Predictors for Loyalty of Visitors to the City of Thessaloniki as a Tourist Destination: A Multinomial Logistic Regression Based on a Sample Survey

Frangos C.[*]

Technological Educational Institute of Athens, Dept. of Business Administration
Tepeleniou 7, Irakleion Attikis, 14121, Athens, Greece
e-mail: cfragos@teiath.gr

Karapistolis D.

Technological Educational Institute of Thessaloniki, Dept. of Marketing
e-mail: karap@mkt.teithe.gr

Stalidis G.

Technological Educational Institute of Thessaloniki, Dept. of Marketing
e –mail : stalidgi@mkt.teithe.gr

*Corresponding Author : e-mail : cfragos@teiath.gr

Abstract:

In today's competitive and globalized environment and in the midst of economic crisis, it is imperative for the Tourism Authorities to investigate thoroughly the factors that influence tourism visitors of the different cities of a country to visit repeatedly their destinations and to form a strong loyalty to them .

The aim of this paper is the investigation of factors which contribute to the loyalty of tourists travelling to the Greek City of Thessaloniki. A random sample of (1000) tourism visitors was surveyed for their impressions from Thessaloniki and their loyalty to this tourism destination. An Exploratory Factor Analysis has revealed two factors "history of Greece and Thessaloniki" and "natural beauty of Greece and Thessaloniki". These factors constitute a factor named "Image of Greece".

Multinomial Logistic Regression was applied with dependent variable "favour or not of a second visit to Thessaloniki' and dependent variables "image of Thessaloniki with respect to natural beauty and security", "annual income of visitor" and "age of visitor". From the Analysis of the model, it was concluded that the three independent variables are statistically significant predictors of loyalty of the tourists to the destination of Thessaloniki, at the level of significance α=0,05. The authors argue that ,due to the proximity of Thessaloniki to the Holy Mountain of Chalkidiki with the famous monasteries,the attractive scenery of the Coastline and the Strategic position in the Balkans, the CONFERENCE ,the RELIGIOUS TOURISM and the SUN-SEA tourism could be the three forms of tourism which could establish Thessaloniki as an International Centre of high quality Tourism .

Key words: Loyalty of Tourists to Destination, Multinomial Logistic Regression

1.   INTRODUCTION

The importance of Tourism for the economic development of Greece and the end of the economic crisis of the country is undisputable. Tourism is the so called "heavy industry" of Greece. In 2013 , 17 million tourists have visited Greece. The 2013 Report of The Association of Greek Tourism Enterprises confirms that Greek Tourism contributes 16,4% to the GDP of Greece, covers 51,2% of the trade balance sheet, employs 1 in 5 residents or nearly 800.000 people and generates 34 billion Euro total demand. According to the most recent data which were published by the World Tourist Organization (WTO), in 2012, Greece was in the 17th position regarding the number of International tourist arrivals and in the 23rd position regarding the International Tourist receipts. In 2013 Greece was in the 32nd position out of 140 countries included in the Travel and Tourism Competitiveness Index and in the 96th position in the global competitiveness Index. This proves that the sector of Tourism in the Economy of Greece is one of the few sectors that is competitive at a global level.

Customer satisfaction, Destination image and Tourism Marketing Information are important aspects in successful tourism management and destination marketing. An important portion of income from Tourism comes from the amount of money spent by the repeat tourists. Tourism destination loyalty

is the tendency of a tourist to be a repeat visitor to a particular destination and to recommend this destination to others. (Darnell and Johnson, 2001; Jayraman et al , 2010). In this paper we shall examine empirically the predictive factors of tourist loyalty to a particular Greek destination, the city of Thessaloniki.
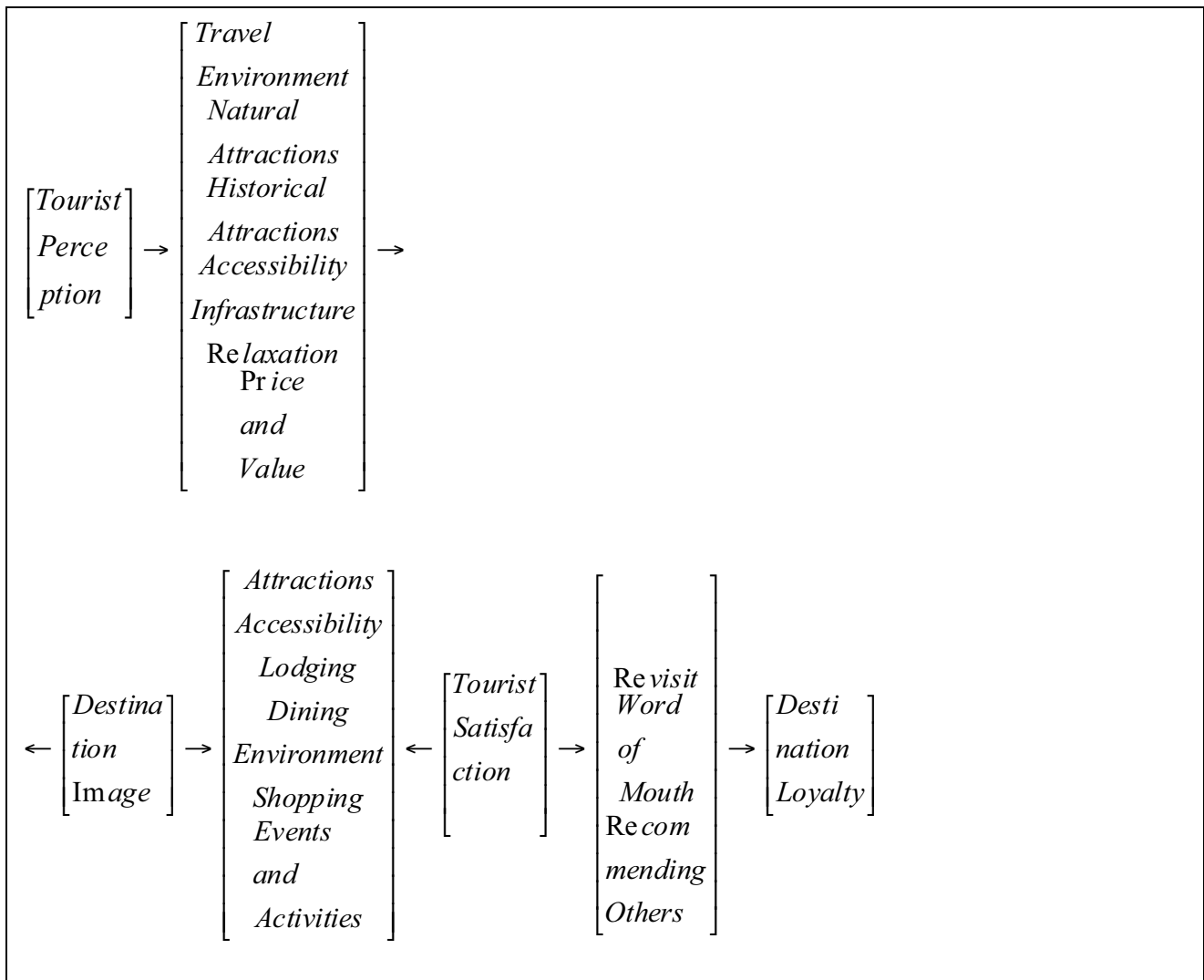
In Chapter 2 we present a Literature Review on the subject of tourist destination loyalty. In Chapter 3 we present the results of a sample survey among 1000 tourists visiting Thessaloniki. In Chapters 4, 5 and 6, we apply Descriptive Statistical techniques, Factor Analysis, Reliability Analysis, ANOVA One Way and Logistic Regression in order to analyse the results . Finally, in Chapter 7 we discuss our findings and we draw the appropriate conclusions.

2. LITERATURE REVIEW
2.1.Customer satisfaction and tourist Loyalty

The prerequistic for a tourist to develop destination loyalty for a particular place is satisfaction from its facilities, hotels and food, its climate,its history, its sightseeings and the friendliness of its people (Rajesh,2013;Chi , 2012). According to (Coban,2012) satisfaction is the buyers' cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone. According to (Kozak and Rimmington, 2000) tourist satisfaction is considered one of the prime variables to sustain competitive business in the tourist industry because it affects the consumption of goods and services ,the choice of destination and, generally, the loyalty to tourist destination. Other definitions of buyer's satisfaction are contained in the research paper of (Oliver,1999). According to (Oliver, 1981) "buyer's satisfaction is the evaluative response to the current consumption event, the consumer's response in a particular consumption experience to the evaluation of the perceived discrepancy between prior expectations (or some other norm of performance) and the actual performance of the product perceived after its acquisition". According to Oliver, 1999) "Satisfaction is defined as the judgment that a product or service itself, provided(or is providing) a pleasurable level of consumption-related fulfilment, including levels of under and over-fulfillment", Service Quality scale interpretation ability(reliability, responsiveness and assurance),empathy and tangibility. Rajesh (2013) argues that visitor satisfaction has two important characteristics ,the cognitive characteristic and the affective characteristic.The emotions of a tourist visitor are important determinants of tourism destination loyalty. In this paper, we shall adopt the model of Rajesh (2013) in formulating our research hypotheses, which is illustrated in the following figure:

Figure 1 : Influence of Tourist Perception,Destination Image and Tourist Satisfaction on Destination Loyalty, according to the conceptual Model of Rajesh(2013).

$$
\begin{bmatrix} Tourist \\ Perce \\ ption \end{bmatrix} \rightarrow
\begin{bmatrix} Travel \\ Environment \\ Natural \\ Attractions \\ Historical \\ Attractions \\ Accessibility \\ Infrastructure \\ Re\,laxation \\ Pr\,ice \\ and \\ Value \end{bmatrix} \rightarrow
$$

$$
\leftarrow \begin{bmatrix} Destina \\ tion \\ Im\,age \end{bmatrix} \rightarrow
\begin{bmatrix} Attractions \\ Accessibility \\ Lodging \\ Dining \\ Environment \\ Shopping \\ Events \\ and \\ Activities \end{bmatrix} \leftarrow
\begin{bmatrix} Tourist \\ Satisfa \\ ction \end{bmatrix} \rightarrow
\begin{bmatrix} Re\,visit \\ Word \\ of \\ Mouth \\ Re\,com \\ mending \\ Others \end{bmatrix} \rightarrow
\begin{bmatrix} Desti \\ nation \\ Loyalty \end{bmatrix}
$$

3.   RESEARCH HYPOTHESES

Our purpose is to investigate empirically in this paper the following Research Hypotheses (RH) :

RH1: A significant factor of Destination Loyalty is the Destination Image regarding the City of Thessaloniki.

RH2: The Age of a tourist as well as the Service Quality of the facilities of destination (hotels, shops, prices, natural attractions, security, friendliness) is a significant predictor of Destination Loyalty.

4. METHOD OF INVESTIGATION

4.1 **Construction of a Questionnaire and sampling survey**

In order to investigate empirically weather or not the research Hypotheses RH1 and RH2 are true, we have constructed a Questionnaire which has been distributed among 1000 randomly selected tourists visiting Thessaloniki and we have asked them to answer the questions of the Questionnaire. The Questionnaire includes the following Sections:

Tourist Perception regarding Thessaloniki

Destination image regarding Thessaloniki

Destination image regarding Greece

Tourist satisfaction from visiting Thessaloniki

Destination Loyalty

The respondents were 473 men and 520 women . 436 respondents were 18 -35 years of age and 560 were 36-65 years of age.

The tourists were residing mainly in Germany, France, England, United States and Italy.

4.2 Statistical Analysis of results

4.2.1. Descriptive Statistics and T-TESTS about the equality of the mean scores of opinions for men and women tourists , regarding the City of Thessaloniki.

The following figure shows the percentage of Tourists who are loyal to the Tourist Destination of Thessaloniki

Figure 2 : Tourist Loyalty to Thessaloniki

We perform t-tests with two independent samples consisting of men and women tourists about the following characteristics : (b1) equality of the mean scores of satisfaction from visiting Thessaloniki ,t-test statistic=1,708, degrees of freedom=952, p-value=0,001. (b2) equality of mean scores of opinions about Greece, t-test=-3,855, degrees of freedom=936, p-value=0,0001.(b3) equality of annual income, t-test=3,327, degrees of freedom=954, p-value=0,0001. The conclusion is that the above characteristics of the tourists are dependent on their gender.

4.2.2. Factor analysis regarding factors which influence the opinion of a tourist regarding Greece and Thessaloniki in particular.

A.We perform Exploratory Factor Analysis (EFA) for the investigation of the main factors which determine the image of Thessaloniki to the Tourist.

The Test KMO (Kaiser-Meyer-Olkin) of Sampling Adequacy is 0,838. The test Bartlett for Sphericity is statistically significant.

The magnitude of the sample is sufficient (1000).

Hence, the assumptions of EFA are satisfied . We conclude from this EFA that there are two factors which determine the image of Thessaloniki to the Tourist.The 1st Factor is called :

Natural attractions and Municipal services (Natural Beauty, Architectural Style, Sightseeing, Security in the City, Cleanness, Friendliness of local people) .The 2nd Factor is called: Entertainment and Greek Cuisine.(Nightlife and Greek food).

B.We perform Exploratory Factor Analysis (EFA) for the investigation of the main factors which determine the image of Greece to the Tourist.

The Test KMO (Kaiser-Meyer-Olkin) of Sampling Adequacy is 0,827. The test of Bartlett for Sphericity is statistically significant.

The magnitude of the sample is sufficient (1000).

Hence, the assumptions of EFA are satisfied . We conclude from this EFA that there are two factors which determine the image of Greece to the Tourist. The 1st Factor is called :

Natural attractions and History (Natural Beauty, Historical Monuments, Exploring Nature, Security-Safety) and the 2nd Factor is called: Cultural Characteristics (Popular Art, Greek music, Entertainment) .

4.2.3. Reliability Analysis
We found that the Cronbach's alpha coefficients for the two groups of constructs about the Image of Thessaloniki and Greece were 0,80 and 0,79,respectively,which is a satisfactory result showing that the questionnaire was complete.

4.2.4. Logistic Regression with dependent variable the degree of Loyalty towards Thessaloniki and independent variables the image of Thessaloniki regarding the Safety and the natural attractions of the City ,the Age and the Annual Income of the Tourists .

The results are presented as follows:

Binary logistic regression was performed to assess the impact of a number of factors on the likelihood that respondents would report that they have favored a second visit to Thessaloniki. The model contained three independent variables (age, annual income and satisfaction from the image of Thessaloniki regarding the safety and the natural attractions of the City). The full model containing all predictors was statistically significant, ($\chi^2(11,N=1000)=37,96$, p,001) , indicating that the model was able to distinguish between respondents who reported and did not report an attitude to revisit Thessaloniki. The model as a whole explained between (18,0%)(Cox and Snell Chi-Squared and (23,6%) (Nagelkerke R Squared) of the variance in the attitude about a revisit to Thessaloniki , and correctly classified (61,5%)of the cases. As shown in Fig. 16, all three independent variables made a unique statistically significant contribution to the model. The strongest predictor of reporting a favorable attitude towards a revisit to the tourist destination of Thessaloniki was image satisfaction from the City, recording an odds ratio of(3,9) and confirming the first and second research hypotheses,RH1 and RH2 respectively.   This indicated that respondents who have been satisfied with the image of the City regarding safety and natural attractions, were four times more likely to report an attitude to revisit Thessaloniki , than those who have not been satisfied with the image of this City.The following figures summarizes the results of the logistic Regression:

Table 1 :Summary of Logistic Regression Results

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1ª	D8			8,699	4	,069			
	D8(1)	1,363	,697	3,820	1	,051	3,908	,996	15,334
	D8(2)	1,262	,659	3,667	1	,056	3,533	,971	12,858
	D8(3)	1,207	,653	3,422	1	,064	3,344	,931	12,016
	D8(4)	1,557	,658	5,600	1	,018	4,746	1,307	17,239
	H3			14,121	4	,007			
	H3(1)	,585	,291	4,046	1	,044	1,795	1,015	3,174
	H3(2)	,792	,309	6,572	1	,010	2,207	1,205	4,042
	H3(3)	,193	,314	,378	1	,539	1,213	,656	2,243
	H3(4)	,046	,491	,009	1	,926	1,047	,400	2,739
	H4			15,587	3	,001			
	H4(1)	-,383	,218	3,075	1	,079	,682	,444	1,046
	H4(2)	,149	,231	,415	1	,519	1,161	,738	1,827
	H4(3)	,304	,265	1,322	1	,250	1,356	,807	2,279
	Constant	-1,859	,708	6,900	1	,009	,156		

a. Variable(s) entered on step 1: D8, H3, H4.

Table 2 : Classification by the Logistic Regression Model.

Classification Table^a

Observed			Predicted		
			What are your plans for a future visit to Thessaloniki?		
			0	1	Percentage Correct
Step 1	What are your plans for a future visit to Thessaloniki?	0	352	152	69,8
		1	240	198	45,2
	Overall Percentage				58,4

5.   CONCLUSION

The results of our investigation confirm the truth of the two research hypotheses RH1 and RH2. The destination image and the destination satisfaction regarding Thessaloniki, influence the Destination Loyalty. An important research question is weather or not a second time visitor to Thessaloniki, has the same opinion about the city and its services, as a first time visitor to the same city. An important research topic is the investigation of the possibility for the creation of touristic attractions, like , festivals, exhibitions or excursions by sea to the Holy Mountain in order to increase the flow of tourists to Thessaloniki.

Acknowledgement

References

Chi, C.G.(2012). " An examination of destination loyalty; Differences between First-Time and Repeat Visitors" , *Journal of Hospitality and Tourism Research,*Vol.36, No.1, pp.3-24.

Coban, S. (2012). " The effects of the Image of Destination on Tourist Satisfaction and Loyalty: The case of Cappadocia". *European Journal of Social Science,*Vol. 29, No. 2, pp. 222-232.

Kozak, M. and Rimmington, M. (2000). " Tourist satisfaction with Mallorca, Spain, as an Off-Season Holiday Destination" , *Journal of Travel Research,*Vol.38, No. 3, pp. 260-269.

Oliver, R.L. (1999). "Whence Consumer Loyalty?"*„Journal of Marketing,* Vol. 63 (special Issue),pp.33-44.

Oliver, R.L. (1981). "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions" *„Journal of Marketing Research,* Vol. 17, pp. 460-469.

Rajesh,R. (2013). "Impact of Tourist Perceptions, Destination Image and Tourist Satisfaction on Destination Loyalty : A conceptual Model. *Revista de Tourismo y Patrimonio Cultural*, Vol.11, No. 8, pp. 67-78.