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## *WILLINGNESS TO INVEST IN MEDICAL TOURISM IN GREECE*

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### **ABSTRACT**

**Introduction :** Greece is experiencing a deep economic crisis while seeking for new sources of revenues. Nowadays, medical tourism seems to be an effective mean of economic growth which could facilitate the way out of the crisis.

**Purpose :** To investigate tourism companies' willingness to invest in medical tourism in Greece.

**Material & Methods :** A nationwide survey was carried out in 2012. The target population consisted of all the 337 5-star hotels across the country and 28 companies-members of the Hellenic Association of Professional Congress Organizers (HAPCO).

Data was gathered by emailing a structured questionnaire to the executives of the abovementioned companies. The questionnaire investigated the executives' opinion and experience regarding the characteristics of the tourism facilities of

their company, their evaluation of the existing medical tourist infrastructure in Greece and perspectives for future investment in the field.

Descriptive and econometric analyses have been performed. The willingness to invest in medical tourism (1: yes, 0: no) has been used as the dependent variable. The companies' characteristics (the degree to which the actions taken regarding tourist awareness on medical tourism are effective in attracting tourists, the personnel training on medical tourism etc.) as well as the ability of the local market to support medical tourism were used as the independent variables.

Independent variables were rated in a four category Likert Scale (1: very low - 4: very high).

For the econometric analysis of the willingness to invest in medical tourism and given that the response variable was dichotomous, logistic regression was applied.

**Results:** According to our findings, 177 hotels and 15 members of HAPCO responded and completed the questionnaire, corresponding to a 53% and 54% response rate respectively.

According to the analysis, the willingness to invest in medical tourism depends on the personnel's training on medical tourism as well as on the ability of local community to support medical tourism.

Half of executives (50%) evaluated the personnel's training on medical tourism as low and 43% responded that the ability of the local community to support medical tourism is high.

The econometric analysis indicates that the likelihood of willingness to invest in medical tourism is positively associated with personnel's training on medical tourism (OR=4.56). Additionally, the higher the ability of local community to support medical tourism, the higher the likelihood to express willingness to invest in medical tourism (OR=3.11).

**Conclusions:** High class hotels seem to be willing to invest in medical tourism, since they have the ability and the relevant infrastructure to develop it.

Obviously, medical tourism in Greece should constitute an important source of national income and consequently, an alternative for the country to exit the economic crisis.

**Keywords:** Medical tourism, investments, infrastructure, medical care, Greece.

## **INTRODUCTION**

Medical tourism, nowadays, represents a wide range of activities, including wellness and spa treatments, all kinds of cosmetic services as well as some of the most complicated medical operations. In the past, medical tourism referred to wealthy patients of developing countries who often journeyed from less developed countries to medical centres in more developed countries, where they received health care services that were not available in their countries of origin. As technology and medical know-how dissolved to emerging market countries, a new model of medical tourism – from rich to poor countries – evolved over the last two decades. Rich country tourists started to exploit the possibility of combining tourist aspects with medical ones. (Horowitz et al. 2010)

The growth of the medical tourism industry usually follows the trends of general tourism as well as those of the national and/or international economy. Also, it has been shown that medical tourism has a significant impact on countries' national economy as well as on the hospital budgets generating up to 10% of total revenue from international patients (Hungarian, 2010). Recent U.S data show an average annual rate growth on medical tourist arrivals by 4% from 1996 to 2008, a decrease by -4.2% in 2009 due to recession as well as to severe epidemiological issues and an increase by 6.9% in 2010 mostly related to the U.S economic recovery (CBO, 2010; Caballero et al, 2006; Deardorff, 2005). In economic terms, worldwide business in medical tourism grossed about \$60 bn in 2006 and it is expected to rise to \$100 bn in 2012 (Deloitte, 2008a). According to international data, emerging markets in Asia, such as India, Malaysia, Singapore, Thailand, in Europe and Latin America are some of the most attractive and low cost medical tourist destinations. At the same time, USA and European hospitals – especially in the UK as well as in Germany – are able to attract foreign patients for high quality and specialized care.( Hungarian, 2010 c)

In Greece, data on medical tourist flows are poor and consequently, its impact on the health sector and the overall economy is difficult to estimate. Furthermore, the lack of standardised and integrated information systems in the public administration across the country prohibits collection and elaboration of relevant data. Greece is among the countries with the highest demand on Mediterranean destinations and it also offers natural advantages, tourist infrastructures and expertise at a high level. However, medical tourism has been very recently prioritised in the political agenda mainly due to the economic recession and the tuff austerity measures taken in the country.

In this context, the aim of this study was to investigate tourist executives' opinions, aspects and beliefs in medical tourism and to examine factors affecting their potential investments in the country.

### **Tourism health related terminology and historical background**

“Medical tourism” or alternatively called “health tourism” and “wellness tourism” is a term that has risen from the rapid growth of an industry where people from all around the world are travelling to other countries to obtain medical, dental and surgical care while at the same time touring, vacationing and fully experiencing the attractions of the countries that they are visiting. The combination of medicine, i.e. providing complex medical services and tourism is a relatively new type of tourism showing a high rate of growth. It combines travelling with the provision of various, often serious medical services, such as operations, transplantations, plastic surgery, dental procedures, as well as other more simple medical interventions. This kind of health tourism most often involves cross border travelling, where the provision of medical services is the only or the primary motive for travelling (Connell 2006). There is a difference between the use of terms “health and medical tourism” based mainly on the type of intervention on the body (Cook, 2008). Health tourism aims to improve tourists' health status by relaxing in spa or providing alternative treatments, whereas medical tourism implies diagnosis, hospitalization and surgical operations to improve or restore health in the long term(Connell 2006).

Since the end of the 19th century, richer citizens and the elite from underdeveloped countries travelled towards medical centres in more developed countries i.e Europe, for diagnosis and treatments which were not possible to obtain in their own countries. Also, rich patients from northern countries of Europe travelled towards tourist destinations such as the Swiss Alps and on the Mediterranean coast in order to be treated in sanatoriums for tuberculosis. In the last few decades, this emigrational flow has taken a new direction. More specifically, an increasing number of patients from developed countries have been travelling to medical centres of less developed countries in order to obtain certain medical services (Horowitz et al. 2010). It should be noted that numerous factors of medical tourist demand and supply have influenced this change of direction, such as the inability to obtain health service in their own countries due to the high health care costs, the absence of public or private insurance schemes coverage, long waiting lists, the non existence of specific health technologies, contracting with well known western clinics and hospital universities and other ethical and religious issues (Connell, 2006; Horowitz et al. 2010).

## **MATERIAL & METHODS**

This is a nationwide survey conducted through the use of a questionnaire given to 337 five-star hotels in Greece as well as to 28 member companies of the Hellenic Association of Professional Congress Organizers (HAPCO).

The questionnaire, consisting of three parts, was the survey's key tool which investigated executives' opinion and experience regarding the characteristics of their companies' tourist facilities, their evaluation of the existing medical tourist infrastructure in Greece and the perspectives for future investment in the field. The first part includes respondent demographic data, the second part contains questions regarding spa tourism and the economy, while the third includes questions concerning the funding of spa tourism.

At first, a pilot survey was conducted so that the initial questionnaire would be corrected and rendered perfectly understandable. The pilot survey took place at 3 hotels and 2 member companies of the Hellenic Association of Professional Congress Organizers (HAPCO).

Our focus will be on non-cosmetic surgery and medical treatment. In this case, tourists sought sophisticated, often technologically advanced services that were typically not available in their home countries.

The questionnaire was emailed to respondents and it was sent back the same way.

Descriptive and econometric analyses have been performed. The willingness to invest in medical tourism (1: yes, 0: no) has been used as the dependent variable. The companies' characteristics (the degree to which the actions taken regarding tourist awareness on medical tourism are effective in attracting tourists, the personnel training on medical tourism etc.) as well as the ability of the local market to support medical tourism were used as the independent variables. Independent variables were rated in a four category Likert Scale (1: very low - 4: very high). For the econometric analysis of the willingness to invest in medical tourism and given that the response variable was dichotomous, logistic regression was applied.

## **RESULTS**

According to our findings, 177 hotel and 15 members of HAPCO executives responded and completed the questionnaire, corresponding to a 53% and 54% response rate respectively. Based on the descriptive analysis, the sample characteristics are presented in Table 1.

Table 1 Demographic characteristics

	Frequency	Percent
<b>Gender</b>		
Female	40	20,8%
Male	152	79,2%
<b>Age</b>		

20-35	38	19,8%
36-45	72	37,5%
46-55	76	39,6%
56+	6	3,1%
<b>Education</b>		
High school -college	12	6,3%
University	105	54,7%
Master	75	39,1%
<b>Family status</b>		
Single	41	21,4%
Married	140	72,9%
Widow	2	1,0%
Divorced	9	4,7%
<b>Position</b>		
Owner	67	35,3%
tour-operator	4	2,1%
Employee	113	59,5%
Other	6	3,2%

According to table 1 the ratio of female and male respondents is 20.8% and

79.2% respectively. 39.6% has an age between 46 and 55 years old, 37.5% is between the age of 36 and 45 years old, 19.8% is between the age of 20 -35 years old and the rest 3.1% is above the age of 56 years old. Regarding the issue of education 54.7% of the respondents have a University degree, 39.1% have a master degree and the rest 6.3% is a graduate of either a high-school or a college. On the issue of family status 72.9% of the respondents is married, 21.4% is single, 4.7% is divorced and the rest 1% is widow. Finally, 59.5% of the respondents are employees, 35.3% of the respondents own the hotel, 2.1% are tour operators and the rest 3.2% gave a different answer.

In table 2 below the level of information given to tourists regarding the medical tourism is been presented.

Table 2 Level of tourist information on issues of medical tourism

	Frequency	Percent
Little	81	45.0
Moderate	18	10.0
A Lot	49	27.2
Very much	11	6.1
I don't know/refuse to answer	21	11.7
Total	180	100.0

Table 2 shows that almost half of the responders (43.3%=10%+27.2%+6.1%) considered at least moderate the information given to tourists on issues of medical tourism while 45% considered that the amount of information is not enough. Also 11.7% of the respondents refused to answer or they did not have an opinion on the specific issue. It is obvious that the executives are divided on this issue which could be interpreted as a sign that the level of



tourist information on issues of medical tourism should and can be improved not only by increasing the quantity of the information given but improving also the quality of the information.

Table 3 Personnel training on issues of medical tourism

	Frequency	Percent
Little	86	46.0
Moderate	20	10.7
A Lot	52	27.8
Very much	13	7.0
I don't know/refuse to answer	16	8.6
Total	187	100.0

In table 3 the level of personnel training on issues of medical tourism is presented. Almost half of the responders (46%) evaluated at low level the personnel training on issues of medical tourism while 45.4% evaluated the training as at least sufficient. Also 8.6% of the respondents refused to answer or they did not have an opinion on the specific issue. It is obvious that the executives are divided on this issue which could be interpreted as a sign that the level of personnel training on issues of medical tourism should and can be improved by increasing not only the time of training but also improving the quality of the training.

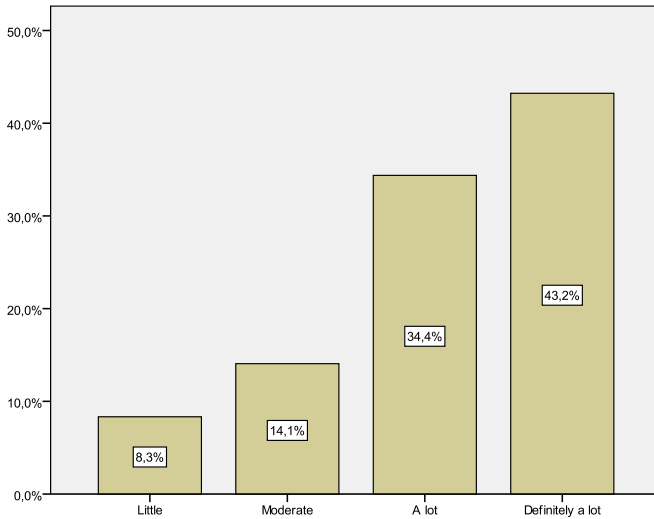


Figure 1: Ability of local community to support medical tourism

According to figure 1 that presents the ability of local community to support medical tourism it seems that the majority of the executives (91.7%) evaluated highly this ability and only 8.3% evaluated at a low level. They also stated that the local community is ready to support medical tourism if it has the chance to do so.

Table 4 Willingness to invest in medical tourism

	Frequency	Percent
No	14	7.4
Yes	153	81
I don't know/refuse to answer	22	11.6
Total	189	100.0

In table 4 below the willingness to invest in medical tourism is presented. It seems that the majority of the executives (81%) evaluated it positively while a 7.4% of the executives expressed negatively towards the willingness to invest. Also 11.6% of the respondents refused to answer or they did not have an opinion on the specific issue. It can be noticed from above that there is a strong and realistic will based on the executives' opinion for investments in the medical tourism sector.

In table 5 below the results of the econometric analysis regarding the dependent variable of 'willingness to invest in medical tourism' are been presented.

Table 5 Multiple logistic Regression (Willingness to invest in medical tourism)

	OR	Std. Err.	z	P>z	95% Confidence Interval	
<b>Ability of local community to support medical tourism</b>	3.108363	1.404452	2.51	0.012	1.282134	7.535813
<b>Personnel training on medical tourism</b>	4.56318	2.831116	2.45	0.014	1.352571	15.39484

According to table 5 results, it can be observed that the ability of local community to support medical tourism affects in a statistical significant level the willingness to invest in medical tourism ( $p=0.012$ ). The same applies for the personnel training on medical tourism ( $p=0.014$ ). Moreover the direction of influence of both independent variables to the dependent is positive.

Regarding the index McFadden  $R^2 = 0.2092$  (satisfactory values above 0.20), and the  $p_{\text{Likelihood Ratio Test}} < 0.001$ , the model can be considered at least sufficient. Moreover on the basis of Link Test, the model does not have any specifications

error since  $p_{\text{hat}} < 0.05$ ,  $p_{\text{hat}}^2 > 0.05$ . Moreover since p Hosmer & Lemeshow – Goodness of fit = 0.3022 > 0.05 the model fit very well to the data.

## **DISCUSSION**

The purpose of this study was to investigate tourism companies' willingness to invest in medical tourism in Greece. A nationwide survey was carried out. The target population consisted of all the 5-star hotels across the country and the companies-members of the Hellenic Association of Professional Congress Organizers (HAPCO).

The majority of the executives evaluated highly the ability of local community to support medical tourism and the willingness to invest in medical tourism positively. Furthermore, the personnel training on issues of medical tourism along with the tourist information given on issues of medical tourism was evaluated below average. This result indicates that the environment for investing in medical tourism is fruitful if the right choices will be done. The support of the local community which is the most important factor has a strong presence, suitable therefore environment for investments. Meanwhile the level of tourist information on issues of medical tourism has some problems that must and can be improved in the future not only by increasing the quantity of the information given but also improving the quality of the information.

The econometric analysis indicated that the likelihood of willingness to invest in medical tourism is positively associated with personnel's training on medical tourism. Additionally the higher the ability of local community to support medical tourism, the higher the likelihood to express willingness to invest in medical tourism.

These results are very important for our country, since they show that Greece, even being under great depression has the ability to overcome the obstacles and enter the international tourism competition if it makes the right choices by implementing rational national policies. One of these policies should be the development of the medical tourism. The growth of this sector will bring

prosperity to the country. Local communities and the whole Greek population are in favor of medical tourism and will support any kind of investment in this sector.

## **CONCLUSIONS**

The outcome from the whole analysis was that high class hotels seem to be willing to invest in medical tourism, since they have the ability and the relevant infrastructure to develop it. Obviously, medical tourism in Greece should constitute an important source of national income and consequently, an alternative for the country to exit the economic crisis.

Since, medical tourism has been very recently prioritised in the political agenda and given the positive willingness to invest in this field, further research is needed on their potential impact on the national economy.

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