviews to explore and understand the phenomena. Following the data collection, I will first seek to understand the deeper meanings and identify the concepts, keywords and themes that define the issue under study. This will also help me to identify as many types of directions as possible due to the sample size. The nature of the qualitative method is that it is done perfectly if it is done down to the last difference; that is, it is done until something new is found (Silverman, 2013). I will have the opportunity to do this because I interviewed a large number of 111 students in a structured in-depth interview format, compared to qualitative research. A naturalistic philosophical approach is followed by a constructivist one, where contexts are understood. Content analysis and structured coding of the interviews can help in this process, methods that incorporate both qualitative and quantitative foundations. Typically, I coded interview transcripts and then applied quantitative content analysis to them. I also quantified my

results after identifying key messages and concepts. Finally, the positivist approach will be included among the philosophical paradigms because by testing the models and answering the hypotheses, an accurate and reliable description of the natural world will be obtained.

3.4 Application and analysis of the structured in-depth interview technique in my research

In order to answer my research questions, I used qualitative data collection after reviewing the literature. Among the qualitative techniques, I chose structured, in-depth interviews. In total, 111 people were interviewed with students in October 2020. All 111 were people who had travelled somewhere on holiday in the summer of 2020. I asked the interviewees to recall their summer 2020 experiences and to rate their thoughts before the travel and their experiences after the travel. If someone had travelled more than once in summer, they were asked to select one of them. I have sought to achieve heterogeneity in the sample by gender and age, and there is a 50/50 split between domestic and foreign holiday destinations. The interviews were, on average, 20-55 minutes long and were conducted by students of Corvinus University of Budapest based on a pre-defined interview guide (Appendix 1).

The interview guide contained three main sections. The first one consisted of questions on travel information, which covered a general travel description. In the second block were information-gathering questions, which typically covered the pre-travel phase. The third block contained questions on purchase and implementation, which already covered the actual booking. In addition to the three main sections, there were also questions on demographic characteristics and a question where the respondent had to show how much the booking and realisation of the holiday had changed as a result of the coronavirus, whether the virus had had any influence on their travel. Most of the questions in the interview guide openly discussed perceived risks and risk reduction tools, so it will be helpful to know what elements were and were not mentioned by the interviewees and where they ended up talking in more detail about these issues. However, the interviews followed a pre-defined, rigid and well-focused structure. This also minimised the potential for bias in the responses from different subjects (Corley – Goia, 2004).

In this part of the research, I will answer the questions of what information a consumer obtains when booking a travel, what risks he/she perceives when booking a travel or whether he/she perceives them afterwards, and what role perceived risks and risk

reduction tools might play in shaping travel intentions. Finally, I will look at individual characteristics that may influence our understanding of the phenomenon. This will be helped by examining risk-taking propensity, linking demographic characteristics, mapping previous travel habits and evaluating the personality type test results. All this is in the shadow of the COVID-19 pandemic.

The structured interviews were analysed using a magnitude coding technique. This technique is similar to the quantitative, statistical content analysis approach (Gyulavári et al., 2014). Coding can also be used to support mixed-methods research by assigning a value from one to three, one to five, and so on, to a given keyword depending on how strongly, intensely or frequently it appeared in a given text passage („magnitude coding") (Saldana, 2013). In the interviews, I would like to find keywords and measure the frequency and intensity of their appearance or reference to them. The sample size allows me to subject the results to statistical analysis. In addition, I will be able to make a deeper interpretation using the coding technique. However, the literature notes that this will be far from an analysis with as precise a quantitative result as a quantitative study (Kvale, 2007; Saldana, 2013).

The qualitative results were analysed in three stages (Croley – Goia, 2004). This approach is also one of the foundations of naturalistic analysis (Lincoln – Guba, 1985). After open coding, I identified initial constructs and themes in the first stage. I then coded phrases and keywords from the existing text. Then, in the second round, I used axial coding to look for connections in the existing themes and constructs to form a higher-level, more aggregated factor group or category. This is the second level. At this point, the main keywords are narrowed down into themes. Finally, it was of a higher order when I created main dimensions from the second-order factors and constructs based on some thematic context. These dimensions can later help to build a structural model (Croley – Goia, 2004). However, it is essential to note that this dimension reduction approach is not linear and identifies two-way relationships rather than one-way effects. It is possible to create both a dimension that is found in some form in existing theories and a new group that has been defined in a novel way based on the results of this research. I used assistants to transcribe the audio transcripts of the interviews, but I did the coding, grouping and overall analysis in two rounds. For other types of quantified data analysis was used „IBM SPSS Statistics 27", I also had partial assistance entering the data into my research, but I also did the coding and analysis in two rounds. Overall, I processed the qualitative data in an exploratory manner, with structured dimensions after coding and quantified results

fully descriptively. This triangulation helped my data's reliability and validated my results. I used software assistance (IBM SPSS Statistics 27) only for descriptive analysis of the data in a quantified manner.

3.5 Quantitative research method

Quantitative research is linked to a number of data collection approaches. In sociology, data collection is one of the leading social survey methods. The ability of a survey to generate quantifiable data on large populations to test theories or hypotheses is much more widely used than qualitative research. Most surveys are based on what is known as a 'correlational' or 'cross-sectional' study. This means that data are collected from a cross-section of people at a single time to explore the ways and degrees to which variables are related to each other (Bryman, 1988). I used validated scales based on peer-reviewed international literature in the overall quantitative analysis. The planned holiday will be the object of analysis in the survey.

In the survey method, respondents are asked different questions mainly related to their behaviour, intentions, attitudes, knowledge, and motivations (Gyulavári et al., 2014). This can be done in writing, orally, or via computer/internet. Questions are typically closed and highly structured, and standardised. These elements determine the rigidity of the data collection method. However, the former makes the data more reliable, with less potential for researcher bias. It is a more objective method than qualitative interviewing techniques, and the coding and interpretation of the data are more straightforward. The disadvantage is that the respondent may not be able and willing to provide the answers required. If provided, they may not mean what the researcher means, and they may not be able to judge the scales of the response objectively. Another critical point is that the researcher should avoid using relative scales (often-rarely, sometimes-frequently, etc.) in the questions to obtain as few biased responses as possible, as the respondents' perception of these is subjective (Malhotra – Simon, 2009).

The online survey can be conducted via email, link, advertisement, pop-up, banner and many other interfaces. There is more flexibility to change the questions, easier visualisation, and unlimited time (until the questionnaire is closed) for the respondent to complete the questionnaire once it has been started. It is easier to ask sensitive questions, data formatting is fast, and the perceived anonymity of the respondent is high. However, the difficulty in reaching the required target group, the number of respondents who do not

prefer to complete and browse online, the high proportion of people who use the Internet for entertainment purposes only, trolls and low respondent propensity (almost one of the lowest) are all weaknesses of this methodology (Evans – Mathur, 2005; Gyulavári et al., 2014; Malhotra – Simon, 2009).

In my research, I conducted an online survey (Appendix 2) using a random sample in May 2021. The questionnaire contained 199 data items. It consisted of three sections: essential characteristics of holiday planning were the first, followed by a block of statements for the variables used in the structured equations model, and the third was the demographic block. The final model included latent variables based on 62 statements. The statements were asked on a Likert scale from 1 to 7, with 1 being the response option 'not at all typical of me'/'strongly disagree' and 7 being the response option 'typical of me'/'strongly agree'.

3.5.1 Latent variable modelling

Describing a context, situation or set of relationships becomes easier when you have as much data as possible. Modelling reality will never be perfect, but it can be approximated. The use of appropriate mathematical statistics, alongside various reliability, validity and validation tools, can be a solution to this problem. The question of which procedure to use is answered by the characteristics of the available data, such as the number of observations, the number of parameters, and the revealed or predicted quality of the relationships between variables (Garson, 2016). The most commonly used statistical procedures to aid structured understanding are principal component analysis, factor analysis, correlation analysis, SEM regression-based methods and PLS regression (Horváth, 2012). The latter two regression-based „path analysis" methods include the former elements of the list. The path analysis quantifies the partial direct effect of an explanatory variable and the indirect effect of another variable on the outcome variable due to one unit change in the explanatory variable. The method of estimating the parameters and examining the fit of the estimated model usually raises further dilemmas. In the case of general linear models (where the probability distribution of the outcome variable is known), maximum likelihood estimation is the most commonly used and can be used appropriately when choosing between nested models (Hajdu, 2003).

Structural Equation Modelling (SEM) is most commonly used in latent variable analyses. There are two standard techniques. One is Covariance Based Structural

Equation Modeling (CB-SEM), and the other is Partial Least Squares Structural Equation Modeling (PLS-SEM). The latter is also known simply as PLS-analysis or PLS-regression. Basically, in structural equation modelling, both the generation of latent variables (principal component and factor analysis) and the analysis of the relationship between latent variables (regression analysis) are performed (Kazár, 2014). The CB-SEM approach aims at reproducing the theoretical covariance matrix without focusing on the explained variance, while PLS-SEM aims at maximising the variance of the explained endogenous variables of the dependent constructs. PLS-SEM also has limiting assumptions like CB-SEM, but it examines slightly different elements (Hair et al., 2013, 2011). SEM analysis consists of two parts. One is the outer or measurement model, while the other is the inner or structural model. The CB-SEM technique can mainly deal with reflective measurement models (the relationship is from the latent variable to the indicator, the indicators are considered as a mapping or causation of the latent variable). In contrast, in PLS-SEM, both reflective and formative (the indicators are the causes behind the latent variables) indicators can be used (Kazár, 2014). I used the CB-SEM method with a reflective measurement model in my research. I used a bootstrap procedure throughout the analysis with 2000 subsamples.

CB-SEM is parameter oriented and assumes independent observations and a normal distribution. It measures consistently and focuses on parameter accuracy. It is particularly effective on larger samples (200-800 items) (Chin – Newsted, 1999). An essential evaluation of the technique is that the results are only as good as the validity of the indicators used in the model. A proper understanding of the subject domain determines whether an indicator is a valid indicator of the construct. A practical problem often arises when the researcher attempts to use conceptually very similar indicators for both the independent variable and the dependent variable (Gallagher et al., 2008). In summary, the CB-SEM procedure can be thought of as a way of visualising the relationships between variables as graphs and the edges connecting the vertices as regression coefficients, visualised as a whole by a system of regression equations. This is also advantageous because the relationships between hidden variables can be described (Horváth, 2012; Tánczos, 2009).

For SEM analysis, it is advisable to use validated scales that have been previously checked. Otherwise, we will have to validate the questions we use ourselves. In the case of CB-SEM, several validation fit indices help us to perform a correct analysis, such as the goodness-of-fit index (the ratio of the Chi-square value to the degree of freedom), the

RMSEA (Root Mean Square Error Of Approximation), the SRMR (Standardised Root Mean Square Residual), the CFI (Comparative Fit Index) and many others.

I built a model based on structural equations (CB-SEM) for the analysis. Before, the factor structure was constructed using confirmatory factor analysis (CFA) with a maximum likelihood weighting technique. Above all, I performed an exploratory factor analysis (EFA) using a maximum likelihood method with Promax rotation. At this point, which statements were not worth inserting into the CFA-like factor structure became apparent. I also created second-order latent variables for a few factors in developing the CFA construct.

Consequently, the CFA construct was validated at two levels: first with the first-order latent variables and then with the inclusion of second-order variables. Furthermore, I also checked the metric invariance of the model validity to analyse the differences between groups (foreign versus domestic destination). Thus, in this block, I will focus on these areas.

First, I examined the ratio of the Chi-square value to the degree of freedom, which needs to be below the critical value of 3 (Hair et al., 2019) to show a good enough fit between the observed and hypothesised covariance matrices. The CFI value of the comparative fit index above 0.9 also makes the model acceptable, as the difference between the hypothesised model and the data is thus minimal (Keszey, 2018). The root mean square error of approximation (RMSEA), below the threshold of 0.08, is acceptable, indicating that the data fit the model well (Cole, 1987). The standardised root means square residual (SRMR) should also be below the optimal value of 0.08 because this minimises the difference between the observed correlation matrix and the model's implied correlation matrix (Keszey, 2018). I also looked at discriminant validity in the CFA analysis. The average variance extracted (AVE) if it reaches 0.5, then the convergence validity criterion is met, because any correlation between two factors is less than the square root of the AVE value, so discriminant validity is also valid. If the composite reliability (CR) is greater than 0.7, then the scales are reliable (Hair et al., 2019). The AVE values at both levels exceeded the necessary minimum of 0.5. For the quantitative analysis, I used IBM SPSS Statistics version 27 for data cleaning, descriptive statistics and exploratory factor analysis, while I used IBM SPSS Amos Graphics version 27 for modelling and testing my hypotheses.

3.5.2 Examining moderating and mediating effects

An invariance test had to be carried out to test for differences between the groups. I then also tested the CFA construct to see whether the model fit for the grouping criteria (domestic or foreign destination) was appropriate in the CFA construct. This is referred to in the literature as invariance testing (Kline, 2016), which means testing the invariance of the model. Then, before testing the SEM modelling, the CFA construction should be tested for the two groups.

First, the unconstrained model (i.e. leaving all relationships and effects free for both groups) is compared with the fully-constrained model (Putnick – Bornstein, 2016). When the factor weights are fixed in the factor structures of both control groups, the fully-constrained model is called the metric model. In this case, based on the Chi-squared test, we want the model to be not significantly different from the unconstrained (or model with assumed configural invariance) model (Brown, 2015). In the Chi-squared test, we want to obtain a non-significant result, i.e., invariance of the models. The tolerance zone for this significance level is mostly below 1%, but for more rigorous analyses, a p-value below 0.005 is already interpreted as a significant difference (Fischer – Karl, 2019). For a more rigorous test of model fit, the change in CFI values tested should be no greater than 0.003 (Cheung – Rensvold, 2002).

When the „means" of the endogenous variables, i.e. the constant coefficients („intercepts") of the axis intercept, are fixed, and the means of the latent variables are fixed in one group and left free in the other, I test for scalar invariance with similar assumptions and conditions as in the metric case. However, then I compare the scalar model to the metric one (Brown, 2015). While finally, after all the previous adjustments, I fixed the variances of the error terms in the two groups, which we call residual invariance testing. The metric invariance test is the medium-strength invariance test, the scalar is substantial, and the residual is the most stringent invariance test. These invariance tests are necessary to see if a significant difference between two variables on a path is found when examining the effect between two control groups in the SEM model, whether it is actually due to differences between the effects or whether the real difference is in some element of the factor structure (means, covariances, error terms, variances). In most cases, if only path differences between two groups are being investigated, a metric invariance test and the existence of the resulting model variance is a sufficient condition. By using the invariance of the CFI values, I have more narrowly checked the invariance of the model fit (i.e. that the model's validity is not deteriorating).

The moderator variable specifies when or under what circumstances the explanatory, estimating variable influences the dependent variable. A moderator variable can decrease or increase the strength of the relationship between the predictor variable and the dependent variable or even change the relationship between the two variables from positive to negative or vice versa (Kim et al., 2001). A moderator variable may be considered when the relationship between the explanatory variable and the dependent variable is strong but is most often considered when there is an unexpectedly weak or inconsistent relationship between the explanatory and dependent variables. Among the statistical tests, multivariate regression analyses, structural equation modelling (SEM), and variance analysis can help reveal the presence of a moderating element (Kim et al., 2001). For the moderating effect, I looked simultaneously at the moderating effect of a continuous variable (risk-taking intention) between perceived risk of travel buying and travel intention and a group-forming categorical variable (domestic or foreign destination) for two effects. For the continuous variable, I assume that the effect moderates or strengthens the effect between two variables, while for the group-forming, categorical variable, I expect a stronger or weaker effect between the two variables. In my research, I investigated both types of moderating effects.

In addition to the primary mediating case, Edwards and Lambert (2007) identified seven additional cases combining mediating and moderating effects. In the first-order moderating case, the relationship between the explanatory variable and the mediating variable is influenced by another factor. In the second-order case, the relationship between the explanatory variable and the mediating variable, and in the first- and second-order cases, both relationships are affected. At the same time, the direct moderating effect occurs in the case of the relationship between the explanatory variable and the outcome variable. These are complemented by combinations of each other, such as the direct and first-degree case, the direct and second-degree case and the entire moderating case (moderated mediation). It was also shown that moderated mediation refers to a first-degree moderation model and that moderated mediation and mediated moderation are analytically equivalent. This latter claim contradicts the result of Muller et al. (2005). They found that both rely on an analytical model, indirectly moderate the outcome variable under study, and change the overall magnitude of the effect after controlling for the (moderated) mediating process. I did not deal with the latter, but I did deal with the overall mediating and moderating effects in my research.

I have already pointed out in the previous chapter, via the authors, that in model analyses, the question often arises whether the effect of the measured pathway is directly or indirectly the real one. First, mediating relationships are usually thought of in causal terms. The effect of a prior is mediated by an intermediate. Second, mediating relationships can take many functional forms, including non-additive, non-linear and non-recursive forms (James – Brett, 1984). The R^2, the partial correlations and some goodness-of-fit indices may indicate that a mediating effect may be present in the model (James – Brett, 1984). A mediating variable is an intermediate variable, an answer to how an independent variable can influence a dependent variable. A mediator explains how or why a relationship exists between the explanatory and dependent variables, while a mediator often represents an attribute or intrinsic characteristic of individuals. A significant direct relationship between the explanatory variable and the dependent variable must be identified before the mediating effect can be tested (Kim et al., 2001).

I looked at direct and indirect relationships for the mediating effects to determine whether there was a full, partial or possibly no mediating effect. A fully mediating effect assumes that the independent variable only affects the outcome variable through the mediating independent variable. In the case of a partial mediating effect, we can say that the independent variable affects the outcome variable directly and through the mediator. If there is no mediating effect, there may be only a direct effect between the independent and outcome variables, or there may be no effect at all (Hair et al., 2019).

3.6 Sampling method

In the qualitative research, 111 people were interviewed. They all went on a tourist holiday in the summer of 2020. The aim was to include half of the sample who had chosen a domestic or foreign destination. The survey was conducted in October 2020. The survey was conducted with the help of students from the Corvinus University of Budapest based on a predefined, rigorous interview guide. Their acquaintances, friends and relatives were interviewed using a random sample. Interviews were conducted face-to-face, between 20 and 55 minutes in length. The interviews were recorded using a voice recorder and transcribed by assistants. The sample is heterogeneous by age and gender and relatively evenly distributed across groups.

In the quantitative research, 594 people were interviewed using an online questionnaire with validated statements. After data cleaning and filtering, the final sample

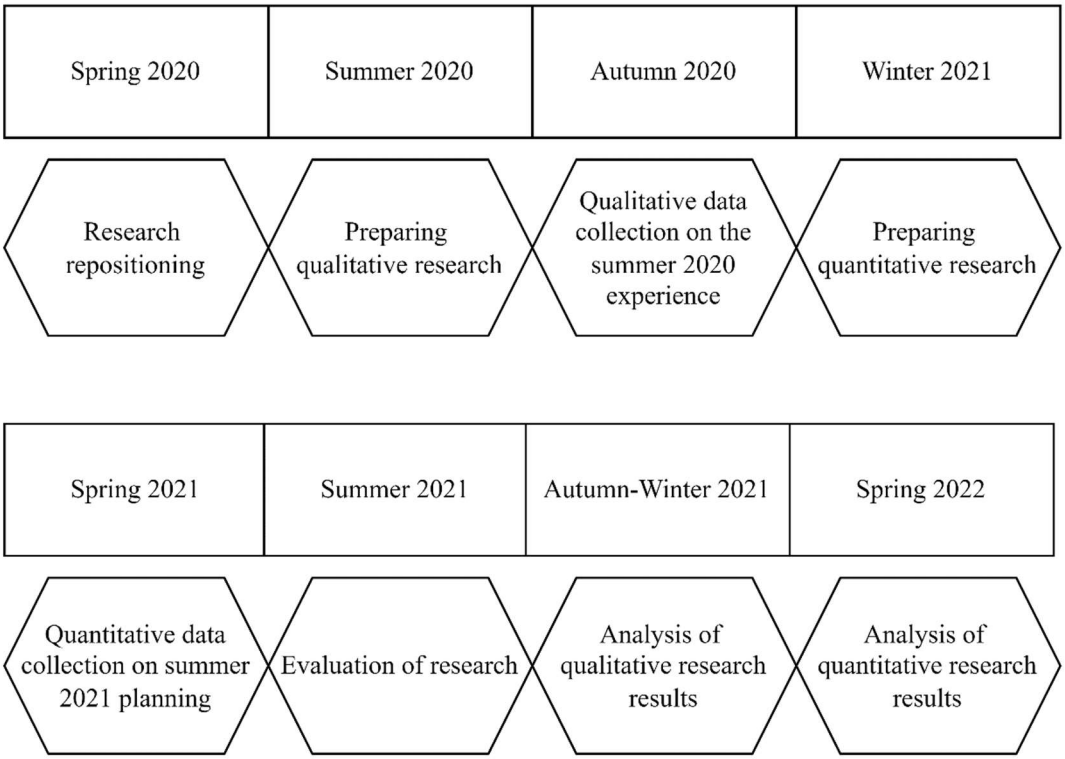
was 539 respondents. They were interviewed in May 2021 and asked about their tourism holidays planned for the summer of 2021. The questionnaire was sent out and completed via the Qualtrics software to students and their acquaintances at the Corvinus University of Budapest, using an arbitrary sampling method.

3.7 Timeliness of data collection and analysis

Figure 6 summarises how my empirical research has been conducted over the past two years. Due to the varied events and expectations over time concerning the coronavirus, I have tried to use the time to understand the consumer perceptions of each stage. I have tried to cover the different sections as best as possible, considering travel restrictions and surges. In the spring of 2020, the coronavirus broke out, and restrictions were imposed, with nowhere to travel for tourism. Subsequently, in the summer of 2020, in June 2020, restrictions and various regulations were imposed on travel abroad, the epidemic situation eased, and measures were eased. Then, on 1 September 2020, the borders were closed again, the second wave arrived, and the third wave at the beginning of 2021. There was minimal easing, but travel was difficult and prohibited for leisure purposes. Finally, vaccines arrived in early 2021, and by the end of April 2021, there was almost 50% vaccination coverage in Hungary. The quantitative survey was conducted in May 2021. At that time, everyone had already guessed what would happen later, namely that from the beginning of June, it would again be possible to travel anywhere while complying with the measures. The epidemic situation had eased, and the number of cases had fallen. The summer of 2021 was completely free.

I first started with qualitative research to find out how individuals experienced the first wave of the coronavirus, how this affected their travel plans for spring 2020 and what they experienced when travelling in summer 2020. Moreover, thanks to the structured interviews, I had the opportunity to gain a deeper understanding as well as quantified results. Moreover, the interview date was already in the middle of the second wave in October 2020, so I could ask my subjects about their experiences, perceptions and plans in the middle of an epidemic. This, in turn, helped to inform my research for 2021, which allowed me to examine a large sample of consumers' tourism behaviour concerning travel buying at the end of the period of uncertainty, during the transition period, alongside a year of positive and negative experiences and as the vaccination coverage increased. The two studies are comparable in that the summers of 2020 and 2021 were free for travel and tourism purchases, in contrast to the other years.

Figure 6. Timing of the research



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4 Analysis of qualitative results

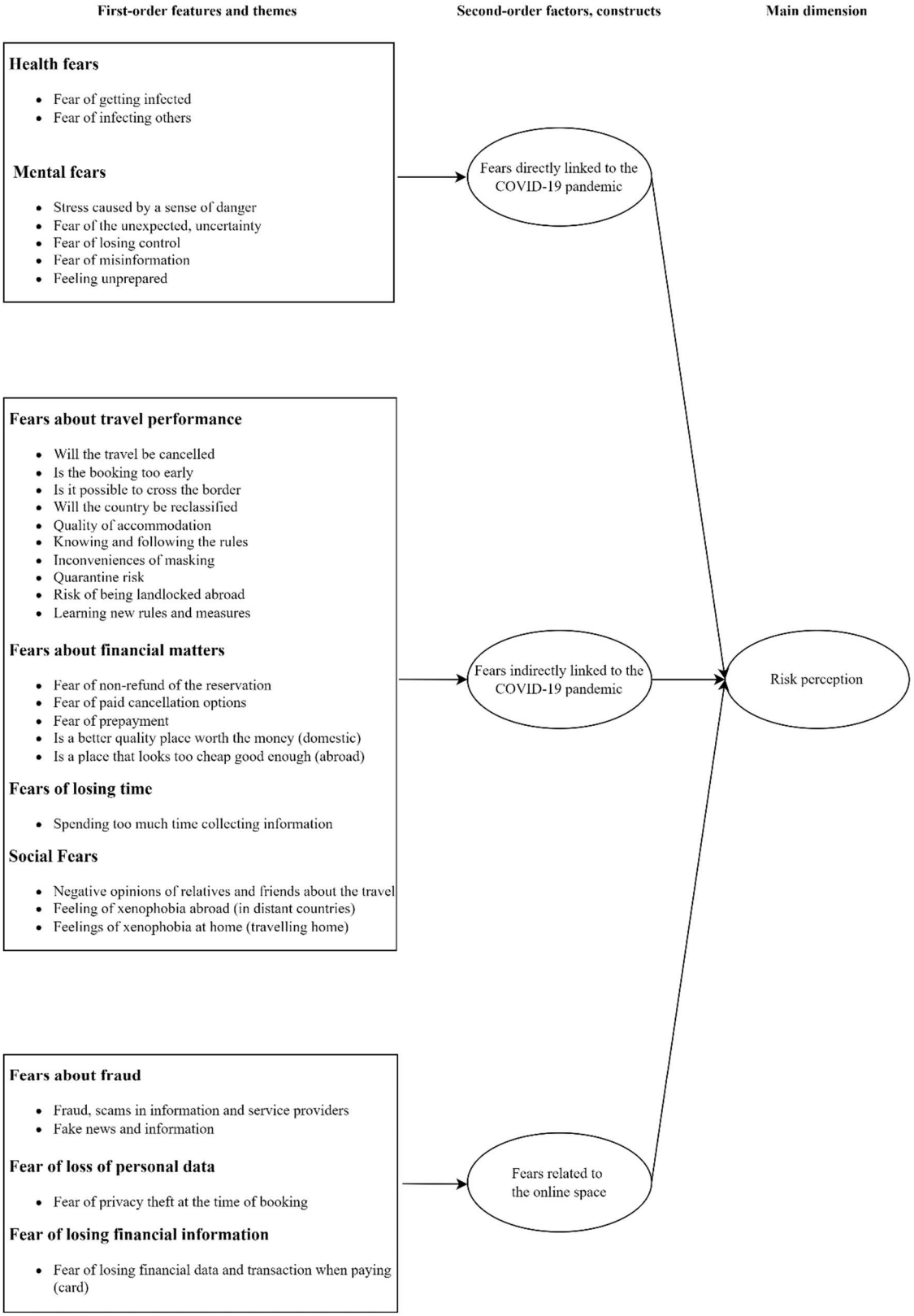
In the structured interviews, three levels of structural groupings were possible. At the first level, a total of 26 thematic segments and 112 keywords and critical attributes could be identified for the first-order concepts. Subsequently, the 112 characteristics associated with the 26 first-order themes could be narrowed down to 14 second-order factors/groups. These 14 second-order themes could also be grouped into six main dimensions, mostly heterogeneous in content but internally homogeneous. These six main dimensions can be mapped to a higher order latent variable and approximate a model based on a system of relations. Even if, due to the nature of qualitative research, it is impossible to precisely say the exact ordering between the dimensions or the directions of the relationships and the extent of their effects. To some extent, I will anticipate the latter in presenting the results through a quantified analysis of the structured interviews to ground the quantitative model that will be developed. Quantified results contextualising the qualitative presentation of results are presented descriptively, sometimes as simple distributions, and other times, where possible, as test statistics, pointing out significant correlations.

Of the 111 respondents, 51.4% (57 respondents) reported travelling abroad, while 48.6% (54 respondents) reported travelling domestically. 59.6% (34 respondents) travelled to a neighbouring foreign country, while 40.4% (23 respondents) travelled to a distant foreign country. The average age of the respondents was 29.4 years (with a 10.4-year standard deviation). Women were slightly more numerous, accounting for 50.4% (56 people), while men made up 49.6% (55 people) of the sample. Nearly one-third of the sample were students (36), while almost two-thirds were employees (71). The distribution was also proportional regarding domestic and international destinations, with no significant differences in the demographic segments observed.

4.1 The dimension of risk perception

The details of the main dimensions of risk perception are summarised in Figure 7. As described earlier, the key areas were explored at two levels. In the dimension of risk perception, three second-order constructs and nine first-order themes, a total of 30 factors were identified as well-differentiated.

Figure 7. Details of the risk perception dimension



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In many cases, the perception of risk was not explicitly stated in the respondents' feedback. When asked specifically whether they felt their buying/booking process or travel was risky at the time it was made, 84.2% of respondents answered no, and 5.3% only explicitly said that they felt it was risky. Similar trends emerged for recollections, with the difference that slightly more respondents, 13%, considered their holiday and the booking process before it to be risky at the time of the survey. However, this increase was overwhelmingly due to a decrease in the number of neutral respondents (from 10.2% to 2.2%). It should be noted that it was mainly those who had travelled domestically who felt their stay was riskier at the time of the survey than at the time. For those travelling abroad, this feeling was reversed, as they felt even slightly less risky at the time of the interview than they did when they were there.

> *„At the time, I was a bit worried about whether everything would be OK, whether we would be able to get back to Hungary, but now looking back, it was completely unnecessary. I would be more relaxed about the travel." (A respondent travelling abroad)*

For those travelling domestically and abroad, the level of risk perception before and during the holiday differed from the time of the survey. For domestic travellers, the increased risk perception at the time of the survey was the large crowds, which mainly increased health fears, especially at waterfront locations. For those travelling abroad, overall, they anticipated their holiday to be worse than what happened – as evidenced by the quote above – and thus perceived lower risk at the time of the interview than at the time of travel. In particular, positive perceptions compared to expectations were reflected in good experiences related to the ease of crossing the border, but also due to the smaller number of tourists on the ground, and better feelings about the disease situation and the unchanged administrative conditions. The epidemiological situation in the summer of 2020 was favourable, with one or two new confirmed cases per day. Many respondents cited this as a primary reason for not considering travel risky at the time and why they did not perceive any danger.

> *„In the end, because of the calm epidemic, this year's holiday was like our usual summer travel, but with a bit of attention to the rules." (A respondent travelling domestically)*

The fact that the specific questioning of risk perception did not lead to a quantifiable result also explains my general findings in my qualitative analysis. In processing the qualitative results, I received three responses to this. The first was that the subjects

believed they had finally travelled because they no longer found anything objectionable or threatening in that travel, or perhaps the perceived risk had already fallen within the safe tolerance zone and was acceptable. The other explanation was that respondents reported their perception of risk elsewhere. Finally, the interpretation of risk perception was difficult for many respondents, who did not even understand the question and could not interpret what risk perception meant. However, they responded better to feeling threatened, fearful and were able to give meaningful answers during the interviews.

> *„I had no particular fear because I was prepared for every eventuality, more than ever." (A respondent travelling abroad)*

The critical question is where or how the risk perception could be found. Risk perception typically appeared in the risk reduction tools and had to be deconstructed in different areas. In particular, the areas of information demand and processing and searching for reliable and 'trustworthy' sources of information appeared among the risk reduction tools. There was both a quantitative and a qualitative aspect in the area of preparedness.

In addition to the theme of questions measuring the use of risk reduction tools, the area of questions on reflection and decision dilemmas and the topic of parameter changes revealed the lurking perceived risks. This was confirmed by the quantitative figures, with 66.7% of respondents saying they had not changed the parameters of their travel, 54.0% saying they had not sought different types and amounts of information for their booking, 33.0% saying they had not changed their travel habits as a result of the coronavirus, and only 37.2% feel that the virus had no impact on their trip. These are pretty different figures compared to the previous perception of no risk of around 85%. Nearly two-thirds had changed their travel habits.

The parameter changes were mainly in the area of risk reduction. The most substantial risk reduction was postponing or replacing a travel abroad with a domestic travel. This was followed by the primarily health-related fears directly linked to the COVID-19 pandemic (as a first-order construct) and the performance, administrative and financial risks indirectly linked to the COVID-19 pandemic (also as a first-order construct). The respondents perceived the latter as not necessarily occurring in parallel with the advance of the coronavirus but could still have an impact. Hence I refer to this second-order construct as indirectly linked to the COVID-19 pandemic. Most additional risk reduction tools have also appeared in these first-order constructs. Thus, keeping distance, disinfecting, avoiding shops, using one's car, seeking quality accommodation

or preferring outdoor activities, or wearing masks even in places not required all appeared as a way of avoiding health risks for subjects, fearing of getting sick or infected others. It could also be said that these are all mandatory or voluntary precautions, which more than a fifth of the respondents were sure to have adopted.

The other central area was information gathering and its sub-areas in indirectly finding risk perceptions from a risk reduction side. In particular, information about entry conditions, payment and cancellation options, insurance options and the evolution of the epidemic situation, all of which were based on first-order aspects of performance and financial risk perception. They also include a preference for domestic travel, travel abroad more recently and car travel. Cancellation of the travel, refund options, the reality of the quality of accommodation, being stuck outside and quarantine risks, and country reclassification were grave fears for the weighing factors. Consistent with this result, more than half of respondents (52.1%) gave the most weight to the destination, followed by the location and quality of accommodation (37.5%), availability of programmes (28.1%), organisation of the outward and return journey (19.8%) and elements related to health protection (19.8%) in the top five of the weightings things.

Even if it was not explicitly visible how and what risks were perceived by the respondents, the numerical correlations with the previous reasoning indicate that they had different risk perceptions. The strongest significant difference (p-value=0.002; eta-square value=0.102; df=110; F-test=10.328) was that those who travelled domestically perceived their time there as riskier at the time of the interview (mean 2.7, standard deviation 1.55) than those who travelled abroad (mean 1.8, standard deviation 0.96). I have previously written that domestic travellers at the survey time felt significantly more at risk of being there, primarily because of the large crowds, especially in spa locations. I also found higher risk perceptions for those travelling domestically (mean 2.3, standard deviation 1.32) than for those travelling abroad (mean 2.1, standard deviation 1.06), as measured by their recollection of the time of their holiday. Similar findings were also found for those travelling to a neighbouring foreign country and a non-neighbouring foreign country, compared to the domestic-foreign travellers breakdown. Significant differences (p-value=0.047; eta-square=0.083; df=56; F-test=4.181) are again found in the degree of risk perception at the time of the interview, where this was higher for those travelling to neighbouring countries than for those travelling to non-neighbouring countries (mean 2.0 compared to 1.5 [standard deviations 1.11 and 0.52]). The mean risk perception on travel was 2.3 compared to 1.9 (standard deviations of 1.15 and 0.91). This implies that there

are significant differences in risk perception on these dimensions. The low means for the analysis measuring risk perception on a scale of 1-7 can be explained by the findings in the first paragraph that a significant majority of respondents did not report specific risk perception, and thus these measures were coded.

4.1.1 Exact characteristics of the types of risk perception

The centrality of health and performance risk perceptions is also supported by the fact that these are the two cases where respondents perceived significantly higher risks when they were afraid of one of the dimensions. In these cases, feelings at the time significantly differed between the two fear dimensions. For health risk perceptions (p-value=0.000; eta-square=0.312; df=110; F-test=42.206), risk perception had a mean of 3.3 (with a standard deviation of 1.44) compared to a mean of 1.8 (with a standard deviation of 0.79) for no risk perception, a moderately strong significant difference. While for performance-related fears (p-value=0.002; eta-square=0.102; df=110; F-test=10.506), risk perception had a mean of 3.7 (with a standard deviation of 1.37) compared to a mean of 2.1 (with a standard deviation of 1.12) for no risk perception. Those who perceived a health risk also had a significant change (p-value=0.018; eta-square=0.061; df=110; F-test=5.763) in a trip parameter (how much the trip parameter changed: mean of 3.6 for those who perceived health risk, while the change in the parameter for those who perceived no health risk had a mean of 2.6 [standard deviations 1.97 and 1.66]). The latter correlation yielded means of 3.3 and 2.8 for performance risk perception (standard deviations of 2.25 and 1.76).

The other types of risk perception were less dominant. Of these, what appeared most frequently in parallel with the overall experience ratings were the feelings of anxiety and stress related to the success of the trip and the avoidance of unexpected events. It was also apparent from a few interviewees that the continued presence of mental fear increased the likelihood of other types of risk perception also appearing. Furthermore, anxiety was all due to the coronavirus, so I also included this sense of fear among the risk perceptions directly related to the COVID-19 pandemic.

Responses related to too much time overload could also be detected in a few cases. Interestingly, these all arose during the information gathering process, i.e. the time spent on risk reduction was perceived as risky, i.e. *„spending too much time on it and perhaps unnecessarily”*. The redundancy came from two sides. On the one hand, the reliability of information sources, because they had no apparent confidence in obtaining specific

information. On the other hand, because of the constantly changing circumstances, subjects felt that they could not adequately prepare for or reeduce the threat *„100 per cent”*, and thus feared that they had *„over-prepared”* themselves in vain.

> *„I ended up reading everything online, especially on Facebook, that anything could happen. I felt then that much information was enough.” (A respondent travelling abroad)*

The fourth risk perception was related to risk of social perception. In particular, subjects feared negative opinions and judgements from relatives, friends and acquaintances. In addition, in one or two cases, those travelling abroad felt xenophobia or abuse directed at them for wearing a mask (*„I was shouted at from across the street to wear a mask when I did not have to, but I looked quite a tourist on the street.” – A respondent travelling abroad*). A similar feeling was experienced by a Hungarian expatriate who travelled to Hungary as a tourist. He also caused fear among his friends by visiting his home country. Moreover, one or two domestic travellers would not have liked to meet foreigners during their holiday. Another social risk was that subjects feared infecting their older relatives and friends when they returned from their travel. This was a particular risk for those travelling abroad, while those travelling domestically also used this reason to postpone a possible holiday abroad. In the literature, physical and psychological fears, classified as classical risk perceptions, were not reported separately but were fully covered by risk perceptions directly linked to the COVID-19 pandemic, such as health and mental health. These focused only on the coronavirus, with no other physical threats or psychological distress felt by the subjects.

There was also an area in the risk perceptions dimension that was unrelated to the COVID-19 pandemic. I have labelled these as risk perceptions related to the online space in the second-order construct. This included fears of fraud, provider scams and misinformation, fake news and information reliability, which were minimally influenced by the events of the time related to the coronavirus, but subjects reported being fearful of these elements anyway. However, a primary construct, utterly unrelated to the coronavirus, was the fear of losing personal information and financial and payment data at the time of booking and payment. These are all related to online sites, technology and service provider websites. Those who did not have this concern blamed their experience and trusted, reputable sites for their peace of mind. We can see that they have already reduced any risk concerns they may or may not have had by using reputable, popular sites or sites they have had good luck with. Some preferred to pay by card on the spot. The

latter sometimes appeared as a risk reduction measure by fearing the negative consequences of not paying in advance, i.e., not providing the service or cancelling. There have also been cases of people who were seriously worried about whether their payment would be received and therefore phoned the service provider immediately after the financial transaction. This could even be a new sub-factor because the fear of the payment was the reason for the call.

4.1.2 Summary

Overall, risk perception was difficult to detect directly in the subjects. The main reasons for this were the favourable state of the epidemic in summer and the fact that many people chose to travel to a destination (domestic or neighbouring country accessible by car) that they no longer considered to be at risk. However, this is contradicted by the fact that those who travelled domestically felt the most risk, not concerning their eventual trip, but to summer travel in general, especially abroad. Indirectly, fears were detectable through risk reduction, accounting for consideration factors, changes in information gathering habits, parameter change, perceptions of the overall experience, and to some extent, willingness to recommend. Moreover, a fifth of respondents recommended the venue and services used because of its safety (although 53% recommended it because of the programmes), so the perception of safety also appeared to be more directly relevant than risk perception.

Under the dimension of risk perception, three second-order segments and 30 first-order attributes were identified across nine themes. Of the three second-order factors, two were entirely related to the coronavirus, directly and indirectly, while one factor was almost wholly unrelated to it and related to the concern of booking and shopping online itself. This was the segment of risk perception linked to online technology. The most vital fear perceptions were associated with health concerns directly related to the coronavirus and performance and financial risk perceptions indirectly related to the coronavirus. Those with these perceptions had significantly higher perceived overall risk. The same was true for domestic travellers compared to those travelling abroad or those travelling to a neighbouring country compared to those travelling to a non-neighbouring country. These results have also been quantified. In addition, a significantly (p-value=0.004; eta-square=0.086; df=110; F-test=8.627) a higher proportion of those travelling abroad also planned a trip to either a domestic or a foreign country at the time of the survey (mean 4.6, standard deviation 1.84) than those travelling domestically (mean 3.4, standard

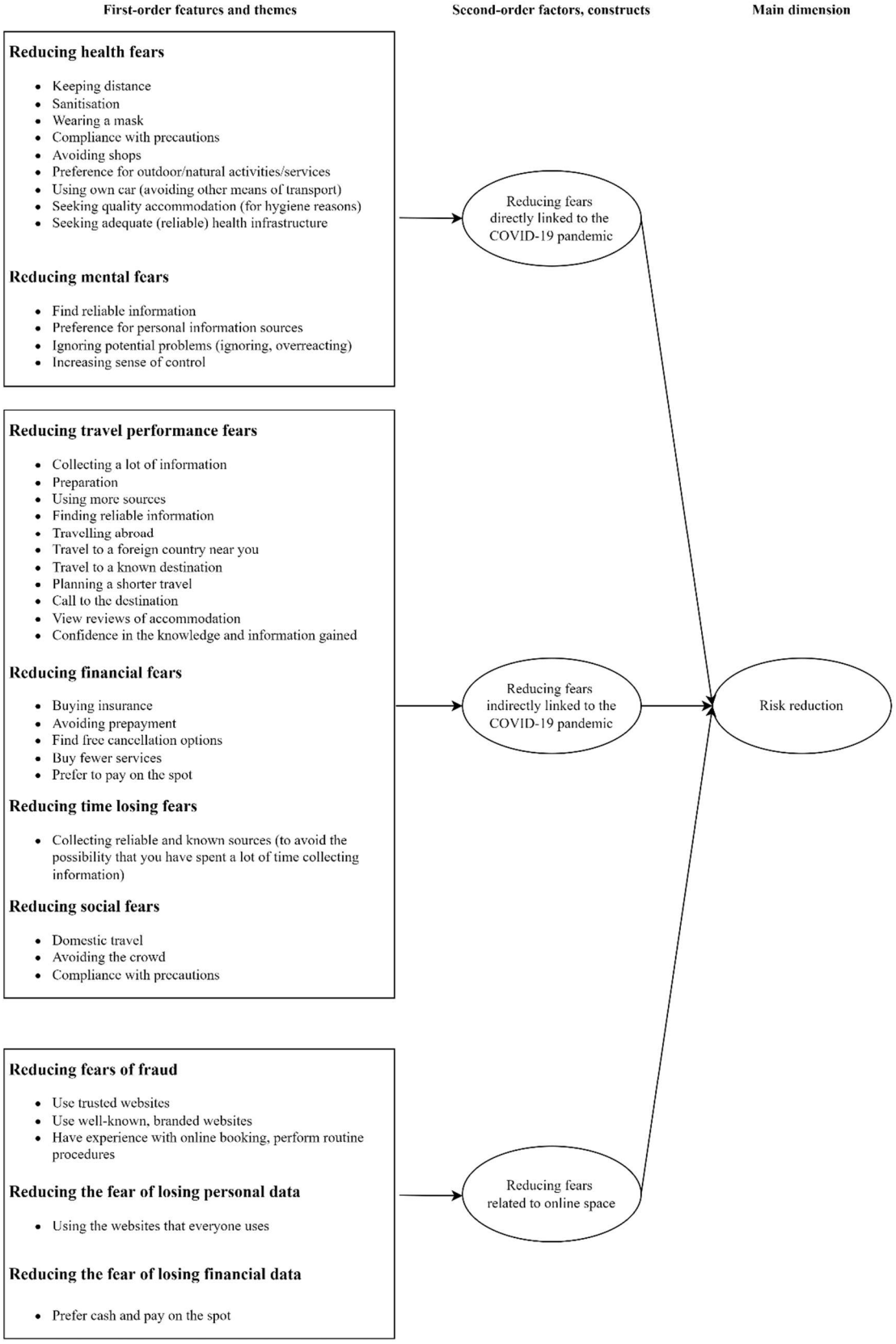
deviation 1.95). Thus, it can be seen that the noticeable differences in risk perception between these two groups also manifested themselves in their caution about planning further travel. In addition, it is also worth noting that those who had a cancelled previous holiday in the period from March 2020 to early June 2020 perceived an overall risk with a mean of 2.3 (standard deviation of 1.34) compared to those who had no such cancellation with a mean of 2.1 (standard deviation 1.06). Mental fears and anxiety directly related to the coronavirus and indirectly related to time and social perceived risk also emerged in the qualitative research. Both physical and psychological perceived risks, much cited in the literature, were due to health and mental fears directly related to coronavirus, so it can be argued that these latter dimensions covered the interpretation of different risk perceptions of the classic two factors. Fears of fraud, scams and misinformation were linked to online space and technology, as well as concerns about losing personal and financial data and payment details.

The three second-order factors (risk perceptions directly related to the COVID-19 pandemic, risk perceptions indirectly related to the COVID-19 pandemic, and risk perceptions related to the online space) appear to influence the perceived overall risk associated with travels in parallel but not in equal weight. It can also be seen that there were different results between the measures, i.e. there are also segments between the subjects. Finally, among the classic risk perceptions, physical and psychological are so dominantly associated with coronavirus that they are worth highlighting and analysing separately as risk perceptions directly related to coronavirus. For the other four risk perceptions indirectly related to the COVID-19 pandemic (performance, financial, time and social), the interpretative framework is a bit broader, in which perceptions beyond the coronavirus have appeared.

4.2 Risk reduction dimension

In the risk reduction dimension, three second-order constructs were also identified (Figure 8). Within these, a total of 38 factors appeared in nine first-order themes.

Figure 8. Details of the risk reduction dimension



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In analysing the results on risk perception, I have already shown that the critical area was risk reduction in the qualitative research. All risk reduction factors can be directly and clearly identified in the figure above. Also, the elements of risk perception were often explained in the answers to the risk perception reduction question or referred to indirectly by the subjects. The figure shows that the same second-order factors were identifiable for risk perception (directly and indirectly related to pandemic COVID-19 and online space), only this time from the risk reduction side. The results suggest that the subjects attempted to reduce all types of perceived risk. A similar pattern can be seen for the first-order factors, but then the keywords themselves, i.e. the primary observations and internal factors (as appropriate), were utterly different from those for risk perception. The three second-order factors comprise nine first-order themes with 38 characteristics. The latter represents three more elements than were observed in the risk detection.

The research results show that although risk reduction and precautions were consciously understood by the respondents, their use as actual risk reduction tools was less so. The latter is paralleled by the fact that risk perception was not directly considered as risk perception, nor were potential concerns included among the risks. Risk perception appeared several times during risk reduction, but even then, the risk reduction was presented as *„I was just looking for information to reassure myself, but otherwise I know the situation, I can handle it, and it is not dangerous”*. This attitude was both arrogance and, in some cases, haughty feedback (*„…what does it mean to be a risk when travelling?” – a respondent travelling to a neighbouring country*), and self-confirmation, in particular, that the travel was successful and a good experience (even with all the stress and worry) and that *„the maximum was achieved”*. I found that despite any ex-cathedra statements about risk perception, risk reduction tools, precautions, preparation or mitigation as a means of risk avoidance (which also puts the whole process in a whole new light) were used by the vast majority of subjects. The focus of all these cases, as they described it, was to establish a relaxed, carefree and peaceful recreation, i.e. to establish the most vital possible sense of security by reducing risk.

> *„I wanted to be prepared for everything, so that I could relax without stress.” (A respondent travelling domestically)*

4.2.1 Key areas of risk reduction

Risk reduction was reflected in using three primary tools by my interviewees: information gathering and source use, destination selection and health preservation. These

three factors also interacted strongly as underlying reasons. This implies that health preservation played a role in destination choice, as information gathering was primarily related to destination safety and health. However, there were other drivers and differences in the three areas.

The essential tool was information gathering, closely linked to the search for reliable sources of information. This area appeared in almost all levels and factors of the risk reduction dimension. The central element of information gathering was to be informed about the state of the epidemic curve and the evolution of the epidemic situation. As described in the previous chapter, the leading argument for not reporting risks was the favourable state of the epidemic in the summer of 2020. This kind of information need came from both health fears, but mainly related to performance, as subjects felt that the evolution of the epidemic situation most influenced their travel plans and their ability to implement them successfully.

There was also a need for information on several administrative aspects, particularly the quality of accommodation and its hygiene conditions. This information appeared to be the second most important factor (45.8% of respondents considered this aspect of being the most critical). Health aspects dominated this. Information was sought by 15.6% of the respondents to directly ensure the health of the individual (what is the risk of getting ill, how serious is the illness). Information on (travel) conditions was also dominant (30.3%), as was information on news and conditions related to the location (25.0%). More respondents also mentioned the programmes (28.1%) as a critical point, so that, on the one hand, they were not indoors but preferably outdoors or organised in nature, and on the other hand, they were not so popular that they were too crowded. They tried to organise fewer programmes per day or even avoided (especially organised) programmes. Finally, the information provided includes the price level (21.9%) so that a service is not too expensive compared to what it is worth. For those travelling abroad, pricing was even an advantage, with several respondents saying, *„I have never seen such cheap prices and so few tourists, but probably never will" – a respondent travelling abroad*. Risk mitigation related to information gathering also included eliminating fake news as a task. This was mainly done through websites considered trustworthy because of their familiarity, popularity, the subjects' own previous positive experiences, or by asking friends and relatives. They also sought information from official sources, such as the websites of the coronavirus portals, consulates or the site's website and information sources. Some people *„authenticated"* information about their travel by visiting a place

they knew well, a hostel on holiday, although this was not only related to information gathering.

The respondents could still eliminate the fake news, but not the effect of the contradictory information, which often caused a feeling of stress and threat in the respondents' minds throughout. Thus, in these cases, risk perception did not even decrease to some extent or even increase, and a new dimension (risk perception from information gathering) emerged as a result. This counterproductive risk reduction was mainly observed in respondents who collected much information over a long period, 2-3 months. There were also sources of information (television, coronavirus portals, social media) that tended to increase uncertainty or magnify the severity of the potential negative outcome. These elements are discussed in more detail in the next chapter.

The other primary risk reduction tool was the choice of destination. In most cases, it could be seen that respondents travelled mostly domestically or, if abroad, en masse to a neighbouring country because they perceived those locations as less dangerous or felt that they could better manage, mitigate or eliminate any risks that might arise during their holiday. The key concept throughout the qualitative analysis is creating a sense of safety. The respondents seem to have felt sufficiently safe in the place to which they eventually travelled. In parallel, an interesting finding is that those travelling to a domestic country perceived the most risk, followed by those travelling to a neighbouring country and those going on holiday to a more distant country. Thus, it can be argued that the choice of destination did not reduce the risks altogether, but it was the destination perceived as the least risky. This is important because, in the research, I looked at subjects whose intention to travel was positive and, as previously mentioned, the perception of risk did not discourage them from travelling. However, the perception of safety (a combination of risk perception and risk reduction) was already an essential factor in the choice of destination. On this basis, I have included the choice of destination among the risk reduction tools. This selection can be virtually equated to an evaluation and decision result between all the perceived risks and the outcomes from the combination of risk reduction, which is like a second-step risk reduction process, which can also be called creating a sense of security.

> *„In the end, domestic travel seemed the safest and most predictable." (A respondent travelling domestically)*

It can be argued that those choosing domestic destinations, who perceived the most risks, presumably perceived even more risks with other foreign destinations and may have

discarded them earlier. However, once the perception of safety was established, their intention to travel was highest for the domestic destination. This means we can talk about travel intentions at the destination level after evaluating the different combinations and establishing a sense of security. For this reason, destination selection may have been a powerful risk reduction tool, after which the impact of risk perception on travel intentions was reduced to the point where it was (safely) acceptable. Moreover, the question of destination choice involved both factors directly and indirectly related to the COVID-19 pandemic. It was fears related to online technology for which the risk mitigants used had little relationship with destination choice. However, travellers travelling domestically were also concerned about the reliability of foreign news sites and information sources and the veracity of their content. They also felt that financial and personal data were safer when using domestic portals.

Overall, destination choice was a dimension that was the main cornerstone of the research. The extent to which risk perception and risk reduction were linked seemed to determine who ultimately travelled. Travel intentions were expressed at the level of individual destinations rather than concerning the holiday as a whole. This can be broken down into three levels: domestic, neighbouring country abroad and further abroad. The higher the risk perception of the individual, the lower the travel intention to visit a more distant destination and the higher the intention to travel closer to home.

In many cases, the critical aspect that determined risk perceptions at this point were risks that the respondents could not reduce and mainly were related to the volatility of the situation. These included the evolution of border crossing opportunities, infrastructure and language issues of the foreign location, preference for travelling by car over by air (thus excluding more distant countries), more accessible understanding of domestic regulations, and fear of the introduction of quarantine obligations. The impact of government communication should also be mentioned here, as a few respondents postponed their travel abroad because they felt that the situation at home gave them sufficient confidence, especially when the government tells them it is safer to holiday at home. This was an unknowingly used risk reduction element. Finally, the genuinely paradoxical situation arose when domestic travellers, who had chosen domestic destinations to reduce their higher risk perception, found that there were crowds at hotels or, more often, at beaches, spas and waterfronts. Thus, many of those travelling domestically at the time of the survey perceived being there to be riskier than they remembered being when they travelled (mean of 2.7 vs mean of 2.3). At the same time,

this was the reverse for those travelling abroad (mean of 1.8 vs mean of 2.1). The latter lower perceptions were overwhelmingly due to the lack of crowds and the travel's success. Overall, all of the respondents interviewed had positive travel intentions, with differences in travel intentions mainly at the level of destinations. A general travel intention was also observed among the respondents, mainly influenced by the favourable epidemic situation and travel experiences in previous years.

> *„For the fifth year in a row, we have been going somewhere in the summer. At the beginning of the spring we were afraid of what would happen, we did not even think about going on holiday, but then luckily it turned out that we could go and everything was the same as usual. There was just a bit more preparation beforehand." (A respondent travelling to a neighbouring foreign country)*

The third central area among the main risk reduction tools was health-related. Precautions and risk reduction were taken during the holiday, not before. This was reflected in the precautions taken and the precautions taken beyond the mandatory elements. In most places, the mandatory precaution was the use of masks, typically on service providers' premises (accommodation, restaurants, programmes, confined spaces, means of transport). Some subjects used masks on the street, on the beach, and in nature, mainly because of health considerations. In one or two cases, some subjects were afraid of not knowing precisely the local rules and therefore wore the mask everywhere, whether visiting abroad or travelling domestically. A test or mandatory hand disinfection was requested in one or two more remote foreign destinations. However, in many cases, respondents sanitised their hands as a precaution and kept an appropriate distance from people. They avoided mass gatherings or confined spaces where many people could have crowded together. They also used their cars in many cases because of health considerations, and they shied away from flying, buses and trains. All of these risk-reducers revealed extreme health fears in the research. Many also chose accommodation based on whether they regularly cleaned or disinfected their rooms. Avoiding crowds was also an important consideration when choosing accommodation, which is why many went to private accommodation or apartment blocks. People also avoided shops and local shopping because they feared being in a crowded place and possibly catching the virus. If they did go to the shops, it was only one person in the family. They avoided indoor activities, but overall, subjects also preferred to organise their own independent and informal activities.

„It was a bad feeling to have to pay attention to so many things - sanitising, mask wearing, rules - but it made me feel safe." (A respondent travelling domestically)

Although the factors discussed in the previous paragraph were practical and helpful in reducing health risks, they negatively impacted the overall experience. Mask-wearing, avoiding crowds (with it the lack of life, the hustle and bustle), and constant disinfection was the most cited as making them feel less than fully satisfied with their holiday or deprived. This is somewhat contradicted by the fact that many of them had as their primary goal, as I wrote earlier, to relax, unwind and be comfortable, creating a sense of security, which they were able to achieve by reducing their perceived risks as much as they could. However, using risk reduction tools in this situation seems to have harmed overall experience and satisfaction.

4.2.2 Further areas of risk reduction

Another risk reduction element worth highlighting is the issue of booking parameters. One of the most critical points was the time of the start of the booking concerning the travel's start date. Due to uncertainty, subjects typically left the booking finalisation until a few days or a week or two before departure. Whereas in the past, even for domestic travel, the average time interval for finalising a booking was typically 1-1.5 months, in the current situation, it was around 1-1.5 weeks on average. This is compounded by 19.8% of respondents who paid on the spot and could have cancelled their travel by the same day. At the same time, respondents were also very active in seeking free cancellation options. One in five of the respondents were also generally cautious about paying. Nearly 10% of respondents also took out insurance. Finally, a quarter of respondents sought to alleviate their fears about online technology, mainly by using well-known sites and branded providers. They also saw better conditions on these sites in most cases.

4.2.3 The role of trust in risk reduction

I have discussed all the elements of risk reduction in the literature above. However, in the literature review, I argued that trust could also be a powerful risk reduction tool based on the work that has been identified. However, the literature only speaks generally about the development or perception of trust, compared to the many types of risk

perception. I suggested at the time that trust can also be of different types, which can affect types of risk perception.

Trust came up on five sides in the research. One that came up most often was the reliability of the sources of information used. In this case, it is not the brand or popularity side, although these can also contribute to building trust, but rather previous experience and good results that have established trust in a source. The same is true for booking websites. On the other hand, trust was also the order of preference among information sources. Personal sources of information were the most trusted by the subjects, the area that was most able to reduce their risks. Thirdly, trust was also often expressed concerning the content of the information received, although it mattered here too that, for example, the person who phoned the hostel for information was even more trusted. Many of those who travelled domestically also trusted government communication. Fourthly, respondents also had greater confidence in the domestic destination, primarily because of the domestic terrain. Neighbouring foreign countries where respondents had already spent a positive holiday experience before were presented as semi-domestic terrain. Because of this, they already had local knowledge, and many had spent the holiday in the same accommodation because there, in addition to local knowledge, they had personal contacts in which they also had more confidence, which reduced their perceived risks more. Finally, they also reduced the technological risks in the online space by trusting sites and transaction intermediaries they already had confidence in.

> *„I tried to gather sites and information that I had had positive experiences with before, so I could trust them." (A respondent travelling domestically)*

> *„The sites I used are used by everyone, so I have no reason to doubt them, they are trustworthy." (A subject travelling abroad)*

Trust is present in each sub-factor as a whole, but it is also present separately. In the latter case, trust has also appeared concerning the health system in a way already known and understood in the home country. Confidence has reduced risk perceptions related to performance and financial aspects and online technology risks. It impacted less frequent risk perceptions and was less associated with anxiety. Although for the latter, it appeared that those who were confident of a positive outcome were not anxious about the various factors. This confidence could also be related to the general self-confidence found in the literature, although this was sometimes influenced by good preparedness, i.e. specific self-confidence.

4.2.4 Summary

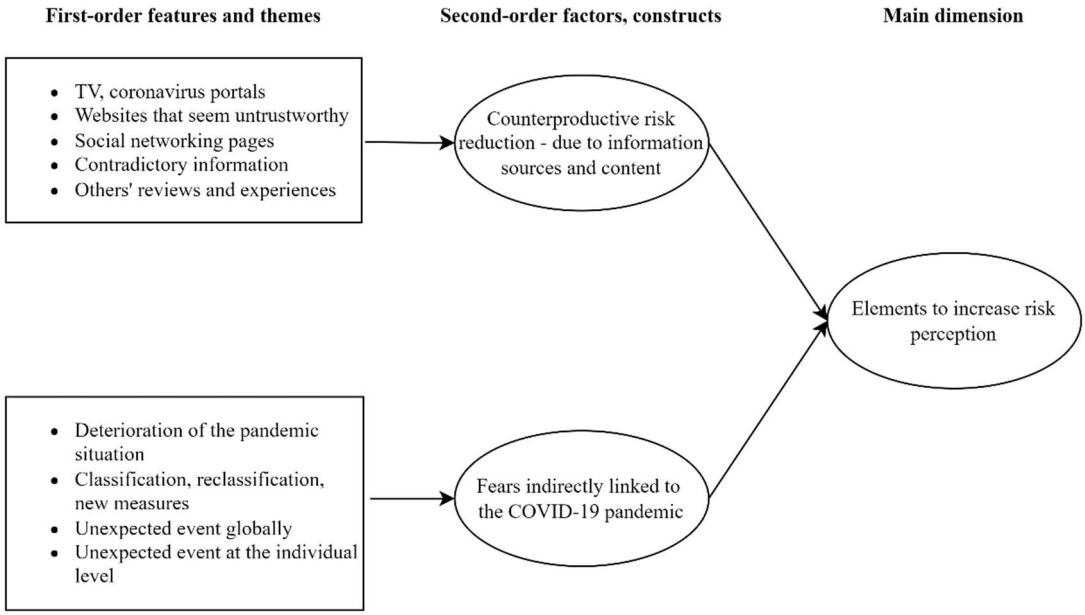
Overall, risk reduction covers all dimensions and factors of risk perception. Some tools appear in all areas, such as information seeking or confidence building. Destination selection has emerged as a completely new element in the field of risk reduction and has helped to define the development of a sense of security and the whole process of shaping the intention to travel. This factor is also present in all elements. Coronavirus dominated the research, and this was also evident in the case of risk reduction, as several tools (disinfection, crowd avoidance, use of private car, use of mask) were used by the respondents, which were primarily intended to mitigate health risks. In conclusion, we saw that trust permeates the whole risk perception simultaneously but also appears in parallel specific to a perceived type of risk.

Risk mitigation also has its downsides. On the one hand, they can also increase risk, both at the content level and through sources' credibility. This is particularly the case for those who searched for more information and thus more easily came across contradictory or dubious information or sources. On the other hand, excessive risk reduction (although to some extent due to the situation) can also come at the expense of the travel experience, constantly hovering the possibility of danger over their heads. Thirdly, those with lower confidence in a source were also less able to give credence to the information they had obtained. Finally, paradoxical situations could also arise, such as when risk reduction led respondents to engage in risk-taking later, like domestic travellers who visited spas, beaches and spas where large crowds greeted them. Thus, risk reduction also appeared as a factor increasing risk aversion in a way that put respondents in an unexpected situation where they could not or did not want to reduce their risks. The unexpected situation I discussed in the previous section on risk perceptions was sometimes induced by using the risk reduction tool. The results show that using a risk reduction tool can be counterproductive. In the next section, I will discuss the results in this respect.

4.3 Dimension of elements that increase risk perception

In the third dimension, the nuanced area of the relationship between risk perception and risk reduction instruments is represented by two second-order factors and nine first-order factors (Figure 9). It was difficult to find quantifiable results in this dimension.

Figure 9. Details of the dimension of elements that increase risk perception



Source: own editing

As we have seen in the literature, using the risk reduction tools described above has reduced or been used to reduce risk perception. As I pointed out in the previous chapter, there were nevertheless some risk reduction tools whose (excessive) use increased uncertainty or the severity of the negative outcome. This process could also be called counterproductive risk reduction, mainly due to information gathering. Two sub-factors of information gathering influenced this phenomenon: the content of the information and the source of information. I can somewhat justify the former influencer with what was said in the qualitative analysis when several people indicated that *„after a while, I felt that the information contradicted each other"*. It was also in this area that trust in the content of the information emerged, which some developed intuitively, from an inner feeling, while others trusted the source of information. On the other hand, those who obtained information from television, coronavirus portals and social networking sites perceived a slightly higher risk before the trip and at the time of the trip.

„ Everything has already been written on social media, not to mention television."
(A respondent travelling domestically)

The question is then what came first: the perception of risk and the intention to reduce it, the attempt to reduce risk and the resulting higher (or additional) risk perception. This can be approached from two angles. One is that it appeared from the

responses that, even if the risk perception did not increase, it did not decrease for the subjects, i.e. the perceived risks were not reduced by the risk reduction tool. This could mean that the best, most appropriate risk reduction strategy was not found, but it could also mean that these resources introduced new elements or hazards (increasing uncertainty) or slightly increased existing ones (increasing the severity of the negative consequence). Furthermore, the ineffectiveness of risk reduction is also supported by the fact that these subjects perceived a higher degree of risk or stress at the time of the travel. However, it should be noted that the quantified research does not provide significant support for these findings. The other side, which in my opinion, better presents the counterproductive effect of risk reduction, is the immediate increase in perceived risk resulting from the content of the information. This was mainly due to the respondents' reference to *„contradictory information"* and the magnification of negative experiences, especially for those travelling abroad (mostly related to the border crossing and compliance with rules). The content problems themselves tended to be more pronounced for those travelling abroad and were also more pronounced for those travelling to a neighbouring country. They also sometimes saw conflicting information about the dangers of coronavirus infection and the usefulness of various precautions, which somewhat increased their perception of health risks. Overall, those who had followed news and events and gathered the information for a more extended period were more likely (more likely) to have this phenomenon.

The other dimension that increased risk perception was the volatile environment caused by the situation. It could also be argued that it was difficult to assess the severity of adverse outcomes and the likelihood of them occurring. In particular, this was caused by the changing, worsening and then improving the epidemic situation at the beginning of the summer. From August onwards, the repeated deterioration of the epidemiological situation led to some subjects (correctly, as it turned out later) shortening their holidays abroad in order to be back home by 31 August and not to overstay their welcome for the month *„because who knows what will happen from September"*. In addition to the health risks, the epidemic significantly increased the performance and financial risks, as subjects feared the introduction of new measures or a worsening (*„different colour"*) rating of the destination country or Hungary.

Moreover, I found that the occurrence of contingencies, in addition to these elements of external nature, was also internally driven by the situation of the subjects. Many of the subjects feared that they might be ill, infected with a coronavirus, or that a

test might show a result that would prevent them from travelling to the country. Thus, the unexpected could not only come from outside but also from within (of course, external factors were at play). In addition, many did not know what the symptoms of the disease might be and were even afraid of not noticing it themselves, *„just producing a positive test"*. 91.6% of the subjects did not have (or did not know they had) coronavirus even during travel time.

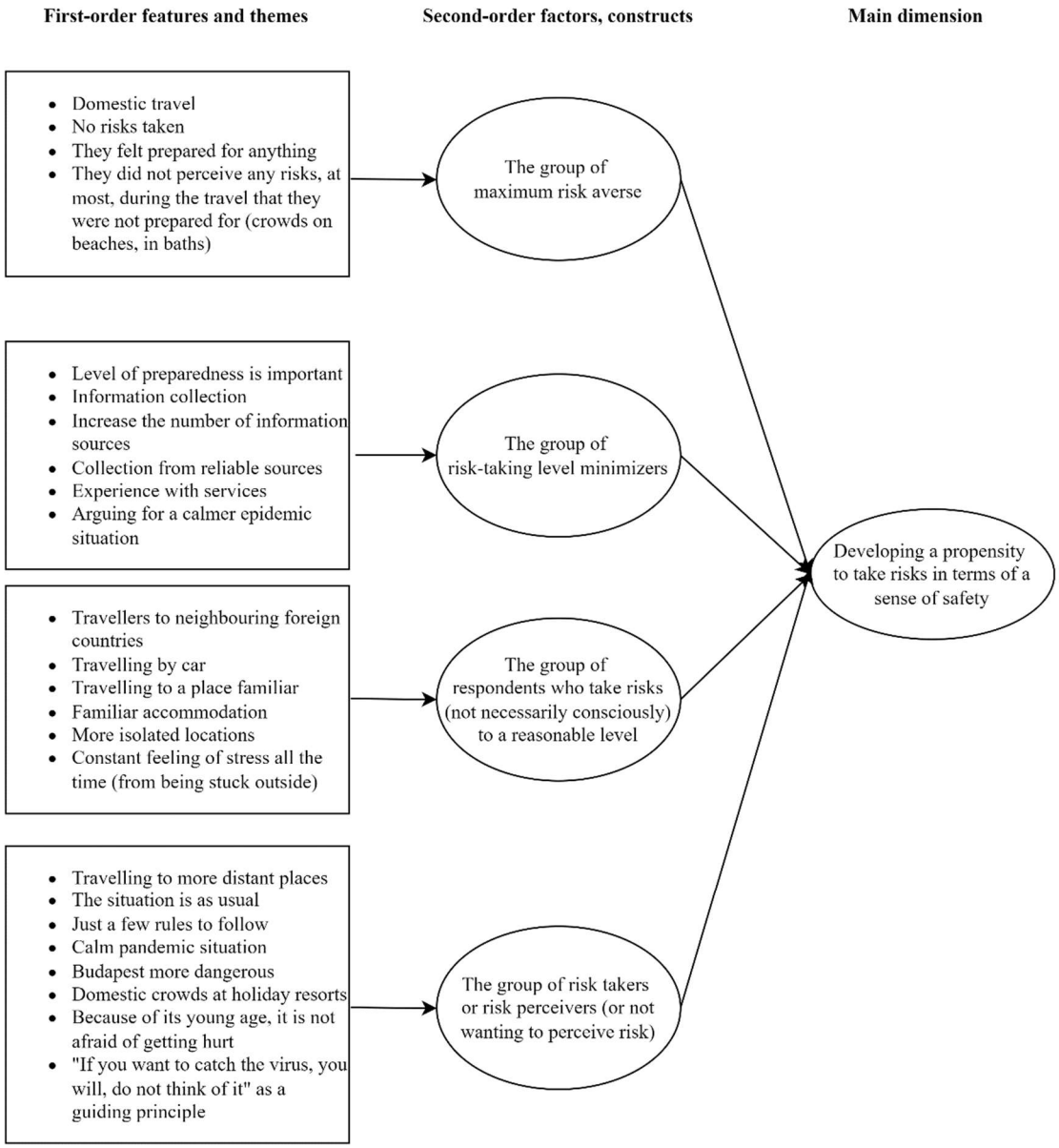
> *„I felt that I would not catch the disease if I did not think about it, but it is not a life insurance policy to rely on it, so I consciously avoided the crowds before the travel." (A respondent travelling abroad)*

Overall, the volatile situation has negatively affected both areas of risk perception, i.e. it has also increased uncertainty and/or the severity of adverse outcomes. Furthermore, the possibility of an unexpected event was hanging over their heads all the time, thus increasing anxiety in addition to health, performance and financial risk perceptions. In addition, the overall experience of a subject was negatively impacted by the ongoing sense of uncertainty. Finally, controlling the unexpected was problematic because external conditions were challenging to manage, and there was also something to fear from changes in internal conditions. It can be seen that variability had the most negative impact on the sense of control, reducing it, and thus I can conclude that the sense of control may be related to the risk aversion – risk reduction dimension. We have seen examples of this (Sadiq et al., 2021; Bae – Chang, 2021) in the literature reviewed in the Theory of Planned Behaviour context. I found that in several cases where there was a fear of volatility or increased sense of danger, subjects overcame it and eventually tried to live with the situation. Moreover, the quality of this coexistence may have depended on the risk-taking intentions and attitudes discussed in the next chapter. In conclusion, the unexpected situation could also have resulted from the fact that an event had occurred at the location for which the subjects were not prepared (large crowds at waterfront locations in the case of domestic travel), and therefore, in retrospect, they considered their stay there to be risky. Thus, the decision to reduce the risk may have become even riskier after the unexpected event occurred than the level of risk initially perceived before the reduction (choice of foreign versus domestic destination).

4.4 Dimension of the differentiating phenomenon of risk taking

Risk-taking can also be interpreted from the results as taking on an attitude, role or position before making a final decision. This factor influences (or even moderates) the final decision through the perception of security created by the risk-taking-risk-reduction relation. As we have seen from the previous sections, risk-taking has, in many cases, not been minimised or eliminated and, in many cases, has remained at the same level or even increased. There were also cases where no risk was perceived or not directly perceived. Finally, we also saw examples where the subject was still perceived the risk at the time of the travel but went ahead anyway. Based on these results, I could distinguish four second-order factors (groups) from the 24 first-order factors (Figure 10). These four main second-order factors were groups. These were the group of maximum risk averse (those who do not take any risk at all), the group of those who minimise the level of risk-taking, and the group of those who bring risk-taking to a reasonable level (but they are not necessarily conscious risk takers), and the group of those who take risk entirely or do not perceive (or do not want to perceive) risk. I will now go through these dimensions in more detail.

Figure 10. Details of the risk-taking dimension



Source: own editing

4.4.1 The group of maximum risk averse

The first group comprises those characterised by maximum risk aversion, i.e. risk-taking in this area was not possible and was not observed. This was mainly the case for those who chose to travel domestically, did not perceive any risk and tried to avoid everything. The only event that could not be eliminated was the unexpected, which sometimes resulted precisely from risk reduction, such as the appearance of crowds at spas, beaches and bathing areas, as discussed earlier. In retrospect, this harmed them, and the overall experience was not happy. Furthermore, their perception of risk had reached

a minimum level during the interview. They were particularly disturbed by this phenomenon from a health point of view. All other types of risk perception were reduced to zero so that they could relax and enjoy themselves, especially those who did not spend their holidays on the water, at the beach or in the spa. This shows that the overall satisfaction, experience and contentment of individuals with this factor could be influenced by the degree of risk perception. Thus, in their case, reducing risk perception to zero was a critical factor in the choice of destination and the final value judgements made concerning the holiday.

> *„We went to a completely secluded, quiet, private place in the woods, so that we wouldn't meet anyone, we would be alone in nature, because that seemed the safest thing to do." (A respondent travelling domestically)*

4.4.2 The group of risk-taking level minimizers

In the second group, the respondents already aimed to minimise risk-taking. This implies minimising risk perception, but in such a way that they would have wanted to travel anyway, one way or another, but with as little risk as possible. In other words, these individuals were aware of the level of risk they were taking and were trying to minimise it so they could be described as risk-averse. However, they were not willing or able to reduce all risks, so they tried to live with it, but to the minimum extent possible. In this group, the primary factors that emerged were being as prepared as possible, gathering as much information from as many sources as possible, and preferring the most reliable places both in gathering information and in the destinations and services that could be considered when making a decision. A powerful factor was an experience (preferably positive) in gathering information, booking, destination, location and services. What pushed them beyond their minimum risk perception was the *„calmer epidemic situation"*. Mostly they blamed this element because nothing unexpected or serious could happen. Furthermore, these respondents typically travelled at the beginning of the summer, after thorough and lengthy preparation, but finalised their booking shortly before arrival. They typically paid on the spot and preferred the free cancellation options. Again, these were all designed to minimise the likelihood of the unexpected occurring. They did not perceive any risk or feel threatened before or during the trip, which they justified by the fact that:

„…I gathered an amazing amount of information, I looked at everything, I was prepared for everything, and I also felt that there was no danger, there couldn't be" - a respondent travelling abroad.

Although it is important to note here that some subjects justified their extensive information gathering by saying that they had hardly used any extra information for their pre-epidemic travel plans, and now they were looking at sites that they *„did not even know existed before"*. Some said that one of the benefits of the Coronavirus was that it provided them with information about potential threats and new sites, which they would find valuable to use in the future. They could then be better prepared for their next holiday at home or abroad. Overall, this phenomenon puts the role of risk reduction in a new light, as many people used it to minimise the risk they were taking because they were keen to travel after being locked up. Sometimes even regardless of how much risk they ultimately perceive. On the other hand, the perceived level of preparedness may also be more of a subjective and relative factor, which seems to be heavily influenced by the use of many and varied sources of information and information from official sites and individuals. However, these do not necessarily mean that these respondents were prepared, but this sense of preparedness seems to have had the most significant positive impact on their overall perception and the absence of perceived risk. This latter element also suggests that they perceived risk but were prepared for its magnitude and severity and may have ignored it. Moreover, thus it was less of an inconvenience. Thanks to the preparation and the risk perception, which did not impair the feeling of safety, the overall experience was not spoiled by the inconvenience.

4.4.3 The group of respondents who take risks (not necessarily consciously) to a reasonable level

The third group is the most complex of the four. They are very similar to those described in the previous paragraph but still somewhat different from them, making them difficult to understand. Here too, the aim was to reduce risk perception, but in a slightly more superficial way, relying mainly on the respondents' experience and previous knowledge. In this case, too, the respondents tried to bring the risk they could take down to a reasonable level, but they did not necessarily consciously take what appeared to be minimal or even medium existing risks. It seems that subjects with this characteristic were not sufficiently prepared for the potential risks and feared that they might perceive too many risks in their research. It could also be argued that they consciously avoided risk

perception, but thus their risk-taking was not conscious because many threats were ignored or not even known to them. This phenomenon is also paradoxical because this group perceived the least risk because they did not want to perceive it. This is particularly true of those subjects who *„had a fear inside that anything could happen"* and therefore became one of the most stressed groups. This group was the most anxious about the possible worsening of the pandemic. Members of the group travelled to a neighbouring foreign country, by car, to a familiar location, to a friendly hotel or a familiar friend. They sought the most secluded places possible, choosing no programme that could be free-flowing or in a confined space. However, they did not do this because it was the best way to reduce the risk, but explained that it was the safest way, *„previous experience is the best in such cases"*. They did not trust the information's content and believed they could not get everything from indirect information anyway. Furthermore, the fear of unexpected events, of things, suddenly going wrong, was most significant in this group as can be seen, so much so that they preferred not to be adequately prepared. However, they did use significant risk mitigants compared to the next group in terms of drawing on their own experience and familiarity. The presence of elements of trust was significant for this group, and they also based their sense of safety on this. Finally, their general lack of preparedness caused them anxiety during the trip.

> *„I was not really looking for information, just about the entry. Everything else we discussed personally with the owner we went to and trusted that nothing was wrong." (A respondent travelling abroad)*

> *„In retrospect, we may have been brave, but fortunately nothing happened. It was also a time when we could have been more confident that it would not happen. We could have saved ourselves the worry." (A respondent travelling abroad)*

Overall, members of this group felt that the best way to minimise risks was to draw on their own previous experience, sometimes by obtaining personal information. However, this allowed them to avoid information that could have reduced their potential risk perceptions or reduced the likelihood of an unexpected event occurring (these travellers also travelled mainly in the first half of summer, when positive trends were otherwise observed). This suggests that if a probability of an unexpected event occurring is also given, then reducing it is more objectively interpreted in terms of the risk reduction dimension. Thus, its reduction is an equally important factor in the booking process. The probability of the occurrence of an unexpected event can be seen as both a negative consequence and a probability of occurrence. The point is that this would already have

reduced the resulting risk aversion. If this had been the case, the group members described by these characteristics would have been more similar to the members of the second group. Instead, this group could be said to have taken the risk without being aware of the extent of the risk, while at the same time feeling that they had done enough to minimise the primary risks. Despite this, there was a constant fear of the unexpected, with considerable anxiety among members of this group.

> *„It would have been good to know that there was basically nothing to be afraid of, that there was little chance that suddenly there would be a huge change and we would not be able to react." (A respondent travelling abroad)*

4.4.4 The group of risk takers or risk perceivers (or not wanting to perceive risk)

Finally, I can describe the members of the fourth group as taking all the risks. This went hand in hand with ignoring the perception of risk, not perceiving any risk, or not perceiving what they did perceive as risk(s). The latter felt prepared and came to this conclusion because the state of the epidemic curve at the time suggested that there was nothing to fear, *„everything was as it was before the coronavirus epidemic"*. Moreover, what was different (compliance with rules and measures) *„was not significant and seemed easy to implement"*. Some argued that *„being from Budapest, I think it is more dangerous than anything else, especially with the crowds on the streets and in nightclubs"*. Domestic destinations were also seen as riskier because of the potential crowds, which they were somewhat right about, analysing the results of other respondents. Those who felt there was a risk were mainly health-related, but they were typically not afraid of it for two reasons:

> *„... we are young, it will not hurt me anyway", or „if you want to catch the virus, you will, you do not have to stress and you will not catch it" – respondents travelling abroad.*

Most of these people travelled abroad, and to more distant countries, by plane. The primary reasons for their courage are the optimal epidemiological situation and their age, i.e. external and internal factors. They also had a strong desire to escape their everyday lives and confinement, increasing their risk-taking. However, it should be mentioned that they did not feel, for the most part, that they were big risk takers for the reasons mentioned above. They were conscious that they perceived potential dangers but did not feel the severity of their adverse outcomes as outside their comfort zone.

Overall, members of this group were the least stressed and the most satisfied with their travel. An interesting finding was that they took the objective risks by actually only taking the risks they could take, and they also had a strong sense of confidence in the actual positive outcomes. So, because of their endowment and high confidence, they did not consider the perceived risks too much (quasi unacceptable), and they took what they did take. This result nuances the literature's picture of the level of risk-taking falling inside or outside one's tolerance zone. Instead, we see such zones in risk perception, shaped by both internal and external conditions, confidence in them and the use of possible risk reduction tools. These respondents did not perceive their travel as risky and therefore did not perceive themselves as risk-takers.

4.4.5 Summary

Summarising the four second-order factors, guidelines divided respondents into different groups. The first group were the most risk-averse, for whom risk-taking was non-existent, as they tried to prepare for any adverse outcome. Nevertheless, they were unprepared for the unexpected event that resulted from risk reduction (crowds in some domestic locations), which worsened their experience afterwards. However, for those who did not experience such a negative, I received very positive responses about the experience and satisfaction, so for them, it was critical to reduce the perceived risks to zero. Significantly, compared to the third group, they also consciously reduced this to zero, so they were not distressed by any fear of a perceived or actual event.

The second group was willing to take minimal risk. However, this required them to take all risk mitigants and minimise risk perception. Members made this trade-off of this group because they had a stronger desire to travel, preferably abroad, as opposed to the first group, who *„for once agreed to go on holiday only in their home country this year"* or were less likely to go abroad anyway. They tried to prepare as much as possible and had essential confidence in the situation. They used sources of information, transaction and booking sites and service providers about which they already had a basic confidence level linked to a previous positive experience. This factor also highlights the perceived degree of preparedness, which is a subjective factor, and it was found that someone based their awareness on the fact that *„they were much more active now than in the past in terms of information gathering"*. Members of this group were likely to have experienced risks, but they were prepared for the extent of these risks and did not have a zero tolerance

for perceived risks in terms of the overall experience, so this did not cause a negative experience in their case.

The third group was the most exciting in terms of risk-taking. The results also suggest that they were the most risk-taking, even though they are not a risk-taking group, and this probably caused ongoing anxiety for many of them. While, objectively speaking, it is by no means certain that they took the most risks. This group was aware of perceived risks, yet they made every effort to avoid perceiving them. They were also afraid of inconsistencies in information, i.e. this group feared counterproductive risk reduction in advance. They searched for known locations and service providers and travelled to neighbouring foreign countries, by car, mainly to more isolated locations. This group did not consciously take the risk, as they were unaware of it. They knew that anything could happen and feared it, wildly the unexpected. However, their results indicate that the unexpected event can be flagged with a probability so that the impact of this negative outcome can be more easily reduced.

The last, the fourth group, reacted best to the unexpected event. They felt that the chance of the contingency occurring that summer was minimal and that it would not have such a severe impact on them if it did occur. This group took one of the highest risks in general, but the issue needs to be examined at the level of risk perception. These respondents did not consider themselves risk takers. However, they had a low-risk perception, which could be due to internal (young and not affected by the virus) and external (global epidemic situation described as positive) factors, as well as confidence in the situation and the elements and decisions chose, and finally the necessary use of risk reduction tools. Although it could quickly be concluded that this group was the maximum risk-takers, this only appears to be the case from the outside, compared to other groups with different attitudes. Members of this group were not. Therefore, they did not feel anxiety, and their overall experience was not negatively affected by any perceived discomfort (they could live with the precautions). They felt as safe as any other group, sometimes even more so (certainly compared to the third group, and sometimes even to the first). However, it should be mentioned that some members of this group stated that they would have had the greatest pleasure and relaxation if they had been able to visit a distant country the same way as they did before the coronavirus pandemic. This has been the case for most of them. It is, therefore, easy to imagine that this need for escape or the desire to continue to guarantee the flow of life somewhat overrode the perceived level of risk.

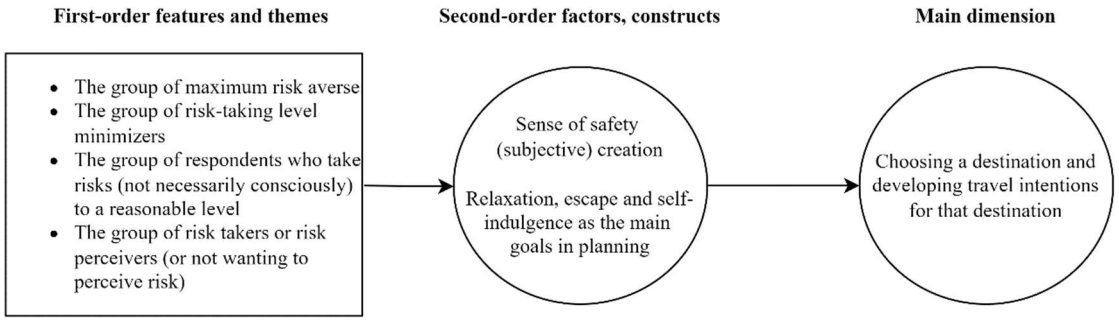
What is apparent is that the sense of safety (the result of a combination of risk perception and risk reduction) is the area that is most describable in terms of intrinsic characteristics. This has a tolerance zone rather than a risk-taking intention. However, in a quantitative study, risk-taking can help to determine (moderate) how the perception of safety affects the outcome variable, be it the choice of location or, within that, the intention to travel. Overall, it also seems that it is the subjective tolerance zone of the sense of safety that can determine the overall experience, as was seen, for example, in the first group of people who experienced an inconvenience and for whom this kind of safety violation no longer fit into the tolerance zone. Thus, understanding the process of developing a sense of safety is critical in analyses of consumer behaviour prior to travel intention. However, the perception of risk-taking intention and risk-taking can also play an important role in potential research, as was seen in the four different groups, especially the first, second and, unknowingly, third first-order factor (seen at the second-order level) groups. Finally, we can also probably judge the acceptable optimum levels of risk perception by the willingness to take risks. This also implies that risk-taking intention may exist independently and without influence in relationships between risk perception, risk reduction and travel intention.

4.5 Dimension of destination selection

As I explained in the previous dimensions based on the qualitative research, the main driving force for respondents' holidaying was not the general intention to travel. This could be for two reasons. Firstly, the sample included respondents who wanted to travel somewhere on holiday, and secondly, travel intentions were specific (in terms of wanting to have a safe holiday) in the choice of where to travel. Thus, the intention to travel can be interpreted separately for domestic travel, travel to a neighbouring country and travel abroad to a distant country, according to the results of the four groups (first-order themes, factors) formed based on the intention to take risks. Based on my results, safety perception (as a second-order construct) was most strongly related to the final location where the final travel intention was to be viewed (Figure 11). Perception of safety perception was most strongly related to perceptions of the relationship between risk perception and risk reduction. The risk-taking intention was influenced by the development of this relationship, in addition to the intrinsic conditions – which judge a given situation as safe or unsafe. This also shows that what was discussed in the previous

chapter is closely related to the topic of this chapter. This dimension was a direct precursor of the whole previous topic.

Figure 11. Details of the destination selection dimension



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As we have seen earlier, the willingness to take risks may also have caused respondents to try to reduce perceived risks to zero or at least to a more acceptable level. Thus, risk-taking intention strongly influenced the (desired) level of risk reduction. When, after a specific time, it was no longer possible to reduce the perceived risk any further, a value judgment was again made, where the level of perceived safety was also measured, and if it fell below the tolerance zone, i.e. if it seemed risky to the subject, he or she could decide to what final extent he or she dared to take it. There may have been combinations where the respondents already felt safe at a particular location, but it may also have been that the safety tolerance zone was pushed out for a particular location, or the respondents chose a combination that would do the least possible damage to their sense of safety, so they looked for a risk that was still acceptable. The ultimate goal was to relax, unwind and experience the pleasure of travel. In light of this and their risk-taking attitude, the subjects made their final decision and shaped their travel intentions.

> *„I felt that there was nothing dangerous about travelling domestically anymore. Of course, there were possible negative consequences (getting sick, quarantine obligations, use of confined spaces), but I did not think they were dangerous for us." (A respondent travelling domestically)*

Based on the risk-taking previously discussed, the subject chose the location according to whether he or she had mapped and avoided the risks (first group), mapped,

managed and assumed/avoided the risks (second group), mapped the risks to a lesser extent, managed them to a lesser extent and assumed them (unknowingly) in whole or in part (third group), or had not mapped or mapped the risks but did not consider them risky to manage (fourth group). In turn, they weighted their travel intentions based on the abovementioned factors. For the first group (Maximum Risk Avoidants), the intention to travel abroad was zero, not even considered. Even if they had, they had already rejected it. Typically, they had the most positive intention to travel domestically. For the second group (those minimising risk-taking), the intention to travel was zero for more distant foreign countries, the highest for neighbouring foreign countries and the highest for domestic travel. Thus, subjects in this group also tended to have a more positive attitude towards these two destinations. For the third group (Risk-takers [not necessarily consciously] to a reasonable level), all destinations could be described as having some level of travel intention. The lowest weight was given to domestic travel, with most of these subjects planning to travel abroad and to neighbouring countries. Those who went domestically were much less likely to have the kind of anxiety about unexpected events that I presented at length in the previous chapter than those who travelled abroad (*„I might have ended up feeling calmer if we had taken a holiday at home." – a respondent travelling to a neighbouring foreign country*). Finally, the primary preference of the members of the fourth group (Total risk takers or risk perceivers [or not want to perceive risk]) was to travel abroad, especially to distant countries. They also had a relatively higher affinity to travel to neighbouring countries, but their attitudes towards domestic destinations were not as optimistic. Interestingly, the latter group showed a more negative orientation toward domestic destinations, based on their perception of risk. This also points to the fact that this group, if they had been risk-takers from their point of view – and thus objectively perceived as risk-takers – would have preferred a domestic destination. However, they are only perceived as risk-takers because they travel to the remote locations most perceived as the riskiest. So, overall, it could be said that each group at their level, despite having gone on holiday, were still risk-averse rather than risk-takers. Regardless, it may be that a personality test or a quantitative query on the risk-taking scale would indicate that individuals with the characteristics of the fourth group are the most risk-taking and open-minded.

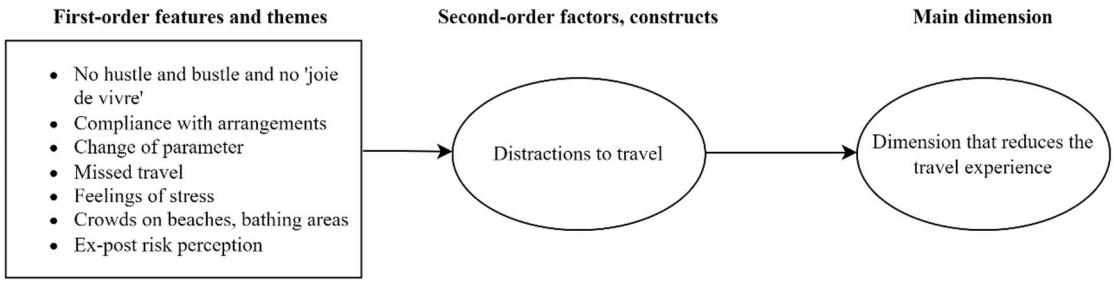
It is also interesting to note that it was mainly the first two groups that appeared to be the general public's choice of risky or safe destination (mainly domestic travel). The latter choice was also influenced by trust, familiarity and experience with the destination.

The previous factors presented in the analysis have played a role mainly in the choice of location, but with a measure of travel intention and attitude already associated with each location. The picture is somewhat nuanced because some members of the fourth group said that for them, the absolute relaxation and pleasure would be *„if they could travel to a more distant location in the same way as in previous years”*. In other words, for them, this desire to get away from it all may have somewhat overridden their sense of safety and influenced their perception of destinations in a more positive than average direction.

4.6 Dimension of the impact of risk perception on the travel experience

In the last dimension, I have examined an area worth highlighting, even if it is a little beyond the focus of my topic. I have written several times during the qualitative analysis that the primary purpose of the respondents was to relax, unwind and experience the pleasure of travel. They subordinated everything they said, often unspoken, to this in deciding to travel. Thus, I found that risk perception and its reduction or ignoring was critical to the final experience. In this dimension, a second-order factor emerged, which I called „travel distractions”. This second-order construct was shaped by seven first-order factors (Figure 12).

Figure 12. Details of the effect of risk perception on travel experience



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Writing exclusively about hazards and risks is impossible because some topics have little or no connection with risk detection. This could include the lack of the hustle and bustle mentioned by the respondents or the lack of living spaces, especially when travelling abroad. It is also a paradox that, for example, for those travelling domestically, it was precisely this that constituted an ex-post risk perception or that most travellers wanted to avoid overcrowded, busy spaces because of the many risks involved. However,

in terms of atmosphere, this was a missing element in the overall experience for those travelling abroad. Missed travels could also be considered a distraction, especially for those who opted for a domestic travel instead of a travel to a foreign country.

These were followed by elements related to risk perception. These included changes in parameters, such as an unexpected event or development that increased their sense of threat. Here one can mention the inconvenience of having to comply with the measures and the constant attention (especially concerning wearing masks and decontamination) concerning the mandatory and the voluntary elements. Furthermore, it was at this point that another unexpected hazard emerged: the appearance of crowds on beaches and waterfronts for domestic tourists. Finally, the constant feeling of stress and anxiety were also significant factors influencing the experience in a negative direction.

> *„I had no idea that there would be such crowds on the beaches and such a lack of respect for the rules. It was a serious danger, especially in hindsight. We were lucky to get away with it." (A respondent travelling domestically)*

Typically, these factors, particularly those related to risk perception, were found to be more detrimental for subjects whose perceived safety started at a higher level. For the most part, there were changes among those who travelled domestically that ultimately *„left a bitter taste in their mouths"*. However, unexpected situations (social attitudes towards foreigners, new rules) also disrupted those travelling abroad. It seems that subjects who considered the feeling of safety acceptable at a lower level were also more optimistic about the overall experience. This does not mean they did not perceive risks but tried to live with or prepare for these risks. They were more flexible on this issue. Sometimes, however, they also harmed the overall experience due to the lack of the hustle and bustle.

It seems that all the factors mentioned were related to the situation related to the coronavirus, no other type of factor harmed the experience, or at least they did not attribute much importance to it because there were other situations with a more significant impact. They were less attuned to other adverse outcomes. This also confirms what I indicated earlier about risk reduction and risk-taking, that over-preparedness also implies a greater susceptibility to risk-taking. In addition, time risk was also present at this time, which further heightened the sense of *„I was nervous that nothing unexpected would happen, I had prepared so much for every eventuality for some subjects" – a respondent travelling domestically*. Finally, an interesting finding was when a decision to avoid risk

altogether to enhance the travel experience turned out to be risky or risk-inducing, thus ultimately reducing the quality of the experience.

4.7 Concluding thoughts

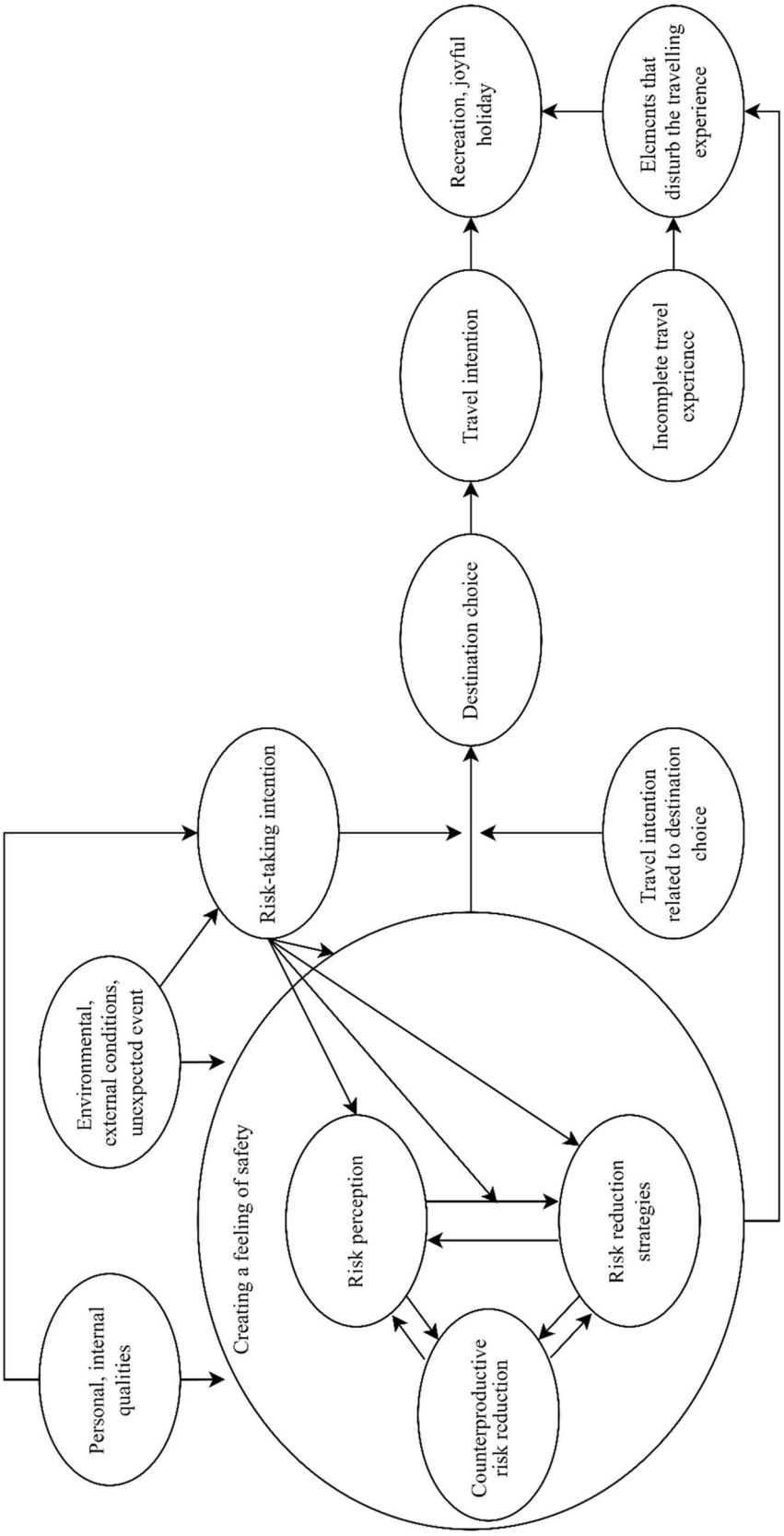
A total of 111 people were interviewed in the qualitative research in the form of structured interviews. The data was processed using a hybrid method, qualitative and quantitative. In the qualitative processing, I conducted a three-level analysis, where I first grouped the responses into clearly different first-order themes and characteristics. I then used these to create second-order constructs that were also well separable. Finally, along with the more extensive second-order connections, I created the main dimensions and the main subject areas. In total, 112 factors were identified in 6 main dimensions, 14 second-order constructs and 26 main themes. The results show that the central element was risk reduction strategies, through which the areas of risk detection were identified. However, some risk reduction tools (social media, EWOM, information gathering, distrust of specific sites and service providers) increased risk perception. The combination of risk perception and risk reduction strategies (whether they actually reduce or increase risk perception) has led to a sense of security among consumers. This perception of safety could be created by consumers minimising or reducing their perceived risks to an acceptable level, but also by not perceiving a risk or by perceiving a risk but not engaging in risk reduction because they still perceived their decision as safe. This sense of security could have been undermined by external and internal unexpected events or even increased.

Moreover, the overall feeling is determined by the willingness to take risks. The subjects then chose a destination, and their intention to travel was interpreted as a destination. This could be because the choice of destination was also a risk reduction strategy. However, this did not mean that those who travelled abroad perceived less risk than those who went on holiday domestically. Respondents appear to have developed a perception of safety along the lines of destination and the resulting intention to travel separately.

Furthermore, once they had made their choice, their general desire to travel, despite their different perceptions, helped them through the difficulties associated with the destination, and each was confident or knew that the travel they had chosen would be for their enjoyment and pleasurable recreation. However, for some, their relaxation was

disrupted by the negative consequences of unexpected events (crowds at beaches and baths), the lack of places to live (for those travelling abroad) or, above all, the need to comply with health risk reduction measures (masks, sanitising). In conclusion, the pleasure and relaxation of travelling could be diminished by a lack of safety or an incomplete travel experience. A model summarising the interfaces and the main dimensions are presented in Figure 13.

Figure 13. Summary of results from qualitative research



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5 Quantitative research findings

I will first present the quantitative research results by looking at the sample's demographic characteristics. Then, the process of designing the CFA structure, its fit indicators, the associated factor weights and correlation coefficients are summarised, including the invariance analysis. After detailing the CFA construction, I present the results of hypothesis testing using SEM modelling. First, the direct effects, then the mediating indirect effects and the interaction effect results. Finally, the hypotheses related to the grouping variables will be tested along the grouping criteria for the hypothesized effects.

5.1 Building the hypothesis and setting up the quantitative model

In this research, I test hypotheses for one primary model. After reviewing the literature, I conclude that perceived risks can appear in different places based on their role in the model. The relationships between the factors are favourable. More general consumer risk perceptions are influenced by risk perceptions related to online space and the COVID-19 pandemic. More general risk perception is measured by traditional risk perception types associated with buying. Risk reduction tools may harm each of the perceived risk types, i.e. the more a consumer uses one of the risk reduction tools, the more his perceived risk may decrease. Risk reduction tools may include other risk reduction tools that do not necessarily only reduce risk perception. Based on the literature review, we have seen that risk reduction tools mainly do indeed reduce risk perception. However, some theories say that the risk-reducing effects of information gathering, EWOM and social media space are far from certain (Aebli et al., 2019; Yu et al., 2021). Consequently, I will treat some risk reduction tools as non-inferior factors among risk mitigation tools.

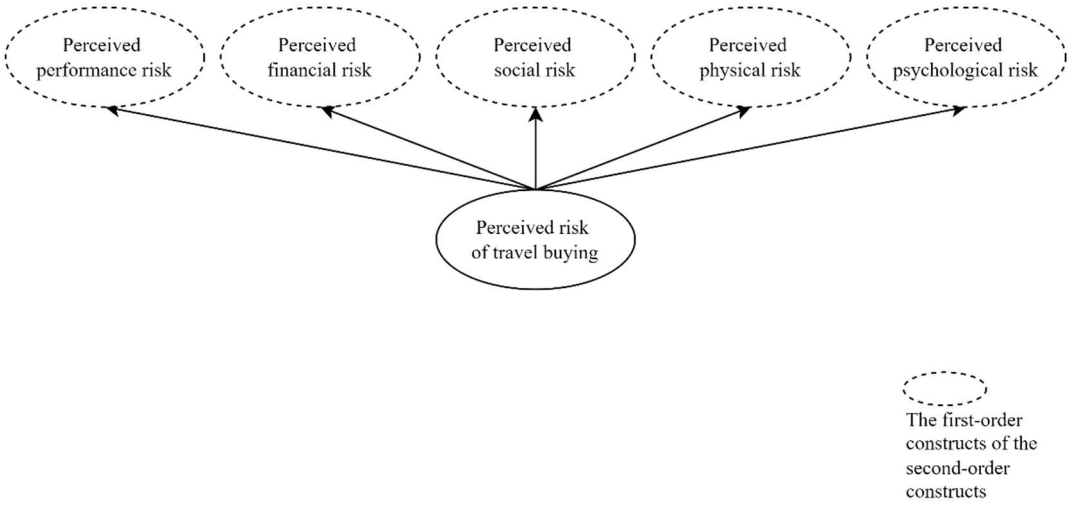
I assume a negative directional direct effect between the more general perceived risk associated with travel buying intention because the higher the risk perception, the lower the probability of travel intention. Online space and risk perceptions related to the COVID-19 pandemic may also affect travel intention, but indirectly through risk perceptions related to travel buying rather than directly, as I assume that they increase general risk perceptions, which further decrease travel intention. In turn, the relationship between the perceived risk of travel buying and travel intention may be moderated by the individual's willingness to take risks. This latter study supports the more sophisticated

representation of individual characteristics in the model, as mentioned several times before. Finally, I also hypothesize that the effect of risk-reducing instruments on more general risk perceptions may have been more significant for those who chose a domestic destination, which in turn may have had a less negative effect on travel intention. Thus, I will also measure the moderating effect of the two groups. In the following, I will look at the main issues related to parts of the model and also present in detail the first-order latent variables that form the second-order factors.

5.1.1 Risks associated with travel buying

In the group of perceived risk types related to travel buying and implementation, I examine factors that researchers have studied in the traditional or classical approach for about fifty years. They were first explored in the 1970s by Roselius (1971) and Jacoby and Kaplan (1972). Then, in the 1980s, Valla (1982), Dowling (1986), and Peterson et al. (1989) expanded and refined the different types most effectively. Finally, in the 1990s, Stone and Gronhaug (1993) finalized the subcategories and created a perceived total risk factor, and finally, Mitchell (1999) summarised the entire framework. Since then, the most common risk perceptions traditionally associated with the purchase are performance, financial, social, time, psychological and physical risk. These appear in the offline space as well as in the online space, in most cases related to buying and consumption. I have also dealt at length with the concept of perceived risk itself, which is, in short, the result of a combination of uncertainty and expected negative consequence. However, a negative consequence is not always available in a collection. Thus, if we want to be more precise, it is the summed aggregate of uncertainty and negative consequences, or the summed equations of probabilities of loss, or the summed equations of probabilities of loss and loss importance (Dowling, 1986) that most objectively describe this factor based on subjective perceptions. These factors have already appeared in the earliest literature, as seen in the theoretical review. This also justifies talking about types of risk perception and not just treating them as one aggregate risk perception. As mentioned above, Stone and Gronhaug (1993) also tried to look at total perceived risk as a separate factor, summarising these subtypes. Then the correlations between each subtype and perceived total risk were positive. I have summarised the constructs of the perceived risk of travel buying in Figure 14.

Figure 14. Perceived risk of travel buying



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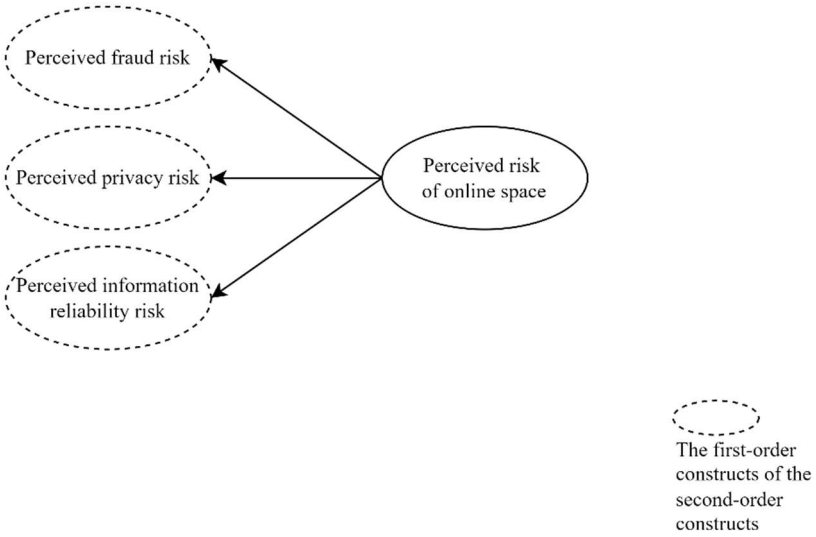
5.1.2 Perceived risk of online space

With the rise of the online space, the potential impact of risk sharing has been re-examined. Various categories and types have been tried to be created, but many have gone back to the main types previously presented in the classical approach. Cases (2002) was the first to deal in depth with the online space, especially its technological risks. He trained a factor on the data protection risk or the uncertainty posed by confidentiality statements. By the end of the 2000s, it became clear that privacy and web-based risks such as the challenges of secure browsing or the risks of fraud, theft and scams could be a cornerstone of online space investigations (Hsin Chang – Wen Chen, 2008). In addition, types of risk that tend to extend (or even overlap with elements of) the classical approach have emerged. Examples include out-of-delivery risk (Ariff et al., 2014), which fits into the performance risk of the classical approach, transaction risk (Choi et al., 2016), which fits into the financial risk perception, or convenience risk (Bhatti et al., 2018), the basis of which is also a factor in the description of the time perceived risk type. I have focused on the technological risks associated with the online space. I focus on this in particular because more than 95% of tourism services are sold online, according to Eurostat (2020), so it is in this industry that it is most relevant to address the inclusion of online shopping and measure its risks. Figure 15 summarises the constructs that build up the perceived risk of the online space.

Figure 15. Perceived risk of online space



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5.1.3 Perceived risk of COVID-19 pandemic

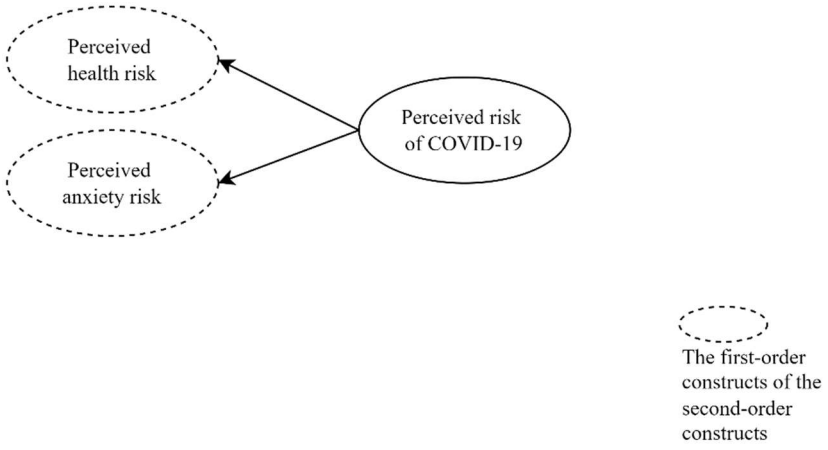
The physical perceived risk also includes health elements, but I think it is worth going more profound than this into the broader relevant fears. According to Godovykh et al. (2020), the measurement of risk perception may also be worth rethinking in the wake of the COVID-19 pandemic, as they identified that most studies on risk perception measure the cognitive elements of perceived risk and forget the affective dimension. The cognitive elements include the classic areas of measurement that I have discussed above. The consumer can more easily manage these by using disinfectants and maintaining the appropriate distance, reducing the health risk perception within the physical risk perception. The affective dimension can determine people's ability to cope with negative consequences. This means that an individual with positive emotions is more prepared for adverse consequences and does not want to misinterpret negative information. For this reason, I identified a third risk factor, the risk perception factor associated with COVID-19, which has been attempted to be measured by authors (Ahorsu et al., 2020; Taylor et al., 2020; Yu et al., 2021). The cited authors examined fears and stressors associated with COVID-19 using one factor, ten statements (Ahorsu et al., 2020), and five sub-factors (Taylor et al., 2020). This literature is primarily concerned with mental health. Overall, I described the coronavirus second-order factor with a health risk perception and an anxiety-related risk perception factor in the model. As a consequence, in addition to the more general physical and psychological risk perception types that also appear in the sub-

factors of travel buying-related risk perception, I also created a factor directly related to the COVID-19 pandemic with these items (health and mental distress factors), because I considered that these two dimensions were the most directly affected by the emergence of the coronavirus, which was moreover confirmed by the results of my qualitative research. For this reason, it is worthwhile to consider them together in the dimension of risk perception associated with COVID-19, as the authors cited have done, but only with one or the other factor separately.

The effects of the coronavirus on risk perceptions have also been addressed by authors in the last two years, particularly concerning health risks (Godovykh et al., 2020; Abraham et al., 2020). Studies agree that health risk perceptions may have cognitive, affective, individual and interpretative differences. Although the classical approach suggests that health fears may be present in the context of physical perceived risk to the extent of a single claim, they point in the direction of a more specific focus on COVID-19-related risk perceptions. For this reason, I have examined in my research the fears and risk perceptions of the coronavirus from a physical health and mental health perspective. In the literature, one can find a factor to describe mental health risks as a single factor (Ahorsu et al., 2020) but also a five-factor solution (Taylor et al., 2020). The scales used are close to the theoretical approach of stress testing.

Figure 16 summarises the building constructs of the perceived risk of COVID-19.

Figure 16. Perceived risk of COVID-19



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5.1.4 Effects of the types of risk perceived

The literature shows that it is impossible to define the differences between the different types of risk clearly. In my research, I distinguish between risks identified in the online and offline space. The risk perceptions in the offline dimension, mainly related to travel buying and taking, are concerned with the resulting consumption and the likelihood of negative consequences associated with it (Stone – Gronhaug, 1993; Sharma et al., 2021). For this reason, I argue that the perceived risk of travel buying reduces travel intentions.

In the online space, we encounter both the study of uncertainty and negative consequences associated with the purchase and consumption of a product or service and online perceived risk associated with concerns and fears about the platform's reliability. In sum, when shopping online, the consumer both grapples with the decision situations that arise when purchasing a product or service and becomes a user of web-based technology (Wu, 2013). In this paper, I refer to the perceived risks associated with a specific travel purchase, either offline or online, as the perceived risks associated with travel buying. The perceived risks that arise when using an online platform (such as the possibility of losing personal data, the risk of fraud, and the types of risks related to the reliability of information) are perceived risks related to the online space. Thus, I deal with several perceived risk types (risk of the seller, risk of the promise, risk of delivery) that have been addressed in the presented literature on online risks in the dimension of travel-related elements, mainly in the first-order latent variable of performance risk perception. I argue that risk perceptions related to the online space affect the entire purchase process, making this factor a latent variable of risk perceptions related to travel buying and having a positive directional influence.

I measure the effect of the coronavirus, which is the determinant of the study, as a third separate item. In the 2020s, scientific analyses on perceived risk appeared parallel with the onset of the COVID-19 pandemic. These studies measure the impact of the coronavirus along with existing factors on the subject of physical health and mental health risks as an element included in the physical factor categorised in the classical approach to perceived risk. I have, however, identified it as a separate element in the way presented earlier. Overall, based on the existing relevant theory (Peric et al., 2021; Chua et al., 2020; Ahorsu et al., 2020), I hypothesise that the second-order factor of perceived risk reported by COVID-19 (even though the cited authors only addressed one aspect of it) has a positive effect on perceived holiday shopping risk.

Overall, the model detail related to perceived risk with the location of hypotheses is presented in Figure 17.

Figure 17. Perceived risk space and its context

Source: own editing

The hypotheses for the direct effects of the model are.

H_{1a}: The perceived risk of the online space increases the perceived risk of travel buying.

H_{1b}: The perceived risk of COVID-19 increases the perceived risk of travel buying.

H_4: The perceived risk of travel buying reduces the intention to travel.

In this part of the model, I have made assumptions about indirect effects and direct effects. The authors cited in the hypothesis construction directly tested risk estimates for a more specific topic (online space and COVID-19 pandemic) on a behavioural outcome variable (travel intention, purchase intention, attitude, etc.). By examining a more general risk perception of travel buying, I think that the more thematic risk perceptions tend to affect this factor directly, while travel intention is affected (in a negative direction) through this general risk perception. I believe that general risk perceptions are more likely to correspond to an aggregate risk perception, which directly influences the outcome variable, but that more thematic risk perceptions have no direct effect on it, as we have seen in the more complex interpretation of Stone and Gronhaug (1993). I hypothesise that the higher a traveller perceives the risk of online shopping or the COVID-19 pandemic, the higher his/her overall risk perception will be, which ultimately reduces his/her

intention to travel. Thus, the hypotheses related to the mediating effects part of the model are.

H_{5a}: The perceived risk of online space reduces travel intentions through the perceived risk of travel buying.

H_{5b}: The perceived risk of COVID-19 reduces travel intentions through the perceived risk of travel buying.

5.1.5 Impact of risk reduction strategies on risk perception

Risk reduction tools began to be discussed in the 1970s by authors who discovered (Roselius, 1971) that reducing uncertainty is the key to reducing risk perception. According to Michell and Greatorex (1993), the purchase of services is riskier because of its specificity (HIPI principle) than the purchase of products. Based on previous research (Bruwer et al., 2013; Lam et al., 2017), it is possible to identify the specific tools that can be included in risk reduction strategies. However, based on my qualitative results, I cannot confidently say that all such instruments reduce risk perception in a quantitative model (Park et al., 2019). Furthermore, some factors can reduce risk perception, but not necessarily because they come through specific instruments or activities. For this reason, I argue that the risk reduction strategies factor should be approached in two areas. One area is identifying the factors that constitute the risk reduction strategy factor, for which second-order factor analysis is performed. The second area is the set of factors that influence the risk reduction strategy factor and, through this factor, indirectly influence the types of risk perception. In what follows, I first introduce the space that constitutes the risk reduction strategies factor and then turn to my hypotheses related to this block and the risk reduction strategies themselves.

5.1.5.1 Risk reduction strategies

The variable of risk reduction strategies can be broken down into four sub-factors that determine the means a traveller uses to reduce their perceived risk in a given situation (Figure 18). The importance of the quality of information, especially as the online space grows, can reduce the risks (Kim – Park, 2013; Adam, 2015). The quality of the mass of information found in different sources can be a critical point for reducing risk perception.

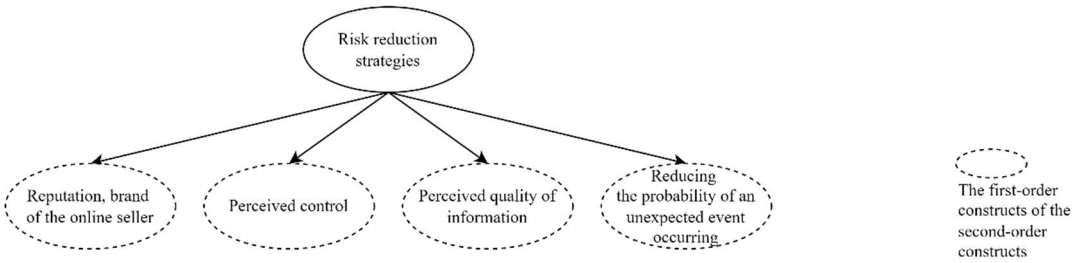
This perception of quality is very closely linked to the issue of the reputation or brand trustworthiness of the seller or online vendor (Kim et al., 2009; Kim – Park, 2013; Agag – El-Masry, 2017). Some approaches separate the two (Agag – El-Masry, 2017). Based on my qualitative research, it seems worthwhile to separate the quality of information and the reputation and trustworthiness of the vendor. However, based on my qualitative research findings, what was visible in both dimensions was that the quantity and quality of information were critical, especially in reducing perceived risks in the online space, especially those related to data loss. The utility of these risk reduction tools was expanded and, in parallel with the perception of information and sites about the coronavirus, it also helped subjects see through the perception that they might consider a given source unreliable. Furthermore, I found that these two areas appeared even when evaluating personal or television sources, with confidential sources being perceived as more credible (better reputable) and providing better quality information than television (and even better than social media). When perceiving risks, such as the question of social perception, it was also helpful to talk to a good friend or relative whose word the respondent had taken. However, it could be seen that the perception of the reputation of information sources was mainly based on opinions about the service provider side. In contrast, the perception of the quality of information was mainly based on perceptions of the content, which could also come from the interviewee to reduce risks or better prepare themselves. From all this, I think that the brand and reputation factor (service-related) and the perception of information quality as a first-order factor form the basis of my model's second-order factor of risk reduction strategies.

Another exciting issue is reducing the negative impact of the unexpected event, as the negative consequence may come out of nowhere (Rhodes et al., 2003; Renn, 2004). This area has been addressed in the literature mainly from the perspective of addiction and related unexpected situations. Based on my qualitative research, it is mainly the negative weight of the occurrence of the unexpected event that is assessed in the same way as the negative consequences are assessed. Furthermore, the probability of occurrence is another element that can be mitigated. This could be the case, for example, if someone is travelling to a place or at a time when they consider that nothing can go wrong, that there is little chance of a sudden severe adverse event occurring, or that even if it does occur, there will be less negative consequences. It could also be said that this is a phenomenon of preparing for a force majeure situation. Preparing for such force majeure situations can help to reduce the perceived risks of the whole process, especially the more general perceived risks (performance, financial). It can also reduce health fears

related to coronavirus and reduce anxiety by creating a sense that individuals are prepared for anything. There is no literature on this phenomenon, but it is a 'scaled-down' version of the combination of risk perception and risk reduction. Thus, in my opinion, this factor also forms the basis of risk reduction strategies because it has an apparent reducing effect on risk perceptions and is used by subjects as a risk reduction tool concerning the situation.

Finally, the rise of the online space has also brought the study of perceived control to the forefront (Corritore et al., 2003; Sadiq et al., 2021; Bae – Chang, 2021). This approach argues that perceived control affects perceived risk and that there is no perceived risk if this „sense of control" is maximal. The sense of control can be increased by experience with a previous purchase or by providing extra information or helpers. I indicated earlier that a critical point for subjects in qualitative research was their sense of preparedness. I believe that perceived control may be close to this factor but somewhat different. However, it also appears to be closely related to reducing risk perceptions of the situation, and for this reason, I consider that a sense of control is, as before, the fourth risk mitigant.

Figure 18. Interpretation of the risk reduction strategies factor



Source: own editing

5.1.5.2 Taking into account factors affecting the risk reduction strategies factor

Almost concurrently with the initial research on risk perceptions, the authors have been concerned with the effects of self-confidence (Hisrich et al., 1972). This factor has two domains. One is specific self-confidence, which refers to the perceived risk of a situation, and the other is general self-confidence, which refers to self-confidence. It is the latter that helps to overcome situations where specific self-confidence decreases, under-informedness appears, and decision-making becomes difficult because of increased

risk perception. The general self-confidence of the individual in any situation can vary from one situation to another. Specific self-confidence is more strongly related to perceived risk, but this type of self-confidence can be helped by cues such as brand (Bruwer et al., 2013) or being well informed and knowledgeable (Feick - Price, 1987). In reducing uncertainty, many other factors have been listed by authors in the last decades, such as trial and error, business image, WOM and EWOM, advertising faces, and many other elements. Researchers have also tried to address the reduction of the impact of a negative consequence („buying some kind of travel insurance" – Mitchell et al., 1999) but have concluded that reducing uncertainty is the primary area of risk reduction (Mitchell – McGoldrick, 1996), even if not specifically in terms of reducing a particular risk or resolving the adverse situation of the situation. For this reason, one of the essential elements is also the acquisition of information itself (Stern et al., 1977; Derbaix, 1983; Bruwer et al., 2013).

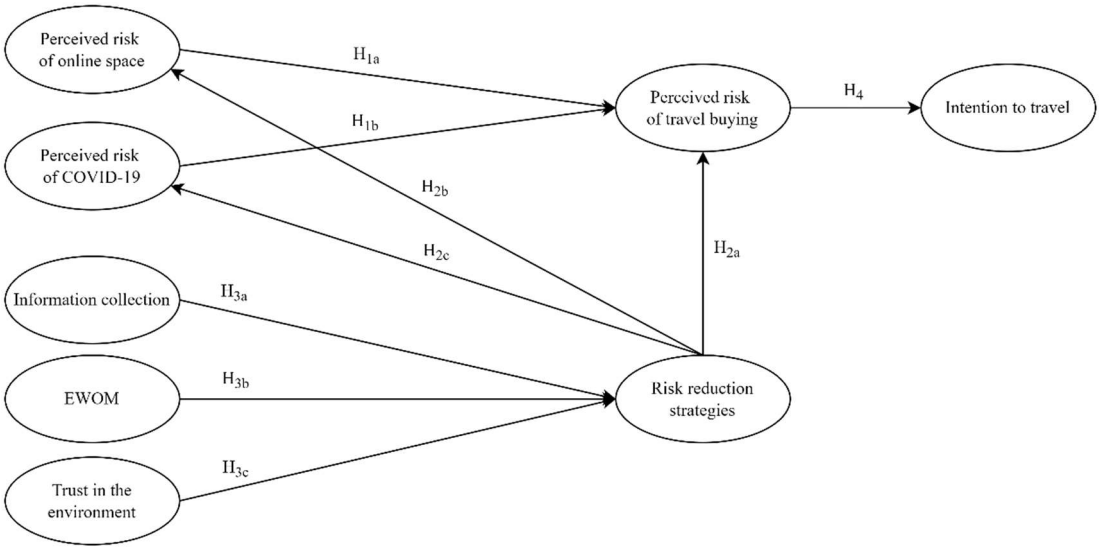
As I have written, self-confidence, trust, and their potential effects on perceived risk have been the longest-standing and most complex issues concerning risk reduction. Some argue that trust or perceived risk is the mediating element concerning each other for purchase intention (Corbitt et al., 2003; Corritore et al., 2003). However, in the online space, these issues are ignored, trust is placed at the top of the order, perceived risk, and purchase intention closes the queue. However, there is a consensus that one cannot be assessed without the other and that trust is mainly defined as the willingness to decide perceived risk (Mayer et al., 1995). For this reason, the authors (Chadwick, 2001) conclude that the best way for a company to reduce consumer risk is to increase trust (or, as I wrote earlier, certainty), which can help to overcome specific risk perceptions. The tools for this can be brand attributes and other trademarks, certificates and guarantees, positive reviews, and information to build trust in the environment. Consequently, not only the company itself but also the surrounding institutions, bodies and public administrations can reduce risk perceptions through trust in the environment (Mou et al., 2017; Dryhurst et al., 2020). Trust is a risk reduction tool whose development is more dependent on the respondent, so it is worth addressing this factor separately and not referring to it as the primary variable of risk reduction. However, I believe that using risk reduction strategies increases the use of trust as a context factor and, through it, reduces the types of perceived risk. This implies that trust alone is not sufficient to reduce perceived risks directly.

In recent years, gathering credible news and information has become critical in the face of much disinformation. For this reason, some authors believe that information gathering and EWOM, primarily through social media (Aebli et al., 2019; Yu et al., 2021), may increase risks. The content of the information may increase or decrease cognitive dissonance before or even during the journey (Kah – Lee, 2015). This perceived deception (Azam – Abbas, 2018), in turn, increases uncertainty in the consumer. This may increase risk perception or make the individual susceptible to risk perception. It may also be that uncertainty is not based on cognitive or affective elements (Godovykh et al., 2020). In any case, there may be risk reduction tools whose effects cannot be classified as risk reduction.

Moreover, these factors may arise not only during the perception of risk but also in the whole situation (travel buying) process. It is conceivable that already during the research, subjects are inspired by social media, news sites or rating platforms (Rejikumar – Asokan, 2017). This assumption also appeared as a result of the respondents of my qualitative research because there it was also visible which elements were already used as information before the execution of the travel situation. This may not have resulted in a risk-reducing effect, and there were some for whom it was the use of these tools that evoked potential risks. For all these reasons, in my research, I do not consider the factors of information gathering and EWOM as the primary factors of risk reduction strategies. However, even in this case, I assume that these factors increase the use of risk reduction strategies and indirectly reduce the level of perceived risk and the previously discussed factor of trust.

Based on these findings, the effects of the relationship between risk reduction and risk perception and the hypotheses posed are presented in Figure 19. Risk reduction instruments constitute the second-order factor of risk reduction strategies, while three risk reduction instruments positively affect this second-order dimension as instruments that increase the use of risk reduction strategies.

Figure 19. Perceived risk and risk reduction space and its relationship



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Based on the previous section, I assume that the second-order factor of risk-reduction strategies harms each type of risk perception, i.e. they reduce the perceived risk. Furthermore, I assume that the three separate risk reduction tools positively impact the second-order factor of the risk reduction tools, thus increasing their use as additional risk mitigation tools. This implies that these three factors alone are insufficient to reduce perceived risks, but additional, more specific risk reduction tools are necessary (or desired by subjects) in addition to them. A consumer who gathers more information or reads more reviews (EWOM) may be more in need of or more willing to use additional risk reduction tools due to the implied positive association. A consumer more trusting of his/her environment (perhaps also because he/she has used risk reduction strategies) is more likely to use additional risk reduction strategies. However, later moderating effects through the risk reduction strategy may help in the effectiveness of these three risk reduction tools in reducing perceived risks. The hypotheses directly related to this part of the model are.

H_{2a}: Using risk reduction strategies reduces the perceived risk of travel buying.

H_{2b}: Using risk reduction strategies reduces the perceived risk in the online space.

H_{2c}: Using risk reduction strategies reduces the perceived risk of COVID-19.

H_{3a}: Information collecting increases the use of risk reduction strategies.

H_{3b}: EWOM increases the use of risk reduction strategies.

H_{3c}: Trust in the environment increases the use of risk reduction strategies.

I have made assumptions about indirect and direct effects in this part of the model. I then assume, mainly based on the qualitative results, that a risk reduction strategy can indirectly positively affect travel intention. I believe using risk reduction tools can also increase travel intention by making someone use them and thus make them more confident in their decision, regardless of the type and amount of risk they perceive. For this reason, I consider it relevant to examine the mediating effect of risk reduction tools. Furthermore, none of the previous literature has addressed the issue of risk reduction at this level of integration in the model, so it is easy to place this factor slightly further away, with slightly different effects than I assume from the literature, especially from research based on analysis of variance. The role of risk reduction tools as a variable in the model will also be strongly reflected in my qualitative research.

H_{5c}: Using risk reduction strategies increases travel intentions through the perceived risk of travel buying.

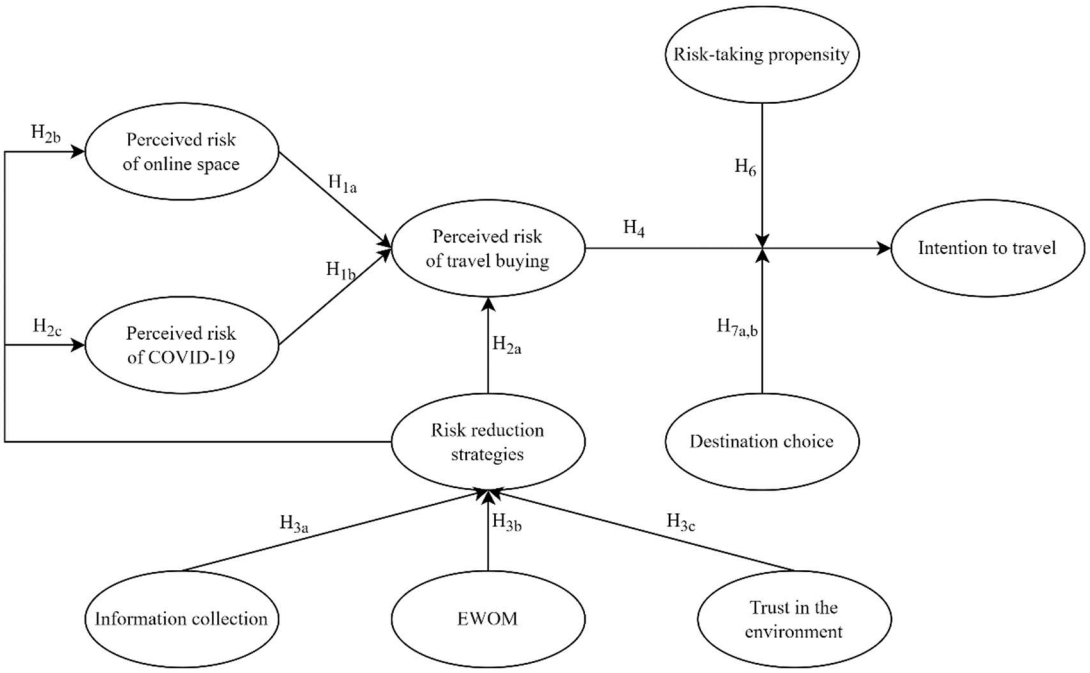
5.1.6 Factors moderating the impact of perceived risks

In case the buyer of the travel perceives a high risk, he/she will be less willing to buy the travel. Perceived risk, therefore, reduces the propensity to buy. Perceived risk is influenced by the risk reduction factors presented earlier. This section has been explained in detail earlier. However, it is also worth considering the individual characteristics of the consumer. Some people may perceive a high risk for a two-day weekend trip to Vienna, while others may not perceive much risk for a trip to India lasting several weeks. The degree of risk-taking may also be reflected in the complexity of the purchased service package, but the willingness to take risks can significantly impact the risk-taking in a given situation. The risk-taking intention was first considered a separate element in the previous literature (Meertens – Lion, 2008) and later incorporated into models (Kusumasondjajaja, 2015; Karl, 2018). In the present research, I consider it as a moderating element for effect between perceived total risk and purchase intention. I

hypothesize that a higher risk-taking propensity may reduce the negative effect of perceived risk on purchase intention.

Reisinger and Mavondo (2005) also found a difference between different types of risk perception by whether one was a domestic or foreign destination traveller. In this dimension, respondents may also judge risk factors such as contact with the local population, unexpected accidents, terrorism, non-compliance with a reference group or unpredictable weather quite differently (Mitchell al., 1999; Hsu – Lin, 2006; Kim et al., 2009). According to Karl and Schmude (2017), individuals' choice of destination is the primary factor determining their many decision dilemmas. According to Csapó and Törőcsik (2019), safety is negligible for nearby locations as we travel under well-known conditions. For this reason, it is easy to choose a domestic destination rather than a foreign one. This may be because the use of the domestic destination as a risk reduction tool (thus increasing the effectiveness of risk reduction tools in reducing perceived risk) may also have a more limited effect in reducing the perceived risk to travel intention than for a respondent choosing a foreign destination. Thus, I believe there may also be differences in the effect of risk reduction on the overall perception of risk associated with travel buying for a domestic or foreign destination traveller and differences in the effect of this risk perception on travel intention. In particular, the effect of risk reduction strategies on risk perception was more significant for domestic travellers, and the negative effect of risk perception on travel intention was more moderate for domestically travellers than foreign destination travellers. The complete model with hypotheses is presented in Figure 20.

Figure 20. The complete hypothetical model



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The hypotheses concerning moderating effects are.

H_6: The willingness to take risks moderates the effect of the perceived risk of travel buying as a reduction in travel intention.

H_{7a}: For travellers who want to travel domestically, the use of risk reduction strategies reduces the perceived risk of travel buying more than for those who want to travel abroad.

H_{7b}: For travellers who want to travel domestically, the perceived risk of travel buying has a more limited effect on reducing travel intentions than for those who want to travel abroad.

The entire model considers relationships between reflective latent variables.

5.2 Demographic characteristics of the sample

The total sample of the online survey included 594 respondents. Subsequently, the data cleaning process involved removing the responses of 55 respondents from the analysis. They were excluded because they answered one of the four built-in awareness-control questions incorrectly. In addition, the screening criteria included the requirement to spend at least 10 minutes completing the questionnaire, which contained 199 data items, so each of these criteria required an average of at least 3 seconds. Finally, respondents who gave only one type of value for each question in a given block or the same (sometimes extreme) values for the inverse questions as for the properly worded question pairs were also excluded. Thus, the final sample used for the analysis was 539 (Table 1).

Table 1. Demographic characteristics of the sample

Demographic variables	**Types**	**Frequency**	**Distribution (%)**
Gender	*Male*	214	39.7
	Female	325	60.3
Age groups	*20 years old or younger*	157	29.1
	21-39 years old	274	50.8
	40-59 years old	100	18.6
	60 years or older	8	1.5
Residence	*Capital*	219	40.6
	County seat	105	19.5
	Other city	161	29.9
	Town/Village	54	10.0
Education	*Primary*	8	1.5
	Secondary	349	64.7
	Tertiary	182	33.8
Occupation	*Student*	330	61.2
	Employee	184	34.1

	Other	25	4.7
Family status	*Single, unmarried*	208	38.6
	In a relationship but separated	143	26.5
	In a relationship and living together	73	13.5
	Married	106	19.7
	Other	9	1.7
Travel destination	*Domestic*	283	52.5
	Abroad	256	47.5

Note: Total N=539 respondents

The average age of the sample was 28.6 years, with a standard deviation of 12.2 years. The 60.3% of respondents (325) were female, while 39.7% (214) were male (Table 1). The vast majority (64.7%, 349 respondents) had the highest secondary education level, while 33.8% (182 respondents) had a tertiary degree. The 61.2% of respondents were students, and 34.1% were employees. The 40.6% were from the capital city, 29.9% were from other cities, 19.5% were registered in a county seat, and 10.0% were in a village/village. Regarding their marital status, 38.6% are single or unmarried, 26.5% are in a relationship but separated, and 19.7% are married. They work an average of 20.7 hours a week with a standard deviation of 20.8 hours. Regarding the destination of their travel plans, which formed the basis of the survey, 52.5% of respondents (283) travelled domestically, while 47.5% (256) travelled abroad. I will look for significant differences in this dimension when examining the groups in the modelling. I have also looked (Table 2) at the distribution of domestic and international destinations along demographic characteristics.

Table 2. Distribution of demographic characteristics of the sample by destination

Demographic variables	**Types**	**Domestic (number of respondents and distribution)**	**Abroad (number of respondents and distribution)**
Gender	*Male*	113 (52.8%)	101 (47.2%)
	Female	170 (52.3%)	155 (47.7%)

Age groups	*20 years old or younger*	81 (51.6%)	76 (48.4%)
	21-39 years old	138 (50.4%)	136 (49.6%)
	40-59 years old	59 (59.0%)	41 (41.0%)
	60 years or older	5 (62.5%)	3 (37.5%)
Residence	*Capital*	98 (44.7%)	121 (55.3%)
	County seat	63 (60.0%)	42 (40.0%)
	Other city	89 (55.3%)	72 (44.7%)
	Town/Village	33 (61.1%)	21 (38.9%)
Education	*Primary*	5 (62.5%)	3 (37.5%)
	Secondary	188 (53.9%)	161 (46.1%)
	Tertiary	90 (49.5%)	92 (50.5%)
Occupation	*Student*	170 (51.5%)	160 (48.5%)
	Employee	100 (54.3%)	84 (45.7%)
	Other	14 (56.0%)	11 (44.0%)
Family status	*Single, unmarried*	106 (51.0%)	102 (49.0%)
	In a relationship but separated	73 (51.0%)	70 (49.0%)
	In a relationship and living together	38 (52.1%)	35 (47.9%)
	Married	60 (56.6%)	46 (43.4%)
	Other	6 (66.7%)	3 (33.3%)

Note: Sample distributions are shown in parentheses.

The results in Table 2 show no significant differences in demographic characteristics in the destinations chosen by the respondents, except for their place of residence. In this case, the p-value was 0.009 (df=4) with a Cramer V value of 0.158, indicating a weakly significant difference based on the Chi-square test. A slightly higher proportion of residents of the capital city planned to go abroad than residents of the other types of settlements. In the other cases, no demographic segment is under- or over-represented relative to the average.

5.3 Development of the measurement model

For the analysis, I built a structural equation model (SEM). Before, the factor structure was constructed using confirmatory factor analysis (CFA) with a maximum likelihood weighting technique. Above all, I performed an exploratory factor analysis (EFA) using a maximum likelihood method with a Promax rotation. At this point, which statements were not worth inserting into the CFA-like factor structure became apparent. Thus, the potential variables of the factor associated with the perceived risk of no time at all were eliminated. I also created second-order latent variables for a few factors in developing the CFA construct. Consequently, I performed the validation of the CFA construct at two levels: first with the first-order latent variables and then including the second-order variables. Furthermore, to analyze differences between groups (domestic or foreign destination), I also checked the metric invariance of the model validity (also invariance), and in this block, I will deal with these areas.

First, I examined the ratio of the Chi-square value to the degree of freedom, which remained below the critical value of 3 (Hair et al., 2019), thus showing a fairly good fit for the difference between the observed and hypothesized covariance matrices, as they are lower than expected. The CFI value of the comparative fit index above 0.9 also makes our model acceptable, as the difference between the hypothesized model and the data is thus minimal (Keszey, 2018). The root mean square error of approximation (RMSEA) is also below the threshold of 0.08, which means that the data fit the model well (Cole, 1987). The standardized root mean square residual (SRMR) is also below the optimum value of 0.08, so the difference between the observed correlation matrix and the model implied correlation matrix is minimal (Keszey, 2018). All critical values were appropriate for the first-order and second-order CFA constructs (Table 3) and the final SEM model.

Table 3. Values of fit indicators for the two levels of CFA constructs

Indices	Recommended criteria values	CFA construction (with first-order variables)	CFA construction (with second-order variables)	SEM model
χ^2/df	<3	1.991	2.071	2.137
CFI	>0.90	0.929	0.918	0.917
RMSEA	<0.08	0.043	0.045	0.046
SRMR	<0.08	0.047	0.061	0.071

Note: χ^2/df = Chi-square divided by degrees of freedom; CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual.

5.3.1 Characteristics of measuring instruments

The statements used to construct the latent variables are summarised in Table 4. In addition to the name of the statement, I have also indicated the abbreviated name used in the research, the names of the first- and second-order constructs, and the sources of the statements. In total, 62 statements were used for modelling in the research, of which 19 first-order variables were constructed, and four second-order variables were constructed from 14 of these. The statements were asked on a Likert scale of 1 to 7, with 1 being the response option 'not at all typical of me'/'strongly disagree' and 7 being the response option 'totally typical of me'/'strongly agree'.

Table 4. Statement titles and factor structure

Second-order constructions	First-order constructions	Statements	Short names for statements	Sources
Perceived risk of travel buying	Perceived performance risk	Overall, I consider my holiday travel this year to be risky.	Perfrisk_1	Stone – Gronhaug, 1993; Kim et al., 2009; Sharma et al., 2021
		I am worried that something will go wrong with my travel buying.	Perfrisk_2	
		Overall, I have fears about various aspects of my travel this year.	Perfrisk_3	
		I am afraid of some parts of the travel buying.	Perfrisk_4	
	Perceived financial risk	I see many risks when I think through all the possible problems with completing my travel.	Finrisk_1	Stone – Gronhaug, 1993; Kim et al., 2009; Sharma et al., 2021
		I am concerned that buying a travel is a risky financial investment.	Finrisk_2	
	Perceived social risk	My travel buying would be considered foolish by those I give the	Socrisk_1	Stone – Gronhaug, 1993; Kim et al., 2009;

Second-order constructions	First-order constructions	Statements	Short names for statements	Sources
		benefit of the doubt.		Sharma et al., 2021
		The opinions of others would be unfavourable to me if I were to go on vacation this summer.	Socrisk_2	
	Perceived physical risk	I fear that buying a travel would cause me unnecessary health problems.	Physrisk_1	Stone – Gronhaug, 1993; Kim et al., 2009; Sharma et al., 2021
		I am concerned about health problems that may arise during a travel.	Physrisk_2	
		I wonder if the holiday I want to buy will involve health risks.	Physrisk_3	
	Perceived psychological risk	The thought of buying a travel causes unnecessary anxiety.	Psychorisk_1	Stone – Gronhaug, 1993; Kim et al., 2009; Sharma et al., 2021
		I feel psychologically uncomfortable thinking about going on holiday.	Psychorisk_2	
		Unpleasant tension at the thought of going on travel buying.	Psychorisk_3	
		Uncomfortable tension about going on holiday.	Psychorisk_4	
Perceived risk of online space	Perceived fraud risk	I find it challenging to find support if something goes wrong while travel buying online.	Fraudrisk_1	Naiyi, 2004
		I am afraid I will not find a place to report my problems.	Fraudrisk_2	
		I feel that I would find it difficult to know whom to turn to after the purchase if I had a problem.	Fraudrisk_3	

Second-order constructions	First-order constructions	Statements	Short names for statements	Sources
	Perceived privacy risk	I am worried that my personal information used in travel buying could fall into unauthorised hands.	Privacyrisk_1	Sharma et al., 2021
		I am worried that my email address used for buying might fall into unauthorised hands.	Privacyrisk_2	
		I am concerned that my payment details (credit card number etc.) used for travel buying may fall into unauthorised hands.	Privacyrisk_3	
	Perceived information reliability risk	I am afraid that the information available from the online seller will not be sufficient.	Inforisk_1	Naiyi, 2004; Filieri – McLeay 2014
		I am worried that the information about the travel I want to buy will not be sufficient on the Internet.	Inforisk_2	
Perceived risk of COVID-19	Perceived health risk	I am very concerned about the coronavirus.	Healthrisk_1	Taylor et al., 2020
		I am afraid of losing my life to the coronavirus.	Healthrisk_2	
		Overall, the coronavirus poses a severe threat to me.	Healthrisk_3	
		I am afraid that I will have difficulty living through the disease if I get infected.	Healthrisk_4	
	Perceived anxiety risk	It makes me uncomfortable to think about the coronavirus.	Anxietyrisk_1	Taylor et al., 2020
		My palms get clammy when I think of the coronavirus.	Anxietyrisk_2	
		I get nervous and anxious if I read or	Anxietyrisk_3	

Second-order constructions	First-order constructions	Statements	Short names for statements	Sources
		hear about the coronavirus in the news.		
		When I think of the coronavirus, my heart beats faster.	Anxietyrisk_4	
Risk reduction strategies	Reputation, brand of the online seller	The online travel booking sites I want to use are reputable.	Onlinebrand_1	Kim – Park, 2013
		The websites I want to use are the best-known on the market.	Onlinebrand_2	
		I can always gather reliable information about the travel booking sites I want to use.	Onlinebrand_3	
	Perceived control	Travel buying allows me to control the organisation process.	Control_1	Le et al., 2020; Bae – Chang, 2021
		Travel buying makes me feel in control.	Control_2	
		I am usually in control of the buying process.	Control_3	
	Perceived quality of information	Travel buying is a good decision because I can get reliable information.	Infoqual_1	Kim – Park, 2013; Kusumasondjaja, 2015
		Travel buying online is reliable.	Infoqual_2	
	Reducing the probability of an unexpected event occurring	I believe there is little chance of a problem with this year's holiday.	Unexpected_1	Rhodes et al., 2003; Renn, 2004
		I believe there is a low probability of a problem with my online travel buying.	Unexpected_2	
-	Information collection	I will need to search intensively for information before deciding on my purchase.	Infocollect_1	Rejikumar – Asokan, 2017
		I believe using different platforms will be necessary	Infocollect_2	

Second-order constructions	First-order constructions	Statements	Short names for statements	Sources
		for accurate information.		
		I can spend sufficient time searching for information during my travel buying.	Infocollect_3	
		I will always pay attention to the information shared when making a decision.	Infocollect_4	
	EWOM	I will read the feedback of other tourists.	EWOM_1	Jalilvand et al., 2013; Abubakar – Ilkan 2015
		I will read other tourists' feedback to make sure I choose the best holiday.	EWOM_2	
		I will read other tourists' feedback before I buy a travel.	EWOM_3	
		I will read other tourists' online feedback to make the right travel buying decision.	EWOM_4	
		I will look for a lot of information in online reviews.	EWOM_5	
		It will give me the confidence to check other tourists' online reviews before making a travel buying.	EWOM_6	
	Trust in the environment	I feel reassured that the governments of the day will protect me from any risks during my travel.	Trustinst_1	Mou et al., 2017; Dryhurst et al., 2020
		I feel reassured that the private sector will protect me from any risks during my travel.	Trustinst_2	
		I feel reassured that the civil sector will protect me from any risks during my travel.	Trustinst_3	

Second-order constructions	First-order constructions	Statements	Short names for statements	Sources
		I feel reassured that other service providers (insurance, health, police, etc.) will protect me from any risks during my travel.	Trustinst_4	
	Risk-taking propensity (with inverse statements)	I prefer to avoid risks. (INVERTED)	Riskprop_1	Meertens – Lion, 2008; Kusumasondjaja, 2015
		For me, safety comes first. (INVERTED)	Riskprop_2	
		I would not say I like to take risks. (INVERTED)	Riskprop_3	
	Intention to travel	I predict I will buy a travel abroad or domestically this summer.	Itotravel_1	Bae – Chang, 2021
		I plan to go on travel this year.	Itotravel_2	
		I will buy a travel this summer.	Itotravel_3	
		As soon as I get the chance, I will go on holiday this year.	Itotravel_4	

The factors created are presented below. The sub-factors of traditional risk perception include performance, financial, social, physical and psychological risk perceptions (based on Stone – Gronhaug, 1993; Kim et al., 2009; Sharma et al., 2021). Performance risk refers to the uncertainty that a purchased product or service will not perform as expected or fail. Financial risk occurs in the form of a monetary outlay spent on purchasing a product or service and its subsequent maintenance. This type of risk concerns consumers that their money will be wasted if the product or service they have purchased does not arrive or perform as expected. Social risk is based on the perception of a third party, be it a relative, friend, acquaintance or a member of society, of how the consumer thinks the consumer will decide to buy the product or service. In the case of physical risk, the subject physically harms his or her person. Psychological risk refers to the possibility that the product or service purchased may negatively affect the consumer's self-perception or peace of mind.

In the case of risks in the online space, the risk of fraud refers to the consumer's concerns about the reliability and credibility of the seller during the online purchase (Naiyi, 2004). The risk of loss of personal information refers to the use or misuse of consumers' personal information that may violate the individual's privacy (Sharma et al., 2021). The risk of information reliability (Naiyi, 2004; Filieri – McLeay, 2014) measures how reliable and asymmetric the consumer perceives the information (i.e., from the seller and even from the consumer combined).

Perceived risk of health for the COVID-19 pandemic refers to the damage to the subject's health, particularly the ill health and other serious consequences of contracting the coronavirus (Taylor et al., 2020). Moreover, perceived risk of anxiety refers to the thoughts and stress of the subject's inner peace of mind being broken due to the coronavirus (Taylor et al., 2020).

The brand name and reputation of the online seller are perceived as being recognized and well regarded concerning its market share (Kim – Park, 2013). Perceived quality of information covers the reliability and sufficiency of the information about the company and the product or service offered for sale (Kim – Park, 2013; Kusumasondjaja, 2015). Perceived control means that a subject feels in control of the situation and his/her decisions (Le et al., 2020; Bae – Chang, 2021). Reducing the likelihood of an unexpected event is related chiefly to my qualitative findings – mainly in research on addictions – but it is a situation where the subject tries to avoid the worst possible situation or anticipates it in a prepared way (Rhodes et al., 2003; Renn, 2004) The information collecting factor describes the extent to which the subject is immersed in information collecting and how intensively he or she processes information (Rejikumar – Asokan, 2017). EWOM, or online word of mouth, shows the extent to which the subject views and gives importance to reviews and comments on the Internet (Jalilvand et al., 2013; Abubakar – Ilkan, 2015). Moreover, in my case, the confidence factor refers to the construction of general self-confidence, which shows how much confidence one has in the situation based on the surrounding conditions (Mou et al., 2017; Dryhurst et al., 2020).

The risk-taking intention is the probability of the individual taking the given risks (Karl – Schmude, 2017). If its value approaches zero, it is easy to conclude that the subject is already more risk-averse (Meertens – Lion, 2008; Kusumasondjaja, 2015). I measured the direction of the destination with a categorical variable, whether the subject intends to go domestic or abroad.

The value of travel intention, in turn, shows the willingness of the individual to travel for a holiday for tourism purposes or, more generally, as a purchase intention to buy a product or service (Bae – Chang, 2021).

Table 5 summarizes the statements' means, standard deviations, minimum and maximum values, the skewness and peakiness indicators that approximate normality, and the corrected item-total correlations. The statements measuring risk perception were scored lower than the central value (4). In particular, statements for the perceived psychological and mental risk factors received low means. In several cases, the highest response score was 6 instead of the maximum score of 7. These low scores are similar to the negative responses received in qualitative research on risk perception. For the dimensions of risk reduction, averages were well above the mean (as in the qualitative research, this is where the strongest results were). Average scores were obtained for statements measuring risk-taking and trust factors, while statements measuring intention to travel received very high averages. For the latter statements, the distribution is also slightly skewed to the left (negative distribution) and too peaked. For the other statements, the values of the distribution indices are mainly within the tolerance range (Hair et al., 2019) (skewness between -2 and +2, kurtosis between -3 and +3). Only the values of the intention to travel statements are not sufficiently aligned with the criteria. The standard deviation values are not outliers for any of the statements. Table 6 shows that the adjusted item-total correlation does not exceed Cronbach's alpha for any statements, so the statements are also adequate.

Table 5. Descriptive statistics of the statements

First-order constructions	Short names for statements	Means	Standard deviations	Minimum	Maximum	Skewness	Kurtosis	Corrected Item-Total Correlation
Perceived performance risk	Perfrisk_1	2.66	1.38	1	7	0.70	-0.17	0.737
	Perfrisk_2	2.90	1.54	1	7	0.46	-0.90	0.753
	Perfrisk_3	2.16	1.31	1	7	1.08	0.31	0.778
	Perfrisk_4	2.48	1.49	1	6	0.76	-0.72	0.719
Perceived financial risk	Finrisk_1	3.43	1.47	1	7	0.25	-0.88	0.499
	Finrisk_2	2.88	1.51	1	7	0.61	-0.62	0.499
Perceived social risk	Socrisk_1	2.01	1.09	1	6	1.04	0.46	0.646
	Socrisk_2	2.31	1.24	1	6	0.81	-0.14	0.646
	Physrisk_1	2.24	1.24	1	6	0.93	0.11	0.799

First-order constructions	Short names for statements	Means	Standard deviations	Minimum	Maximum	Skewness	Kurtosis	Corrected Item-Total Correlation
Perceived physical risk	Physrisk_2	2.54	1.44	1	7	0.68	-0.58	0.864
	Physrisk_3	2.66	1.50	1	7	0.61	-0.79	0.822
Perceived psychological risk	Psychorisk_1	1.86	1.17	1	7	1.56	2.08	0.683
	Psychorisk_2	1.63	1.01	1	6	2.00	4.11	0.838
	Psychorisk_3	1.69	1.03	1	6	1.83	3.30	0.845
	Psychorisk_4	1.56	0.82	1	6	1.86	4.42	0.755
Perceived fraud risk	Fraudrisk_1	2.66	1.43	1	7	0.71	-0.35	0.834
	Fraudrisk_2	2.58	1.43	1	7	0.80	-0.21	0.852
	Fraudrisk_3	2.55	1.46	1	7	0.86	-0.19	0.817
Perceived privacy risk	Privacyrisk_1	2.67	1.54	1	7	0.73	-0.41	0.865
	Privacyrisk_2	2.49	1.44	1	7	0.84	-0.15	0.831
	Privacyrisk_3	2.66	1.46	1	7	0.78	-0.04	0.754
Perceived information reliability risk	Inforisk_1	2.43	1.30	1	7	0.89	0.18	0.774
	Inforisk_2	2.41	1.35	1	7	0.94	0.16	0.774
Perceived health risk	Healthrisk_1	3.03	1.53	1	7	0.49	-0.67	0.627
	Healthrisk_2	2.22	1.45	1	7	1.22	0.73	0.734
	Healthrisk_3	2.37	1.41	1	7	0.90	-0.04	0.778
	Healthrisk_4	2.44	1.53	1	7	0.95	-0.03	0.732
Perceived anxiety risk	Anxietyrisk_1	3.25	1.72	1	7	0.24	-1.12	0.640
	Anxietyrisk_2	1.71	1.11	1	7	1.79	3.19	0.614
	Anxietyrisk_3	2.73	1.64	1	7	0.62	-0.76	0.661
	Anxietyrisk_4	1.69	1.09	1	6	1.75	2.50	0.651
Reputation, brand of the online seller	Onlinebrand_1	5.73	0.92	2	7	-0.58	0.51	0.747
	Onlinebrand_2	5.50	1.03	2	7	-0.43	-0.12	0.735
	Onlinebrand_3	5.37	1.03	1	7	-0.35	0.11	0.706
Perceived control	Control_1	5.69	0.94	1	7	-0.80	1.51	0.780
	Control_2	5.66	1.01	1	7	-0.91	1.43	0.813
	Control_3	5.79	0.86	1	7	-0.64	1.35	0.742
Perceived quality of information	Infoqual_1	5.27	1.01	1	7	-0.63	1.22	0.663
	Infoqual_2	5.48	0.90	2	7	-0.53	1.10	0.663
Reducing the probability of an unexpected event occurring	Unexpected_1	4.91	1.30	1	7	-0.51	-0.17	0.600
	Unexpected_2	5.35	1.15	1	7	-0.84	0.94	0.600
Information collection	Infocollect_1	5.54	1.26	1	7	-1.18	1.85	0.644
	Infocollect_2	5.59	1.15	1	7	-1.00	1.42	0.659
	Infocollect_3	5.76	1.00	1	7	-1.09	2.53	0.582
	Infocollect_4	5.77	1.09	1	7	-1.26	2.69	0.663
EWOM	EWOM_1	5.70	1.23	1	7	-1.12	1.50	0.887
	EWOM_2	5.56	1.35	1	7	-1.14	1.32	0.860
	EWOM_3	5.57	1.31	1	7	-1.28	2.03	0.909
	EWOM_4	5.50	1.37	1	7	-1.22	1.53	0.922
	EWOM_5	5.05	1.41	1	7	-0.77	0.39	0.745

First-order constructions	Short names for statements	Means	Standard deviations	Minimum	Maximum	Skewness	Kurtosis	Corrected Item-Total Correlation
	EWOM_6	5.24	1.45	1	7	-1.12	1.15	0.783
Trust in the environment	Trustinst_1	3.84	1.45	1	7	-0.13	-0.46	0.691
	Trustinst_2	4.03	1.40	1	7	-0.23	-0.24	0.789
	Trustinst_3	3.83	1.35	1	7	-0.22	-0.10	0.757
	Trustinst_4	4.86	1.29	1	7	-0.83	0.85	0.573
Risk-taking propensity (with inverse statements)	Riskprop_1	3.12	1.36	1	7	0.73	0.15	0.783
	Riskprop_2	2.77	1.22	1	7	0.67	0.28	0.652
	Riskprop_3	3.43	1.51	1	7	0.34	-0.78	0.747
Intention to travel	Itotravel_1	6.16	0.91	1	7	-1.52	4.37	0.760
	Itotravel_2	6.32	0.83	1	7	-1.67	5.15	0.837
	Itotravel_3	6.14	0.98	1	7	-1.70	4.77	0.765
	Itotravel_4	6.19	0.94	1	7	-1.51	3.35	0.722

Note: The statements were asked on a Likert scale from 1 to 7, where 1 represented the response option „not at all typical of me"/"strongly disagree" and 7 represented the response option „totally typical of me"/"totally agree".

5.3.2 Characteristics of the measurement model

I then focused on the CFA analysis. For the factor weights, I set the minimum values generally at 0.5 (Awang et al., 2015) for both levels of the CFA construct, with p-values below 0.001. The results are summarized in Tables 6 and 7. As long as the average variance extracted (AVE) reaches 0.5, i.e. the convergence validity criterion is met, the correlation between any two factors is less than the square root of the AVE value, so the discriminant validity is also valid. The composite reliability (CR) is more significant than 0.7 (excluding the financial perceived risk factor, where the CR value is still acceptable at 0.667), so the scales are reliable (Hair et al., 2019). AVE values at both levels exceeded the necessary minimum of 0.5. Furthermore, the AVE square-root values are just above the correlation values, so the discriminant validity of the model is also adequate. Due to the two-level structure, the results of the CFA analysis are presented in two tables (6 and 7), as are the correlation tables (8 and 9), showing the discriminant validity of the constructs. In the second table showing the discriminant validity, I correlate the second-order variables with the remaining first-order variables.

Table 6. CFA analysis results on the first-order factor structure

First-order constructions	Short names for statements	Factor weigths	AVE	CR	Cronbach-alpha
Perceived performance risk* (Perfrisk)	Perfrisk_1	0.802	0.656	0.884	0.882
	Perfrisk_2	0.805			
	Perfrisk_3	0.848			
	Perfrisk_4	0.784			
Perceived financial risk* (Finrisk)	Finrisk_1	0.730	0.501	0.667	0.666
	Finrisk_2	0.685			
Perceived social risk* (Socrisk)	Socrisk_1	0.836	0.648	0.786	0.781
	Socrisk_2	0.773			
Perceived physical risk* (Physrisk)	Physrisk_1	0.851	0.784	0.916	0.912
	Physrisk_2	0.925			
	Physrisk_3	0.879			
Perceived psychological risk* (Psychorisk)	Psychorisk_1	0.734	0.712	0.908	0.895
	Psychorisk_2	0.898			
	Psychorisk_3	0.920			
	Psychorisk_4	0.810			
Perceived fraud risk* (Fraudrisk)	Fraudrisk_1	0.880	0.789	0.918	0.918
	Fraudrisk_2	0.920			
	Fraudrisk_3	0.864			
Perceived privacy risk* (Privacyrisk)	Privacyrisk_1	0.951	0.773	0.910	0.907
	Privacyrisk_2	0.890			
	Privacyrisk_3	0.789			
Perceived information reliability risk* (Inforisk)	Inforisk_1	0.921	0.778	0.875	0.873
	Inforisk_2	0.841			
Perceived health risk* (Healthrisk)	Healthrisk_1	0.703	0.630	0.871	0.866
	Healthrisk_2	0.815			
	Healthrisk_3	0.854			
	Healthrisk_4	0.794			
Perceived anxiety risk* (Anxietyrisk)	Anxietyrisk_1	0.750	0.535	0.822	0.804
	Anxietyrisk_2	0.702			
	Anxietyrisk_3	0.742			
	Anxietyrisk_4	0.732			
Reputation, brand of the online seller* (Onlinebrand)	Onlinebrand_1	0.849	0.667	0.857	0.855
	Onlinebrand_2	0.796			
	Onlinebrand_3	0.804			
Perceived control* (Control)	Control_1	0.853	0.723	0.886	0.884
	Control_2	0.892			
	Control_3	0.804			
Perceived quality of information* (Infoqual)	Infoqual_1	0.771	0.667	0.780	0.794
	Infoqual_2	0.860			
Reducing the probability of an unexpected event occurring* (Unexpected)	Unexpected_1	0.671	0.625	0.766	0.747
	Unexpected_2	0.895			
Information collection (Infocollect)	Infocollect_1	0.732	0.528	0.817	0.814
	Infocollect_2	0.753			
	Infocollect_3	0.664			

First-order constructions	Short names for statements	Factor weigths	AVE	CR	Cronbach-alpha
	Infocollect_4	0.755			
EWOM – Online Word of Mouth (EWOM)	EWOM_1	0.894	0.767	0.951	0.951
	EWOM_2	0.873			
	EWOM_3	0.966			
	EWOM_4	0.971			
	EWOM_5	0.739			
	EWOM_6	0.786			
Trust in the environment (Trustinst)	Trustinst_1	0.741	0.613	0.862	0.857
	Trustinst_2	0.898			
	Trustinst_3	0.852			
	Trustinst_4	0.610			
Risk-taking propensity (Riskprop)	Riskprop_1	0.887	0.669	0.857	0.851
	Riskprop_2	0.715			
	Riskprop_3	0.842			
Intention to travel (Itotravel)	Itotravel_1	0.817	0.691	0.899	0.895
	Itotravel_2	0.904			
	Itotravel_3	0.824			
	Itotravel_4	0.775			

*Note: Factors marked with * will be part of second-order factors in the analysis.*

Table 7. CFA analysis results on the second-order factor structure

Second-order constructions	First-order constructions	Factor weigths	AVE	CR	Cronbach-alpha
Perceived risk of travel buying (Buying_PR)	Perceived performance risk	0.889	0.560	0.862	0.894
	Perceived financial risk	0.762			
	Perceived social risk	0.573			
	Perceived physical risk	0.745			

Second-order constructions	First-order constructions	Factor weigths	AVE	CR	Cronbach-alpha
	Perceived psychological risk	0.740			
Perceived risk of online space (Online_PR)	Perceived fraud risk	0.780	0.638	0.841	0.867
	Perceived privacy risk	0.775			
	Perceived information reliability risk	0.839			
Perceived risk of COVID-19 (COVID_PR)	Perceived health risk	0.865	0.753	0.859	0.903
	Perceived anxiety risk	0.871			
Risk reduction strategies (RRS)	Reputation, brand of the online seller	0.744	0.546	0.825	0.853
	Perceived control	0.585			
	Perceived quality of information	0.904			
	Reducing the probability of an unexpected event occurring	0.687			

In the tables (8 and 9) showing the validity of the discriminant corresponding to the two-level factor structure, it is clear that the correlations and AVE square roots of both the first-order factors and the second- and first-order factors are appropriate.

Table 8. First-order CFA construction discriminant validity

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16	F17	F18	F19
F1	**0.818**																		
F2	-0.272	**0.727**																	
F3	-0.173	0.447	**0.876**																
F4	0.018	0.039	0.011	**0.783**															
F5	0.104	0.155	0.068	0.191	**0.832**														
F6	-0.003	-0.187	-0.135	0.002	-0.298	**0.805**													
F7	-0.178	0.130	0.104	-0.080	-0.278	0.433	**0.886**												
F8	-0.087	-0.109	-0.044	-0.093	-0.322	0.514	0.541	**0.844**											
F9	-0.196	-0.047	0.050	-0.210	-0.252	0.273	0.342	0.353	**0.889**										
F10	-0.187	-0.013	0.027	-0.153	-0.246	0.295	0.392	0.322	0.610	**0.879**									
F11	-0.121	-0.044	0.012	-0.133	-0.247	0.305	0.390	0.378	0.650	0.648	**0.882**								
F12	-0.227	0.031	0.062	0.024	-0.182	0.264	0.539	0.425	0.230	0.332	0.278	**0.793**							
F13	-0.106	-0.004	0.090	0.024	-0.164	0.290	0.448	0.467	0.246	0.254	0.312	0.752	**0.754**						
F14	-0.114	0.071	0.083	-0.136	-0.272	0.452	0.637	0.665	0.471	0.441	0.508	0.418	0.463	**0.810**					
F15	0.058	0.271	0.101	0.134	0.343	-0.220	-0.243	-0.308	-0.288	-0.246	-0.355	-0.189	-0.232	-0.284	**0.850**				
F16	0.126	0.291	0.122	0.227	0.373	-0.251	-0.200	-0.233	-0.354	-0.367	-0.409	-0.213	-0.228	-0.247	0.471	**0.816**			
F17	0.156	-0.019	-0.090	0.227	0.304	-0.273	-0.506	-0.448	-0.422	-0.412	-0.455	-0.338	-0.369	-0.675	0.374	0.400	**0.775**		
F18	0.165	0.246	-0.010	0.261	0.383	-0.265	-0.325	-0.349	-0.456	-0.467	-0.528	-0.258	-0.288	-0.400	0.490	0.707	0.637	**0.818**	
F19	-0.107	0.145	0.096	-0.112	-0.304	0.473	0.558	0.466	0.325	0.296	0.278	0.300	0.325	0.765	-0.165	-0.170	-0.572	-0.335	**0.708**

Note: F1=Risk-taking propensity; F2=Information collection; F3=EWOM; F4=Trust in the environment; F5=Intention to travel; F6=Perceived social risk; F7=Perceived physical risk; F8=Perceived psychological risk; F9=Perceived fraud risk; F10=Perceived privacy risk; F11=Perceived information reliability risk; F12=Perceived health risk; F13=Perceived anxiety risk; F14=Perceived performance risk; F15=Perceived control; F16=Reputation, brand of the online seller; F17=Reducing the probability of an unexpected event occurring; F18=Perceived quality of information; F19=Perceived financial risk. The items in bold in the diagonal are the square roots of the AVEs and the other items are the correlations.

Table 9. Second-order CFA construct discriminant validity

	F1	F2	F3	F4	F5	F6	F7	F8	F9
F1	**0.818**								
F2	-0.272	**0.727**							
F3	-0.173	0.447	**0.876**						
F4	0.018	0.039	0.011	**0.783**					
F5	0.104	0.155	0.068	0.191	**0.832**				
F6	-0.141	0.041	0.056	-0.127	-0.369	**0.749**			
F7	-0.207	-0.042	0.036	-0.204	-0.310	0.625	**0.799**		
F8	-0.198	0.018	0.087	0.027	-0.200	0.620	0.399	**0.868**	
F9	0.178	0.282	0.041	0.288	0.461	-0.542	-0.683	-0.388	**0.739**

Note: F1=Risk-taking propensity; F2=Information collection; F3=EWOM; F4=Trust in the environment; F5=Intention to travel; F6=Perceived risk of travel buying; F7=Perceived risk of online space; F8=Perceived risk of COVID-19; F9=Risk reduction strategies The items in bold in the diagonal are the square roots of the AVEs and the other items are the correlations.

Finally, I also tested the CFA construct to see if the model fit for the grouping criteria (domestic or foreign destination) is appropriate in the CFA construct. This is referred to in the literature as invariance testing (Kline, 2016), which means testing the invariance of the model. Then, before testing the SEM modelling, the CFA construction should be tested for the two groups. First, the unconstrained model (i.e. leaving all relationships and effects free for both groups) is compared with the fully-constrained model (Putnick – Bornstein, 2016). When the factor weights are fixed in the factor structures of both groups, the fully-constrained model is called the metric model. In this case, based on the Chi-squared test, we want the model to be not significantly different from the unconstrained (or model with assumed configural invariance) model (Brown, 2015). In the Chi-squared test, we want to obtain a non-significant result, i.e., invariance of the models. The tolerance zone for this significance level is mostly below 1%, but for more rigorous analyses, a p-value below 0.005 is already interpreted as a significant difference (Fischer – Karl, 2019). For a more rigorous test of model fit, the change in CFI values tested should be no greater than 0.003 (Cheung – Rensvold, 2002).

When the „means" of the endogenous variables, i.e. the constant coefficients („intercepts") of the axis intercept, are fixed, and the means of the latent variables are fixed in one group and left free in the other, I test for scalar invariance with similar assumptions and conditions as in the metric case. However, then I compare the scalar model to the metric one (Brown, 2015). While finally, after all the previous adjustments, I fixed the variances of the error terms in the two groups, which we call residual

invariance testing. The metric invariance test is the medium-strength invariance test, the scalar is the strong invariance test, and the residual is the most stringent invariance test. These invariance tests are necessary to see if a significant difference between two variables on a path is found when examining the effect between the two groups in the SEM model, whether it is actually due to differences between the effects or whether the real difference is in some element of the factor structure (means, covariances, error terms, variances). In most cases, if only path differences between two groups are being investigated, a metric invariance test and the existence of the resulting model variance is a sufficient condition. By using the invariance of the CFI values, I have more narrowly checked the invariance of the model fit (i.e. that the model's validity is not deteriorating).

The preceding suggests that for the groups formed for domestic and foreign destinations, the variance between the models is more invariant because both metrically and scalar, the models are more invariant and invariant according to the Chi-squared test, and also when examining the CFI variances. It follows that it will be possible to examine the differences between the coefficients (Table 10).

Table 10. Invariance test for domestic or foreign destination groups in the CFA model

CFA model type	Model χ^2	df	CFI	$\Delta\chi^2$	Δdf	ΔCFI	p	Invariant
Unconstrained	5548.951	3316	0.907	-	-	-	-	-
Fully constrained (metric)	5611.464	3359	0.906	62.513	43	0.001	0.028	Partial
Fully constrained (scalar)	5661.773	3402	0.906	50.309	43	0.000	0.207	Yes
Fully constrained (residual)	5855.988	3464	0.9	194.215	62	0.006	0.000	No

Note: the grouping variable is the destination direction (domestic vs. international)

5.4 Results of the SEM model – Testing hypotheses

The model built with structural equations was developed on a covariance basis (Figure 21). I used a bootstrap procedure with 2000 subsamples throughout the analysis. I first examined direct effects (i.e. factor weights no longer included). The results are summarised in Table 11. Then, as we have seen earlier (Table 3), the model fit is

excellent, matching all the referenced indicators. Looking at the direct effects, I find (Table 11) that all except one effect is significant at 5%, while five of the seven effects examined are significant below 0.1%. Risk reduction does not have a significant effect (p-value 0.056) on risk perception related to travel buying, and EWOM harms risk reduction at a p-value of 0.029.

The three factors also used to reduce risk have different directional effects on risk reduction. These factors are not included in the second-order dimension of risk-reducing strategies because they appear (and we will see this in the mediating effects) to behave separately from the other elements and are insufficient to reduce risk perception. This is particularly true for EWOM, which, far from increasing the use of risk reduction, reduces it through its negative directional, albeit relatively weak, effect (standardised regression coefficient value is -0.115). However, this may also imply that respondents would be less likely to use other risk reduction tools when using EWOM. This could be because they feel it is sufficient or because they are confused and stop using risk reduction. Collecting information (0.286) and confidence in the environment (0.269) have a medium strength in increasing the use of risk reduction strategies. This could also mean those who gather information or trust their environment use additional risk reduction tools. There could be two reasons for this. On the one hand, it is possible that they like to be better prepared and thus use as many different tools as possible to reduce their risks (and then it could be a back and forth effect, whereby the use of more tools requires more information collecting and more trust in the environment). On the other hand, it is also possible that using these two tools alone is insufficient and that they feel the need to use additional tools to reduce their risks.

Risk reduction strategies are most likely to have a sufficiently strong reducing effect on the two more specific risk perceptions. The second-order factor of risk reduction strategies seems to have a reducing effect mainly on the second-order risk perception related to coronavirus (-0.403) and the second-order risk perception related to online space (-0.689). While for the more general risk perception related to travel buying, the effect of risk reduction strategies, although negative (-0.134), is insignificant. The two specific risk perceptions have medium strength positive directional effect on the risk perception factor for travel buying, with the risk perception for the coronavirus having a slightly higher strength (0.433) than the perceived risk in the online space (0.386), i.e. they increase the perceived risk of travel buying. Moreover, the perceived risk associated with travel buying significantly decreases the intention to travel (-0.387). The regression

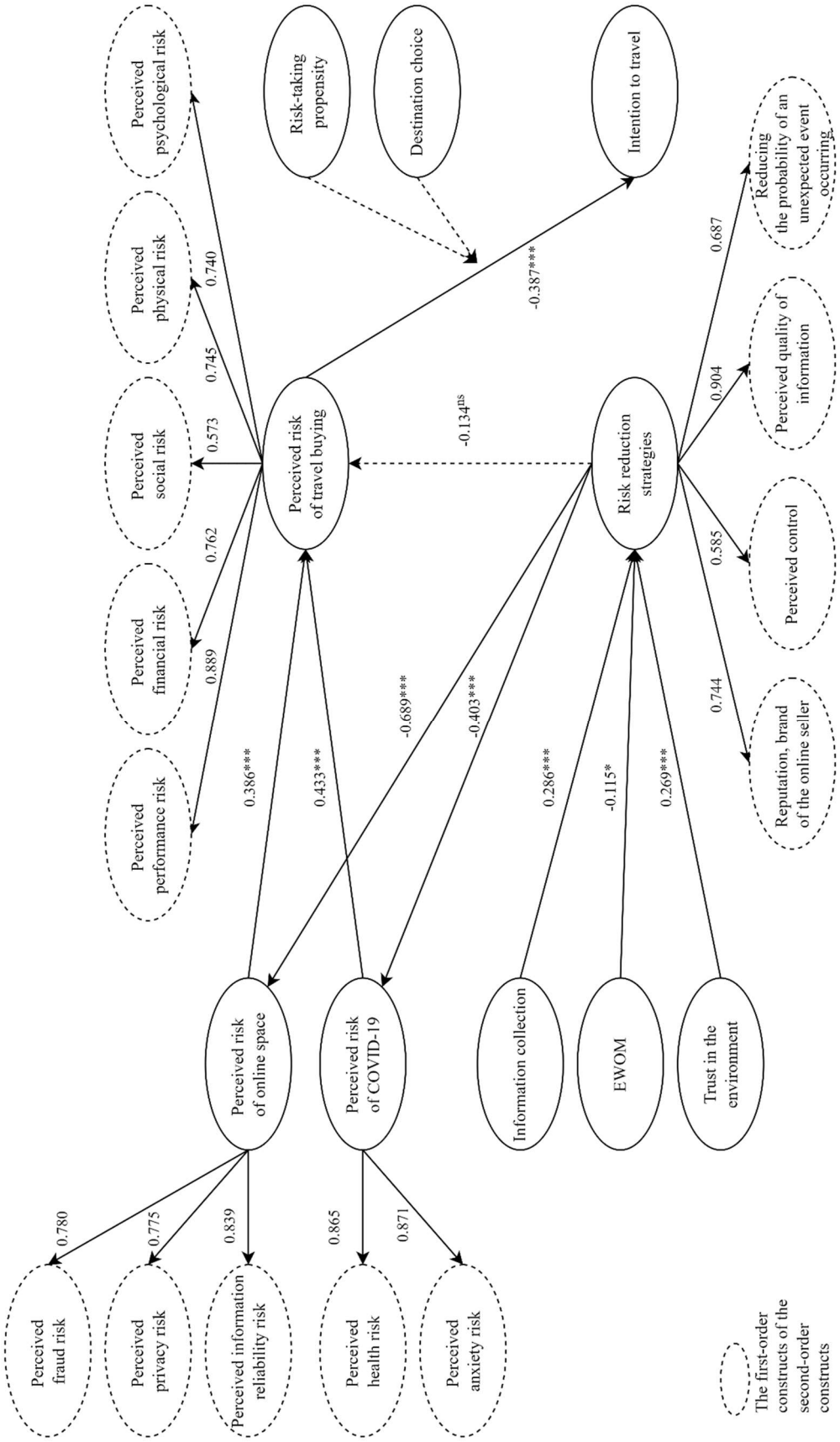
coefficients are strongest in explaining the risk perception factor for travel buying (R^2=0.565) and the perceived risk factor for online space (R^2=0.475).

Table 11. Direct effect values measured in the SEM model

	Direct standardised regression coefficient value	Direct regression coefficient value	p-value	R^2	S.E.	C.R.
EWOM→RRS	-0.115	-0.057	0.029	0.144	0.026	-2.178
Infocollect→RRS	0.286	0.191	<0.001	0.144	0.040	4.748
Trustinst→RRS	0.269	0.142	<0.001	0.144	0.027	5.272
RRS→COVID_PR	-0.403	-0.646	<0.001	0.163	0.097	-6.636
RRS→Online_PR	-0.689	-1.190	<0.001	0.475	0.114	-10.395
RRS→Buying_PR	-0.134	-0.240	0.056	0.565	0.126	-1.913
Online_PR→Buying_PR	0.386	0.401	<0.001	0.565	0.072	5.557
COVID_PR→ Buying_PR	0.433	0.485	<0.001	0.565	0.064	7.573
Buying_PR→Itotravel	-0.387	-0.279	<0.001	0.150	0.036	-7.683

Note: Infocollect=Information collection; EWOM=EWOM; Trustinst=Trust in the environment; Itotravel=Intention to travel; Buying_PR=Perceived risk of travel buying; Online_PR=Perceived risk of online space; COVID_PR=Perceived risk of COVID-19; RRS=Risk reduction strategies. The bootstrap procedure generated 2000 sub-samples.

Figure 21. Structural model results



*Note: *:p<0.05; **:p<0.01; ***:p<0.001; ns: not significant. All factor weights are significant at 0.1%, which I have not marked separately. Coefficients are standardised regression coefficients. Dashed arrows indicate non-significant effects. The bootstrap procedure generated 2000 subsamples.*

5.5 Investigation of mediating effects

Following the above, I looked at the indirect, mediating effects. I then looked at the effect of the two specific risk perceptions on travel intention, the effect of risk reduction on travel intention and the indirect effect of the perceived risk of travel buying through the perceived risks of the online space and the COVID-19 pandemic, and the effect of the three risk reduction factors on the three types of risk perception (Table 12).

Table 12. Values of direct and indirect effects measured in the SEM model

	Direct standardised regression coefficient value	Indirect standardised regression coefficient value	Mediation	Changed the direction of direct effect
EWOM→RRS→Buying_PR	0.014(ns)	0.066(ns)	No effect	Not relevant
EWOM→RRS→COVID_PR	0.100***	0.043(ns)	Direct effect exists	Not
EWOM→RRS→Online_PR	0.057(ns)	0.072(ns)	No effect	Not relevant
Infocollect→RRS→Buying_PR	0.098***	-0.176***	Partially mediated	Yes
Infocollect→RRS→COVID_PR	0.142***	-0.132***	Partially mediated	Yes
Infocollect→RRS→Online_PR	0.156***	-0.229***	Partially mediated	Yes
Trustinst→RRS→Buying_PR	-0.024(ns)	-0.151***	**Fully mediated**	Not relevant
Trustinst→RRS→COVID_PR	0.155***	-0.128***	Partially mediated	Yes
Trustinst→RRS→Online_PR	-0.018(ns)	-0.181***	**Fully mediated**	Not relevant
Online_PR→Buying_PR→Itotravel	-0.187***	-0.100***	Partially mediated	Not
COVID_PR→Buying_PR→ Itotravel	0.065(ns)	-0.189**	**Fully mediated**	Not relevant
RRS→Buying_PR→Itotravel	0.371***	0.086***	Partially mediated	Not
RRS→Online_PR→Buying_PR	-0.169***	-0.280***	Partially mediated	Not
RRS→ COVID_PR→Buying_PR	-0.200***	-0.173***	Partially mediated	Not

*Note: *:p<0.05; **:p<0.01; ***:p<0.001; ns: not significant. Infocollect=Information collection; EWOM=EWOM; Trustinst=Trust in the environment; Itotravel=Intention to travel; Buying_PR=Perceived risk of travel buying; Online_PR=Perceived risk of online space; COVID_PR=Perceived risk of COVID-19; RRS=Risk reduction strategies. The bootstrap procedure generated 2000 sub-samples.*

Risk perception related to online space significantly negatively affects travel intention, while that related to the coronavirus does not. The latter is only indirectly

related, but also negatively, but risk perception related to online space also has a negative effect through risk perception related to travel buying, albeit weaker than its direct effect. The directions of the effects do not differ for direct and through-mediator effects. It appears that travel intention is most significantly negatively affected in the direct direction by the perceived risk of travel buying, which is considered to be expected, but is also affected by other risk perceptions, even if more through a proxy and with weaker strength than the perceived risk factor of travel buying.

Overall, it can be seen that the factor of risk reduction strategies has a stronger direct positive effect on travel intention than the risk perception associated with travel buying. This direct relationship has also not yet been investigated in the literature, but there were some findings in qualitative research suggesting that the use of risk reduction tools may have increased travel intention in a particular direction through travel safety. This was also the strongest direct effect in this block, with a standardised value of 0.371. Risk reduction strategies seem more likely to directly reduce more specific risk perceptions and positively affect travel intentions. This is confirmed by the fact that the perceived risk of travel buying is more likely to be indirectly affected by risk reduction strategies than directly, with lower p-values. Although, in this case, the direct effects reach a significant pleasing effect at the 5% level, in contrast to the whole model, we can speak of partially mediated relationships. In particular, the mediated effect of perceived risks in the online space seems stronger.

5.6 Results of moderating effect

Finally, I looked at the moderating interaction effects of the continuous variable (risk-taking intention) and the categorical variable (destination direction). In the former case, I examined moderation in the effect of perceived risk associated with travel buying on travel intention (Table 13). In this case, I hypothesized that risk-taking intention moderates the negative effect of risk perception on travel intention. No significant interaction effect was observed. Indeed, the two lines are not parallel with a slope of -0.016. The means at the two endpoints are different, which is a necessary condition for the interaction test but insufficient.

Table 13. Non-standardised coefficients of moderating effect (for continuous variable)

	Non-standardised regression coefficients
Buying_PR→Itotravel	-0.278***
Riskprop→Itotravel	0.025(ns)
Buying_PR_x_Riskprop→Itotravel	-0.016(ns)

*Note: *:p<0.05; **:p<0.01; ***:p<0.001; ns: not significant. Itotravel=Intention to travel; Buying_PR=Perceived risk of travel buying; Riskprop=Risk reduction strategies; Buying_PR_x_Riskprop= Interaction of Perceived risk of travel buying and Risk reduction strategies.*

In the last part of the modelling, I looked at the differences between groups. As I showed earlier in the invariance analysis, the fit and structure of the model are consistent with scalar invariance, which shows a strong invariance. I looked at my hypotheses for domestic and foreign destination groups. Then, I examined the effect of two risk reduction strategies on the perceived risk of travel buying and the effect of the latter factor on travel intention at the level of variance with these two groups.

There are apparent differences in the choice of domestic or foreign destination in that risk reduction significantly reduces the perceived risk of travel buying with a medium strength for domestic travellers. At the same time, this effect is also negative but not significant for foreign travellers (Table 14). Recall that this was not a significant relationship for the total sample either. However, when looking at the model, this difference is precisely non-significant, while all other factor weights and regression effects are fixed. Thus, statistically, this difference cannot be called significant. Perceived risk of travel buying had a more negative effect on travel intention for domestic travellers than for those travelling abroad, and in addition, a strong effect was observed. However, this difference is not as significant as before under similar conditions. Thus, the previously measured invariance of the model fit is presumably because no significant differences in the dimensions are observed between the two groups.

Table 14. Differences between groups (domestic or abroad destination)

	Domestic (N=283)		Abroad (N=256)		Model difference		
	Standardised regression coefficient	***p-value***	***Standardised regression coefficient***	***p-value***	$\Delta\chi^2$	*Δdf*	***p-value***
RRS→Buying_PR	-0.204	0.006	-0.083	0.326	3.084	1	0.079
Buying_PR→Itotravel	-0.473	0.000	-0.308	0.000	0.574	1	0.449

Note: Itotravel=Intention to travel; Buying_PR=Perceived risk of travel buying; Riskprop=Risk reduction strategies. The critical values at 95% and 99% are $\Delta\chi^2$ (df=1) 3.84 and 6.63. That is, if these values exceed the change in χ^2, we could talk about a significant difference at 5% and 1%.

5.7 Summary table of hypothesis test results

The results of the hypothesis test are summarised below in Table 15.

Table 15. Final results of hypotheses

Groups based on the type of relationship assumed	**Hypothesis**	**Accepted/Rejected**	**Reason**
Hypotheses assuming direct effects	H_{1a}: The perceived risk of the online space increases the perceived risk of travel buying.	**Accepted**	p<0.001
	H_{1b}: The perceived risk of COVID-19 increases the perceived risk of travel buying.	**Accepted**	p<0.001
	H_{2a}: Using risk reduction strategies reduces the perceived risk of travel buying.	Rejected	p=0.056, although the direction is good.
	H_{2b}: Using risk reduction strategies reduces the perceived risk in the online space.	**Accepted**	p<0.001
	H_{2c}: Using risk reduction strategies reduces the perceived risk of COVID-19.	**Accepted**	p<0.001
	H_{3a}: Information collecting increases the use of risk reduction strategies.	**Accepted**	p<0.001
	H_{3b}: EWOM increases the use of risk reduction strategies.	Rejected	p<0.05, but reverse the direction, reduce
	H_{3c}: Trust in the environment increases the use of risk reduction strategies.	**Accepted**	p<0.001

Groups based on the type of relationship assumed	Hypothesis	Accepted/Rejected	Reason
	H_4: The perceived risk of travel buying reduces the intention to travel.	**Accepted**	$p<0.001$
Hypotheses assuming indirect effects	H_{5a}: The perceived risk of online space reduces travel intentions through the perceived risk of travel buying.	Partially accepted	Partially mediating effect, $p<0.01$
	H_{5b}: The perceived risk of COVID-19 reduces travel intentions through the perceived risk of travel buying.	**Accepted**	$p<0.001$, fully mediating effect
	H_{5c}: Using risk reduction strategies increases travel intentions through the perceived risk of travel buying.	Partially accepted	Partially mediating effect, $p<0.05$
Hypotheses assuming a moderating effect	H_6: The willingness to take risks moderates the effect of the perceived risk of travel buying as a reduction in travel intention.	Rejected	No significant effect of the interaction variable, but the effect is negative
	H_{7a}: For travellers who want to travel domestically, the use of risk reduction strategies reduces the perceived risk of travel buying more than for those who want to travel abroad.	Partially accepted	There is no significant difference across the model as a whole, but the effects are significant and more negative for domestic than for international travellers
	H_{7b}: For travellers who want to travel domestically, the perceived risk of travel buying has a more limited effect on reducing travel intentions than for those who want to travel abroad.	Rejected	There is no significant difference across the model as a whole, but the effects are significant but more negative for domestic than for international travellers

6 Summary and conclusions

The results of my research clearly show that managing travel buying and booking for tourism is a significant challenge for consumers and service providers, and the pandemic phenomenon has added to this. In my dissertation, I dealt with the issue in question in a customer-oriented way, thus focusing on the consumer side. However, the results also lead me to make recommendations for the supply side in my practical suggestions. My primary research objective was to understand and gain insight into the consumer travel buying and booking process, focusing on risk perception and management behaviour. All this is in the shadow of the COVID-19 pandemic. I have addressed three dimensions of risk perception: perceived risks related to travel buying, perceived risks related to the online space, and perceived risks posed by the COVID-19 pandemic. I measured their impact and significance on travel intentions. The results will allow us to see how and in what way risk perception affects travel intentions. In addition, another area of my research was to analyse the risk reduction strategies and tools consumers use when booking a travel. This allowed me to understand perceived risks' role and risk reduction strategies' factors in the overall travel buying process. Finally, considering individual characteristics, I also investigated the effects of risk-taking intention and destination choice on the overall process. I highlighted five main objectives in my research, which I explored through five research questions. I used qualitative and quantitative data collection and analysis to answer my questions.

I used an exploratory mixed methodology in my research. I first conducted a qualitative data collection and analysis, which I also quantified using a magnitude coding technique. Then, using a three-level coding, I further narrowed the results from 26 first-order themes formed by 112 features to 14 second-order constructs, and finally, at the third level, I obtained six main dimensions. Following this analysis, I performed confirmatory factor analysis using a structural equations model (including the CB-SEM approach). In this complex model, I measured the factors that directly, indirectly and moderating influence travel intention, which allowed me to test my hypotheses. In total, I used 62 statements for modelling, from which I created 19 first-order variables, as detailed later, and 4 second-order variables from 14 of these. The statements were asked on a Likert scale of 1 to 7, with 1 being the response option 'not at all typical of me'/'strongly disagree' and 7 being the response option 'totally typical of me'/'strongly agree'. The qualitative data collection sample included respondents who travelled domestically or abroad for tourism in the summer of 2020. They were interviewed in

October 2020 as part of a structured in-depth interview with student support, using a pre-defined interview guide. The sample size was 111 people. For quantitative data collection, I surveyed those who planned to travel in the summer of 2021. They were interviewed in May 2021 using an online questionnaire with a random sample. The final sample was 539 people. The sample on which both surveys were based was evenly distributed along demographic variables. The two groups included almost equal proportions of domestic and international travellers.

6.1 Summary of qualitative research findings and conclusions

The results of the qualitative research were the most detailed in exploring the dimensions of risk perception and risk reduction, which were the main focus of the research. In addition, a third primary dimension, risk-taking intention, could also be presented in sufficient detail. These covered a more alternative range of issues, but they are the real added value of qualitative research, and these dimensions help to understand the whole travel buying and implementation process from the perspective of risk perception and risk reduction. The three additional dimensions are the dimension of elements that increase risk perception, the dimension of destination selection and the dimension of the impact of risk perception on reducing the travel experience.

The dimension of risk reduction was the most easily found and recognisable dimension to analyse in the research. From this, it was possible to identify areas of risk perception directly and indirectly in many cases. It was the relationship between the two main dimensions (risk perception and risk reduction) (together with the external and internal driving forces, sometimes disturbing, that influenced them) that led to the most critical area, the issue of creating a sense of security, which the respondents made everything subordinate to achieving. Moreover, the willingness to take risks seems to be linked to all the areas studied by creating a sense of safety. The main objective of the respondents was to have a safe, relaxed and enjoyable summer holiday, travel. The intention to travel played a more critical role in the choice of destination, the extent of which varied between respondents. There was also a general intention to travel, which was generally positive for all. It could also be seen that the theme of trust was mostly separate from general risk reduction, but overall it was present in a risk-reducing role throughout all sub-themes. I also found three additional areas that further highlighted the depth of the research. These are described in the next paragraph. It seems that if the pre-travel sense of safety was not sufficiently established, it could easily lead to stress or, on

the contrary, to an (even conscious) lack of risk perception, thus impairing or enhancing the experience of relaxed leisure. However, if the sense of safety was compromised during the travel (unexpected event, risk perception), this also impaired the experience of relaxation. Elements not closely related to risk perception (lack of the hustle and bustle) could sometimes cause a sense of lack of overall image for the respondents.

Three of the six main dimensions I identified corresponded to the elements (risk perception, risk reduction, risk-taking intention) examined in many of the previously presented literature studies. However, I also found three other major dimensions that defined the overall process under study in a new way. The interpretation of the meaning of the members of these last three dimensions can be grouped into three categories. On the one hand, one introduced a new element into the theoretical risk perception model, such as the effect of risk perception in reducing the travel experience. In doing so, they pointed out that it is impossible to solve all risks or perceive everything at the same time and that this continuity can diminish the experience of the process. Thus, we can see that the theory of risk perception is closely related to the theoretical framework of experience perception and the theory of satisfaction through the perception of service performance or quality.

On the other hand, the interpretation could also be made by interpreting an existing potential outcome variable, such as travel intention, in a broader context, as both a precursor and an outcome of the choice of travel destination. Namely, the general intention to travel was present in my sample, but the choice of travel destination was unclear. The choice of destination was often the result of choice as a means of risk reduction or even minimalising risk perception (i.e. they could not sufficiently reduce the perceived risk but wanted to decide and travel). It could also be a dimension that determined the risk-taking intention itself, or vice versa, as it is conceivable that the risk-taking intention ultimately determined the final decision, given some awareness of the interplay between risk perception and risk reduction. This may resolve the research bias arising from the sampling – only people travelling on holiday were interviewed – that risk perception was not fully minimised for respondents regardless of whether they wanted to travel, i.e. whether they intended to do so. According to the literature, the latter, i.e. the existence of the intention to travel, implies either a complete release of risk perception or some level of risk-taking (although the effect of the latter is less discussed). Indeed, we have seen that there have been cases where, after the decision has been taken or during the travel, risk perception or anxiety about perceiving risk has been present throughout

the travel, precisely because the individual has been unable or unwilling to reduce or understand the risks.

Lastly, the third element presents a structural problem that was also touched on in the theoretical introduction but which is hardly addressed directly in the international literature – only concerning the loss of a sense of control, which is observed very indirectly. We could call this the dimension that increases risk perception in its own right. On the one hand, it results from counterproductive risk reduction, which is a factor that increases perceived risks, mainly as a result of information gathering. That is when the means intended to reduce risk perception nevertheless increase the perception of risk, even making the respondent more susceptible to risk perception (increasing the chance of accidental or self-willed risk perception). The other part of the risk perception-increasing dimension is the risk of variable adverse outcomes (occurrence of unexpected events). This also highlights that, on the one hand, we cannot treat the magnitude of the negative outcome as an inevitable constant in the coronavirus study, as the epidemic curve has evolved with different intensities over the last two years (although we have seen that it can be given a probability or severity in its cross-section so that its impact is easier to manage). On the other hand, it also shows that some risk reduction tools may reduce the risk at a certain point in time, while at other times, they may increase the detection or the probability (susceptibility) of detection. Furthermore, they may even positively affect the outcome, as the respondent may have been able to detect risks that he/she had not been able to detect before and thus be able to prepare for, take or live with them. So this third dimension influences the complete structure under study. The coronavirus influences it because of its changing circumstances. It thus reveals dimensions of linkages not previously addressed in theory (counterproductive effect of risk reduction tools on risk perception) and novel interpretative possibilities (variability of negative outcomes, conscious or unconscious susceptibility to risk perception, variability of the effect of risk reduction) that may also provide researchers with exciting perspectives and show the dynamics of each of these linkages through the sense of safety.

6.2 Summary of quantitative research results and conclusions

In the quantitative research, I accepted most of the hypotheses. The hypotheses for the associations with risk perception were mainly based on the literature. However, risk reduction strategies have not been previously investigated as a separate factor in the literature in first- and second-order dimensions, so in preparing the relevant hypotheses,

I considered the results of qualitative research in addition to the relevant literature findings. A similar approach was used to model risk-taking intention and destination choice. The system of SEM equations satisfied all critical conditions and indicators, and the factor structure was valid. For the direct effects, among the standardized regression coefficient values, only the effect of risk reduction strategies on the perceived risk of travel buying was not significant (p-value was 0.056). I had one case with significant results at 5% (the effect of EWOM on risk reduction strategies), while the other seven relationships also showed significant results at 0.1%. Most of these relationships are moderately strong (Bagozzi, 1988; Sajtos – Mitev, 2007).

When examining the direct results, three main findings are worth highlighting (all relevant hypotheses are presented in Table 16). One is that the more thematic risk perception types (online space and COVID-19 pandemic) contribute to the increase in perceived risk associated with travel buying, with coefficient values of 0.386 and 0.433, respectively. This indicates that more general risk perceptions related to performance, financial threats, social concerns, and physical and psychological domains are determined by more thematic risk perception types. The means of the statements associated with these more specific risk perceptions were also slightly higher than the means of the statements for the first-order constructs associated with the general factor. It was easier for respondents to formulate these more specific risk perceptions. However, it cannot be said that measuring general risk perceptions is not necessary since this factor was the most crucial determinant of travel intention. It is worthwhile to decompose its components better (Sharma et al., 2021). It can also be argued that, similar to the aggregate risk perception introduced by Stone and Gronhaug (1993), the perceived risk of travel buying became the aggregate risk perception in Model A. At the same time, the types of risk perception associated with the online space and the COVID-19 pandemic were the factors of my model's previous traditional risk perception. This implies that in the traditional sense, risk perception types related to buying in the second dimension may constitute a risk perception factor influenced by more specific, more easily identifiable risk perception types. At the same time, the perceived risk of buying a travel also holds in the model by itself, it is associated with perceptions, and it is the only factor that has been found to have a direct effect on travel intention (-0.387).

Another result worth highlighting is that the risk reduction strategies tended to identify more thematic types of risk perception (online space and the COVID-19 pandemic), with coefficients of -0.689 and -0.403, respectively. This parallels the findings

in the literature and the previously detailed result that respondents are more likely to anticipate and reduce more specific risk perceptions (Derbaix, 1983; Bruwer et al., 2013). This suggests that there are higher and lower risk perceptions and that consumers can reduce accordingly. In the case of trust, I also observed that it might be worth exploring specific areas of specific self-confidence, which may be able to moderate specific, more concrete risk perceptions (Siegrist, 2021). My results here, in turn, extend the space identified by Lee et al. (2007) that purchase can be identified as a risk in itself. Based on this, it is easy to imagine that risk reduction strategies may also be more likely to mitigate risk perceptions in more specific areas, while the risk of buying, in general, may be better determined by some other element (as we will see, trust) through or independently of risk reduction strategies. In sum, the risk perception of travel buying is a construct based on the risk perception types of the previous conventional interpretation. Typically, in recent years, especially under the coronavirus, one or two specific types of risk perception have been used to measure consumer risk (Dayour et al., 2019; Bae – Chang, 2021; Kim et al., 2021; Zheng et al., 2021, to list only the most recent). In my dissertation, I have developed this further by channelling the traditional types of risk perception interpretation into a general approach and treating this as aggregate risk perception. I then saw that risk reduction strategies, rather than more specific risk perceptions, had an impact. Considering these results, an intriguing aspect may be the result of Cui et al. (2016) that among the traditional risk perception types, it is possible to identify which risk perception is the strongest, most central element. My finding can complement their results that during a coronavirus crisis, physical (health) and psychological (anxiety) factors come to the fore, to the point of functioning as a completely separate construct (COVID-19 pandemic perceived risk). Furthermore, my research complements this work by showing that perceived risk in the online space is also a crucial determinant.

The third main result of the direct effects was an examination of the risk reduction tools that quasi-externally influenced the use of the risk reduction strategy. These effects were not as strong on average, and the effect of EWOM was significant in only 5% of cases but reduced the use of risk reduction strategies. The other two items increased the use of risk reduction strategies. Highlighting EWOM seems to have been a good idea, despite the positive effect I expected, as it harms the use of risk reduction strategies. This factor can be a counterproductive risk reduction tool, as it has been reported many times in qualitative research. It could also be that this factor increases susceptibility to risk perception through the theory of perceived deception (Park et al., 2019) or simply

because, in the online space, sympathy for one brand can quickly come at the expense of another due to community association (Rather, 2021). It could also be that by using EWOM, respondents may already feel less need to use other risk reduction tools. Moreover, this latter approach may indicate two things. One is that after using EWOM, they no longer wanted to use another risk reduction tool because the information gained was sufficient to reduce risk, but the other could be that the effect is negative because respondents became confused and stopped using EWOM. Information gathering and confidence in the environment have a medium power to increase the use of risk reduction strategies. This could also mean those who gather information or trust their environment use additional risk reduction tools. There could be two reasons for this. On the one hand, it is possible that those who use these tools like to be better prepared and thus use as many tools as possible to reduce their risks (in which case it could be a back and forth effect, whereby the use of more tools requires more information gathering and more trust in the environment). On the other hand, it is also possible that these two tools are insufficient and that they feel the need to use additional tools to reduce their risks. This could, in turn, reverse the thinking of a few sentences ago, i.e. it was precisely the collection of information and the perception of trust that increased uncertainty and thus the need for further risk reduction, hence the positive direct link. We will see in the mediating effects that it cannot be said that these two factors also increased risk perception. For these factors, I expected further answers on the indirect effects.

Table 16. Results of the hypotheses on direct effects

Related research question		**Hypothesis**	**Accepted/Rejected**	**Reason**
Q1., Q3.	***Hypotheses assuming direct effects***	H_{1a}: The perceived risk of the online space increases the perceived risk of travel buying.	**Accepted**	$p<0.001$
Q1., Q2., Q3.		H_{1b}: The perceived risk of COVID-19 increases the perceived risk of travel buying.	**Accepted**	$p<0.001$
Q4.		H_{2a}: Using risk reduction strategies reduces the perceived risk of travel buying.	Rejected	$p=0.056$, although the direction is good.
Q4.		H_{2b}: Using risk reduction strategies reduces the	**Accepted**	$p<0.001$

Related research question		Hypothesis	Accepted/Rejected	Reason
		perceived risk in the online space.		
Q4.		H_{2c}: Using risk reduction strategies reduces the perceived risk of COVID-19.	**Accepted**	$p<0.001$
Q4.		H_{3a}: Information collecting increases the use of risk reduction strategies.	**Accepted**	$p<0.001$
Q4.		H_{3b}: EWOM increases the use of risk reduction strategies.	Rejected	$p<0.05$, but reverse the direction, reduce
Q4.		H_{3c}: Trust in the environment increases the use of risk reduction strategies.	**Accepted**	$p<0.001$
Q5.		H_4: The perceived risk of travel buying reduces the intention to travel.	**Accepted**	$p<0.001$

The indirect effects analysis complemented my previous results (Table 17). I then obtained three cases of fully mediated effects, two of which were related to the factor trust in the environment concerning perceived risk related to travel buying and two related to the perceived risk in the online space, both through risk reduction. That is, this risk moderator, mainly through the total risk reduction factor, has a risk moderating effect on these two risk perceptions. This, in turn, may explain the phenomenon of specific and general self-reliance (Siegrist, 2021). In the following paragraph, I address these two effects.

My qualitative research included respondents who referred to their general confidence in travel buying, experience and knowledge, and confidence in the situation. This result suggests that confidence, although a risk-reducing element, is not an optional tool. Presumably, the specific part increases with preparedness and risk reduction tools, but it may also be influenced by elements that increase overall confidence (all or some of the above). Finally, this relationship reflects the polarity in the literature that has difficulty in deciding whether confidence affects risk perception or vice versa, perhaps one moderate the relationship of the other variable with the outcome variable (Corbitt et al., 2003; Corritore et al., 2003; Lee et al., 2007).

Where I measured a positive directional significant direct effect of risk mitigants (EWOM) and a perceived risk type (COVID-19 pandemic), it is difficult to distinguish

whether we are talking about counterproductive risk reduction or a relationship that indicates that risk perception increases the use of risk reduction tools or their importance, or whether we are discussing a third possibility, susceptibility to risk perception. This result, in turn, reflects that EWOM may have increased rather than decreased risk perception, especially for coronavirus. This phenomenon is most observed as the information gathering factor for all risk perceptions because, in all cases, the direction of the direct links is positive. However, we can speak of a negative mediating effect through the risk reduction strategy factor created by other risk reduction instruments. This also suggests that information gathering alone may not be sufficient to reduce risk perception and may even increase it (Kah – Lee, 2015). However, when complemented with other risk reduction tools or when viewed as a whole, the strategy itself is well complemented by other elements (Mitchell – McGoldrick, 1996; Kim et al., 2009) and thus already reduces the perceived risks (hence its direct positive impact on risk mitigation strategies). The result may also indicate that information gathering may start before the potential risks are perceived, while reading online reviews and opinions may start during the perception process. Alternatively, these tools may be in continuous use. Information gathering alone could also worsen the risk perception related to travel buying. Furthermore, it could be argued that the use of EWOM made the use of additional risk reduction tools unnecessary, and therefore the sign between EWOM and risk reduction strategies is negative. Moreover, information gathering and trust in the environment are positively related to risk mitigation strategies because they were insufficient to reduce the risk perception that arose and had to be complemented by additional tools.

I now return to the third fully mediating effect related to the dimension of risk perception. Namely, the risk perception of the COVID-19 pandemic significantly affected travel intention only through the perceived risk of buying a holiday, not directly. This implies that, although this factor strongly affects total risk perception, it may directly influence travel intention in combination with other factors. In other words, the perceived risk of the COVID-19 pandemic, formed by the health and coronavirus anxiety factors, is an essential element for risk perception, but other risk perceptions are also important, or even more important, in shaping travel intention, as seen in Yu et al. (2021) (financial, performance). The effect of online perceived risk is partially mediated, with a negative direction but weak relationships. Overall, it is correct to suggest that the more thematic risk perception types influence the overall aggregate level of risk perception associated with travel buying rather than travel intentions explicitly. The certainty of performance,

financial processes, social opinions, and physical and psychological elements determine negative or positive attitudes towards travel buying. These traditional factors can be amplified and concretised by thematic risk assessments.

The factor of risk reduction strategies deserves a separate summary. The factor has no significant effect on the perceived risk of travel buying, but it has a significant effect on the other two thematic risk perceptions. Consequently, I found it helpful to look at the mediating effects of the two thematic risk perceptions on the perceived risk of travel buying. The direct effect then became significant, but the indirect effect, primarily through the perceived risk of the online space, became more significant (-0.280). Thus, we can speak of partially mediated effects in these cases. The result further confirms the model's finding that the central risk perception is the perceived risk of travel buying but is significantly influenced by more specific, thematic types of risk perception. Risk reduction strategies can reduce the perceived risk of travel buying through these factors rather than directly. Overall, the more specific risk perceptions and management better determine the perceived risk level, which can subsequently determine travel intentions. Moreover, the perceived risk of travel buying seems to be significantly reduced, albeit indirectly, by information gathering and trust in the environment rather than by the factor of risk reduction strategies. In conclusion, the mediated effect of risk reduction strategies on travel intention is partial and seems to affect travel intention rather than indirectly directly. This also implies that strengthening risk reduction strategies and using tools may increase travel intention in general. This phenomenon may also be associated with confidence (Bruwer et al., 2013; Hsiao et al., 2010; Mitchell, 1999), but more so with perceived preparedness, a factor that has not been addressed in the literature repeatedly in my qualitative research.

Table 17. Results of the hypotheses on indirect effects

Related research question		Hypothesis	Accepted/Rejected	Reason
Q1., Q5.	***Hypotheses assuming indirect effects***	H_{5a}: The perceived risk of online space reduces travel intentions through the perceived risk of travel buying.	Partially accepted	Partially mediating effect, $p<0.01$
Q1., Q5.		H_{5b}: The perceived risk of COVID-19 reduces travel intentions through the perceived risk of travel buying.	**Accepted**	$p<0.001$, fully mediating effect
Q1., Q5.		H_{5c}: Using risk reduction strategies increases travel intentions through the perceived risk of travel buying.	Partially accepted	Partially mediating effect, $p<0.05$

Based on the above, the only question left unanswered is whether something can moderate the impact of the perceived risk of travel buying on travel intentions. I have shown above how the extent to which factors influence this perception, but this does not mean that the ultimate impact of the perceived risk factor of holiday shopping is minimised. I looked at two ways of moderating this effect. I looked at the moderating effect of both a continuous variable (risk-taking intention) and a categorical variable (domestic or foreign destination). However, I did not find significant differences when looking at the effects, so it cannot be said that those who were more risk-taking had a milder negative effect on risk perception. Nor is there a significant difference in this effect for those who choose to travel domestically or abroad. For the latter factor, I also examined whether the effect of risk reduction strategies is strengthened by travelling domestically. However, I did not find significant differences between groups, even though the literature suggested this was the case for a Hungarian sample (Csapó – Törőcsik, 2019). Thus, I could not accept my three hypotheses for the moderating effect (Table 18).

Table 18. Results of the hypotheses on moderating effects

Related research question		Hypothesis	Accepted/Rejected	Reason
Q5.	***Hypotheses assuming a moderating effect***	H_6: The willingness to take risks moderates the effect of the perceived risk of travel buying as a reduction in travel intention.	Rejected	No significant effect of the interaction variable, but the effect is negative
Q5.		H_{7a}: For travellers who want to travel domestically, the use of risk reduction strategies reduces the perceived risk of travel buying more than for those who want to travel abroad.	Partially accepted	There is no significant difference across the model as a whole, but the effects are significant and more negative for domestic than for international travellers
Q5.		H_{7b}: For travellers who want to travel domestically, the perceived risk of travel buying has a more limited effect on reducing travel intentions than for those who want to travel abroad.	Rejected	There is no significant difference across the model as a whole, but the effects are significant but more negative for domestic than for international travellers

6.3 Practical implications

My research aims to draw attention to several practical aspects. Based on my research, the most critical central element was service delivery. This may be affected by risk perceptions arising from travel buying, online technology or changes in some boundary condition (e.g. a coronavirus crisis, other crisis, personal problems, force majeure situations in the service). In an information-rich online space, providing accurate and precise information to consumers and reliable and credible information requires particular attention from service providers. It is essential that this information is simple to understand, but covers more than one topic and, where possible, prepares the traveller in advance. Preparation can also be done by defining what the consumer can and will

receive, what is up to the provider and what is up to the individual. It would be helpful to have a flowchart on the website showing how prepared the person is, what they have to do to make a reservation and what the service will be like when they consume it. It may be worthwhile to inform consumers in advance about the contingency scenario, whether it is a contingency on the part of the service provider or the consumer or due to a change in an external environmental condition (pandemic, war). If a crisis such as a COVID-19 pandemic directly or indirectly affects the service provider, it is worth providing specific and well-developed information to the subjects. It is also worth maintaining a well-developed FAQ block or directing consumers to it before finalising their possible reservations. It may also be worth guaranteeing personal availability alongside chat or live robots, indicating (or pricing) when the option to contact them in person is available. These information criteria can apply to the service provider and the official channels of the destination or the authorities. Messages on service guarantees and security and their practical implementation may also be reflected in service and pricing. Flexible conditions, cancellation options, guarantees of service fulfilment and additional information on the matters listed in this paragraph may also represent a higher quality position, competitive advantage or added value on the part of the service provider, which may also be reflected in prices.

The other critical area is the promotion and control of acquired online channels, the acquired communication space. Reading comments and reviews may raise concerns in the consumer, but it may be because they cannot decide how generalisable the review is, whether it is helpful for their travel characteristics, whether it is still valid or what it is related to, whether there is something specific that influences the more negative reviews. For this reason, it may be worth introducing the possibility for the reviewer to provide more details about their travel, such as how many people arrived, when the event was, which room, what they ate, what they visited precisely, and what they were connected to and so on. This would then make it easier to search, filter and group reviews for a particular consumer need because someone may be interested in just one thing that, when looking at it, is a specific issue (e.g. is there a changing facility in the museum and what quality is it, how discreetly can the situation be resolved). It may also be that the issue is not so specific or well defined, but it can be grouped in the consumer's mind as to which concern or which service element's perfect implementation is the more critical requirement. It would be essential to compare and group the different assessments simpler or ask for a more powerful query based on a specific issue and service element.

Introducing a chat facility with the reviewer would also be practical, so the consumer can ask specifically what the problem was. This feature could also be used by service providers in incognito mode and might make it easier to find out the problem or even open the evaluator's eyes to the actual severity of the problem they are reporting. However, this latter line of thinking goes further than my research findings.

Finally, the third critical point addresses technological concerns about the online space. The above can help, but easy navigation of the site, support functions during booking or purchase, and the use of „queue guides" can also help consumers to finalise their booking. It may also be necessary to display secure browsing using certificates, possibly trademarks, to reassure the consumer that their data is safe. Browsing data is the most difficult to protect in the online space. It may be worth considering offering some form of financial reward if someone is more willing to allow cookies during the booking process or to provide more information about themselves while filling in the data. Moreover, support for secure browsing may be particularly critical for financial transaction processes. In addition, using icons to authenticate images on websites, online agencies, or time stamps indicating when images have been taken could be an exciting point. A consumer may also expect the critical presence of crucial service elements in photos. This could be done by asking the consumer to search for services (e.g. when using Booking.com) where there are authenticated images, recent images and the main service elements are photographed, or even video. These provide another opportunity for positioning when it comes to pricing, as not all consumers may need all the practical safeguards listed by the site.

In summary, my research also shows that it is worth segmenting consumers because, to some extent, different attitudes to tourism emerge based on the destination but also levels of risk perception and risk-taking. Moreover, if we can segment the traveller population and then reach the different target groups with different or exact positioning, then the effectiveness can be further enhanced, along with the return on the premiums for these insurance policies. However, this requires understanding the consumers and then targeting and supporting them through the listed tools. Research on the consumer and the competitive environment is worthwhile before precise practical implementations can be made.

6.4 Limitations and future research opportunities

The biggest challenge in my research was to measure or filter the changing environmental conditions in my research as much as possible. A little over half a year had passed between the two empirical data collections, so by the time my quantitative research was conducted, the respondents were more experienced than before in October 2020. Furthermore, in October 2020, we were already in the second wave of the strong upswing in Hungary (2000-3000 new cases per day on average), while in October 2021, we were in the second wave of the strong upswing in Hungary (2000-3000 new cases per day on average). At the time of the survey in May 2021, the third wave was already ringing out (an average of 1000-1500 new cases per day), with vaccination coverage already increasing in Hungary (around 50% of those vaccinated with at least the first dose). Furthermore, it would have been interesting to interview the same individuals on the two data collection dates.

It would also be worthwhile to filter and compare the sample by their conversion level and travel experience in the previous year (2020) for future research. Individual characteristics do not seem relevant for risk-taking, just as the choice of destination was not included in the model. In similar research, it would be worthwhile to look at additional dimensions that influence travel intention, such as perceptions of the importance of safety elements or knowledge and trust of the local culture and institutions (Zou – Meng, 2020).

It would also be essential to look at internal individual differences, such as those underlying demographic characteristics or those arising from personality type, as there are examples in the literature (Karl et al., 2020). However, I believe from the strong level of invariance test results in my present model and the significant inconclusiveness of the moderating variables test, finding segmenting factors would be challenging. However, based on the qualitative research results, we did see evidence that there may be differences. For this reason, it may be worthwhile to investigate value dimensions using other qualitative research techniques (means-end or critical incidents technique).

Overall, even some of the present research results may be worth examining in separate models, focusing on specific correlations. Furthermore, by „downscaling" the model, it might be easy to detect differences in a few different moderating segments. This may be of particular interest at the interface of risk reduction strategies because, as we have seen, there are means (information gathering and trust in the environment) that may increase risk perception but may also increase the need to use risk reduction strategies (with positive relationships).

I believe examining risk reduction strategies and risk-taking intention, even in a different context, would be worth further investigation. Risk reduction strategies can contribute to either resolving a given situation or enhancing overall coping capacity. Consequently, scales and factors could also be developed for accurate measurement.

The research might also be worth testing on a different sample and slightly increasing the item counts in the older age group. Similar studies could be run on other different cultures. Finally, it would also be worth looking at whether, without asking about age-specific risk estimates, the effect of risk reduction strategies on specific risk estimates would be as significant or whether more general risk estimates would be attenuated. In the future, it may also be worth considering the new dimensions of the relationship between risk perceptions and risk reduction, such as those I have referred to in my interpretation of the research findings. Among these, I would highlight the perceived level of preparedness, susceptibility to risk perception or the phenomenon of counterproductive risk reduction.

My research aimed to understand attitudes to and management of the risks inherent in the travel buying and booking process in the shadow of the COVID-19 pandemic. Based on the results obtained, I believe that they will be helpful in the event of future crises and emergencies for whatever reason, both for travellers and tour operators, as well as for operators and service providers of travel destinations. In light of the results, I believe supply-side actors must understand and appreciate how consumers make decisions on specific issues and use this knowledge to effectively reduce their potential concerns and, simultaneously, increase their willingness to travel. Whichever provider does this first and effectively manages consumer behaviour will win the race for the consumer's money. It is likely that the difficulties of the pandemic and the associated consumer experiences will be with us for some years to come and that its effects will continue to be felt in the future as we examine different perceptions of travel. Thus, the results of my research can provide tourism industry players with answers that will enable them to better address and measure the difficulties and changing consumer needs that arise in the course of market operations in further research.

References

Abraham, V. – Bremser, K. – Carreno, M. – Crowley-Cyr, L. – Moreno, M. (2020): Exploring the consequences of COVID-19 on tourist behaviors: perceived travel risk, animosity and intentions to travel. Tourism Review 17. https://doi.org/10.1108/tr-07-2020-0344

Abubakar, A. M. – Ilkan, M. (2016): Impact of online WOM on destination trust and intention to travel: A medical tourism perspective. Journal of Destination Marketing & Management, 5(3), 192–201. https://doi.org/10.1016/j.jdmm.2015.12.005

Adam, I. (2015): Backpackers' risk perceptions and risk reduction strategies in Ghana. Tourism Management, 49, 99–108. https://doi.org/10.1016/j.tourman.2015.02.016

Aebli, A. (2019): Tourists' motives for gamified technology use. Annals of Tourism Research, 78, https://doi.org/10.1016/j.annals.2019.102753.

Agag, G.M. – El-Masry, A.A. (2017): Why Do Consumers Trust Online Travel Websites? Drivers and Outcomes of Consumer Trust toward Online Travel Websites. Journal of Travel Research 56, 347–369. https://doi.org/10.1177/0047287516643185

Agyeiwaah, E. – Adam, I. – Dayour, F. – Badu Baiden, F. (2021): Perceived impacts of COVID-19 on risk perceptions, emotions, and travel intentions: Evidence from Macau higher educational institutions. Tourism Recreation Research, 46(2), 195–211. https://doi.org/10.1080/02508281.2021.1872263

Ahmad, A. – Jamaludin, A. – Zuraimi, N. S. M. – Valeri, M. (2021): Visit intention and destination image in post-Covid-19 crisis recovery. Current Issues in Tourism, 24(17), 2392–2397. https://doi.org/10.1080/13683500.2020.1842342

Ahorsu, D. K. – Lin C.Y. – Imani, V. – Saffari, M. – Griffiths, M.D. – Pakpour, A.H. – (2020): The Fear of COVID-19 Scale: Development and Initial Validation. International Journal of Mental Health and Addiction 9.

Alcántara-Pilar, J. M. – Blanco-Encomienda, F. J. – Armenski, T. – Del Barrio-García, S. (2018): The antecedent role of online satisfaction, perceived risk online, and perceived website usability on the affect towards travel destinations. Journal of Destination Marketing & Management 9, 20–35. https://doi.org/10.1016/j.jdmm.2017.09.005

Almousa, M. (2014): The Influence of Risk Perception in Online Purchasing Behavior: Examination of an Early-Stage Online Market 3, 9.

Antoncic, J. A. – Antoncic, B. – Gantar, M. – Hisrich, R. D. – Marks, L. J. – Bachkirov, A. A., ... – Kakkonen, M. L. (2018): Risk-taking propensity and entrepreneurship: The role of power distance. Journal of Enterprising Culture, 26(01), 1-26. https://doi.org/10.1142/S0218495818500012

Ariff, M. S. M. – Sylvester, M. – Zakuan, N. – Ismail, K. – Ali, K. M. (2014): Consumer Perceived Risk, Attitude and Online Shopping Behaviour; Empirical Evidence from Malaysia. IOP Conference Series: Materials Science and Engineering 58, 012007. https://doi.org/10.1088/1757-899X/58/1/012007

Ariffin, A. A. M. – Maghzi, A. – Aziz, N. A. (2011): Understanding hotel hospitality and differences between local and foreign guests. International Review of Business Research Papers 7, 340–349.

Ásványi, K. (2022): Fenntartható fejlődési célok a turizmusban. In: Ásványi, K. (szerk.): Fenntarthatóság a turizmusban. Akadémiai Kiadó, Budapest.

Azam, M. – Abbas, H. W. (2018): The Impact of Consumer's Psychographic Traits on Pre- Purchase Cognitive Dissonance: The Mediating Role of Perceived Deception. Publishing by DETAY: 1016, 165–176.

Bagozzi, R. R. – Yi, Y. (1988): On the evaluation of structural equation models 21.

Bhatti, A. – Saad, S. – Gbadebo, S. M. (2018): Convenience Risk, Product Risk, and Perceived Risk Influence on Online Shopping: Moderating Effect of Attitude 11.

Bae, S. Y. – Chang, P.-J. (2021): The effect of coronavirus disease-19 (COVID-19) risk perception on behavioural intention towards 'untact' tourism in South Korea during the first wave of the pandemic (March 2020). Current Issues in Tourism, 24(7), 1017–1035. https://doi.org/10.1080/13683500.2020.1798895

Bauer, A. – Berács, J. – Kenesei, Zs. (2016): Marketing alapismeretek. Akadémiai Kiadó, Budapest, Magyarország.

Bauer, R. A. (1967): Consumer Behavior as Risk Taking, in: Cox, D.F. (Ed.), Risk Taking and Information Handling in Consumer Behavior. Divison of Research, Graduate School of Business Administration, Boston, MA, USA, pp. 23–33.

Bauer, R. A. (1960): Consumer Behavior as Risk Taking. Dynamic Marketing for A Changing World R. S. Handcock, Chicago, AMA Proceedings, 389–398.

Bayramov E. – Agárdi I. (2018): Az észlelt kockázat utazási szándékra gyakorolt hatása konfliktusövezetekben: elméleti keretmodell. Turizmus Bulletin 18, 14–22.

Baz, J. – Briys, E. – Bronnenberg, B. J. – Cohen, M. – Kast, R. – Viala, P., ... – Wertenbroch, K. (1999): Risk perception in the short run and in the long run. Marketing Letters, 10(3), 267-283. https://link.springer.com/article/10.1023/A:1008193420722

Bebko, C. P. (2000). Service intangibility and its impact on consumer expectations of service quality. Journal of services marketing.

Becker, M. C. – Knudsen, T. (2005): The role of routines in reducing pervasive uncertainty. Journal of Business Research 58, 746–757. https://doi.org/10.1016/j.jbusres.2003.10.003

Bentley, T. A. – Page, S. J. (2008): A decade of injury monitoring in the New Zealand adventure tourism sector: A summary risk analysis. Tourism Management, 29(5), 857–869. https://doi.org/10.1016/j.tourman.2007.10.003

Bettman, J. R. (1973): Perceived Risk and Its Components: A Model and Empirical Test. JOURNAL OF MARKETING RESEARCH 7.

Boros, K. – Keller, K. (2022): Az okosrendezvények jelene és jövője. In: Kökény, L. – Miskolczi, M. (szerk.) (2022): Smart turizmus. Akadémiai Kiadó, Budapest

Brockhaus Sr, R. H. (1980): Risk taking propensity of entrepreneurs. Academy of management Journal, 23(3), 509-520. https://doi.org/10.5465/255515

Brown, T. A. (2006): Confirmatory factor analysis for applied research. New York: The Guilford Press

Brunt, P. (2017): Research methods in tourism, hospitality and events management, 1st edition. ed. SAGE Pub, Thousand Oaks, CA.

Bruwer, J. – Fong, M. – Saliba, A. (2013): Perceived risk, risk-reduction strategies (RRS) and consumption occasions: Roles in the wine consumer's purchase decision. Asia Pacific Journal of Marketing and Logistics 25, 369–390. https://doi.org/10.1108/APJML-06-2012-0048

Bryman, A. (1988): Quantity and Quality in Social Research. Routledge 208.

Burke, R. R. (1997): Do You See What I See? The Future of Virtual Shopping. Journal of the Academy of Marketing Science 25, 352–360. https://doi.org/10.1177/0092070397254007

Buultjens, J. W. – Ratnayake, I. – Gnanapala, W. K. A. C. (2016): Post-Conflict tourism development in Sri Lanka: Implications for building resilience. Current Issues in Tourism, 19(4), 355–372. https://doi.org/10.1080/13683500.2014.1002760

Cahyanto, I. – Wiblishauser, M. – Pennington-Gray, L. – Schroeder, A. (2016): The dynamics of travel avoidance: The case of Ebola in the U.S. Tourism Management Perspectives, 20, 195–203. https://doi.org/10.1016/j.tmp.2016.09.004

Calgaro, E. – Cochrane, J. (2009): Comparative Destination Vulnerability Assessment for Thailand and Sri Lanka. 48.

Cartier, E. A. – Taylor, L. L. (2020): Living in a wildfire: The relationship between crisis management and community resilience in a tourism-based destination. Tourism Management Perspectives, 34, 100635. https://doi.org/10.1016/j.tmp.2020.100635

Cases, A. S. (2002): Perceived risk and risk-reduction strategies in Internet shopping. The International Review of Retail, Distribution and Consumer Research 12, 375–394. https://doi.org/10.1080/09593960210151162

Caspi, A. – Begg, D. – Dickson, N. – Harrington, H. – Langley, J. – Moffitt, T. E. – Silva, P. A. (1997): Personality differences predict health-risk behaviors in young adulthood: evidence from a longitudinal study. Journal of personality and social psychology, 73(5), 1052–1063. https://doi.org/10.1037/0022-3514.73.5.1052

Chadwick, S. A. (2001): Communicating Trust in E-Commerce Interactions. Management Communication Quarterly 14, 653–658. https://doi.org/10.1177/0893318901144009

Chang, H. H. – Chen, S. W. (2008): The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. Online information review.

Chemli, S. – Toanoglou, M. – Valeri, M. (2020): The impact of Covid-19 media coverage on tourist's awareness for future travelling. Current Issues in Tourism, 1–8. https://doi.org/10.1080/13683500.2020.1846502

Cheung, G. W. – Rensvold, R. B. (2002): Evaluating goodness-of-fit indexes for testing measurement invariance. Structural Equation Modeling, 9, 233-255.

Chin, W. W. – Newsted, P. R. (1999): Structural equation modeling analysis with small samples using partial least squares, in: Statistical Strategies for Small Sample Research. Sage Publications, Thousand Oaks, London, New Delhi., pp. 307-341.

Chipeta, E. M. – Surujlal, J. (2017): Influence of attitude, risk taking propensity and proactive personality on social entrepreneurship intentions. Polish Journal of Management Studies, 15. 10.17512/pjms.2017.15.2.03

Cho, J. – Lee, J. (2006): An integrated model of risk and risk-reducing strategies. Journal of Business Research, 59(1), 112–120. https://doi.org/10.1016/j.jbusres.2005.03.006

Choi, M. – Law, R. – Heo, C. Y. (2016): Shopping destinations and trust – Tourist attitudes: Scale development and validation. Tourism Management 54, 490–501. https://doi.org/10.1016/j.tourman.2016.01.005

Chua, B. L. – Al-Ansi, A. – Lee, M. J. – Han, H. (2021): Impact of health risk perception on avoidance of international travel in the wake of a pandemic. Current Issues in Tourism, 24(7), 985–1002. https://doi.org/10.1080/13683500.2020.1829570

Clark, R. A. – Goldsmith, R. E. – Goldsmith, E. B. (2008): Market mavenism and consumer self-confidence. Journal of Consumer Behaviour 10.

Cole, D. A. (1987): Utility of confirmatory factor analysis in test validation research. Journal of consulting and clinical psychology, 55(4), 584.

Cope, N. (1996): Retail in the digital age. Bowerdean, London.

Corbitt, B. J. – Thanasankit, T. – Yi, H. (2003): Trust and e-commerce: a study of consumer perceptions. Electronic Commerce Research and Applications 2, 203–215. https://doi.org/10.1016/S1567-4223(03)00024-3

Corley, K. G. – Gioia, D. A. (2004): Identity Ambiguity and Change in the Wake of a Corporate Spin-off. Administrative Science Quarterly, 49(2), 173–208. https://doi.org/10.2307/4131471

Corritore, C. L. – Kracher, B. – Wiedenbeck, S. (2003): On-line trust: concepts, evolving themes, a model. International Journal of Human-Computer Studies 58, 737–758. https://doi.org/10.1016/S1071-5819(03)00041-7

Cox, D. F. (Ed.) (1967): Risk Taking and Information Handling in Consumer Behavior. Divison of Research, Graduate School of Business Administration, Boston, MA, USA.

Cox, D. F. – Rich, S. U. (1964): Perceived Risk and Consumer Decision-Making—The Case of Telephone Shopping. Journal of Marketing Research 1, 32–39.

Creswell, J. C. – Creswell, J. D. (2018): Research Design Qualitative, Quantitative, and Mixed Methods Approaches, Fifth Edition. ed. SAGE Publications, Inc., Los Angeles, U.S.A.

Csapó J. – Törőcsik M. (2019): Turizmus és biztonság: A magyar lakosság utazási szokásaihoz köthető, biztonsággal kapcsolatos attitűdök reprezentatív vizsgálata. Turizmus Bulletin, 19.(3.), 13–20. https://doi.org/10.14267/TURBULL.2019v19n3.2

Cserdi, Z. – Kenesei, Z. (2021): Az okos hotelekhez kapcsolódó attitűdöket befolyásoló tényezők nyomában: fókuszban a Z generáció. Turizmus Bulletin, 21(4), 25–33. https://doi.org/10.14267/TURBULL.2021v21n4.3

Cserdi, Zs. (2022): Smart hotelek – avagy a szállodai kiszolgálás jövője. In: Kökény, L. – Miskolczi, M. (szerk.) (2022): Smart turizmus. Akadémiai Kiadó, Budapest

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

Cunningham, S.M. (1967): The major dimensions of perceived risk, in: Cox, D.F. (Ed.), Risk Taking and Information Handling in Consumer Behavior. Graduate School of Business Administration, Harvard University Press, Boston, MA, USA.

Czerwonka, M. (2019): Cultural, cognitive and personality traits in risk-taking behaviour: Evidence from Poland and the United States of America. Economic research-Ekonomska istraživanja, 32(1), 894-908. https://doi.org/10.1080/1331677X.2019.1588766

Das, T.K. – Teng, B.-S. (2004): The Risk-Based View of Trust: A Conceptual Framework. Journal of Business and Psychology 19, 85–116. https://doi.org/10.1023/B:JOBU.0000040274.23551.1b

Dayour, F. – Park, S. – Kimbu, A.N. (2019): Backpackers' perceived risks towards smartphone usage and risk reduction strategies: A mixed methods study. Tourism Management 72, 52–68. https://doi.org/10.1016/j.tourman.2018.11.003

Deering, J. – Jacoby, J. (1972): Risk Enhancement and Risk Reduction as Strategies for Handling Perceived Risk. Proceedings, 3rd Annual Conference, Association for Consumer Research 404-416.

DeLone, W.H. – McLean, E.R. (1992): Information Systems Success: The Quest for the Dependent Variable. Information Systems Research 3, 60–95. https://doi.org/10.1287/isre.3.1.60

Derbaix, C. (1983): Perceived risk and risk relievers: an empirical investigation. Journal of Economic Psychology 1983, 20.

Doolin, B. – Dillon, S. – Thompson, F. – Corner, J.L. (2005): Perceived Risk, the Internet Shopping Experience and Online Purchasing Behavior: A New Zealand Perspective 23.

Dowling, G.R. (1986): Perceived risk: The concept and its measurement. Psychol. Mark. 3, 193–210. https://doi.org/10.1002/mar.4220030307

Dowling, G.R. – Staelin, R. (1994): A Model of Perceived Risk and Intended Risk-Handling Activity. J CONSUM RES 21, 119. https://doi.org/10.1086/209386

Dryhurst, S. – Schneider, C.R. – Kerr, J. – Freeman, A.L.J. – Recchia, G. – van der Bles, A.M. – Spiegelhalter, D. – van der Linden, S. (2020): Risk perceptions of COVID-19 around the world. Journal of Risk Research 23, 994–1006. https://doi.org/10.1080/13669877.2020.1758193

Ecommerce Europe - Ecommerce Foundation, 2017. European Ecommerce - Report 2017. Ecommerce Foundation.

Edmonds, W. A. – Kennedy, T. D. (2017): An applied guide to research designs: quantitative, qualitative, and mixed methods, Second Edition. ed. SAGE, Los Angeles.

Edwards, J. R. – Lambert, L. S. (2007): Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. Psychological Methods 12, 1–22. https://doi.org/10.1037/1082-989X.12.1.1

Ernszt, I. – Németh, K. (2020): A fogyasztás biztonsága a turizmusban. In: Michalkó, G. – Németh, J. – Ritecz, Gy. (szerk.) (2020): Turizmusbiztonság. Dialóg Campus, Budapest.

Eurostat (2021): E-commerce statistics. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics

Eurostat (2018a): E-commerce statistics. European Union.

Eurostat (2018b): Digital economy and society statistics - households and individuals. Statistics Explained. European Union.

Eurostat (2018c): E-commerce statistics for individuals. European Union.

Eurostat (2018d) Will you be shopping online today? Products Eurostat News. URL https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20181126-1?inheritRedirect=true&redirect=%2Feurostat%2Fweb%2Fdigital-economy-and-society%2Fpublications

Eurostat (2018e): Eurostat regional yearbook. 2018 edition, Statistical books. Imprimerie Centrale in Luxembourg, Luxembourg.

Eurostat (2017a): Internet usage - Online peer-to-peer accommodation services used by 1 in 6 EU citizens (Newsrelease No. 199/2017). Eurostat Press Office, European Union.

Eurostat (2017b): Social media - statistics on the use by enterprises. European Union.

European Travel Commision (2021): Europe’s travel & tourism sector welcomes digital green certificate proposal and urges parallel effort on wider restart plan, letöltve: https://etc-corporate.org/news/europes-travel-tourism-sector-welcomes-digital-green-certificate-proposal-and-urges-parallel-effort-on-wider-restart-plan-to-maximise-benefit/ (Utolsó letöltés: 2021.10.24.)

Evans, J. R. – Mathur, A. (2005): The value of online surveys. Internet Research 15, 195–219. https://doi.org/10.1108/10662240510590360

Fehér, Zs. – Ásványi, K. – Jászberényi, M. (2022): Smart megoldások a kulturális turizmusban. In: Kökény, L. – Miskolczi, M. (szerk.) (2022): Smart turizmus. Akadémiai Kiadó, Budapest

Feick, L. F. – Price, L. L. (1987): The Market Maven: A Diffuser of Marketplace Information. Journal of Marketing 51, 83–97.

Felkai, P. (2021): How can we travel after the COVID-19 pandemic?. Turizmus Bulletin, 21(1), 44–48. https://doi.org/10.14267/TURBULL.2021v21n1.5

Filieri, R. – McLeay, F. (2014): E-WOM and Accommodation: An Analysis of the Factors That Influence Travelers' Adoption of Information from Online Reviews. Journal of Travel Research, 53(1), 44–57. https://doi.org/10.1177/0047287513481274

Fischer, R. – Karl, J. A. (2019): A primer to (cross-cultural) multi-group invariance testing possibilities in R. Frontiers in Psychology, 10. DOI: https://doi.org/10.3389/fpsyg.2019.01507

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.

Floyd, M. F. – Pennington-Gray, L. (2004): Profiling risk perceptions of tourists. Annals of Tourism Research, 31(4), 1051–1054. https://doi.org/10.1016/j.annals.2004.03.011

Gallagher, D. – Ting, L. – Palmer, A. (2008): A journey into the unknown; taking the fear out of structural equation modeling with AMOS for the first-time user. The Marketing Review 8, 255–275. https://doi.org/10.1362/146934708X337672

Garg, A. (2015): Green marketing for sustainable development: an industry perspective. Sustainable Development, 23(5), 301-316.

Garson, G.D. (2016): Partial Least Squares 262.

Geen, R.G. (1997): Psychophysiological approaches to personality. In Hogan, J. Johnson & S. Briggs (Eds.), Handbook of Personality Psychology (pp 387-414). London: Academic Press

Gefen, D. – Rao, V.S. – Tractinsky, N. (2002): The Conceptualization of Trust, Risk and Their Relationship in Electronic Commerce: The Need for Clarifications. th Hawaii International Conference on System Sciences 10.

Godovykh, M. – Pizam, A. – Bahja, F. (2020): Antecedents and outcomes of health risk perceptions in tourism, following the COVID-19 pandemic. Tourism Review 12.

Golets, A. – Farias, J. – Pilati, R. – Costa, H. (2020): COVID-19 Pandemic and Tourism: The Impact of Health Risk Perception and Intolerance of Uncertainty on Travel Intentions [Preprint]. SOCIAL SCIENCES. https://doi.org/10.20944/preprints202010.0432.v1

Greatorex, M. – Mitchell, V.W. (1994): Modelling consumer risk reduction preferences from perceived loss data. Journal of Economic Psychology 15, 669–685. https://doi.org/10.1016/0167-4870(94)90017-5

Gupta, V. – Cahyanto, I. – Sajnani, M. – Shah, C. (2021): Changing dynamics and travel evading: A case of Indian tourists amidst the COVID 19 pandemic. Journal of Tourism Futures, ahead-of-print(ahead-of-print). https://doi.org/10.1108/JTF-04-2020-0061

Gyulavári, T. – Mitev, A. – Neulinger, Á. – Neumann-Bódi, E. – Simon, J. – Szűcs, K. (2014): A marketingkutatás alapjai, 1. ed. Akadémiai Kiadó, Budapest, Magyarország.

Ha, H. (2004): Factors influencing consumer perceptions of brand trust online. Jnl of Product & Brand Mgt 13, 329–342. https://doi.org/10.1108/10610420410554412

Hair, J. F. – Ringle, C. M. – Sarstedt, M. (2013): Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. Long Range Planning 46, 1–12. https://doi.org/10.1016/j.lrp.2013.01.001

Hair, J. F. – Ringle, C. M. – Sarstedt, M. (2011): PLS-SEM: Indeed a Silver Bullet. Journal of Marketing Theory and Practice 19, 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, J. F. – Black, W. C. – Babin, B. J. – Anderson, R. E. (2019): Multivariate data analysis (Eighth edition). Cengage.

Hajdu, O. (2003): Többváltozós statisztikai számítások, Statisztikai módszerek a társadalmi és gazdasági elemzésekben. Központi Statisztikai Hivatal, Budapest, Magyarország.

Hales, C. – Shams, H. (1991): Cautious Incremental Consumption: A Neglected Consumer Risk Reduction Strategy. European Journal of Marketing, 25(7), 7–21. https://doi.org/10.1108/03090569110144197

Happ, É. – Ivancsó-Horváth, Z. (2018): Digital tourism is the challenge of future–a new approach to tourism. Knowledge Horizons. Economics, 10(2), 9-16.

Harper, D. W. (2001): Comparing Tourists Crime Victimization. Annals of Tourism Research, 28(4), 1053–1056. https://doi.org/10.1016/S0160-7383(01)00016-0

Harridge-March, S. (2006): Can the building of trust overcome consumer perceived risk online? Marketing Intelligence & Planning 24, 746–761. https://doi.org/10.1108/02634500610711897

Heiselt, A. – Sheperis, C. (2010): Mixed Methods Designs, in: Counseling Research: Quantitative, Qualitative, and Mixed Methods. Pearson, Boston, MA, USA, pp. 187-199.

Hernborg, A. (2021): 100+ Travel Statistics, Habits and Trends for Millennials – 2021 data. https://www.tripplo.com/uk/millennials-travel-statistics-and-trends#keyfactsandstatistics, Letöltés dátuma: 2021. október 21.

Hisrich, R. D. – Dornoff, R. J. – Kernan, J. B. (1972): Perceived Risk in Store Selection. Journal Of Marketing Research 5.

Hogan, J. – Ones, D. S. (1997): Conscientiousness and integrity at work. In Handbook of personality psychology (pp. 849-870). Academic Press. https://doi.org/10.1016/B978-012134645-4/50033-0

Horváth V. (2012): A parciális legkisebb négyzetek regresszió. Szakdolgozat, Springer handbooks of computational statistics Matematika BSc, Eötvös Lóránd Tudományegyetem, 53.

Hsiao, K. – Chuan-Chuan Lin, J. – Wang, X. – Lu, H. – Yu, H. (2010): Antecedents and consequences of trust in online product recommendations: An empirical study in social shopping. Online Information Review 34, 935–953. https://doi.org/10.1108/14684521011099414

Hsin Chang, H. – Wen Chen, S. (2008): The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. Online Information Review 32, 818–841. https://doi.org/10.1108/14684520810923953

Hsu, T. H. – Lin, L. Z. (2006): Using fuzzy set theoretic techniques to analyze travel risk: An empirical study. Tourism Management 27, 968–981. https://doi.org/10.1016/j.tourman.2005.10.022

Irimiás, A. – Jászberényi, M. – Michalkó, G. (2019): A turisztikai termékek innovatív fejlesztése. Akadémiai Kiadó, Budapest, Magyarország.

Jacoby, J. – Kaplan, L. B. (1972): The Components of Perceived Risk. Proceedings of the Third Annual Conference of the Association for Consumer Research, eds. M. Venkatesan, Chicago, IL : Association for Consumer Research 382-393.

Jalilvand, M. R. – Ebrahimi, A. – Samiei, N. (2013): Electronic Word of Mouth Effects on Tourists' Attitudes Toward Islamic Destinations and Travel Intention: An Empirical Study in Iran. Procedia - Social and Behavioral Sciences, 81, 484–489. https://doi.org/10.1016/j.sbspro.2013.06.465

James, L. R. – Brett, J. M. (1984): Mediators, Moderators, and Tests for Mediation. Journal of Applied Psychology 69, 15.

Jancsik, A. – Jászberényi, M. – Kökény, L. (2019): Az utazásszervezés új dimenziói. Akadémiai Kiadó, Budapest, Magyarország.

Jarvenpaa, S. L. – Todd, P. A. (1996): Consumer Reactions to Electronic Shopping on the World Wide Web. International Journal of Electronic Commerce 1, 59–88. https://doi.org/10.1080/10864415.1996.11518283

Jászberényi, M. – Ásványi, K. – Kökény, L. – Kovács, B. – Simon, A. (2020): Válságkezelés a turizmusban. Turizmus Kft., Budapest.

Jin, N. – Line, N.D. – Merkebu, J. (2016): The Impact of Brand Prestige on Trust, Perceived Risk, Satisfaction, and Loyalty in Upscale Restaurants. Journal of Hospitality Marketing & Management 25, 523–546. https://doi.org/10.1080/19368623.2015.1063469

Jovicic, D. Z. (2017): From the traditional understanding of tourism destination to the smart tourism destination, Current Issues in Tourism, http://doi.org/10.1080/13683500.2017.1313203.

Kah, J. A. – Lee, S. H. (2016): A new approach to travel information sources and travel behaviour based on cognitive dissonance theory. Current Issues in Tourism, 19(4), 373–393. https://doi.org/10.1080/13683500.2015.1043246

Kalakota, R. – Robinson, M. (2001): E-business 2.0 – Roadmap for success, 2nd ed. Addison-Wesley, Boston, MA, USA.

Kántor B. – Mitev A. (2018): Paraetnográfia?! Replika 165–183. https://doi.org/10.32564/106-107.10

Karl, M. – Schmude, J. (2017): Understanding the role of risk (perception) in destination choice: A literature review and synthesis. Tourism Review, 65(2), 18.

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

Kazandzhieva, V. – Santana, H. (2019): E-tourism: Definition, development and conceptual framework. Tourism: An International Interdisciplinary Journal, 67(4), 332-350.

Kazár K., 2014. A PLS-útelemzés és alkalmazása egy márkakö- zösség pszichológiai érzetének vizsgálatára. Statisztikai Szemle 92., 20.

Keller, K. – Tóth-Kaszás, N. (2021): A turizmusbiztonság megjelenése az EU tagállamainak turisztikai stratégiáiban. Vezetéstudomány / Budapest Management Review, 52(6), 32–43. https://doi.org/10.14267/VEZTUD.2021.06.03

Kenesei, Zs. – Kolos, K. (2014): Szolgáltatásmarketing és -menedzsment. Alinea Kiadó, Budapest, Magyarország.

Kessel, R. v. – Wong, B. L. H. – Rubinić, I. – Czabanowska, K. (2021): Is Europe prepared to go digital? Making the case for developing digital capacity: an exploratory analysis of Eurostat survey data. Letöltve: https://osf.io/preprints/socarxiv/cfkxd/ (Utolsó letöltés: 2021. 10. 24.)

Keszey, T. (2018): Bizalom és vezetői információfelhasználás: A hatalom moderáló hatása. Statisztikai szemle, 96(2), 164–181. https://doi.org/10.20311/stat2018.02.hu0164

Kim, J. S. – Kaye, J. – Wright, L. K. (2001): Moderating and mediating effects in causal models. Issues in Mental Health Nursing 13.

Kim, L. H. – Qu, H. – Kim, D. J. (2009): A study of perceived risk and risk reduction of purchasing air-tickets online. Journal of Travel & Tourism Marketing 26, 203–224. https://doi.org/10.1080/10548400902925031

Kim, M. J. – Chung, N. – Lee, C. K. (2011): The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. Tourism Management 32, 256–265. https://doi.org/10.1016/j.tourman.2010.01.011

Kim, S. – Park, H. (2013): Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. International Journal of Information Management 33, 318–332. https://doi.org/10.1016/j.ijinfomgt.2012.11.006

Kim, M. – Choi, K. H. – Leopkey, B. (2021): The influence of tourist risk perceptions on travel intention to mega sporting event destinations with different levels of risk. Tourism Economics, 27(3), 419–435. https://doi.org/10.1177/1354816619879031

Kindler, J. (1987): A kockázat döntéselméleti közelítése, in: Vári, A. (Ed.), Kockázat És Társadalom. Akadémiai kiadó, Budapest, Magyarország, pp. 13-24.

Kline, R. B. (2016): Principles and Practice of Structural Equation Modeling (4th ed.). New York, NY: The Guilford Press.

Koernig, S. K. (2003): E-scapes: The electronic physical environment and service tangibility. Psychology and Marketing, 20(2), 151–167. https://doi.org/10.1002/mar.10065

Kogan, N. – Wallach, M. A. (1964): Risk-taking: A Study in Cognition and Personality. Holt, Rhinehart & Winston, New York, NY, U.S.A.

Kökény, L. – Kiss, K. (2021): There is a time and a place for everything (and for everyone): Examining main socio-demographic and territorial differences in use of leisure time. Regional Statistics, 11(2), 29. https://doi.org/10.15196/RS110206

Kökény, L. – Kenesei, Z. – Neszveda, G. (2022): Impact of COVID-19 on different business models of European airlines. Current Issues in Tourism, 25(3), 458–474. https://doi.org/10.1080/13683500.2021.1960284

Kökény L. – Kökény L. (2021): Fogyasztói magatartás vizsgálata egy új típusú turisztikai szolgáltatáson keresztül. Turizmus Bulletin, 21(3), 14–23. https://doi.org/10.14267/TURBULL.2021v21n3.2 Kökény, L. – Kenesei, Z. (2021): Elvárásmenedzsment a szálláshely szolgáltatásoknál. Marketing és Menedzsment, 55(1. EMOK klsz), 41–51. http://doi.org/10.15170/MM.2021.55.KSZ.01.04

Kökény, L. – Kenesei, Z. (2019): Hogyan befolyásolja a vendégek személyisége a magyar wellness-szállodákkal kapcsolatos elégedettséget?. Turizmus Bulletin, 19(3), 21–29. https://doi.org/10.14267/TURBULL.2019v19n3.3

Kökény, L. – Miskolczi, M. (szerk.) (2022): Smart turizmus. (Kökény, L. – Miskolczi, M. Eds.) (1st ed.). Budapest: Akadémiai Kiadó Zrt. http://doi.org/10.1556/9789634547891

Kollock, P. (1994): The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust. American Journal of Sociology 100, 313–345. https://doi.org/10.1086/230539

Kolos, K. (1998): Észlelt kockázat és kockázatkezelési stratégiák a fogyasztói szolgáltatásoknál, in: Ph.D. Disszertáció. Budapesti Közgazdaságtudományi Egyetem.

Koltay, G. – Vincze, J. (2009): Fogyasztói döntések a viselkedési közgazdaságtan szemszögéből. Közgazdasági Szemle LVI. évf, 495–525.

Kovács, L. – Keller, K. – Tóth-Kaszás, N. – Szőke, V. (2021): A Covid19-járvány hatása egyes turisztikai szolgáltatók működésére: Azonnali válaszok és megoldások. Turisztikai és Vidékfejlesztési Tanulmányok, 6(2), 6–24. https://doi.org/10.15170/TVT.2021.06.02.01

Kowert, P. A. – Hermann, M. G. (1997): Who takes risks? Daring and caution in foreign policy making. Journal of conflict Resolution, 41(5), 611-637. https://doi.org/10.1177/0022002797041005001

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

Kusumasondjaja, S. (2015): Information quality, homophily, and risk propensity: Consumer responses to online hotel reviews. Journal of Economics, Business & Accountancy Ventura 18, 241. https://doi.org/10.14414/jebav.v18i2.451

Kvale, S. (2007): Doing Interviews, First edition. ed. The Cromwell Press Ltd., Trowbridge, Wiltshire. Great Britain.

Laesser, C. – Müller, S. (2020): Interview - Interkontinental reisen können wir bestenfalls wieder 2021 – und auch das nur begrenzt. https://www.nzz.ch/reisen/corona-tourismus-experte-zum-reisen-in-zeiten-des-virus-ld.1549850?reduced=true, utolsó letöltés dátuma: 2021.10.24.

Lam, J. M. S. – Tong, D. Y. K. – Ariffin, A. A. M. (2017): Exploring Perceived Risk and Risk Reduction Strategies in the Pursuit of Higher Education Abroad: A Case of International Students in Malaysia. Journal of Studies in International Education 21, 83–104. https://doi.org/10.1177/1028315316662980

Laroche, M. – Bergeron, J. – Goutaland, C. (2001): A Three-Dimensional Scale of Intangibility. Journal of Service Research, 4(1), 26–38. https://doi.org/10.1177/109467050141003

Larsen, S. – Brun, W. – Øgaard, T. (2009): What tourists worry about – Construction of a scale measuring tourist worries. Tourism Management 30, 260–265. https://doi.org/10.1016/j.tourman.2008.06.004

Law, R. (2006): The perceived impact of risks on travel decisions. International Journal of Tourism Research 8, 289–300. https://doi.org/10.1002/jtr.576

Law, R. – Qi, S. – Buhalis, D. (2010): Progress in tourism management: A review of website evaluation in tourism research. Tourism Management 31, 297–313. https://doi.org/10.1016/j.tourman.2009.11.007

Le, N. T. – Rao Hill, S. – Troshani, I. (2020): Perceived Control and Perceived Risk in Self-service Technology Recovery. Journal of Computer Information Systems, 1–10. https://doi.org/10.1080/08874417.2020.1756533

Lee, K. S. – Lee, H. S. – Kim, S. Y. (2007): Factors influencing the adoption behavior of mobile banking: a South Korean perspective. Journal of Internet Banking and Commerce 12, 1–9.

Lee, C. K. – Song, H. J. – Bendle, L. J. – Kim, M. J. – Han, H. (2012): The impact of non-pharmaceutical interventions for 2009 H1N1 influenza on travel intentions: A

model of goal-directed behavior. Tourism Management, 33(1), 89–99. https://doi.org/10.1016/j.tourman.2011.02.006

Leggat, P. A. – Brown, L. H. – Aitken, P. – Speare, R. (2010): Level of Concern and Precaution Taking Among Australians Regarding Travel During Pandemic (H1N1) 2009: Results From the 2009 Queensland Social Survey. Journal of Travel Medicine, 17(5), 291–295. https://doi.org/10.1111/j.1708-8305.2010.00445.x

Lerum, K. (2001): Subjects of Desire: Academic Armor, Intimate Ethnography, and the Production of Critical Knowledge. Qualitative Inquiry 7, 466–483. https://doi.org/10.1177/107780040100700405

Li, Z. – Zhang, X. – Yang, K. – Singer, R. – Cui, R. (2020): Urban and rural tourism under COVID-19 in China: Research on the recovery measures and tourism development. Tourism Review, 19.

Lim, N. (2003): Consumers' perceived risk: sources versus consequences. Electronic Commerce Research and Applications 13.

Lin, P. J. – Jones, E. – Westwood, S. (2009): Perceived Risk and Risk-Relievers in Online Travel Purchase Intentions. Journal of Hospitality Marketing & Management, 18(8), 782–810. https://doi.org/10.1080/19368620903235803

Liu, Y. – Shi, H. – Li, Y. – Amin, A. (2021): Factors influencing Chinese residents' post-pandemic outbound travel intentions: An extended theory of planned behavior model based on the perception of COVID-19. Tourism Review, 76(4), 871–891. https://doi.org/10.1108/TR-09-2020-0458

Magyar Turisztikai Ügynökség – MTÜ (2021): Nemzeti Turizmusfejlesztési Stratégia 2.0. https://mtu.gov.hu/documents/prod/NTS2030_Turizmus2.0-Strategia.pdf letöltve: 2022.01.31.

Máhr, T. – Keller, K. – Birkner, Z. (2022): Innováció a turizmusban. Akadémia Kiadó, Budapest.

Malhotra, N. K. – Simon, J. (2009): Marketingkutatás. Akadémia Kiadó, Budapest.

Mamman, H. – Maidawa, M. – Saleh, M. (2015): Effects of Perceived Risk on Online Shopping 7.

Matiza, T. – Kruger, M. (2021): Ceding to their fears: A taxonomic analysis of the heterogeneity in COVID-19 associated perceived risk and intended travel behaviour. Tourism Recreation Research, 46(2), 158–174. https://doi.org/10.1080/02508281.2021.1889793

Mauthner, M. L. (Ed.) (2002): Ethics in qualitative research. Sage Publications Ltd, London ; Thousand Oaks, CA.

Mayer, R. C. – Davis, J. H. – Schoorman, D.F. (1995): An Integrative Model of Organizational Trust. The Academy of Management Review 20, 709–734.

McCorkle, D. E. (1990): The role of perceived risk in mail order catalog shopping. J. Direct Mark. 4, 26–35. https://doi.org/10.1002/dir.4000040406

McKercher, B – Chon, K (2004): The over-reaction to SARS and the collapse of Asian tourism. Annals of Tourism Research, 31 (3) pp. 716-719.

Meertens, R. M. – Lion, R. (2008): Measuring an Individual's Tendency to Take Risks: The Risk Propensity Scale. Journal of Applied Social Psychology 38, 1506–1520. https://doi.org/10.1111/j.1559-1816.2008.00357.x

Michalkó, G. (2016): Turizmológia. Akadémiai Kiadó, Budapest.

Michalkó, G. – Németh, J. – Ritecz, Gy. (szerk.) (2020): Turizmusbiztonság. Dialóg Campus, Budapest.

Michalkó, G. (2020): A biztonság szerepe a turizmus rendszerében. In: Michalkó, G. – Németh, J. – Ritecz, Gy. (szerk.) (2020): Turizmusbiztonság. Dialóg Campus, Budapest.

Milne, G. R. – Culnan, M. J. (2004): Strategies for reducing online privacy risks: Why consumers read (or don't read) online privacy notices. Journal of Interactive Marketing 18, 15–29. https://doi.org/10.1002/dir.20009

Miskolczi, M. - Kökény, L. (2022): Mesterségesintelligencia-alapú megoldások a turizmusban. In: Kökény, L. – Miskolczi, M. (szerk.) (2022): Smart turizmus. Akadémiai Kiadó, Budapest

Mitchell, V. (1999): Consumer perceived risk: conceptualisations and models. European Journal of Marketing 33, 163–195. https://doi.org/10.1108/03090569910249229

Mitchell, (1999): Using Neural Networks to Understand Service Risk in the Holiday Product. Journal of Business Research 46, 167–180. https://doi.org/10.1016/S0148-2963(98)00020-4

Mitchell, V.-W. – Greatorex, M. (1993): Risk Perception and Reduction in the Purchase of Consumer Services. The Service Industries Journal 13, 179–200. https://doi.org/10.1080/02642069300000068

Mitchell, V.-W. – McGoldrick, P.J. (1996): Consumer's risk-reduction strategies: a review and synthesis. The International Review of Retail, Distribution and Consumer Research 6, 1–33. https://doi.org/10.1080/09593969600000001

Mosteller, J. – Donthu, N. – Eroglu, S. (2014): The fluent online shopping experience. Journal of Business Research 67, 2486–2493. https://doi.org/10.1016/j.jbusres.2014.03.009

Mou, J. – Shin, D.-H. – Cohen, J. F. (2017): Trust and risk in consumer acceptance of e-services. Electronic Commerce Research, 17(2), 255–288. https://doi.org/10.1007/s10660-015-9205-4

Muller, D. – Judd, C. M. – Yzerbyt, V. Y. (2005): When moderation is mediated and mediation is moderated. Journal of Personality and Social Psychology 89, 852–863. https://doi.org/10.1037/0022-3514.89.6.852

Nazneen, S. – Xu, H. – Ud Din, N. – Karim, R. (2021): Perceived COVID-19 impacts and travel avoidance: Application of protection motivation theory. Tourism Review, ahead-of-print(ahead-of-print). https://doi.org/10.1108/TR-03-2021-0165

Naiyi, Y. (2004): Dimensions of Consumer's Perceived Risk in Online Shopping. Journal of Electronic Science and Technology of China 2, 6.

Nemeslaki, A. (2012): Vállalati internetstratégia. Akadémiai Kiadó, Budapest, Magyarország.

Németh, A. (2019): Digitális trendek 2019. https://businesstraveller.hu/tech/digitalis-trendek-2019/, Letöltés dátuma: 2021. október 21.

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

Nicholson, N. – Fenton-O'Creevy, M. – Soane, E. – Willman, P. (2002): Risk propensity and personality. London Business School, Open University Business School and Said Business School Oxford, London.

Nicholson, N. – Soane, E. – Fenton-O'Creevy, M. – Willman, P. (2005): Personality and domain-specific risk taking. Journal of Risk Research, 8(2), 157-176. https://doi.org/1366987032000123856

Nod, G. – Mókusné Pálfi, A. – Aubert, A. (2021): Kispadra ültetett desztinációmenedzsment a pandémia félidejében(?) = „Kept on the bench" – Destination Management at "half-time" in the pandemic(?). Turizmus Bulletin, 21(2), 43–54. https://doi.org/10.14267/TURBULL.2021v21n2.5

Page, S. – Yeoman, I. – Munro, C. – Connell, J. – Walker, L. (2006): A case study of best practice—Visit Scotland's prepared response to an influenza pandemic. Tourism Management, 27(3), 361–393. https://doi.org/10.1016/j.tourman.2006.01.001

Panwar, C. (2018): Consumer perceived risk in online shopping environment via Facebook as medium. International Journal of Engineering & Technology 7, 2485–2490. https://doi.org/10.14419/ijet.v7i2.18.11017

Pappas, N. (2016): Marketing strategies, perceived risks, and consumer trust in online buying behaviour. Journal of Retailing and Consumer Services 29, 92–103. https://doi.org/10.1016/j.jretconser.2015.11.007

Park, S. – Tussyadiah, I. P. (2017): Multidimensional Facets of Perceived Risk in Mobile Travel Booking. Journal of Travel Research 56, 854–867. https://doi.org/10.1177/0047287516675062

Park, O. J. – Kim, M. G. – Ryu, J. (2019): Interface effects of online media on tourists' attitude changes. Tourism Management Perspectives, 30, 262–274. https://doi.org/10.1016/j.tmp.2019.03.005

Pécsek, B. (2014): Gyorsuló idô, lassuló turizmus: A lassú turizmus modellezése. Turizmus Bulletin, 16(1), 3–10.

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), 22.

Peter, J. P. – Ryan, M. J. (1976): An Investigation of Perceived Risk at the Brand Level. Journal of Marketing Research 13, 184–188. https://doi.org/10.2307/3150856

Peterson, R. A. – Albaum, G. – Ridgway, N. M. (1989): Consumers who buy from direct sales companies. Journal of Retailing 65, 273–286.

Pinke-Sziva, I. – Keller, K. (2021): Smart tourism and smart events reflected by the Székesfehérvár Royal Days. Turizmus Bulletin, 21(2), 34–42. https://doi.org/10.14267/TURBULL.2021v21n2.4

Putnick, D. L. – Bornstein, M. H. (2016): Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. Developmental Review, 41,71-90.

Raffay, Z. (2020): A COVID-19 járvány hatása a turisták fogyasztói magatartásának változására. Ercsey Ida (szerk.): Marketing a digitalizáció korában. Széchenyi István Egyetem: Győr. ISBN, 978-615.

Rahman, M. K. – Gazi, Md. A. I. – Bhuiyan, M. A. – Rahaman, Md. A. (2021): Effect of Covid-19 pandemic on tourist travel risk and management perceptions. PLOS ONE, 16(9), e0256486. https://doi.org/10.1371/journal.pone.0256486

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, 100564. https://doi.org/10.1016/j.jdmm.2021.100564

Reisinger, Y. – Mavondo, F. (2005): Travel Anxiety and Intentions to Travel Internationally: Implications of Travel Risk Perception. Journal of Travel Research 43, 212–225. https://doi.org/10.1177/0047287504272017

Reichstein, C. – Härting, R. C. (2018): Potentials of changing customer needs in a digital world–a conceptual model and recommendations for action in tourism. Procedia Computer Science, 126, 1484-1494.

Rejikumar, G. – Asokan A., A. (2017): Information seeking behavior causing satisfaction modification intentions: An empirical study to address emerging challenges in a service context. Journal of Indian Business Research, 9(4), 304–328. https://doi.org/10.1108/JIBR-09-2016-0090

Renn, O. (2004): Perception of risks. Toxicology Letters, 149(1–3), 405–413. https://doi.org/10.1016/j.toxlet.2003.12.051

Rhodes, T. – Mikhailova, L. – Sarang, A. – Lowndes, C. M. – Rylkov, A. – Khutorskoy, M. – Renton, A. (2003): Situational factors influencing drug injecting, risk reduction and syringe exchange in Togliatti City, Russian Federation: A qualitative study of micro risk environment. Social Science & Medicine, 57(1), 39–54. https://doi.org/10.1016/S0277-9536(02)00521-X

Roehl, W. S. – Fesenmaier, D.R. (1992): Risk Perceptions and Pleasure Travel: An Exploratory Analysis. Journal of Travel Research 30, 17–26. https://doi.org/10.1177/004728759203000403

Roselius, T. (1971): Consumer Rankings of Risk Reduction Methods. Journal of Marketing 35, 7.

Rotter, J. B. (1967): A new scale for the measurement of interpersonal trust1. J Personality 35, 651–665. https://doi.org/10.1111/j.1467-6494.1967.tb01454.x

Sadiq, M. – Dogra, N. – Adil, M. – Bharti, K. (2021): Predicting Online Travel Purchase Behavior: The Role of Trust and Perceived Risk. Journal of Quality Assurance in Hospitality & Tourism, 1–27. https://doi.org/10.1080/1528008X.2021.1913693

Sajtos, L. – Mitev, A. (2007): SPSS Kutatási és adatelemzési kézikönyv. Alinea Kiadó, Budapest.

Saldaña, J. (2013): The coding manual for qualitative researchers, 2nd ed. ed. SAGE, Los Angeles.

Sánchez-Cañizares, S. M. – Cabeza-Ramírez, L. J. – Muñoz-Fernández, G. – Fuentes-García, F. J. (2021): Impact of the perceived risk from Covid-19 on intention to

travel. Current Issues in Tourism, 24(7), 970–984. https://doi.org/10.1080/13683500.2020.1829571

Şen Küpeli, T. – Özer, L. (2020): Assessing perceived risk and perceived value in the hotel industry: an integrated approach. Anatolia, 31(1), 111-130.

Sharma, S. – Singh, G. – Pratt, S. (2021): Modeling the Multi-dimensional Facets of Perceived Risk in Purchasing Travel Online: A Generational Analysis. Journal of Quality Assurance in Hospitality & Tourism, 1–29. https://doi.org/10.1080/1528008X.2021.1891597

Shin, H. – Kang, J. (2020). Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: Focused on technology innovation for social distancing and cleanliness. International Journal of Hospitality Management, 91, 102664. https://doi.org/10.1016/j.ijhm.2020.102664

Siegrist, M. (2021): Trust and Risk Perception: A Critical Review of the Literature. Risk Analysis, 41(3), 480–490. https://doi.org/10.1111/risa.13325

Silverman, D. (2013): Interpreting Qualitative Data. Ashford Colour Press Ltd 686.

Simpson, L. – Lakner, H. B. (1993): Perceived risk and mail order shopping for apparel. J Con Stud Home Econ 17, 377–389. https://doi.org/10.1111/j.1470-6431.1993.tb00180.x

Simpson, P. M. – Siguaw, J. A. (2008): Perceived travel risks: the traveller perspective and manageability. International Journal of Tourism Research 10, 315–327. https://doi.org/10.1002/jtr.664

Singleton, R. – Straits, B. – McAllister, R. (1988): Approaches to Social Research. Oxford University Press, Oxford.

Sitkin, S. B. – Pablo, A. L. (1992): Reconceptualizing the determinants of risk behavior. Academy of management review, 17(1), 9-38. https://doi.org/10.5465/amr.1992.4279564

Solomon, L. N. (1965): Review of Risk taking: A study in cognition and personality. American Journal of Orthopsychiatry 35, 956–957.

Stern, D. E. – Lamb, C. W. – MacLachlan, D. L. (1977): Perceived Risk: A Synthesis. European Journal of Marketing, 11(4), 312–319. https://doi.org/10.1108/EUM0000000005017

Statista 2021. eCommerce. https://www.statista.com/outlook/dmo/ecommerce/worldwide

Statista 2022. eCommerce - Worldwide, Europe, EU-27. Retrieved January 07, 2022, from

https://www.statista.com/outlook/dmo/ecommerce/worldwide?comparison[]=europe&comparison[]=eu-27

Stern, D. E. – Lamb, C. W. – MacLachlan, D. L. (1977): Perceived Risk: A Synthesis. European Journal of Marketing 11, 312–319. https://doi.org/10.1108/EUM0000000005017

Stevenson, H. H. – Gumpert, D. E. (1987): The heart of entrepreneurship: Harvard business review. 研究 技術 計画, 2(4), 483.

Stewart Jr, W. H. – Roth, P. L. (2001): Risk propensity differences between entrepreneurs and managers: A meta-analytic review. Journal of applied psychology, 86(1), 145–153. https://doi.org/10.1037/0021-9010.86.1.145

Stone, R. N. – Grønhaug, K. (1993): Perceived Risk: Further Considerations for the Marketing Discipline. European Journal of Marketing 27, 39–50. https://doi.org/10.1108/03090569310026637

Stone, R. N. – Winter, Frederick.W. (1985): Risk in buyer behavior contexts : a clarification. Faculty Working Paper 1216 EWP 860505, College of Commerce and Business Administration, University of Illinois, IL, December 38.

Tan, S. J. (1999): Strategies for reducing consumers' risk aversion in Internet shopping. Journal of Consumer Marketing 16, 163–180. https://doi.org/10.1108/07363769910260515

Tánczos, E. (2009): Látens változós modellezés. Eötvös Loránd Tudományegyetem, Budapest, Magyarország.

Tang, C. H. – Jang, S. (2012): Hedging Weather Risk in Nature-Based Tourism Business: An Example of Ski Resorts. Journal of Hospitality & Tourism Research 36, 143–163. https://doi.org/10.1177/1096348010388655

Tasci, A. D. A. – Gartner, W. C. (2007): Destination Image and Its Functional Relationships. Journal of Travel Research, 45(4), 413–425. https://doi.org/10.1177/0047287507299569

Taylor, S. J. (2016): Introduction to Qualitative Research Methods. John Wiley & Sons 416.

Taylor, S. – Landry, C.A. – Paluszek, M.M. – Fergus, T.A. – McKay, D. – Asmundson, G.J.G. (2020): Development and initial validation of the COVID Stress Scales. Journal of Anxiety Disorders 72, 102232. https://doi.org/10.1016/j.janxdis.2020.102232

The World Bank, 2018. Individuals using the Internet (% of population) (No. License : CC BY-4.0). The World Bank Group.

Tiago, F. – Gil, A. – Stemberger, S. – Borges-Tiago, T. (2021): Digital sustainability communication in tourism. Journal of Innovation & Knowledge, 6(1), 27-34.

Toanoglou, M. – Chemli, S. – Valeri, M. (2021): The organizational impact of Covid-19 crisis on travel perceived risk across four continents. Journal of Organizational Change Management, ahead-of-print(ahead-of-print). https://doi.org/10.1108/JOCM-12-2020-0369

Tokodi, P. – Ritecz, Gy. (2020): Turizmus és egészségügyi biztonság In: Michalkó, G. – Németh, J. – Ritecz, Gy. (szerk.) (2020): Turizmusbiztosnág. Dialóg Campus, Budapest.

Turizmus.com (2021a): CheckINN UP – Teret nyernek a digitális megoldások a turizmusban. https://turizmus.com/szabalyozas-orszagmarketing/checkinn-up-kozeppontban-a-digitalis-turizmus-1177076, Letöltés dátuma: 2021. október 21.

Turizmus.com (2021b): A DZT bemutatta a turizmus digitális trendjeit. https://turizmus.com/desztinaciok/a-dzt-bemutatta-a-turizmus-digitalis-trendjeit-a-knowledge-daysen-1176373, Letöltés dátuma: 2021. október 21.

Turizmus.com (2020c): Még mindig alábecsüljük a digitalizáció jelentőségét https://turizmus.com/utazas-kozlekedes/meg-mindig-alabecsuljuk-a-digitalizacio-jelentoseget-1169158 (Utolsó letöltés: 2021. 10. 24.)

University of Leicester, 2019. Doing a literature review. Learning Development. URL www.le.ac.uk/succeedinyourstudies

UNWTO.org (2021): Digital tools to revitalise tourism. Letöltve: https://www.unwto.org/news/digital-tools-to-revitalize-tourism (Utolsó letöltés 2021. 10. 22.)

Valla, J.P. (1982): The concept of risk in industrial buying behaviour. Workshop on Organisational Buying Behaviour, European Institute for Advanced Studies in Management 9–10.

Vos, A. – Marinagi, C. – Trivellas, P. – Eberhagen, N. – Skourlas, C. – Giannakopoulos, G. (2014): Risk Reduction Strategies in Online Shopping: E-trust Perspective. Procedia - Social and Behavioral Sciences 147, 418–423. https://doi.org/10.1016/j.sbspro.2014.07.122

Wakefield, R.L. – Whitten, D. (2006): Examining User Perceptions of Third-Party Organization Credibility and Trust in an E-Retailer. Journal of Organizational and End User Computing 18, 19.

Wall, E.A. – Berry, L.L. (2007): The Combined Effects of the Physical Environment and Employee Behavior on Customer Perception of Restaurant Service Quality. Cornell

Hotel and Restaurant Administration Quarterly 48, 59–69. https://doi.org/10.1177/0010880406297246

Wang, L. – Law, R. – Guillet, B. D. – Hung, K. – Fong, D.K.C. (2015): Impact of hotel website quality on online booking intentions: eTrust as a mediator. International Journal of Hospitality Management 47, 108–115. https://doi.org/10.1016/j.ijhm.2015.03.012

Wang, W. – Zhao, J. – Zhang, W. – Wang, Y. (2015): Conceptual framework for risk propensity, risk perception, and risk behaviour of construction project managers. In Proceedings 31st Annual ARCOM Conference', Association of Researchers in Construction Management, Lincoln, UK (pp. 165-174). https://core.ac.uk/download/pdf/188255518.pdf#page=179

Wang, C. M. – Xu, B. B. – Zhang, S. J. – Chen, Y. Q. (2016): Influence of personality and risk propensity on risk perception of Chinese construction project managers. International Journal of Project Management, 34(7), 1294-1304. https://doi.org/10.1016/j.ijproman.2016.07.004

Wellington, J. J. – Bathmaker, A. M. – Hunt, C. – McCulloch, G. – Sikes, P. (Eds.) (2005): Succeeding with your doctorate, Sage study skills. Sage Publications, London ; Thousand Oaks, CA.

Wen, J. – Kozak, M. – Yang, S. – Liu, F. (2020): COVID-19: Potential effects on Chinese citizens' lifestyle and travel. Tourism Review, ahead-of-print(ahead-of-print), Article ahead-of-print. https://doi.org/10.1108/TR-03-2020-0110

Williams, A. M. – Baláž, V. (2013): Tourism, risk tolerance and competences: Travel organization and tourism hazards. Tourism Management 35, 209–221. https://doi.org/10.1016/j.tourman.2012.07.006

WTTC (2021): Investing in Travel and Tourism. p. 6. https://www.tandfonline.com/doi/full/10.1080/13683500.2017.1313203?scroll=top&needAccess=true

Wu, I.-L. (2013): The antecedents of customer satisfaction and its link to complaint intentions in online shopping: An integration of justice, technology, and trust. International Journal of Information Management 33, 166–176. https://doi.org/10.1016/j.ijinfomgt.2012.09.001

Wu, H. C. – Cheng, C. C. (2018): Relationships between technology attachment, experiential relationship quality, experiential risk and ex-periential sharing intentions in a smart hotel. Journal of Hospitality and Tourism Management. 37. pp. 42–58. https://doi.org/10.1016/j.jhtm.2018.09.003

Xie, K. L. – Zhang, Z. – Zhang, Z. (2014): The business value of online consumer reviews and management response to hotel performance. International Journal of Hospitality Management, 43, 1–12. https://doi.org/10.1016/j.ijhm.2014.07.007

Xie, C. – Zhang, J. – Morrison, A. M. – Coca-Stefaniak, J. A. (2021): The effects of risk message frames on post-pandemic travel intentions: The moderation of empathy and perceived waiting time. Current Issues in Tourism, 1–20. https://doi.org/10.1080/13683500.2021.1881052

Yang, C.L. – Nair, V. (2014): Risk Perception Study in Tourism: Are we Really Measuring Perceived Risk? Procedia - Social and Behavioral Sciences 144, 322–327. https://doi.org/10.1016/j.sbspro.2014.07.302

Yates, J. F. (Ed.). (1992). Risk-taking behavior. John Wiley & Sons.

Yu, J., Lee, K. – Hyun, S. S. (2021): Understanding the influence of the perceived risk of the coronavirus disease (COVID-19) on the post-traumatic stress disorder and revisit intention of hotel guests. Journal of Hospitality and Tourism Management, 46, 327–335. https://doi.org/10.1016/j.jhtm.2021.01.010

Yurtkoru, E. S. – Acar, P. – Teraman, B. S. (2014): Willingness to take risk and entrepreneurial intention of university students: An empirical study comparing private and state universities. Procedia-Social and Behavioral Sciences, 150, 834-840. https://doi.org/10.1016/j.sbspro.2014.09.092

Zak, P. J. (2010): Moral Markets: The Critical Role of Values in the Economy. Princeton University Press. p. 158. ISBN 9781400837366

Zemke, D. M. V. – Neal, J. – Shoemaker, S. – Kirsch, K. (2015): Hotel cleanliness: Will guests pay for enhanced disinfection? International Journal of Contemporary Hospitality Management, 27(4), 690–710. https://doi.org/10.1108/IJCHM-01-2014-0020

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

Zou, Y. – Meng, F. (2020): Chinese tourists' sense of safety: Perceptions of expected and experienced destination safety. Current Issues in Tourism, 23(15), 1886–1899. https://doi.org/10.1080/13683500.2019.1681382

Zuckerman, M. – Kuhlman, D. M. (2000): Personality and risk-taking: common bisocial factors. Journal of personality, 68(6), 999-1029. https://doi.org/10.1111/1467-6494.0012

Appendix

Annex 1 - Qualitative research interview guide

Dear Students!

1. Each person should individually conduct 4 structured in-depth interviews with selected subjects who have been on holiday during the past summer. Preferably 2 domestic and 2 foreign holidaymakers. The interviews should take about 30-60 minutes.
2. Seek respondents of different age groups and genders if possible!
3. Ask your interviewees to recall their summer experiences and to rate their thoughts before the travel and their experiences after the travel.
4. Although the questions try to cover all the crucial factors, if new and exciting aspects come up during the interview, feel free to include them!
5. During the in-depth interview, asking about the underlying motivations and reasons is essential. Try to focus on this really „quality" information and explore it!
6. Please label the interview with a unique letter and number combination so we can identify it later independently from you!
7. Please record the interview material as audio and upload it to Moodle! Deadline for uploading: midnight 20 October.
8. Do not worry if parts of the audio are not „perfect"; they will not interfere with the final result. You do not need to re-record if something is wrong the first time; correct it within the recording if the wrong answer is given. What is important is that everything is audible. Always check this, and if it is not met, please re-record!
9. If there are any problems during the questioning, please let me know (laszlo.kokeny2@uni-corvinus.hu)!
10. If anyone is interested in this topic, please contact me!

In-depth interview guide

Inform the interviewee of the purpose of the research, ask for permission to make an audio recording, and ensure that the data are only used in aggregate, anonymous form for scientific research.

„In the following I will ask you about the details of a trip you made this summer. If you have travelled more than once, please choose one of your travels."

1 – Travel information

1. How long was the travel from when? (how many nights, although this can be calculated, to clarify)
2. What location(s)? (you can even give the exact city(s))
3. What mode of transport did you use or buy (plane, car, bus, boat, etc.)?
4. What accommodation services did you purchase? (hotel – number of stars and type, e.g. spa, health; airbnb; apartment; hostel etc.)
5. How many people did you travel with directly? And with whom? (friends, family, couple, etc.)
6. What kind of catering did you use? (breakfast only, all-inclusive, none because it was prepared, bought elsewhere, etc.)
7. Were you satisfied with your travel? Which part in particular?
8. What caused this satisfaction/dissatisfaction?
9. Did you consider it risky to be there at the time? What risks did you experience?
10. Do you consider it risky to be there today? What risks do you experience?
11. Would you recommend your trip, and if so, to whom and why?
12. Overall, how would you rate your holiday this year?
13. Did you have a coronavirus in your environment before your travel?
14. Since then?
15. If you could, would you go on a similar travel now?
16. Are you planning a trip abroad/domestically, and if so, when and where?

2 – Collecting information

1. When did you decide to travel?
2. How much information gathering started before the actual purchase?
3. What types of information were the most important, and did you spend the most time looking for it?
4. Where did you look for the information? (Internet, word of mouth/advice from friends/relatives/acquaintances, previous experiences, clubs, travel agencies, tourist books, tourist brochures, monthly/weekly/newspaper, TV, radio, cinema, poster, tourist destination visited previously, etc.)
5. Have the parameters of your travel changed as a result of the coronavirus? What was the reason for this?
6. If so, how? What exactly did you change? Why these?
7. When you are looking for information for your travel, what are you most afraid of, and what do you look for the most information on? How much has this changed now?
8. In this case, have the type and amount of information you are looking for changed?
9. What decision factors did you consider? *(Help if needed: services, attractions, location, travelling companions, mode of travel, destinations, risks)*
10. What risks did you identify when gathering information? Identify as many risks as possible *(financial, performance, health, physical, social, etc.).*
11. How have you tried to reduce these risks?
12. How reliable did you find the sources of information used?

3 – Travel buying

1. Before this travel, did you (or the service provider) have a cancelled booking or purchase? If yes, for when? When precisely on what date(s) did you cancel? Why, what was the reason?
2. The purchase (payment) of this completed travel was made how far in advance (in days, if possible) of the start of the travel?
3. How far in advance do you usually buy? If this changed during this year's holiday, please describe how and why!
4. In what order did you purchase services *(accommodation, travel, attractions, insurance)*? Was there any reason why you bought them in that order?
5. What were you most afraid of when paying for your travel? Did you think about anything during the travel?
6. What risks did you perceive during the payment? Specifically, if you bought online: What online risks did you perceive while you were making your purchase? *(e.g. loss of personal data, website reliability, etc.)*
7. How did you try to reduce these risks?
8. How trustworthy did you find the pay websites you used?

4 – Travel

1. Please describe how much you have changed your travel habits as a result of the coronavirus, and whether the virus has had any influence on your travel?

5 – Demography: age, gender, occupation, how often do you travel abroad, domestically? How many times did you travel abroad, domestically this summer?

6 – Personality type test: supplementary questionnaire

Annex 2 – Online questionnaire – Risk management strategies during travel buying

Introduction

Dear Participant!

You are participating in an academic research project led by László Kökény, PhD student at the Department of Tourism, CUB. The research is supervised by Dr. Zsófia Kenesei, Professor at the Department of Marketing, CUB.

This research investigates travel purchasing for tourism purposes, focusing on risk perception, risk mitigation and purchase intention.

Please, if you are not planning a holiday at home or abroad this summer, DO NOT FILL OUT this questionnaire, but choose another one. If you have already booked your holiday this year, please consider this when answering the questions.

You must be the one who plans and buys your holiday!

Completing the questionnaire will take approximately 15-20 minutes in total. You will have to answer or evaluate 34 questions in a total of 3 blocks.

Participation in the survey is entirely voluntary. You can stop the survey anytime without giving any reason or refusing to answer the questions. If you complete the questionnaire in full, you will be awarded a research point according to the marketing subject. Your Neptun code is only needed to validate your score so it will be deleted.

Do not be discouraged if you are asked more than one question on a statement. You can always stop the questionnaire and return to it later; make sure you do so on the same IT device. You can also scroll backwards while completing it.

For more information or to participate in future research, please contact László Kökény (laszlo.kokeny2@uni-corvinus.hu).

Thank you very much for your time and response to our survey!

„A” block

In the first block, please answer 9 short questions.

It is very important that you are the one who plans and then buys the holiday!

When answering the questions, think about the holiday you are most likely to book this year or perhaps have already bought in the past.

A1 By destination, where are you most planning to book (or have you recently booked) your holiday this year? (From here, please think about this plan or recent purchase for the rest of the questions.)

- Domestic (1)
- Abroad (2)

A2 Please estimate how many overnight holidays you are most likely to buy in the chosen destination.

- 1 night (1)
- 2 nights (2)
- 3 nights (3)
- 4 nights (4)
- 5 nights (5)
- 6 nights (6)
- 7 nights (7)
- More than 7 nights (8)

A3 What type of accommodation are you planning to use?

- 1-2 star hotel (1)
- 3 star hotel (2)
- 4 star hotel (3)
- 5 star hotel (4)
- Wellness hotel (5)
- Pension (6)
- Airbnb (7)
- Kemping (8)
- Apartments (9)
- Hostel (10)
- Other apartments, houses, rooms for rent from private persons (11)
- Other, namely: (12)

_____

A4 Who are you planning to travel with in this case?

- Alone (1)
- With partner or spouse (2)
- With children (3)
- With parents (4)
- With friends (5)
- With student mates (6)
- Other, namely: (7)

_____

A5 What tools do you typically use to collect information for your travel?

- Smart phone (1)
- Tablet (2)
- Laptop/Notebook (3)
- PC (4)
- Smart TV (5)
- Other digital devices, namely: (6)

  _____

- Other offline devices, namely: (7)

  _____

A6 What device do you typically use to book and pay for your holiday?

- Smart phone (1)
- Tablet (2)
- Laptop/Notebook (3)
- PC (4)
- Smart TV (5)
- Other digital devices, namely: (6)

  _____

- Other offline devices, namely: (7)

  _____

A7 Please mark the statement about the COVID-19 pandemic that applies to you.

- During the pandemic I did not participate in any tourist travel (holidays, vacations, etc.) (1)
- During the pandemic I made fewer trips for tourism purposes compared to the previous year (2019) (2)
- The pandemic did not affect my tourism travel at all (3)

Skip To: A8 If Please tick the statement about the COVID-19 pandemic that applies to you. = During the pandemic I did not participate in any tourist travels (holidays, vacations, etc.).

A7b If you were on a tourist travel during the pandemic, please tick the statement related to pandemic COVID-19 that applies to you.

- During the pandemic I have only travelled domestically so far (1)
- I have only travelled abroad during the pandemic. (2)
- I have travelled both domestically and abroad during the pandemic. (3)

A8 Please tick the statement that applies to you for the COVID-19 vaccine.

- I have already received both doses of COVID-19 vaccine. (1)
- I have already received the first dose of vaccine (2)
- I have registered and am waiting for the vaccine (3)
- I have not registered for the vaccine, but plan to in the near future (4)
- I have not registered for the vaccine and do not plan to. (5)
- I recently had coronavirus, so I cannot get the vaccine. (6)
- I cannot get the vaccine for other reasons. (7)
- I do not want to answer. (8)

Block „B" In this block, there will be questions (9 questions) about your planned holiday, on risk perception, risk mitigation and purchase intention. Do not be discouraged by many of the same statements, these are exactly what you need to fill in.

Please continue to fill in the questionnaire carefully as this is the most important and most substantial part of the survey.

B1 The following statements relate to perceptions of risk associated with your travel this year. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- I am sure that the holiday I want to buy will be as I expected (1)
- While I am considering buying a holiday, I am worried whether it will be delivered as it should (2)
- I worry whether the travel I want to buy will deliver the benefits I expect. (3)
- I see many risks when I think through all the possible problems with completing my travel. (4)
- I am concerned that buying a travel is a risky financial investment. (5)
- The vacation I want to buy may provide enough value for the money I spend. (6)
- Buying a travel is an appropriate way to spend my money at the moment. (7)
- My travel buying would be considered foolish by those I give the benefit of the doubt. (8)
- The opinions of others would be unfavourable to me if I were to go on vacation this summer. (9)
- I am afraid that my friends would think that I am going on holiday to show off (10)
- I am afraid that buying a travel would cause me unnecessary health problems. (11)
- I am worried about health problems that might arise during a holiday. (12)
- I am concerned that the travel I want to buy may involve health risks. (13)
- I feel unnecessary anxiety about going on a holiday buying travel. (14)
- I feel psychologically uncomfortable thinking about going on holiday. (15)
- Unpleasant tension at the thought of going on holiday. (16)
- Please mark „Neutral” for this statement. (17)
- There would be uncomfortable tension about going on holiday. (18)
- I am afraid of spending too much time shopping for a vacation. (19)
- I will spend an unnecessary amount of time travel buying. (20)
- I fear that the planned holiday will be delayed (quarantine, border closures, cancellations, etc.) (21)

- I am concerned that the whole holiday will cost unnecessary extra time (22)
- I am concerned that I will miss something (work, use another service) because of the holiday due to unnecessary extra time (23)
- I am worried that the holiday location will not be safe for me. (24)
- I am afraid that domestic/foreign regulations will cause me difficulties during the holiday (25)
- I am worried about changing circumstances. (26)
- Overall, I consider my holiday this year to be risky. (27)
- I am worried that something will go wrong with the holiday I want to buy. (28)
- Overall, I am making a mistake in buying a travel. (29)
- I am causing myself unnecessary problems by buying for a travel. (30)
- Overall, I have fears about various aspects of my holiday this year. (31)
- I am afraid of some parts of travel buying. (32)

B2 The following statements relate to perceptions of online risk associated with your travel this year. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- I am concerned that the information available online about the planned holiday is not realistic (1)
- I find it challenging to find support if a problem occurs while buying for a holiday online (2)
- I am afraid I will not find a place to report my problems. (3)
- I am afraid that the websites I use to shop will disappear. (4)
- I would find it difficult to know whom to go to after the purchase if I had a problem. (5)
- I am worried that my data used for travel buying will fall into unauthorised hands. (6)
- I am worried that my email address used to make a holiday purchase could fall into unauthorised hands (7)
- I am concerned that my payment details (credit card number etc.) used for travel buying may fall into unauthorised hands. (8)
- There is a high likelihood that something will not work right when buying online (9)
- I am afraid that problems will occur during the online travel buying process. (10)
- I feel it is risky to use websites for buying. (11)
- I am concerned about using online technology during the travel buying process. (12)
- I am concerned that the information available from online vendors will be insufficient. (13)
- I am concerned that there will not be enough information about the holiday I want to buy online. (14)
- Please mark „Strongly agree" for this statement (15)
- Overall, I feel that buying a travel online is risky. (16)

- I am afraid of buying travels online. (17)
- I am particularly wary of buying travels online. (18)
- I choose my online buying device (laptop, mobile phone, etc.) (19)
- Although I have access to much information on the internet, I am afraid it is incorrect. (20)

B3 The following statements relate to fears of a COVID-19 pandemic. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- I am terrified of the coronavirus (1)
- It makes me uncomfortable to think about the coronavirus. (2)
- My palms get clammy when I think of the coronavirus. (3)
- I am afraid of losing my life to the coronavirus. (4)
- I get nervous and anxious when I hear about the coronavirus in the news. (5)
- I cannot sleep because of my fears about the coronavirus. (6)
- When I think about the coronavirus, my heart beats faster. (7)
- Overall, the coronavirus is a severe threat to me. (8)
- I am afraid that I will have difficulty living with the disease if I get infected. (9)
- I am afraid that people around me might get infected because of me. (10)
- I feel continuity in my life between successive years. (11)
- I am moving toward my goals in excellent order. (12)
- I am aware of a sense of continuity in my life. (13)
- I feel that I am at the bottom of a downward spiral in my life and cannot get out of it. (14)
- I am drifting with the current, and I have no choice; I cannot stop. (15)
- My life is a series of starts and stops - stuck, starting over, then stuck again. (16)

B4 The following statements relate to reducing the risk associated with travel buying this year. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- When making my purchase, I will need to search intensively for information before making a decision (1)
- I believe that the use of different platforms will be necessary for accurate information (2)
- I will be able to spend sufficient time searching for information during my travel buying (3)
- I will always pay attention to the information shared when making a decision. (4)
- I will read feedback from other tourists. (5)
- I will read other tourists' feedback to make sure I choose the best holiday. (6)
- If I don't read other tourists' feedback, I will worry about whether I am making the right choice. (7)
- I believe there is little chance of a problem on this year's holiday. (8)
- I believe there is a low probability of a problem with my online travel buying. (9)
- The online travel booking sites I use are reliable. (10)
- The holiday I want to buy will be reliable. (11)
- In my opinion, Internet travel buying is unreliable because there is much uncertainty. (12)
- Please mark „Neutral" for this statement (13)
- Buying a travel is a good decision because I can get reliable information. (14)
- The travel I want to buy online is reliable. (15)
- The online travel booking sites I want to use are reputable. (16)
- The websites I want to use are the best reputable on the market. (17)
- I can always get reliable information about the travel booking sites I want to use. (18)
- Travel buying allows me to control the organisation process. (19)
- Travel buying makes me feel in control. (20)
- I usually feel in control of the buying process. (21)

- I feel I can make the right decision when buying a travel. (22)
- I can manage all the information I receive when buying a travel. (23)
- Overall, online travel buying is reliable. (24)

B5 The following statements relate to developing trust in this year's travel buying. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- I will read other tourists' feedback before I buy my travel (1)
- I will read other tourists' feedback on the Internet to make a good travel buying decision (2)
- I will consult other tourists online before making a travel buying. (3)
- I will search for much information in online reviews. (4)
- I will worry if I have made the right decision if I do not read other tourists' reviews. (5)
- I will feel confident if I check other tourists' online reviews before buying a travel. (6)
- I have had good experiences with travel buying websites in the past. (7)
- (8) I am usually satisfied with the websites I use.
- Overall, I am always in a good mood after travel buying. (9)
- I would feel comfortable buying a travel this year if it was supported by the people I give my word to. (10)
- I would buy a travel this year if my friends did the same (11)
- (12) If the people who matter to me buy travel this year, I will do the same.
- I feel reassured by the governments of the day that they will protect me from any risks during my travel (13)
- (14) I feel reassured that the private sector will protect me from any risks during my travel.
- I feel reassured that the civil sector will protect me from possible risks during my travel (15)

- I feel reassured that other service providers (insurance, health, police, etc.) will protect me from possible risks during my travel (16)

B6 The following statements relate to your willingness to take risks. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- I prefer to avoid risks (1)
- For me, safety comes first. (2)
- I do not like taking risks. (3)
- I take risks regularly. (4)
- I like it when I know what will happen. (5)
- I usually see risk as a challenge. (6)
- I consider myself a risk taker. (7)

B7 The following statements relate to this year's travel buying. *(Not the validated scales)*

(Please indicate how much you agree with the following statements). Strongly disagree (1) Disagree (2) Moderately disagree (3) Neutral (4) Moderately agree (5) Yes, agree (6) Strongly agree (7)

- I predict that I will book a travel abroad or a domestic trip this summer. (1)
- I plan to go on holiday this year (2)
- I will book a travel this summer. (3)
- I will go on holiday this year as soon as possible. (4)
- I will buy travel online in the future. (5)
- I will probably buy a travel online in the future. (6)
- I look forward to booking holidays online in the future. (7)

B8 If you have/had a travel buying for the next period (after completing the questionnaire), what have you done with it up to this point?

- I resigned (1)
- I tried to rebook (2)
- Retained (3)
- Sold or resold (4)
- Other, namely: (5)

_____

B9 Likelihood of booking my next holiday online: (%)

_____

„Block D The final block contains demographic questions (14 questions).

D1 **Your gender**

- Male (1)
- Female (2)

D2 **What year were you born?**

(Please specify by number.)

_____

D3 **Is your nationality?** ***(If Hungarian, you do not need to tick this box.)***

_____

D4 **What is your highest level of education?**

- Basic (1)
- Intermediate (2)
- Advanced (3)
- Postgraduate (4)
- PhD (6)
- Other, namely: (5)

  _____

D5 **In terms of your employment:**

(You can mark more than one answer.)

- Student (1)
- Employee (2)
- Self-employed, employed in own business (3)
- Occasional work, contract work (4)
- Unemployed (5)
- On maternity leave, on maternity leave (8)
- Household worker (9)
- Other, namely: (10)

  _____

D6 **In which municipality are you registered?**

- Capital city (1)
- County seat (5)
- Other cities (6)
- Township, village (2)
- Other (4) _____

D7 **Please enter the postcode of the municipality where you are registered:**

_____

D8 **Your marital status:**

- Unmarried (1)
- Married and living together (2)
- Married and separated (3)
- In a relationship and living together (4)
- In a relationship and separated (5)
- Divorced (6)
- Other, namely (8)

_____

D9 **Who do you live with?**

(You can mark more than one answer.)

- Living with a spouse or partner (1)
- Living alone (2)
- Living with parents (3)
- Living with friends (5)
- Other, namely: (4)

_____

D10 **On average, how many hours a week do you work to earn money?**

(Please specify by number!)

_____

D11 **How can you cover the necessary monthly expenses?**

(You can mark more than one answer.)

- Very difficult (1)
- Difficult (2)
- On schedule (3)
- Relatively easy (4)
- Easy (5)
- My expenses are covered by others (6)
- I cannot or do not want to answer (7)