



INVESTIGATION OF PERCEIVED RISKS IN HOLIDAY PURCHASES FROM WEB-BASED TRAVEL INTERMEDIARIES ACCORDING TO DEMOGRAPHIC CHARACTERISTICS

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Abstract:

The primary objective of this research is to identify the risks perceived by tourists when purchasing holidays through web-based travel agencies, as well as the strategies they use to mitigate these risks. The study's data were collected from domestic tourists residing in Eskişehir who had previously purchased a holiday. A total of 406 valid responses were obtained through face-to-face questionnaires. The findings revealed that the most prominent risk dimensions perceived by tourists are performance risk, security risk, and financial risk. Tourists who purchased holidays from travel agency sales offices, as well as females, single individuals, and those in the 18–25 and 50+ age groups, were found to perceive higher levels of risk compared to others. Based on the results, the study provides recommendations for industry practitioners and suggestions for future research.

Keywords:

perceived risk, E-holiday purchases, Web-based travel agencies.

INTRODUCTION

With the advancement of information technologies and the widespread use of the internet, consumer purchasing behavior has shifted significantly from traditional to online channels. The internet, which facilitates both information acquisition and the purchase of goods and services, has become a critical factor influencing the tourism and travel industry. Today, many tourists gather information online before purchasing tourism products, benefit from shared experiences, examine travel suggestions, make comparisons, and ultimately complete their purchases. In this context, web-based travel intermediaries have emerged as vital platforms for both tourists and businesses. Web-based travel intermediaries are defined as platforms that enable tourists to access information and make reservations for services such as accommodation, flight tickets, and car rentals via the internet (Ku and Fan, 2009). Examples of such intermediaries include tatil.com, tatilsepeti.com, tripadvisor.com, booking.com, etstur.com, and jollytur.com. The numerous advantages offered by online shopping have contributed to a growing number of tourists opting for web-based travel intermediaries for holiday and travel reservations (Chen and Kao, 2010).

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However, despite this growth, many tourists continue to avoid using web-based travel intermediaries due to perceived risks. In this context, the primary aim of this study is to identify the risks perceived by tourists when purchasing holidays through web-based travel intermediaries and to examine the strategies used to mitigate these risks.

PERCEIVED RISK

Perceived Risk in Consumer Behavior

The Turkish Language Association (2018) defines the concept of risk as “the danger of suffering harm or loss.” Perceived risk was first introduced into the field of marketing within the scope of consumer behavior as risk-taking behavior by Bauer (as cited in Taylor, 1974: 54). Bauer (as cited in Ross, 1975) argued that consumer behavior inherently involves risk due to the possibility of encountering negative outcomes during purchasing activities. According to Cox and Rich (1964: 33), the foundation of the concept of perceived risk lies in the consumer’s intention to make a purchase. Consumers perceive risk in situations where they are uncertain about whether their purchasing goals will be achieved (Cox and Rich, 1964: 33; Cunningham, 1967: 84).

Since the purpose of this study is to examine perceived risks in online holiday purchases, six risk dimensions commonly regarded as fundamental in this context are briefly defined below.

- Performance Risk: Concerns related to the functionality and reliability of the internet as a communication channel (Hassan, Kunz, Pearson, and Mohamed, 2006: 140).
- Financial Risk: The potential for monetary loss associated with purchasing a product (Jarvenpaa and Todd, 1997: 64).
- Physical Risk: The possibility of harm to the consumer’s health due to the product being unsafe (Jacoby and Kaplan, 1972; Roselius, 1971; Ueltschy *et al.*, 2004).
- Psychological Risk: Anxiety or mental stress experienced by consumers as a result of their purchasing decisions (Lim, 2003: 219).
- Security Risk: The risk of unauthorized access to and loss of control over personal and financial information (Featherman and Pavlou, 2003: 455).
- Time Risk: Concerns about wasting time on poor purchasing decisions, learning how to use a product, or managing product returns and exchanges (Featherman and Pavlou, 2003: 455).

Studies on Perceived Risks in Online Purchases of Tourism Products

Research on security and privacy risks in online shopping demonstrates that consumers perceive a high level of risk regarding the theft of personal and credit card information (Cases, 2002; Caudill and Murphy, 2000; Eti İçli, 2002; Jarvenpaa, Liebermann, and Stashevsky, 2002; Mamman, Maidawa, and Saleh, 2015; Masoud, 2013; Mathur, 2015; Saydan, 2008; Todd, 1997; Ueltschy *et al.*, 2004). Similarly, consumers exhibit significant concerns about security when purchasing tourism products online. Law and Leung (2000) found that the primary concern among individuals who avoid purchasing airline tickets online is credit card security. Other studies also highlight consumer apprehension about sharing personal and financial information (Kim and Kim, 2004; Kolsaker *et al.*, 2004).

It has been reported that consumers perceive risks at every stage of the purchase decision-making process for airline reservation services (Cunningham, Gerlach, and Harper, 2004: 31; Cunningham *et al.*, 2005: 357). According to Cunningham *et al.* (2004: 21), perceived risks increase rapidly as the purchasing stage approaches, whether in traditional or online airline reservations.

High perceived risks in online shopping are said to negatively influence purchasing intentions (Ariff, Sylvester, Zakuan, Ismail, and Ali, 2014). Numerous studies have also examined the impact of perceived risks on purchasing intentions for online tourism products (Agag and El-Masry, 2017; Amaro, 2014; Bigne, Sanz, Ruiz, and Aldas, 2010; Jensen, 2012; Kaş, 2015; Kim *et al.*, 2005; Lin *et al.*, 2009; Sahli, 2015). For instance, Kim *et al.* (2005: 48) identified performance, financial, time, psychological, security, and social risks as negatively affecting the intention to purchase airline tickets online. Similarly, Bigne *et al.* (2010: 216) found that psychological, performance, and privacy risks adversely influence the intention to purchase airline tickets online.



Kaş (2015) investigated the impact of perceived risks on the adoption of online reservation technologies among domestic and international tourists. The findings revealed that perceived risks among Russian and Turkish tourists were significant in determining the acceptance of online reservation technologies. However, this effect was not observed among citizens of European Union countries. A related study concluded that perceived risks in online reservation technologies negatively affect key variables of the Technology Acceptance Model (Özbek *et al.*, 2015: 239).

Bertea and Moisescu (2011) argued that perceived risk types are independent of pricing levels and are instead influenced by the brand awareness of online travel agencies. According to Moisescu and Bertea (2013), low-price positioning strategies combined with high brand awareness in online travel agencies contribute to elevated perceived risks among potential consumers. Conversely, Mohseni *et al.* (2018: 636) demonstrated that well-known brands reduce perceived risks and increase purchasing intentions.

Yang (2013) explored the effects of positive and negative online reviews on perceived risks in online hotel reservations. The study found that positive customer reviews reduce perceived risks, while negative reviews amplify these risks and decrease purchasing intentions.

METHODOLOGY

Population and Sample

The population of this study consists of individuals residing in the city of Eskişehir. The sample includes individuals aged 18 and above, living in the densely populated districts of Tepebaşı and Odunpazarı in Eskişehir, who had previously purchased a holiday in 2023. These districts were chosen because they house a significant portion of Eskişehir's population. According to Krejcie and Morgan (1970: 608), a sample size of 384 is sufficient for a population of one million, assuming 95% confidence and population homogeneity. A non-random sampling method was employed in this study. Non-random sampling is suitable when the probability of selecting individuals from the population is unknown, and resources are limited (Gegez, 2015: 266). Given the constraints of time and cost, the convenience sampling method was selected as the most appropriate non-random sampling approach.

Data Collection Tool

In this study, a questionnaire was employed as the primary data collection tool. The first section of the questionnaire comprises 22 statements designed to identify the risks perceived by tourists when purchasing services from web-based travel intermediaries. These statements were adapted from the studies of Hassan, Kunz, Pearson, and Mohamed (2006), Kim, Qu, and Kim (2009), and Syed and Norjaya (2010). The second section includes 13 features that web-based travel intermediaries should possess, based on the study by Law and Wong (2003). All items were measured using a 5-point Likert scale. The third section contains 11 questions related to participants' travel behavior and demographic characteristics.

To assess the face validity of the questionnaire, the opinions of ten experts were obtained in April 2018. Based on their feedback, incomplete or unnecessary statements were revised. A pilot study involving 39 participants from the target sample was conducted to evaluate reliability, yielding a Cronbach's Alpha coefficient of 0.829. A Cronbach's Alpha value between 0.80 and 1.00 indicates high reliability (Kozak, 2015: 146).

Data collection took place from April 20 to June 2, 2023, between 13:00 and 17:00. The researcher conducted face-to-face surveys with individuals who were accessible and voluntarily participated in densely populated areas of the Tepebaşı and Odunpazarı districts. Of the 420 distributed questionnaires, 406 were deemed valid, as 14 were incomplete or improperly filled. Data were analyzed using SPSS 24, employing frequency analysis, factor analysis, t-tests, and ANOVA tests.



FINDINGS

Findings

The findings related to the demographic characteristics of the participants are presented in Table 1. of the participants, 55.9% (227 individuals) are male, and 59.1% (240 individuals) are married. Among the individuals who responded to the survey, 33.5% (136 individuals) fall within the age range of 26-33, followed by 26.8% (109 individuals) in the 18-25 age group.

Table 1. Findings related to the demographic characteristics of the participants

Demographic Characteristics		Frequency (n)	Percentage (%)
Gender	Male	227	55,9
	Female	179	44,1
Marital Status	Married	240	59,1
	Single	166	40,9
Age	18-25	109	26,8
	26-33	136	33,5
	34-41	98	24,1
	42-49	42	10,3
	50 and above	21	5,2
Educational Level	Primary School	2	0,5
	Middle School	5	1,2
	High School	51	12,6
	University	272	67
	Postgraduate	76	18,7
Household Monthly Income	17003 TL and below	28	6,9
	17004-23000 TL	74	18,2
	23001-30000 TL	110	27,1
	30001-40000 TL	95	23,4
	40001 TL and above	99	24,4
Occupation	Private Sector	170	41,9
	Public Sector	131	32,3
	Retired	9	2,2
	Self-Employed	15	3,7
	Student	58	14,3
	Unemployed	23	5,7
n	Total	406	100

According to Table 1, the majority of individuals in the sample (67%, 272 participants) are university graduates. Additionally, 27.1% (110 participants) have an income of 3,001–4,500 TL. Furthermore, 41.9% (170 participants) work in the private sector, while 32.3% (131 participants) are employed in the public sector. The findings related to the travel behavior of the respondents are presented in Table 2.



Table 2. Findings related to participants' travel behavior

Travel Behaviors		Frequency (n)	Percentage (%)
Most Frequently Purchased Type of Vacation	Sea-Sand-Sun	282	69,5
	Cultural Tourism	91	22,4
	Health and Thermal Tourism	3	0,7
	Winter Tourism	4	1
	Highland Tourism	25	6,2
	Other	1	0,2
Most Preferred Vacation Purchase Channel	Travel Agency Sales Office	169	41,6
	Online Travel Agency	220	54,2
	Other	17	4,2
Average Number of Vacations Purchased per Year	1 time	238	58,6
	2 times	119	29,3
	3 times	40	9,9
	4 times	4	1
	5 times and above	5	1,2
Travel Companions	Alone	11	2,7
	With my spouse	62	15,3
	With my children	4	1
	With my spouse and children	179	44,1
	With my parents	38	9,4
	With my friends	108	26,6
	Other	4	1
Internet Usage Level	Beginner User	19	4,7
	Intermediate User	252	62,1
	Expert User	135	33,3
	Total	406	100

The majority of participants (69.5%, 282 individuals) prefer sea-sand-sun vacations (Table 2). Furthermore, 54.2% of individuals (220 participants) purchase their vacations through online travel agencies. Among the individuals participating in the study, 58.6% (238 individuals) purchase vacations on average once a year, while 44.1% (179 individuals) travel with their spouse and children. Additionally, 62.1% of participants (252 individuals) identify themselves as intermediate internet users.

In research, the application of parametric tests requires that data be normally distributed, that groups have the same variance, and that participant responses are independent of each other (Yazıcıoğlu and Erdoğan, 2014: 246). To demonstrate normal distribution, skewness and kurtosis values must fall within the commonly accepted range of -2 to +2 (George and Mallery, 2003: 98; Kunnan, 1998: 312). The skewness and kurtosis values of the variables in the perceived risk scale used in this study are within the -2 to +2 range. In other words, the data to be analyzed in this research exhibit normal distribution.

Factor analysis is a method that reduces a large number of independent variables by correlating those that are closely related into a specific number of groups (Kozak, 2015: 150). In this study, exploratory factor analysis was conducted to determine which factors the statements regarding perceived risks in online vacation purchases would fall under and to test the structural validity of the scale. Principal Component Analysis was preferred for identifying these factor dimensions.

As shown in Table 3, the factor analysis resulted in a structure consisting of 22 statements and six dimensions: performance risk, security risk, time risk, financial risk, psychological risk, and physical risk.



Table 3. Factor analysis, mean and standard deviation values

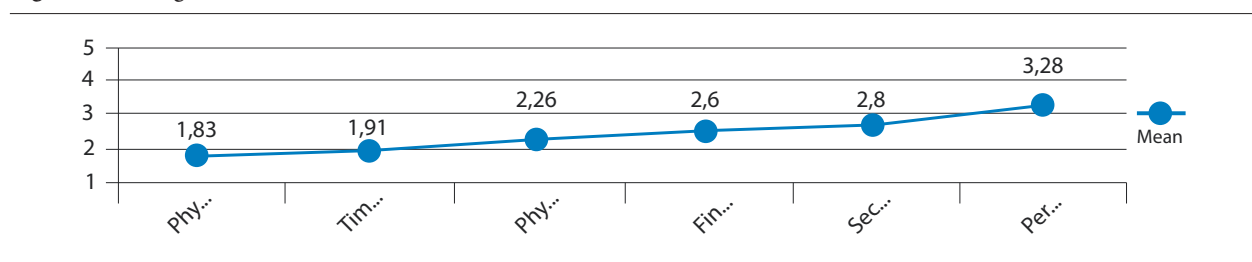
Factors And Items	Factor Loadings						M.	S.S
	1	2	3	4	5	6		
Performance Risk								
I worry that it may not meet my expectations.	,848						3,39	1,25
I am concerned that it will not deliver the promised services.	,900						3,39	1,14
I fear that it will not provide the benefits I expect.	,863						3,32	1,14
When I think about potential issues related to performance ...,	,594						3,05	1,28
Security Risk								
I think sharing personal information is safe.		,737					2,75	1,31
I think the website’s security features are sufficient.		,806					2,83	1,23
I believe my privacy rights are protected.		,859					2,86	1,28
I think sharing credit card information is secure.		,809					2,85	1,31
I believe my personal information won’t be shared with others		,643					2,74	1,40
Time Risk								
I worry that purchasing holiday online will take too much time.			,778				1,87	1,14
I worry that purchasing a holiday online will lead to inefficient use of my time.			,843				1,83	1,10
I worry that holiday purchase plans will create more time pressure than necessary.			,787				2,04	1,21
Financial Risk								
I think my financial expenditure on an online holiday purchase will be unwise.				,739			2,17	1,21
I worry that the money I spend on an online holiday purchase won’t be worth it.				,647			2,80	1,22
I think purchasing a holiday online is not a good method.				,677			2,54	1,30
I worry that I won’t get value for the money I spend on an online holiday purchase.				,585			2,92	1,21
Psychological Risk								
The idea of purchasing a holiday online makes me anxious.					,766		2,53	1,33
The idea of purchasing a holiday online makes me feel psychologically uncomfortable.					,750		2,11	1,25
The idea of purchasing a holiday online makes me feel tense.					,721		2,14	1,28
Physical Risk								
I worry about eye strain from looking at a screen when purchasing a holiday.						,727	1,85	1,24
I worry that my computer/phone will get a virus while purchasing a holiday.						,743	2,05	1,27
I worry about getting Carpal Tunnel Syndrome while purchasing a holiday online						,739	1,60	1,04
Cronbach Alpha Values	,86	,83	,83	,73	,87	,67		
Total Cronbach Alpha Value	,80							
Eigenvalue	3,20	3,12	2,53	2,18	2,15	1,89		
Explained Variance (%)	14,5	14,2	11,5	9,9	9,7	8,6		
Explained Total Variance (%)	68,4							



In the field of social sciences, it is accepted that explaining a total variance value between 40% and 60% is sufficient (Tavşancıl, 2006: 48). This scale, comprising six factors, explains 68.4% of the total variance. In this context, it can be seen that the total variance value is adequate. The dimension of “performance risk” accounts for 14.5% of the explained total variance, “security risk” accounts for 14.2%, “time risk” accounts for 11.5%, “financial risk” accounts for 9.9%, “psychological risk” accounts for 9.7%, and “physical risk” accounts for 8.6%.

The Cronbach’s Alpha values for the dimensions of perceived risk range from 0.86 to 0.67. The overall reliability coefficient of the scale is calculated to be 0.80, indicating that the scale used in the research possesses a high level of reliability. The statements to which tourists most commonly relate regarding perceived risks in online vacation purchases are as follows: 1. (3.39), 2. (3.39), and 3. (3.32). These statements are part of the performance risk dimension. Conversely, the statements with the least participation from tourists are 22. (1.60), 11. (1.83), and 20. (1.85), which fall under the dimensions of time risk and physical risk.

Figure 1. Averages Related to Perceived Risk Dimensions in Online Vacation Purchases



When examining Figure 1, it is observed that the tourists participating in the study perceive performance risk as the highest and physical risk as the lowest when purchasing vacations online. As seen in Table 4, according to the participants, the most essential features a web-based travel agency should possess are ranked as follows: 1st (4.91), 2nd (4.88), and 3rd (4.86). The statements with the least agreement from individuals were ranked as 13th (3.47), 12th (4.56), and 11th (4.65).

Table 4. Essential Features that Web-Based Travel Agencies Should Possess

Features	M.	S.D.
1.Comprehensive information on destinations/hotels	4,91	0,37
2.Privacy policies regarding the protection of personal data	4,88	0,50
3.Provision of quick information search options	4,86	0,47
4.Availability of online reservation and confirmation options	4,84	0,55
5.User-friendly system	4,83	0,50
6. Help functions available	4,81	0,58
7. Provision of real-time availability of products/services	4,81	0,54
8. Diversity in pricing options for products/services	4,80	0,58
9. Presence of secure payment method symbols	4,79	0,67
10. Availability of virtual tours and video files of the destination/hotel	4,71	0,70
11. Relevant virtual links provided	4,65	0,69
12. Appropriate presentation style of the website	4,56	0,78
13. Specifically designed for domestic tourists	3,47	1,46



Table 5. T-test results for the comparison of perceived risk dimensions in online vacation purchases based on gender

Factors	Gender	n	M	S.D.	Levene	t	p
Factor 1: Performance Risk	Male	227	3,06	1,04	,003	-5,223	,000*
	Female	179	3,57	0,91			
Factor 2: Security Risk	Male	227	2,83	1,00	,189	0,564	,573
	Female	179	2,77	1,04			
Factor 3: Time Risk	Male	227	1,85	0,96	,418	-1,441	,150
	Female	179	2,00	1,04			
Factor 4: Financial Risk	Male	227	2,46	0,90	,859	-3,849	,000*
	Female	179	2,81	0,91			
Factor 5: Psychological Risk	Male	227	2,12	1,14	,960	-2,719	,007*
	Female	179	2,43	1,15			
Factor 6: Physical Risk	Male	227	1,72	0,88	,263	-2,667	,008*
	Female	179	1,97	0,96			

When Table 5 is examined, it is observed that there is a significant difference between participants' gender and the dimensions of performance risk, financial risk, psychological risk, and physical risk ($p < 0.05$). An analysis of the averages reveals that women perceive higher levels of performance risk, financial risk, psychological risk, and physical risk compared to men.

Table 6. T-test results for the comparison of perceived risk dimensions in online vacation purchases based on marital status

Factors	Marital Status	n	M	S.D.	Levene	t	p
Factor 1: Performance Risk	Married	240	3,18	1,08	,000	-2,643	,009*
	Single	160	3,44	0,91			
Factor 2: Security Risk	Married	240	2,82	1,03	,874	0,359	,720
	Single	160	2,78	1,00			
Factor 3: Time Risk	Married	240	1,84	1,00	,813	-1,893	,059
	Single	160	2,03	0,99			
Factor 4: Financial Risk	Married	240	2,54	0,97	,039	-1,795	,073
	Single	160	2,71	0,84			
Factor 5: Psychological Risk	Married	240	2,15	1,17	,612	-2,338	0,020*
	Single	160	2,42	1,12			
Factor 6: Physical Risk	Married	240	1,80	0,92	,553	-0,780	,436
	Single	160	1,88	0,93			

As observed in Table 6, there is a significant difference between participants' marital status and the dimensions of performance risk and psychological risk ($p < 0.05$). When examining the averages, it is evident that single participants perceive a higher level of risk for both risk dimensions.



Table 7. ANOVA Test Results for the Comparison of Perceived Risk Dimensions in Online Vacation Purchases Based on Age Groups

Factors	Age	n	M	S.D.	F	p	Post-Hoc
Factor 1: Performance Risk	18-25 (1)	109	3,55	0,84	2-1	,000*	
	26-33 (2)	136	3,06	1,05			2-1
	34-41 (3)	98	3,09	1,05			3-1
	42-49 (4)	42	3,43	1,08			2-5
	50 and above (5)	21	3,95	0,76			3-5
Factor 2: Security Risk	18-25 (1)	109	2,81	0,97	5,013	,001*	
	26-33 (2)	136	2,83	1,05			1-5
	34-41 (3)	98	2,98	1,02			2-5
	42-49 (4)	42	2,74	0,92			3-5
	50 and above (5)	21	1,91	0,78			4-5
Factor 3: Time Risk	18-25 (1)	109	2,01	0,87	0,848	,496	
	26-33 (2)	136	1,80	0,97			
	34-41 (3)	98	1,91	1,11			-
	42-49 (4)	42	2,00	1,12			
	50 and above (5)	21	2,04	0,97			
Factor 4: Financial Risk	18-25 (1)	109	2,81	0,77	5,963	,000*	
	26-33 (2)	136	2,43	0,92			1-2
	34-41 (3)	98	2,45	0,97			1-3
	42-49 (4)	42	2,72	0,99			2-5
	50 and above (5)	21	3,23	0,78			3-5
Factor 5: Psychological Risk	18-25 (1)	109	2,47	1,05	7,297	,000*	
	26-33 (2)	136	1,91	1,06			1-2
	34-41 (3)	98	2,25	1,22			2-5
	42-49 (4)	42	2,41	1,21			3-5
	50 and above (5)	21	3,11	1,18			
Factor 6: Physical Risk	18-25 (1)	109	1,85	0,94	1,022	,396	
	26-33 (2)	136	1,85	0,94			
	34-41 (3)	98	1,71	0,84			-
	42-49 (4)	42	1,92	1,00			
	50 and above (5)	21	2,11	0,92			

When examining Table 7, it is evident that participants' perceptions of performance risk, security risk, financial risk, and psychological risk vary by age ($p < 0.05$). According to the analysis results, participants in the age groups of 18-25 and 50 and above perceive higher levels of performance risk, financial risk, and psychological risk compared to those in the 26-33 and 34-41 age groups. Additionally, participants aged 50 and above perceive a greater level of security risk compared to other participants.



Table 8. The Comparison of Perceived Risk Dimensions in Online Vacation Purchases Based on Vacation Purchase Channels

Factors	Most Preferred Vacation Purchase Channel	n	M	S.D.	F	p	Post-Hoc
Factor 1: Performance Risk	Travel Agency Sales Office (1)	169	3,61	0,93	19,964	,000*	1-2 3-2
	Online Travel Agency (2)	220	3,00	1,00			
	Other (3)	17	3,66	0,97			
Factor 2: Security Risk	Travel Agency Sales Office (1)	169	2,55	1,02	9,689	,000*	1-2
	Online Travel Agency (2)	220	2,99	0,97			
	Other (3)	17	2,94	1,05			
Factor 3: Time Risk	Travel Agency Sales Office (1)	169	2,19	1,12	14,905	,000*	1-2
	Online Travel Agency (2)	220	1,68	0,81			
	Other (3)	17	2,31	1,17			
Factor 4: Financial Risk	Travel Agency Sales Office (1)	169	2,98	0,87	32,079	,000*	1-2 3-2
	Online Travel Agency (2)	220	2,30	0,84			
	Other (3)	17	2,98	0,82			
Factor 5: Psychological Risk	Travel Agency Sales Office (1)	169	2,72	1,13	35,402	,000*	1-2 3-2
	Online Travel Agency (2)	220	1,85	1,00			
	Other (3)	17	2,96	1,20			
Factor 6: Physical Risk	Travel Agency Sales Office (1)	169	1,99	0,99	4,503	,019*	1-2
	Online Travel Agency (2)	220	1,71	0,83			
	Other (3)	17	1,84	1,14			

According to the analysis results (Table 8), participants who purchased vacations from travel agency sales offices perceive higher levels of performance risk, time risk, financial risk, psychological risk, and physical risk compared to those using other purchase channels. Another noteworthy finding is that participants who prefer web-based travel agencies perceive a greater level of security risk associated with online vacation purchases.

CONCLUSION AND RECOMMENDATIONS

As a result of the factor analysis, a structure consisting of 22 statements and six dimensions was identified. Based on the averages of the factors, the risk dimensions most perceived by tourists are ranked as follows: performance risk, security risk, and financial risk. These results are consistent with findings from several studies on prominent perceived risk dimensions (Bertea and Moisesescu, 2011; Bigne *et al.*, 2010; Cunningham *et al.*, 2005; Kim *et al.*, 2005; Kim *et al.*, 2009; Park and Tussyadiah, 2017).

The averages concerning the features of web-based travel agencies that aim to reduce perceived risks in online vacation purchases were also examined. The analysis results indicate that the functionality and reliability of web-based travel agencies are significant factors in mitigating perceived risks.

The research findings show that female tourists perceive higher levels of risk compared to males. This may be due to women being more emotionally sensitive, paying greater attention to details, and potentially being more anxious about online vacation purchases based on previous experiences.

Considering that many individuals in the 18-25 age group may be students, recent graduates, or early in their careers, it can be inferred that their economic status is likely low to moderate. They may have less online purchasing experience due to their financial situation, or they may perceive higher levels of risk because of previous online purchasing experiences. Additionally, the increased perception of risk among tourists aged 50 and above may be related to their later adoption of the internet and online shopping.



The research also found that single individuals perceive higher levels of performance and psychological risk compared to their married counterparts. These findings are consistent with those in the study by Kim *et al.* (2009). It can be posited that married individuals, due to family responsibilities, tend to seek more detailed and extensive information when purchasing vacations online. They are more likely to use websites they trust and have greater online vacation purchasing experience. Additionally, single tourists may display a higher level of interest, which could contribute to their perception of higher risk.

For tourists purchasing vacations from travel agency sales offices, factors such as face-to-face communication with sales representatives, receiving recommendations, and knowing who to contact in case of issues, along with increased awareness of online vacation purchases, may be significant. It is recommended that web-based travel agencies provide up-to-date and detailed information about tourism products, incorporate symbols or notifications that highlight privacy policies, and use filtering and guiding elements. However, while presenting detailed information, it is essential to avoid unnecessary or overwhelming content. Enhancing the presence of written and visual elements (such as photos, videos, virtual tours, etc.) related to tourism products could also be beneficial. Classifying tourism products based on age groups (e.g., hotels preferred by younger or older demographics) could be effective as well.

Future research could yield different results by examining domestic and foreign tourists across various provinces and regions. Additionally, conducting qualitative research with managers of web-based travel agencies or investigating consumer behaviors such as showrooming and webrooming could provide further insights.

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