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## **Research of the impact of the terrorism and other factors on the consumers behavior**

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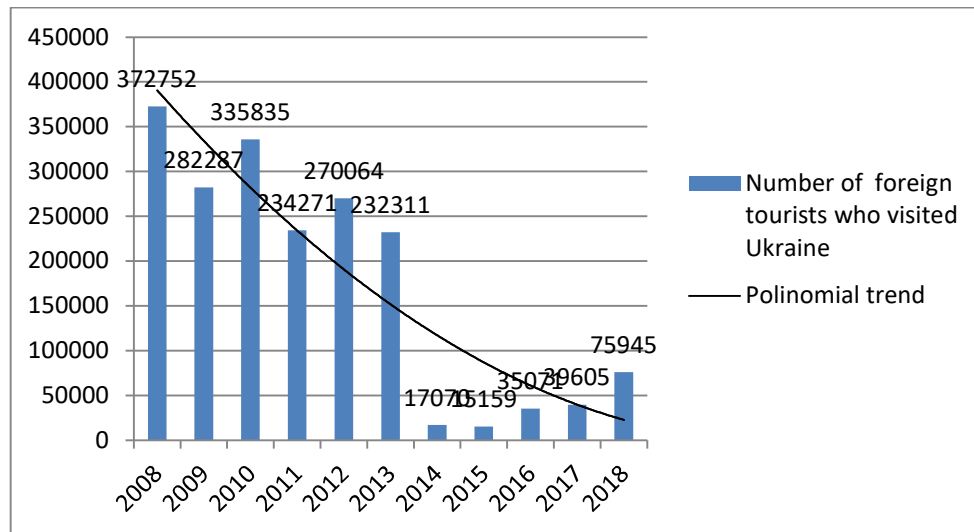
**Abstract.** The purpose of this study is to identify the main factors influencing consumer's behavior while travelling to Ukraine. The object of the study was the sample of people who are consumers of touristic services in Ukraine. The main hypothesis of the study was that consumer's behavior depends on variety of factors in Ukraine, including but not limited to military conflict or terrorism. To improve the knowledge about various factors impact on consumer's behavior the factor analysis was used, joined by a method of a principal components analysis in SPSS. Using the SPSS the main factors were determined.

**Keywords.** consumption, travel, consumers behavior, marketing, tourism

### **1. Introduction**

According to the WTTC (2019), the total contribution of Travel & Tourism to GDP was USD 8,811 bn in 2018 (10.4% of GDP) and was expected to grow by 3.6% to USD 9,126.7 bn (10.4% of GDP) in 2019. The direct contribution of Travel & Tourism to GDP is expected to grow by 3.6% to USD 4,065 bn (3.5% of GDP) by 2029.

At the same time, a share of international tourist arrivals in Ukraine was only 2% of all European destinations in 2017. Ukraine had some growth in international tourist's number of 75945 people in 2018 compared to only 39605 in 2017. If 2018 is compared to 2008-2013 - it is a 3-4 times smaller number. In the chart (see fig. 1) for 2016 the tourists flow begins to recover slowly and gradually. The quadratic polynomial trend is constructed on the following graph of the relationship between the number of tourists and year.



**Fig.1.** Dynamics of changes in the number of the foreign tourists who visited Ukraine.  
Source: Calculated by the author based on the national state statistical committee data (2019)

These numbers show a slow decline in the beginning, a sharp fall in the middle, and a slow increase near the end. R-squared value, which indicates the trend line reliability, is 0.803, which is close to 1, qualifying the trend line's fit to the data.

Analysis of the chart demonstrates that the biggest decrease of the number of tourists began after 2013 when the terrorists attacked the territory of eastern Ukraine. In the same time tourists could have chosen not to travel to Ukraine due to other factors like better and cheaper services abroad. Here the main question is: how the tourists evaluate the risk of terrorism in Ukraine and what is influencing their travel choice?

## 2. Literature review

Analyzing the consumer behavior in tourism, COHEN, PRAYAG & MOITAL (2014) determined key concepts, including image formation, service quality, decision-making, values, motivation, expectations, perception and loyalty. They pointed out that studies of consumer behavior consider image formation, service quality and decision-making. According to these scholars, perception of risk and safety is a crucial factor in consumer's behavior.

There are many studies describing perceptions of crime and terrorism (BARKER ET AL., 2003; GEORGE, 2010). The influence of war on the tourism was investigated by many international researchers. In the study by CURRIE ET AL (2004) the authors indicated that the effect on Croatia's GDP caused by the loss of tourism revenues due to the war was not as high as in earlier estimates. SEDDIGHI, NUTTALL & THEOCHAROUS (2001) investigated the cross-cultural differences of the perceptions of travel agents concerning the impact of political instability on tourism. PARIDA, BHARDWAJ, CHOWDHURY (2015) investigated the impact of terrorism on tourism in India and discovered that terrorist activities had an adverse impact on both foreign tourists arrival and foreign exchange earnings from tourism in India.

SERAPHIN (2017) had discovered that terrorism jeopardizes tourism in France and pointed out that tourism is especially vulnerable to exogenous factors like political instability, economic crisis, natural disasters and the outbreak of diseases. WOLFF & LARSEN (2014), MEHMET (2008) also considered terrorism and war as the major negative factor for tourism.

«Political crises, such as terrorism, can be highly localized, but may also have state wide implications» (WILLIAMS, ALLAN & BALAZ, VLADIMIR, 2013: P. 25). In the same time a big role is played by mass media and how media diffuses and disperses the risk discourses. Many authors also conclude that risk perception is much more important than the actual risk level (SJÖBERG, MOEN & RUNDMO, 2004; CHEW & JAHARI, 2014; HASAN, ISMAIL & ISLAM, 2017). KHAN ET ALL (2017) stated that in tourist decision-making, perceived risks hold the greatest influence in terms of destination selection. Unfortunately the impact of the terrorism and war in Ukraine on the travelers consumer behavior was not enough investigated.

### 3. Methodology

The methodological basis consisted of the following scientific methods: analysis and synthesis (for identification and evaluation of consumer's answers), theoretical search and abstract logic (in order to identify and assess an influence of tourism risks), graph method (to describe the number of arrivals in Ukraine and to forecast it for the future). The method of least squares was used in forecasting the number of tourists. The analysis of variance was used in Spss statistics software. One of the methods was observation, which is beneficial because the researcher records the required data based on what he or she observes (ZAINUDIN, 2010; SALIN AND AZLIN, 2017). The method begins with the development of a survey (see table 1). Therefore, for improving the knowledge about war/terrorism impacting consumers behavior, it was appropriate to develop questionnaire and to gather answers. Independent variables were answers to 13 questions; dependent variable was touristic consumer behavior indicated with a decision to travel to destination or not to travel. People who took part in the survey were gathered randomly on the street, in public places, at the National transport university building, in the centre of Kiev's main street Khreshchatyk. The sample contained 200 people from different regions of Ukraine, but most of them were Kiev's citizens. Data was collected in November 2019. Respondents were randomly assigned and they were of various ages, gender and social status. Than with using the SPSS statistic program the survey data was analyzed.

**Table 1.** The questionnaire for evaluating factors influencing consumer behavior

1. What is your age? [ point the number]
2. What is your sex? [male / female]
3. Have you ever been into trouble in Ukraine? [yes/ no / I have never been to Ukraine]
4. Would you like to travel to Donetsk or Volnovaha trip for free?
5. Do you love risky situations, does some dangerous events attract you? [ no / a little / love it / adore it]
6. Do you love extreme sport? [ no / a little / love it / adore it]
7. Would you travel to Country where the terrorist attack has recently happened? [yes/no]
8. I would never go to country if the country has war even if the Mass media convince that touristic territory is safe [yes / no]
9. Do you consider other territory of Ukraine except Luhansk Donetsk regions as safe? [yes/ no]
10. How do you evaluate terrorism risk in Ukraine? [no risk / small / middle/ huge risk]
11. My monthly income is [small less than 300\$ / middle 300 -800/ big 800\$-2000/ huge more than 2000\$]

12. Would you change your travel plans if you read about some military conflict at the travel destination in internet? [yes / no]

13. Would you refuse to go to country and decide to lose money which you spend to voucher(voyage) if your friends warned you about terrorism in country you wanted to travel to? [yes / no]

Source: developed by the author

#### 4. Results

To analyze collected questionnaires data it was exported in SPSS. The factor analysis using a method of principal components analysis in SPSS was conducted. Principal components analysis is the most commonly used in statistics and it is also one of the default analyses in SPSS. People who took part in a survey responded to 13 questions therefore 13 variables analyzed (see table1). Factor analysis analyzes these 13 variables and reduces these variables into one or a few components or factors which explain the relationship among the variables. For checking the sample adequacy the KMO and Bartlett's test of sphericity was used. Bartlett's test of sphericity was less than 0.05 and it is also so can be considered that data has a chi-square distribution. The total variance explained in table 2, gives 5 components that are more than 1. It is sensible to keep the number of factors or components that have eigenvalues greater than one.

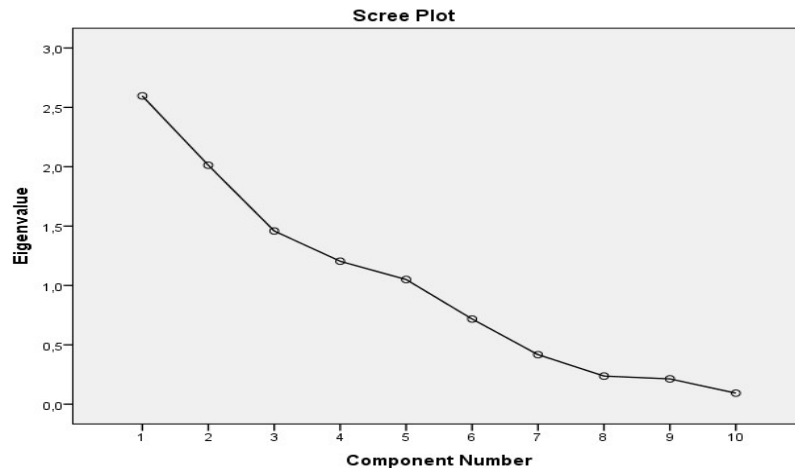
**Table 2.** Total variance explained\*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,175	24,420	24,420	3,175	24,420	24,420	2,188	16,834	16,834
2	2,132	16,403	40,823	2,132	16,403	40,823	2,125	16,343	33,177
3	1,614	12,412	53,235	1,614	12,412	53,235	1,844	14,182	47,359
4	1,264	9,722	62,957	1,264	9,722	62,957	1,705	13,117	60,476
5	1,215	9,349	72,306	1,215	9,349	72,306	1,538	11,830	72,306
6	,993	7,642	79,948						
7	,821	6,318	86,265						
8	,719	5,527	91,793						
9	,341	2,620	94,413						
10	,308	2,370	96,783						
11	,225	1,731	98,515						
12	,156	1,201	99,716						
13	,037	,284	100,00						

\*Extraction Method: Principal Component Analysis

Source: developed by the author based on answers of respondents

This analysis explains the relationships between all variables, and it gives the percent of variance accounted for by the component. For example, the first component explain 24.42% of the variance accounted for by the component, second explains 16,403% of variance, third - 12.412% while the fourth and fifth components are weaker and explain only 9.722 and 9.349 % of the variance. According to the scree plot (figure 2), it is common to choose the number of components which are above where they tend to not change much anymore.



**Fig. 2.** The scree plot of the eigenevalues by the component number  
Source: developed by the author

The next step was analyzing the values of the rotated component matrix. In table 3 factor loadings are displayed. They give information about how strong the relationship is between the item (question) and the component. It is reasonable to take to account those values which are more than 60%. So the question №1 correlates or loads with factor number 3 because 71.8% of the variance is accounted for in by that component. The second question «Are you male or female?» is loaded by the 5-th factor. The general principal of analysis is to chose which question loads or correlates the highest on a certain component. After choosing the highest loadings it is vital to name the components according to the questions which meaningfully (more than 60%) load it high. For naming, the components it is important to read questions accurately to think of what exactly some questions have in common and that interpret and name the factor (see table 3).

**Table 3.** Component Matrix\*

	Component				
	1	2	3	4	5
	Media exposure	Cheapnes of the service	Social Status	Percepti on of terrorism	Gender
Age	-,050	-,225	<b>,718</b>	,254	-,238
Are you male or female?	-,039	,015	-,015	,292	<b>,774</b>
Have you ever been into trouble in Ukraine?	,409	-,042	-,111	<b>,692</b>	,089

Do you like to travel to military territories Donetsk or Volnovaha for free?	,055	<b>-,801</b>	,179	-,101	-,097
Do you love risky situations, does some dangerous events attract you?	,291	<b>,658</b>	,083	-,476	,029
Do you love extreme sport ?	,295	<b>,797</b>	,006	-,038	-,206
Would you travel to country where the terrorist attack has recently happened?	-,178	,017	,008	<b>,771</b>	,109
I would never go to country if the country has war even if the Mass media convince that touristic territory is safe	<b>,731</b>	-,072	,059	,125	-,096
Do you consider other territory of Ukraine except Luhansk and Donetsk regions as safe?	,048	-,251	<b>-,779</b>	,081	,037
How do you evaluate terrorism risk in Ukraine?	-,158	-,067	-,093	-,082	<b>,873</b>
My monthly income is	,067	-,358	<b>,792</b>	-,273	,122
Would you change your travel plans if you read some news about some military conflict at the travel destination in internet?	<b>,751</b>	,265	-,178	-,376	,005
Would you refuse to go to country and decide to lose money which you spend to voucher (voyage) if your friends in social networks warned you about terrorism in country you wanted to travel to?	<b>,825</b>	,301	,003	-,005	-,152

\*Extraction Method: Principal Component Analysis

\*Rotation Method: Varimax with Kaiser Normalization

Source: developed by the author in SPSS statistic

Thus, according to the rotated component matrix, five main factors, which influence consumer behaviour, were named accordingly to the content of the correspondent question. These factors were named: sensitiveness to mass media exposure, the cheapness of the service, social status, perception of terrorism, gender. Experimental data also showed that women are more sensitive to risk perception than men; they prefer not to go to the country if terrorist attack recently happened there. Those respondents who loved risky situations often prefer to go into the extreme sport and in the same time chose to travel to the risky destination even if their friends in social networks warned them about terrorism possibility in a country they intended to travel to. Monthly income correlated with the age of respondents. The older the respondent the more income he or she possesses. Income also has a correlation with gender, men had in average bigger income than women. More rich people tend to be more risky. Among the respondents, most of them had middle income see table 4.

**Table 4.** Monthly income of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	small	59	29,5	29,5	29,5
	middle	71	35,5	35,5	65,0
	big	46	23,0	23,0	88,0
	huge	24	12,0	12,0	100,0
	Total	200	100,0	100,0	

Source: developed author in SPSS

by the statistic

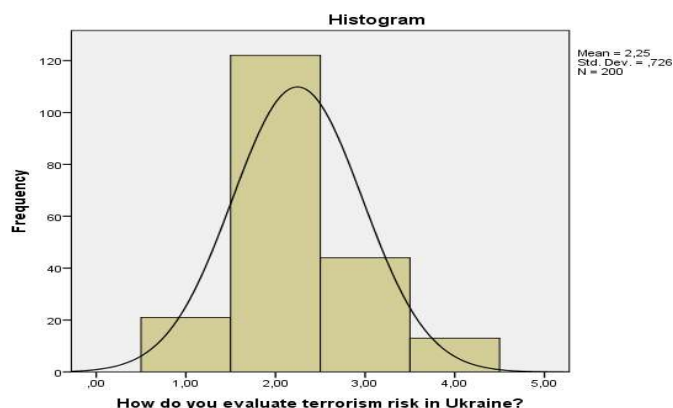
Interesting was the result that 32% of respondents still wanted to go to risky destination Luhansk and Donetsk if the trip would be free of charge. Answering the question about if respondents would like to go to the country if the terrorist attack has recently happened 18% answered positively (see table 5).

**Table 5.** Respondents answers to the question: «Would you travel to Country where the terrorist attack has recently happened?»

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	36	18,0	18,0	18,0
	no	163	81,5	81,5	100,0
	Total	200	100,0	100,0	

Source: developed by the author in SPSS statistic

Evaluating the terrorism in Ukraine by respondent's answers showed that data was normally distributed (see the Figure 3):



**Fig. 3.** Evaluation of the terrorism risk in Ukraine.

Source: developed by the author

Source: developed by the author in SPSS statistic

For the terrorism risks evaluation respondents chose such values: 1- no risk, 2-small, 3-middle, 4-huge risk. Most of the respondents 61% considered Ukrainians terrorism risk as small, 22% - pointed that it is middle, only 10.5% believed that there is no terrorism risk in Ukraine and just 6.5% of respondents consider terrorism risk as a huge (see table 6).

**Table 6.** Respondent answers to question «How do you evaluate terrorism risk in Ukraine?»

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no risk	21	10,5	10,5	10,5
	small	122	61,0	61,0	71,5
	middle	44	22,0	22,0	93,5
	huge risk	13	6,5	6,5	100,0
	Total	200	100,0	100,0	

Source: developed by the author in SPSS statistic

## 5. Discussion and conclusion

Some scholars CSIKOSOVA, ADRIANA & CULKOV & ANTOŠOVÁ (2019), R.YAN (2002) considered cultural, social and personal factors, psychological factors and even ecological factors as factors which influence the purchase behaviour in tourism and discovered that income, age, education, gender influence on consumers behavior. Scientist FARTU (2011), DEYSHAPPRIYA, IDROOS, & SAMMANI (2019) also pointed out that age, lifestyle, and income as an important determinant of consumer buying behaviour. Scholars also point that according to the estimated coefficient, male tourists' buying behaviour is lower than that of female tourists'. Findings related to these factors have been observed by PALANI, SOHRABI (2013), OMONDI (2017).

SINGH (2019) confirmed that terrorism reduces travel intentions enormously. The same point of view underlined by GARG & KUMAR (2017), CHIU (2008), CHEW & JAHARI (2014); KARL (2018); MAGLIULO (2013); LEPP & GIBSON (2003); HASAN, ISMAIL & ISLAM (2017).

According to AMARA (2012) tourists rarely buy trips to the country, which they heard bad news about in the mass media. GARG (2015) stated that if tourists perceive the destination as risky it will slow down the tourist flow. KAPUSCINSKI AND RICHARDS (2016) also stated that advertising and mass media information strongly influences consumer's behavior in tourism. This investigation also confirms that terrorist threat holds back tourists from buying a trip. The risk perception plays also an important role in travel destination choice.

As soon as Ukrainian tourist arrivals reduced in last year's, it was important to investigate the main reasons for it. One of the main reasons is the war in the East of the country. Many other factors also explain the tourist's consumer behavior, for example, the visa-free regime, which Ukraine has got in 2017, gave more possibilities to travel abroad for Ukrainian tourists. But this investigation showed that tourist's consumer behavior depends on 5 main factors: mass media exposure, the cheapness of the service, social status, perception of terrorism and gender. Analyzing answers of respondents, it was obvious that most of them consider that Ukraine has small terrorism risk. According to the results of the investigation, measures for improving the political situation in Ukraine and for improving the destination image of Ukraine should be taken by the government.

This study has limitations, which should inspire future research. Only 13 questions were proposed to respondents, but in future investigation more questions associated with consumer

behavior should be answered. The other drawback of the investigation was that most of the tourists-respondents who took part in a survey are mostly Kyev citizens it also does not represent all the country. Further investigation should extend the number of questions and a variety of respondent's characteristics.

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