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“Azores” Tourism Product perceptions: the Influence of the Country of Origin

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RESUMO/ABSTRACT

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This study focused on the Autonomous Region of the Azores (ARA), which has some features that are considered favorable to the development of tourism and to the interest in the tourism product. However, the region’s geographical dispersion, its high dependence on transportation and the seasonality of the industry constrain its development.

The present research aimed to assess tourists’ perception of certain costs (living, accommodation, plane ticket, and transportation to/from the airport), and whether these differ between tourists of different nationalities.

The findings show that tourists, both residents and non-residents, have the perception that the cost of living and of the plane ticket are high, while the cost of accommodation and of transportation to the airport is considered normal by most respondents.

We concluded that the models differ when applied to residents and non-residents. For non-residents, living in certain countries induces them to express differences in the perception of the costs studied, when compared to individuals that live in other countries.

Keywords: Tourism, Azores Destination, Travel Costs, Tourists’ Perception

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**“AZORES” TOURISM PRODUCT PERCEPTIONS: THE INFLUENCE OF THE
COUNTRY OF ORIGIN**

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TOURISM IN THE AZORES

The reduction of working time and, therefore, the expansion of leisure time, along with the generalization of the right to paid vacation have enabled a significant growth of tourism. Moreover, the need for leisure and the interest in the discovery and knowledge of new cultures, places and peoples have influenced one's propensity to travel (Cracolici and Nijkamp, 2008). According to Fayos-Solà (1996), recent decades have witnessed a change in traditional tourism, with a move from mass tourism to alternative tourism. This reflects changes in the attitudes and needs of tourists, and these changes have become a challenge for players in the tourism market who have to manage and adjust their tourism resources to the needs of tourists, in order to maintain the competitiveness of the destination (Cracolici & Nijkamp, 2008).

America and Europe are the main destination regions. However, there is a greater diversification of tourist destinations, with the appearance of new emerging destinations, such as East Asia/Pacific, North Africa, Latin America and the Caribbean. These destinations have above average growth rates (WTO, 2001).

Tourism Product

Baud-Bovy and Lawson (1998) present the system of tourism based on the concept of "tourism product." The tourism industry does not develop in isolation; there are several external components that can influence the development of the industry and that interact with each other.

The WTO (1999) considers that tourism demand is extremely elastic, since a relatively small change in price or in income of tourists implies a change in demand in a greater proportion. Tourism tends to be a seasonal industry, and it is affected by a variety of subjective factors, such as taste and fashion.

Tourism in the Azores

The characteristics of the ARA, especially its geographic dispersion, lead to a dependence on air and sea transportation, which is reflected on the increased costs that favor isolation and dependence on the outside and that hinder the development of the industry (Buhalis, 1999). The investment in the tourism sector by the Regional Government of the Azores reached a value of 74.6 million euros in 2000, while in 1995 the investment had been limited to only 10.3 million euros. This reflects the growing importance given to this sector. As for the number of people employed in the industry, it almost doubled only from 2000 to 2005 (from 3,219 to 6,404 people). Despite this growth, Fortuna and Vieira (2003, cited in Joaquim, 2004) point out that the development of the Azores has been mainly based on the primary sector; therefore, the archipelago has not kept pace with the growth of regions that have become specialized in tourism, such as the archipelagos of Madeira and of the Canary Islands. The Azores showcases exceptional natural heritage, favorable weather, and natural environmental quality and value, all of which enable and enhance the offer of theme products connected to nature, rural space and the sea. Thus, the region's rich historical, architectural and cultural heritage led tourism to emerge as a strategic alternative for the development of the archipelago (Moniz, 2006). Nonetheless, according to Pearce (1987, cited by Moniz, 2006), the ecology of the islands can be a limiting factor for economic development, particularly if an economic sector is based on natural resources, since the scarcity of resources may limit the development of tourism and restrict the options for the development of products.

Econometric Model

The Ordered Probit regression model described in Greene (2000) and Maddala (1992) is an extension of the Probit model used when the dependent variable is discrete, has more than two possible choices, and there is a relation of magnitude between the various alternative answers and the dependent variable. It attempts to determine the relationship between the dependent variable and a number of other variables – the explanatory variables, some of which are numerical and others qualitative.

Hypothesis Testing

A study of this type implies the testing of hypotheses to assess the weight of the independent variables that are used in the observed findings. The tests are based on either the rejection or non-rejection of the hypothesis of a specific β -risk or of a set of β -risks representing a certain value, usually zero. The rejection or non-rejection of the hypothesis in question is done taking into account the degree of sensitivity, provided by the significance level, which reflects the percentage of doubt we have about the rejection or non-rejection of the hypothesis in question. The lower the significance level, the less is the chance of being wrong in the conclusions drawn from the hypothesis testing.

Sample Characterization

Descriptive statistics and distribution of frequencies were carried out in order to characterize the sample. 55.50% of the individuals who responded to the survey were male, and the remaining 44.50% were female.

In order to facilitate the interpretation and analysis of the findings, those surveyed were divided in groups according to their age, namely (1) under 18 years old, (2) 18 to 24, (3) 25 to 34, (4) 35 to 44, (5) 45 to 54, (6) 55 to 64, (7) over 64. The 25 to 34 group includes 25.40% of

respondents, followed by the 35 to 44 group with 23.50% and the 45 to 54 group with 22.00%. Thus, 70.9% of respondents are aged between 25 and 54.

Most people who responded to the survey (82.70%) are Portuguese nationals, with the second largest nationality being Danish with 14.20%. Respondents were classified according to five different routes: two bound for mainland Portugal – (1) TP S4 Lisbon, (2) Porto S4; two bound for the Azores – (1) SP Terceira, (2) SP Horta; and one bound for Denmark – (1) SNB Copenhagen. As it turned out, 84.4% of respondents resided in the Azores, while only 15.6% were non-residents.

As for their occupation, 81.50% of those surveyed are employment, while the remaining 18.50% are not part of the active population. 41.30% of respondents have a university degree, 13.00% technical education and 6.40% vocational education. Regarding the job category of respondents, 39.70% held a senior position, 18.40% an intermediate position and 10.60% a low-level position.

In what concerns the reasons for traveling, 53.25% answered professional, with tourism gathering 30.33% of responses, visiting friends and relatives 9.81%, and health reasons 6.61%. As it turned out, 57.20% of respondents traveled alone, 23.10% with family, and 19.70% in a group. On average, the traveling party comprised 3.416 people, with the smallest group including 2 people and the biggest 10 people.

Regarding the means of transportation used to get to the airport, the respondents' own vehicle was the most cited answer with 28.90%, followed by taxi with 26.60% and by family member or friend's car with 17.10%. The types of accommodation used by most respondents were 4-star and 3-star hotels with a share of 29.5% and 12.10% respectively. However, since 52.30% of respondents did not answer this question, it was not included in the data analysis, because it could cause an inconsistency in the results.

Travel agencies were the most common way of purchasing tickets (59.80% of respondents), followed by airline counter (27.20% of respondents). The average price of the trip was €351.15.

In terms of the cost of living, 72.00% of respondents considered it to be high, while only 24.20% classified it as normal and 3.80% as low. As for the cost of accommodation, 39.90% of respondents considered it to be high, 45.20% to be normal and 14.90% to be low.

As for the cost of the plane ticket, it was considered high by 72.80% of respondents, normal by 25.70% and only 1.50% considered it to be low. 55% of respondents consider the cost of transportation to the airport to be normal, 26.60% to be low and 18.40% to be high.

Findings

The results of the estimation of the Ordered Probit models for (1) Cost of Living, (2) Cost of Accommodation, (3) Cost of Plane Ticket, (4) Cost of Transportation to the Airport are in the appendixes. All variables are artificial and were arranged in groups.

The first group corresponds only to the age variable and the second group to gender. The third group includes the variables for the respondents' education: (1) Technical Education, (2) Vocational Education, (3) Other Education. The fourth group includes the variables for the job category: (1) Senior Position, (2) Intermediate Position, (3) Technical Position, (4) Low-level Position, (5) Other Situation. The fifth group concerns the respondents' traveling party: (1) Family, (2) Group. The sixth group comprises the means of transportation used to get to the airport: (1) Own Vehicle, (2) Rental Car, (3) Taxi, (4) Private Bus, (5) Other Transportation. The seventh group includes the variables related to the purchase of the ticket: (1) Airline Counter, (2) Airline Website, (3) Travel Agency Website, (4) Other Way, (5) Doesn't Know. The eighth group of variables comprises the reason for traveling: (1) Visiting

Relatives, (2) Health Reasons, (3) Tourism. The ninth group has to do with the residence of respondents: (1) Mainland Portugal, (2) Denmark, (3) Sweden, (4) Germany, (5) Spain.

In the case of the artificial explanatory variables, the interpretation of the coefficients provided by the Ordered Probit model means that a positive value indicates that a change of the variable from 0 to 1 increases the likelihood of respondents giving a level 3 (high) answer and decreases the likelihood of a level 1 (low) answer. The opposite is also true for a negative value. However, only by observing the sign of the coefficient nothing can be inferred about the impact of the variable in the intermediate level 2 (normal).

Each model was evaluated for the total number of respondents who were residents and non-residents and in individual models for both residents and non-residents, in order to assess whether the different groups of the explanatory variables for the perceptions differ according to the residence of tourists.

Cost of Living

According to the findings included in Appendixes 1, 2 and 3, in the complete model, the null hypotheses that the "education of respondents has no explanatory value," the "job category has no explanatory value," the "transportation used to get to the airport has no explanatory value," and the "place of residence has no explanatory value" are rejected at a significance level of 5%. The same null hypotheses are rejected in the model applied to non-residents.

However, only the null hypothesis that the "job category has no explanatory value" is rejected at a significance level of 5% in the model applied to residents. The findings show that a male respondent is less likely to provide the highest level answer and more likely to give the lowest level, when compared to a female respondent.

With regard to education, those who have "Other Education" are more likely to provide the highest level answer and less likely to give the lowest level in contrast to those who have a

"University Degree." Compared with "Businesspeople," respondents with a "Low-level Position" are less likely to provide the highest level answer and more likely to give the lowest level.

As for the means of transportation used to get to the airport, those who use their "Own Vehicle" or a "Private Bus" have a lower probability of choosing the highest level answer and a higher probably of selecting the lowest level, compared to those who use a "Relative's Car." In terms of the countries of residence, we found out that respondents living in "Mainland Portugal," "Denmark" and "Sweden" are less likely to provide the highest level answer and more likely to give the lowest level in contrast to residents in the "Azores."

Analyzing the findings provided by the model applied to residents, we observe that the data is not coherent. This may be due to the lack of consistency of the respondent's answers; therefore, it is not possible to draw any conclusions.

The model applied to the non-residents reaches the same conclusions as the complete model for the variables "Male" and "Other Education." The job categories "Intermediate Position" and "Other Situation" reduce the likelihood of providing the highest level answer and increase the likelihood of the lowest level, when compared to the job title "Businessperson." The means of transportation "Private Bus" and "Other Transportation" diminish the likelihood of respondents giving the highest level answer and increase the likelihood of them indicating the lowest level in contrast to "Relative's Car". Residents of Mainland Portugal are more likely to give the highest level answer, with the likelihood of indicating the lowest level decreasing when compared to residents of Denmark. But compared to residents of Denmark, there is a lower probability of residents of Sweden providing the highest level answer and a higher probability of them giving the lowest level.

Cost of Accommodation

According to the findings included in Appendixes 4, 5 and 6, in the complete model, the null hypotheses that the "job category has no explanatory value," the "reason for traveling has no explanatory value," and the "transportation used to get to the airport has no explanatory value" are rejected at a significance level of 5%. However, when applied to residents and non-residents, the model displays significant differences in the variables. In the resident and non-resident model, the null hypotheses that the "job category has no explanatory value" and the "transportation used to get to the airport has no explanatory value" are rejected at a significance level of 5%. The null hypothesis that the "reason for traveling has no explanatory value" is rejected in the model applied to residents, yet in the model applied to non-residents, the null hypothesis the "place of residence has no explanatory value" is rejected.

Regarding the respondents' age, each additional year decreases the likelihood of them providing the highest level answer and increases the chance of them giving the lowest level. The job categories "Senior Position," "Intermediate Position" and "Technical Position" are more likely to choose the highest level answer and less likely to select the lowest level in contrast to the job title "Businessperson."

Compared with the means of transportation "Relative's Car," the use of the "Own Vehicle" reduces the likelihood of the highest level answer and increases the likelihood of the lowest level.

As for the reasons for traveling, the variables "Health Reasons" and "Tourism" imply a lower probability of indicating the highest level answer and increase the likelihood of the lowest level, when compared to the reason "Professional."

Analyzing the model applied to residents, the previously announced conclusions are applicable. In the model for non-residents, the job categories "Senior Position" and "Low-level Position" are more likely to provide the highest level answer, with the lowest level being less likely compared to the job title "Businessperson." The opposite is true for the job

category "Other Position." The means of transportation "Own Vehicle" and "Private Bus" reduce the probability of indicating the highest level answer and increase the likelihood of choosing the lowest level compared to the means "Relative's Car". Regarding the place of residence, the findings show that living in Mainland Portugal implicates a higher probability of selecting the highest level answer and a lower probability of indicating the lowest level in comparison with living in Denmark.

Cost of Plane Tickets

The findings included in Appendixes 7, 8 and 9 show that, in the complete model, the null hypotheses that the "job category has no explanatory value," the "reason for traveling has no explanatory value," the "transportation used to get to the airport has no explanatory value," and the "place of residence has no explanatory value" are rejected at a significance level of 5%. The null hypothesis that the "job category has no explanatory value" is rejected at a significance level both in the model applied to residents and in the model applied to non-residents. However, the hypothesis that the "transportation used to get to the airport has no explanatory value" is rejected in the model applied to residents, and the hypothesis that the "place of residence has no explanatory value" is rejected at a significance level of 5% in the model applied to non-residents.

As for the age of respondents, each additional year represents a lower probability of them providing the highest level answer and a greater likelihood of them choosing the lowest level. The job categories "Senior Position" and "Intermediate Position" are more likely to provide the highest level answer and less likely to give the lowest level in contrast to the job title "Businessperson."

The means of transportation used to get to the airport "Own Vehicle," "Rental Car," "Taxi," "Private Bus," and "Other Transportation" imply a lower probability of respondents choosing

the highest level answer and a greater likelihood of them selecting the lowest level compared to the means "Relative's Car."

Regarding the purpose of the trip, the variable "Tourism" entails a lower probability of respondents indicating the highest level answer and a higher likelihood of them selecting the lowest level, when compared with the reason "Professional."

In terms of the place of residence, the findings demonstrate that residents in "Mainland Portugal," "Denmark" and "Sweden" are less likely to provide the highest level answer and more likely to give the lowest level in contrast to residents in the "Azores."

The job category "Senior Position" implicates a greater likelihood of answering the highest level and reduces the probability of indicating the lowest level compared to the job title "Businessperson," both in the model applied to residents and non-residents.

In the case of residents, the means of transportation used to get to the airport "Own Vehicle" and "Taxi" imply a lower likelihood of them providing the highest level answer and a greater probability of them giving the lowest level in contrast to the means "Relative's Car."

In terms of the place of residence, in the non-resident model, findings show that those who live in Mainland Portugal are more likely to indicate the highest level answer and less likely to provide the lowest level in contrast to the residents of Denmark.

Cost of Transportation to Airport

According to the findings included in Appendixes 10, 11 and 12, in the complete model, the null hypotheses that the "job category has no explanatory value" and the "transportation used to get to the airport has no explanatory value" are rejected at a significance level of 5%.

However, in the model applied to residents, the null hypotheses that the "education has no explanatory value," the "job category has no explanatory value," the "purpose of the trip has no explanatory value," and the "traveling party has no explanatory value" are rejected at a

significance level of 5%. In the model for non-residents, the hypotheses that the "job category has no explanatory value," the "transportation used to get to the airport has no explanatory value," the "way how the ticket was bought has no explanatory value," and the "place of residence has no explanatory value" are rejected.

The job categories "Senior Position," "Intermediate Position" and "Technical Position" are more likely to provide the highest level answer and less likely to give the lowest level compared to the job title "Businessperson."

The means of transportation used to get to the airport "Own Vehicle" and "Private Bus" imply a lower probability of answering the highest level and a greater likelihood of responding the lowest level in contrast to the means "Relative's Car."

Based on the model applied to residents, we conclude that the education variables "Technical Education," "Vocational Education" and "Other Education" implicate a lower probability of responding to the highest level and a greater likelihood of answering the lowest level when compared to the variable "Higher Education." As for the job categories "Intermediate Position," "Technical Position" and "Low-level Position," they entail a higher likelihood of respondents providing the highest level answer and a lower probability of them indicating the lowest level in contrast to "Businesspeople." Those who travel in "Group" are more likely to give the highest level answer and less likely to provide the lowest level compared to those who travel "Alone." The purposes of the trip "Health Reasons" and "Tourism" are less likely to answer the highest level and more likely to respond the lowest level, comparing with the reason "Professional."

As for the model applied to non-residents, in terms of job categories, the variables "Senior Position" and "Intermediate Position" are more likely to answer the highest level and less likely to choose the lowest level in contrast to "Businesspeople." The means of transportation used to get to the airport "Rental Car," "Taxi" and "Other Transportation" imply a higher

probability of respondents answering the highest level and a lower likelihood of them responding the lowest level compared to those that use a "Relative's Car." Regarding the way how plane tickets were bought, the variables "Airline Counter" and "Airline Website" are more likely to provide the highest level answer and less likely to give the lowest level when compared to "Travel Agency." In what concerns the place of residence, living in "Mainland Portugal" and "Germany" entails a greater probability of respondents answering the highest level and a lower likelihood of them responding the lowest level in contrast to the residents of "Denmark."

CONCLUSIONS AND RECOMMENDATIONS

The Azores tourism product is a growing reality at the national level, since different indicators have shown a positive growth. However, the development of the tourism market faces two great constrains: the high dependence on air transportation and seasonality.

As for the tourists that visit the Azores, they can be divided into three large groups: one that mainly includes Portuguese nationals that travel for professional reasons, another that comprises foreign tourists from Europe (Denmark, Sweden, Germany) that travel for leisure, and a last group composed of tourists from the United States of America and Canada who travel to visit relatives and for leisure.

The study's findings highlight that both resident and non-resident tourists have the perception that the cost of living and of the plane ticket are high, while the cost of accommodation and of the transportation to the airport are considered normal by most respondents.

As for the perception of the cost of living, several variables such as gender, education, job category, the transportation used to get to the airport, and the tourists' place of residence offer a significant explanation for the different levels of perception. The model applied to residents

is not consistent, so no conclusions can be drawn from it. Nonetheless, the total number of respondents and the non-residents do not diverge.

The cost of accommodation is also explained by several variables, including age, education, the transportation used to get to the airport, and the reasons for traveling. The perceptions of residents and non-residents have different explanations, since in the model applied to residents, they are explained by the age and the purpose of the trip, and in the model for non-residents they result from the place of residence.

When applied to all respondents, in the model used for the cost of the plane ticket, the age, the job category, the transportation used to get to the airport, the reasons for traveling, and the place of residence are the explanatory factors for the tourists' different levels of perception. Nevertheless, the variables job category and transportation used to get to the airport are the only explanations in the model applied to residents, while the model for non-residents is explained by the job category and the place of residence.

The model used for the cost of transportation to the airport showcases greater differences between residents and non-residents, with education being the only explanatory variable in both models.

In short, one can conclude that the models differ when applied to residents and non-residents. For non-residents, living in certain countries leads them to have different perceptions of the costs studied, when compared to respondents that live in other countries.

This study confirms that the variables related to the education level are explanatory in the four models that were studied, which may indicate that people with different levels of education have diverging perceptions of costs.

Study Limitations

As for the limits of this study, we can mention several that have to do with the limits of the survey: it was only conducted at the airport of São Miguel; it was applied to tourists from few different flights, something which could have influenced the respondents' place of residence. The survey is not very comprehensive in what concerns the topics that can be studied in terms of tourism and the perceptions that people may have.

The treatment of data only provided information about extreme cases (high cost, low cost) and did not afford any conclusions about the intermediate case (normal cost).

Future Research

As an indication for a future study, we recommend the extension of the sample to all the islands of the RAA, with the aim of identifying possible differences in the perceptions of tourists on each island both by residents and by non-residents. Identifying and analyzing the types of tourists that visit each island and their reasons should also be part of a future study, in order to diversify and adapt the tourism packages to the expectations of tourists.

Since the main reasons for traveling highlighted in this study are professionally and leisure related, it would be relevant to deepen these reasons especially the ones that have to do with leisure. Several activities may be included in leisure, from which other types of tourism can stand out and be confirmed, namely adventure and sports tourism, nature tourism, health tourism, event tourism... These could be the base of competitive and development advantages for the tourism industry of the RAA.

Accessibility by air is an essential condition for the development of tourism (WTO, 2004), but the high cost of plane tickets that this study suggests may become a constraint to the sector's development and competitiveness in the RAA. Thus the exceptional dependence on transportation of the smaller islands has to be recognized and analyzed by the governmental entities. Consequently, we consider that there should be a greater cooperation of the different

public and private entities connected to the industry, with the aim of designing and implementing a transportation strategy, since it is an essential element to meet the needs of the tourism industry in the Azores.

Admitting that tourists consider the cost of air travel to the Azores to be high, it would be pertinent to study the possibility of introducing low-cost carriers in the market, assessing which impacts would be positive and negative to the region.

We defend that the tourism product can only be competitive, sustainable and of excellence if an integrated environmental, cultural, social and economic policy is implemented.

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Appendix 1: Ordered Probit: Cost of Living Model

	Complete Model			Residents		Non Residents		
	Coefficient	Sig.		Coefficient	Sig.	Coefficient	Sig.	
Age	-0.007	0.447		-0.016	0.378	0.000	0.979	
Male	-0.403	0.052	*	-0.471	0.201	-0.700	0.030	*
Vocational Education	0.432	0.195		0.673	0.241	0.703	0.179	
Technical Education	0.291	0.434		-0.229	0.742	0.320	0.561	
Other Education	1.187	0.001	*	1.184	0.049	1.835	0.006	*
Senior Position	0.423	0.246		1.661	0.012	-0.318	0.558	
Intermediate Position	-0.258	0.484		1.322	0.042	-1.247	0.037	*
Technical Position	0.199	0.649		1.484	0.045	-0.265	0.703	
Low-Level Position	-0.882	0.072	*	-0.338	0.652	-0.326	0.714	
Other Situation	0.017	0.972		6.182	0.998	-1.642	0.031	*
Family Group	0.325	0.362		1.345	0.093	-0.374	0.555	
	0.115	0.654		0.173	0.727	-0.340	0.428	
Car (Own)	-0.795	0.040	*	-1.281	0.047	0.187	0.854	
Car (Rental)	-0.174	0.713				-0.367	0.597	
Taxi	-0.412	0.287		-1,019	0.173	-0.277	0.691	
Private Bus	-1.422	0.005	*	4.709	0.999	-1.874	0.027	*
Other Transport	-0.546	0.253		-0.128	0.877	-1.822	0.060	*
Airline Counter	0.161	0.520		0.046	0.898	0.021	0.966	
Airline (internet)	0.467	0.423		-0.255	0.758	6.265	0.999	
Travel Agency (internet)	-0.654	0.121		4.794	0.999	-0.384	0.460	
Other	-0.239	0.733		-1.008	0.310	4.509	1.000	
Don't Know	0.242	0.747		6.444	0.999	-1.319	0.266	
Family Health	-0.541	0.202		-0.398	0.504	-0.824	0.420	
	0.468	0.442		0.440	0.555			
Tourism	-0.084	0.783		0.298	0.533	0.483	0.500	
Portugal (Mainland)	-0.505	0.056	*			1.088	0.083	*
Denmark	-1.289	0.005	*					
Sweden	-2.191	0.027	*			-3.263	0.016	*
Germany	-0.236	0.863				-0.544	0.726	
Spain	4.706	0.999				6.429		
Chi-Square	99.325			38.789		79.228		
Sig.	0.000			0.029		0.000		

*Significance at 5%

Appendix 2: Tested Hypotheses for the Cost of Living Model

Hypotheses – Cost of Living	LRT	Degrees of Freedom	χ^2 (5%)
Complete Model			
H ₀ : The person's training has no explanatory value	13.361	3	7.81
H ₀ : The professional level has no explanatory value	109.477	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	2.491	3	7.81
H ₀ : The group were one travels has no explanatory value	-0.533	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	17.888	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	-4.855	5	11.1
H ₀ : Residence has no explanatory value	11.817	4	9.49
Residents Model			
H ₀ : The person's training has no explanatory value	5.588	3	7.81
H ₀ : The professional level has no explanatory value	50.085	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	1.536	3	7.81
H ₀ : The group were one travels has no explanatory value	3.896	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	6.874	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	2.100	5	11.1
Non-Residents Model			
H ₀ : The person's training has no explanatory value	10.051	3	7.81
H ₀ : The professional level has no explanatory value	70.771	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	1.054	3	7.81
H ₀ : The group were one travels has no explanatory value	-0.725	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	21.433	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	4.822	5	11.1
H ₀ : Residence has no explanatory value	12.082	4	9.49

In bold, H₀ is rejected

Appendix 3: Ordered Probit: Cost of Living Model

	Complete Model			Residents		Non Residents		
	Coefficient	Significance		Coefficient	Significance	Coefficient	Significance	
Male	-0.435	0.025	*			-0.713	0.018	*
Vocational Education	0.448	0.164				0.830	0.079	*
Technical Education	0.,339	0.353				0.421	0.407	
Other Education	1.236	0.000	*			1.907	0.002	*
Senior Position	0.407	0.249		0.411	0.298	-0.292	0.576	
Intermediate Position	-0.290	0.423		0.430	0.349	-1.210	0.035	*
Technical Position	0.263	0.537		0.556	0.296	-0.146	0.820	
Low-Level Position	-0.795	0.084	*	0.063	0.893	-0.662	0.430	
Other Situation	0.010	0.982		6.141	0.999	-1.587	0.027	*
Car (Own)	-0.654	0.058	*			0.038	0.961	
Car (Rental)	-0.111	0.802				-0.317	0.581	
Taxi	-0.314	0.359				-0.161	0.762	
Private Bus	-1.220	0.007	*			-1.661	0.010	*
Other Transport	-0.409	0.341				-1.548	0.035	*
Portugal (Mainland)	-0.452	0.072	*			1.100	0.007	*
Denmark	-1.448	0.000	*					
Sweden	-2.322	0.010	*			-2.723	0.022	*
Germany	-0.982	0.427				-0.511	0.719	
Spain	4.657	0.999				6.523	0.999	
Chi-Square	91.797			8.401		71,130		
Significance	0.000			0.135		0.000		

*Significance at 5%

Appendix 4: Ordered Probit: Cost of Accommodation Model

	Complete Model		Residents		Non Residents	
	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Age	-0.014	0.071 *	-0.022	0.046 *	-0.014	0.460
Male	-0.044	0.794	-0.038	0.867	0.224	0.531
Vocational Education	-0.464	0.115	-0.544	0.210	-1.109	0.075 *
Technical Education	-0.532	0.114	-0.785	0.136	-0.757	0.242
Other Education	-0.037	0.887	-0.011	0.976	-0.787	0.167
Senior Position	0.966	0.001 *	0.821	0.078 *	1.211	0.023 *
Intermediate Position	0.934	0.002 *	0.900	0.053 *	0.878	0.122
Technical Position	1.031	0.002 *	1.040	0.034 *	0.310	0.637
Low-Level Position	0.085	0.817	-0.478	0.370	1.312	0.094 *
Other Situation	-0.197	0.558	-0.031	0.947	-1.444	0.076 *
Family	-0.088	0.739	-0.306	0.361	0.105	0.900
Group	0.391	0.062 *	0.500	0.091 *	0.146	0.747
Car (Own)	-0.859	0.001 *	-0.516	0.100 *	-2.751	0.003 *
Car (Rental)	0.532	0.163			0.129	0.825
Taxi	0.192	0.462	0.609	0.100 *	-0.678	0.250
Private Bus	-0.001	0.997	-0.277	0.712	-0.993	0.225
Other Transport	0.234	0.508	0.323	0.455	0.486	0.636
Airline Counter	0.291	0.132	0.412	0.085 *	-0.240	0.633
Airline (internet)	0.516	0.286	-0.475	0.529	6.762	0.999
Travel Agency (internet)	-0.661	0.096 *	-0.936	0.431	-0.948	0.154
Other	-0.711	0.199	-0.478	0.512	-1.427	0.232
Don't Know	0.723	0.223	1.307	0.099 *	0.839	0.562
Family	0.006	0.986	-0.004	0.992	-0.207	0.832
Health	-1.383	0.000 *	-1.188	0.003 *		
Tourism	-0.720	0.003 *	-0.757	0.010 *	-0.809	0.347
Portugal (Mainland)	-0.344	0.100 *			1.040	0.202
Denmark	-0.229	0.558				
Sweden	-0.341	0.708			-0.162	0.939
Germany	1.221	0.348			1.097	0.693
Spain	-7.101					
Chi-Squared	111.824		56.391		154.057	
Significance	0.000		0.000		0.000	

*Significance at 5%

Appendix 5: Tested Hypotheses for the Cost of Accommodation Model

Hypotheses – Cost of Accommodation	LRT	Degrees of Freedom	χ^2 (5%)
Complete Model			
H ₀ : The person's training has no explanatory value	4.58	3	7.81
H ₀ : The professional level has no explanatory value	148.236	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	18.556	3	7.81
H ₀ : The group were one travels has no explanatory value	4.294	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	30.537	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	6.645	5	11.1
H ₀ : Residence has no explanatory value	2.22	5	11.1
Residents Model			
H ₀ : The person's training has no explanatory value	4.325	3	7.81
H ₀ : The professional level has no explanatory value	82.452	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	12.397	3	7.81
H ₀ : The group were one travels has no explanatory value	4.277	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	15.559	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	5.449	5	11.1
Non Residents Model			
H ₀ : The person's training has no explanatory value	4.101	3	7.81
H ₀ : The professional level has no explanatory value	94.449	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	0.925	3	7.81
H ₀ : The group were one travels has no explanatory value	0.107	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	15.973	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	8.499	5	11.1
H ₀ : Residence has no explanatory value	48.558	4	9.49

In bold, H₀ is rejected

Appendix 6: Ordered Probit: Cost of Accommodation Model

	Complete Model			Residents			Non Residents		
	Coefficient	Significance		Coefficient	Significance		Coefficient	Significance	
Age	-0.013	0.073	*	-0.021	0.039	*			
Senior Position	0.995	0.000	*	0.904	0.017	*	1.473	0.001	*
Intermediate Position	0.754	0.009	*	0.829	0.058	*	0.757	0.120	
Technical Position	0,861	0.007	*	0.947	0.045	*	0.622	0.252	
Low-Level Position	0.353	0.272		-0.091	0.843		1.118	0.079	*
Other Situation	-0.192	0.547		0.177	0.685		-1.235	0.058	*
Car (Own)	-0.787	0.001	*	-0.554	0.060	*	-2.670	0.001	*
Car (Rental)	0.100	0.768					0.012	0.979	
Taxi	-0.038	0.875		0.375	0.283		-0.599	0.187	
Private Bus	-0.281	0.412		-0.392	0.590		-1.073	0.090	*
Other Transport	0.264	0.436		0.392	0.342		-0.108	0.890	
Family	0.090	0.772		0.075	0.838				
Health	-1.152	0.000	*	-1.010	0.003	*			
Tourism	-0.887	0.000	*	-0.792	0.004	*			
Portugal (Mainland)							2.031	0.000	*
Denmark									
Sweden							0.059	0.969	
Germany							0.533	0.791	
Spain							-5.841	0.999	
Chi-Squared	89.920			42.861			138.143		
Significance	0.000			0.000			0.000		

*Significance at 5%

Appendix 7: Ordered Probit: Cost of Plane Ticket Model

	Complete Model			Residents			Non Residents		
	Coefficient	Significance		Coefficient	Significance		Coefficient	Significance	
Age	-0.007	0.447		-0.016	0.378		0.000	0.979	
Male	-0.403	0.052	*	-0.471	0.201		-0.700	0.030	*
Vocational Education	0.432	0.195		0.673	0.241		0.703	0.179	
Technical Education	0.291	0.434		-0.229	0.742		0.320	0.561	
Other Education	1.187	0.001	*	1.184	0.049	*	1.835	0.006	*
Senior Position	0.423	0.246		1.661	0.012	*	-0.318	0.558	
Intermediate Position	-0.258	0.484		1.322	0.042	*	-1.247	0.037	*
Technical Position	0.199	0.649		1.484	0.045	*	-0.265	0.703	
Low-Level Position	-0.882	0.072	*	-0.338	0.652		-0.326	0.714	
Other Situation	0.017	0.972		6.182	0.998		-1.642	0.031	*
Family Group	0.325	0.362		1.345	0.093	*	-0.374	0.555	
Car (Own)	-0.795	0.040	*	-1.281	0.047	*	0.187	0.854	
Car (Rental)	-0.174	0.713					-0.367	0.597	
Taxi	-0.412	0.287		-1.019	0.173		-0.277	0.691	
Private Bus	-1.422	0.005	*	4.709	0.999		-1.874	0.027	*
Other Transport	-0.546	0.253		-0.128	0.877		-1.822	0.060	*
Airline Counter	0.161	0.520		0.046	0.898		0.021	0.966	
Airline (internet)	0.467	0.423		-0.255	0.758		6.265	0.999	
Travel Agency (internet)	-0.654	0.121		4.794	0.999		-0.384	0.460	
Other	-0.239	0.733		-1.008	0.310		4.509	1.000	
Don't Know	0.242	0.747		6.444	0.999		-1.319	0.266	
Family Health	-0.541	0.202		-0.398	0.504		-0.824	0.420	
Health	0.468	0.442		0.440	0.555				
Tourism	-0.084	0.783		0.298	0.533		0.483	0.500	
Portugal (Mainland)	-0.505	0.056	*				1.088	0.083	*
Denmark	-1.289	0.005	*						
Sweden	-2.191	0.027	*				-3.263	0.016	*
Germany	-0.236	0.863					-0.544	0.726	
Spain	4.706	0.999					6.429		
Chi-Squared	99.325			38.789			79.228		
Significance	0.000			0.029			0.000		

*Significance at 5%

Appendix 8: Tested Hypotheses for the Cost of Plane Ticket Model

Hypotheses – Plane Ticket Cost	LRT	Degrees of Freedom	χ^2 (5%)
Complete Model			
H ₀ : The person's training has no explanatory value	4.734	3	7.81
H ₀ : The professional level has no explanatory value	74.121	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	8.003	3	7.81
H ₀ : The group were one travels has no explanatory value	1.976	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	14.424	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	4.909	5	11.1
H ₀ : Residence has no explanatory value	67.142	5	11.1
Residents Model			
H ₀ : The person's training has no explanatory value	6.328	3	7.81
H ₀ : The professional level has no explanatory value	41.199	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	2.275	3	7.81
H ₀ : The group were one travels has no explanatory value	3.414	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	10.766	4	9.49
H ₀ : Way of purchase of airline ticket has no explanatory value	1.752	5	11.1
Non Residents Model			
H ₀ : The person's training has no explanatory value	2.065	3	7.81
H ₀ : The professional level has no explanatory value	34.127	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	5.542	2	5.99
H ₀ : The group were one travels has no explanatory value	1.836	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	10.69	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	5.93	5	11.1
H ₀ : Residence has no explanatory value	58.858	4	9.49

In bold, H₀ is rejected

Appendix 9: Ordered Probit: Cost of Plane Ticket Model

	Complete Model			Residents		Non Residents			
	Coefficient	Significance		Coefficient	Significance	Coefficient	Significance		
Age	-0.023	0.023	*						
Senior Position	1.058	0.003	*	1.094	0.034	*	0.903	0.042	*
Intermediate Position	0.693	0.064	*	0.875	0.125		0.308	0.501	
Technical Position	0.299	0.456		0.544	0.360		0.118	0.821	
Low-Level Position	0.368	0.401		0.224	0.699		0.534	0.404	
Other Situation	-0.026	0.950		0.268	0.643		-0.294	0.557	
Car (Own)	-1.580	0.002	*	-1.289	0.018	*			
Car (Rental)	-1.018	0.098	*						
Taxi	-1,331	0.011	*	-1.119	0.059	*			
Private Bus	-1.574	0.013	*	4.542	0.999				
Other Transport	-1.341	0.026	*	-0.473	0.516				
Family	-0.687	0.121							
Health	-0.374	0.371							
Tourism	-0.799	0.008	*						
Portugal (Mainland)	-0.578	0.042	*				2.648	0.000	*
Denmark	-2.086	0.000	*						
Sweden	-1.975	0.094	*				0.018	0.988	
Germany	-1.438	0.376					0.018	0.991	
Spain	-9.510	0.999					-6.529	0.998	
Chi-Squared	188.149			14.624			118.522		
Significance	0.000			0.000			0.000		

*Significance at 5%

Appendix 10: Ordered Probit: Cost of Transportation to the Airport Model

	Complete Model			Residents			Non Residents		
	Coefficient	Significance		Coefficient	Significance		Coefficient	Significance	
Age	-0.009	0.237		-0.011	0.320		-0.009	0.524	
Male	-0.241	0.143		-0.284	0.204		-0.073	0.798	
Vocational Education	-0.494	0.106	*	-1.808	0.000	*	0.438	0.364	
Technical Education	-0.245	0.468		-1.032	0.064	*	0.412	0.415	
Other Education	-0.294	0.245		-1.089	0.004	*	0.429	0.383	
Senior Position	0.777	0.010	*	-0.223	0.649		1.576	0.001	*
Intermediate Position	1.004	0.001	*	0.958	0.045	*	1.096	0.028	*
Technical Position	0.784	0.019	*	0.946	0.058	*	0.489	0.380	
Low-Level Position	0.381	0.307		0.458	0.395		-0.169	0.802	
Other Situation	0.083	0.809		0.166	0.728		-0.843	0.194	
Family	0.059	0.822		0.088	0.791		-0.624	0.281	
Group	0.328	0.103	*	0.759	0.008	*	-0.569	0.142	
Car (Own)	-0.458	0.067	*	-0.318	0.311		-0.459	0.485	
Car (Rental)	0.581	0.106	*				1.018	0.031	*
Taxi	0.687	0.007	*	0.840	0.022	*	1.226	0.007	*
Private Bus	-0.280	0.478		-1.302	0.129		0.204	0.719	
Other Transport	0.396	0.229		0.356	0.378				
Airline Counter	0.305	0.107	*	0.303	0.195		1.174	0.010	*
Airline (internet)	0.856	0.046	*	0.323	0.660		1.734	0.005	*
Travel Agency (internet)	-0.415	0.310		7.050	0.999		-0.474	0.341	
Other	0.225	0.684		0.625	0.408		-0.381	0.714	
Don't Know	0.296	0.618		0.155	0.847		0.747	0.488	
Family	-0.225	0.479		-0.529	0.179		0.160	0.829	
Health	-0.956	0.010	*	-1.003	0.014	*			
Tourism	-0.491	0.042	*	-0.869	0.005	*	0.639	0.289	
Portugal (Mainland)	-0.159	0.439					1.235	0.034	*
Denmark	-0.497	0.212							
Sweden	-7.451	0.999					-6.271	0.999	
Germany	1.811	0.175					2.997	0.044	*
Spain	-6.889						-5.503	0.999	
Chi-Squared	103.356			63.679			219.881		
Significance	0.000			0.000			0.000		

*Significance at 5%

Appendix 11: Tested Hypotheses for the Cost of Transportation to the Airport Model

Hypotheses – Transportation Cost	LRT	Degrees of Freedom	χ^2 (5%)
Complete Model			
H ₀ : The person's training has no explanatory value	1343	3	7.81
H ₀ : The professional level has no explanatory value	118.46	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	7.595	3	7.81
H ₀ : The group were one travels has no explanatory value	2.731	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	34.678	5	11.1
H ₀ : Way of purchase of airline ticket has no explanatory value	5.942	5	11.1
H ₀ : Residence has no explanatory value	8.933	5	11.1
Residents Model			
H ₀ : The person's training has no explanatory value	14.446	3	7.81
H ₀ : The professional level has no explanatory value	70.102	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	12.035	3	7.81
H ₀ : The group were one travels has no explanatory value	7.36	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	3.102	4	9.49
H ₀ : Way of purchase of airline ticket has no explanatory value	0.094	5	11.1
Non Residents Model			
H ₀ : The person's training has no explanatory value	1.343	3	7.81
H ₀ : The professional level has no explanatory value	61.946	5	11.1
H ₀ : The reason that motivates the trip has no explanatory value	-0.251	2	5.99
H ₀ : The group were one travels has no explanatory value	2.375	2	5.99
H ₀ : The transport used to arrive at the airport has no explanatory value	18.713	4	9.49
H ₀ : Way of purchase of airline ticket has no explanatory value	15.895	5	11.1
H ₀ : Residence has no explanatory value	147.681	4	9.49

In bold, H₀ is rejected

Appendix 12: Ordered Probit: Cost of Transportation to the Airport Model

	Complete Model			Residents			Non Residents		
	Coefficient	Significance		Coefficient	Significance		Coefficient	Significance	
Vocational Education				-1.584	0.001	*			
Technical Education				-1.131	0.032	*			
Other Education				-0.950	0.008	*			
Senior Position	0.892	0.001	*	-0.118	0.791		1.618	0.000	*
Intermediate Position	0.786	0.006	*	0.983	0.010	*	1.160	0.012	*
Technical Position	0.580	0.063	*	1.037	0.022	*	0.560	0.287	
Low-Level Position	0.156	0.620		0.842	0.066	*	-0.090	0.884	
Other Situation	0.034	0.914		0.174	0.695		-0.566	0.318	
Family Group				0.449	0.123				
				0.595	0.020	*			
Car (Own)	-0.503	0.026	*				-0.085	0.900	
Car (Rental)	0.401	0.194					1.257	0.010	*
Taxi	0.238	0.282					1.336	0.004	*
Private Bus	-1.040	0.001	*				0.340	0.547	
Other Transport	0.206	0.495					1.304	0.063	*
Airline Counter							1.140	0.009	*
Airline (internet)							1.935	0.002	*
Travel Agency (internet)							-0.684	0.150	
Other							-0.285	0.769	
Don't Know							0.390	0.697	
Family Health				-0.384	0.271				
				-0.927	0.012	*			
Tourism				-0.555	0.041	*			
Portugal (Mainland)							0.971	0.017	*
Denmark									
Sweden							-5.577	0.998	
Germany							3.145	0.003	*
Spain							-5.101	0.999	
Chi-Squared	55.932			31.508			186.141		
Significance	0.000			0.003			0.000		

*Significance at 5%