Medical Tourism web sites: Determinants of Perceived Usefulness of Online Information Content

Vasileios Petropoulos

International Hotel and Tourism Leadership

University of Stavanger

Stavanger 2016

Universitetet i Stavanger

FACULTY OF SOCIAL SCIENCES,
NORWEGIAN SCHOOL OF HOTEL MANAGEMENT

MASTER'S THESIS

STUDY PROGRAM:	THESIS IS WRITTEN IN THE FOLLOWING SPECIALIZATION/SUBJECT:
MSc of International Hotel and Tourism Leadership	Website effectiveness, information content usefulness; online information search behavior. IS THE ASSIGNMENT CONFIDENTIAL? No

TITLE: Medical Tourism web sites: Determinants of Perceived Usefulness of Online Information Content

AUTHOR		ADVISOR:
Student number: 227426	Name: Vasileios Petropoulos	Torvald Øgaard

ACKNOWLEDGE RECEIPT OF 2 BOUND COPIES OF THESIS

Stavanger, 15/06/2016 Signature administration:

Acknowledgements

First I would like to thank my advisor, Professor Torvald Øgaard for his support and guidance.

I would also like to thank Mr. Georgios Anagnostopoulos, a marketing manager of a Medical tourism facilitator located in Greece, for his help in forwarding the online survey to the company's clientele.

I would also like to thank my wife and my parents for their support throughout my master studies.

Abstract

Medical tourism has evolved into a niche industry for several developing counties that have invested in high quality health care facilities and advanced medical expertize accompanied with the traditional tourism infrastructure, in order to attract international patients. Several factors such as increasing medical care costs in the developed nations, congestion of national health care systems, the affordability of air transportations and the development of information and communications technology have supported the growth in patient mobility. The rise of the internet in particular has supported the emergence of medical tourism facilitator web sites that support prospective medical travelers in their decision making process.

Prospective medical tourists engage in online information search behavior in order to evaluate alternative choices. A crucial aspect of their interaction with online information systems is the information retrieval and evaluation process. This study builds on general online consumer behavior in order to examine the performance of medical tourism facilitator (MTFs) in providing information that is considered important by medical travelers and to identify the level of influence of various information content factors on the overall perceived usefulness of information. Furthermore the proposed model integrates subjective attitudes and expectations towards medical tourism as antecedents of the information evaluation process.

The findings of the study indicate that word of mouth from peer patients is the most important determinant of the overall usefulness perceptions followed by information concerning the quality and effectiveness of the treatments. The effect of the above factors on perceived usefulness of information is also shown to be influenced by experiential/hedonic orientation towards medical tourism consumption.

Key words: *Medical tourism, online information search behavior, perceived usefulness of information.*

Contents

Chapter I. Introduction

1.1 Introduction

Medical tourism has been defined as the phenomenon where people travel abroad in order to obtain elective or obligatory medical, dental and surgical treatment while engaging in conventional holidaymaking (Connell, 2006). Lower costs of treatment and high quality medical care services have been frequently mentioned in the literature as the main factors influencing patients from developed nations to travel to the developing countries in order to receive medical care (Altin, Singal, & Kara, 2011). Researchers have characterised medical travel as "first world treatments in third world prises" pointing out the competitive economic benefits and the maximisation of utility that several medical tourism destinations can produce (Singh, 2013). Other studies indicate the negative effects that medical travel can have on national healthcare systems for both origin and destination countries. Poor regulatory frameworks and mal-practise policies combined with the possibility of long term harmful effects on patients' wellbeing caused by post treatment complications can lead to high costs for home systems (Hanefeld, Smith, Horsfall, & Lunt, 2014). Furthermore the rise of the private health sector in destination countries can lead to resource absorption and brain drain creating inequalities (Connell, 2013).

Studies posit that medical tourism is mainly dominated from individuals who travel overseas on their own volition and pay out of pocket, thus indicating that prospective medical travellers are called to make decisions in terms of destination and health care service provider (Connell, 2013). Crooks, Kingsbury, Snyder, and Johnston (2010), postulate that the decision making process of travelling patients is an important component of the medical tourist behaviour and indicate that motivation (intrinsic and extrinsic) and information from family, friend,

physicians and marketing channels are important determinants influencing destination choice. Other studies on medical tourist's behaviour have employed the Theory of Planned Behaviour in order to examine influences on medical travellers' behavioural intentions and showed that beliefs concerning benefits and sacrifices, subjective norms and beliefs towards one's capability to improve their health by engaging in medical tourism are important components of the decision making process (M. Lee, Han, & Lockyer, 2012).

Another important factor influencing medical tourists' decisions is the information they receive, concerning alternative destinations and potential risks and benefits related with each destination and health care service provider (Crooks et al., 2010). Heung, Kucukusta, and Song (2010), postulate that the Internet is an important distribution channel and information platform, facilitating the decision making process of medical travellers. Other researchers suggest that online medical tourism facilitator web sites that aid prospective medical tourists in choosing a destination and provide area support services have emerged and play an important role in the development of the medical tourism industry (Cormany & Baloglu, 2011; Mohamad, Omar, & Haron, 2012). The decision making process of prospective health travelers is facilitated and influenced by their interaction with such information systems. Hence medical tourists' online information search behavior is an important concept which relates to the broader concept of health informatics and is situated within the wider field of research into online consumer behavior and information search process (Lunt, Hardey, & Mannion, 2010).

1.2 Research approach

Seminal conceptualizations concerning information search behavior and information processing, have placed the rise of an information need in the center of the information searching, retrieval and evaluation process (T. D. Wilson, 1997, 1999). When individuals perceive an information need there is an underlying motivation that prompts the initiation of

information seeking. Theoretical approaches to information search behavior employ economic perspectives of utility maximization, psychological perspectives which focus on motivations and situational variables and cognitive mechanisms for information processing in order to explain various aspects of information search behavior (Xia & Monroe, 2005).

Task theory provides another perspective in explaining information seeking and evaluation processes. Individuals considering the task at hand, they require information inputs that represent the stimulus object. In that sense researchers indicate that the way a task is perceived and subjective attitudes towards the task outcome lead to the formulation of subjective mental models that guide the information retrieval and evaluation process (Vakkari, 2001; Wood, 1986).

Studies have examined the concept of information relevance and indicated that subjective beliefs and expectations concerning a task's outcome influence the attitudes towards the provided information (Borlund, 2003). In the context of online information search behavior, researchers have indicated the need to understand the end user's generic task and suggest that providing information that fit to his/her specific motivations and expectations is an important determinant of attitudes and behavioral intentions towards the information system (Goodhue & Thompson, 1995; Loiacono, Watson, & Goodhue, 2007). Other researchers apply expectation-disconfirmation models in the investigation of the online information search behavior and suggest that understanding what online users need is an important factor of the information systems success (Bhattacherjee, 2001b; McKinney, Yoon, & Zahedi, 2002).

General literature on informatics and online consumer behavior includes plenty of quantitative studies measuring user's perceptions and attitudes towards the information content provided by web sites and the influence that those attitudes have on the adoption of information systems (Petter, DeLone, & McLean, 2008; Venkatesh, 2000). Other researchers

suggest the investigation of certain utilitarian and hedonic/experiential consumer values and expectations as important user related factors that influence evaluations of system attributes (Batra & Ahtola, 1991; Bridges & Florsheim, 2008). In that sense the level that medical travelers' expectations and consumption orientations towards medical tourism influence their information retrieval and evaluation process can be investigated as an important dimension of their online information search behavior. Based on the approaches of consumption suggested by Holt (1995) it could be argued that medical tourism services can be consumed as experience, as integration or as classification. Even though these approaches may not be able to tap accurately on the nature of medical tourism, they can be extended to reflect general experiential/hedonic, utilitarian and self-production orientations (Andrews & Drennan, 2007). Sources of motivation for prospective medical tourists identified by the literature are certain utilitarian goals related to specific health conditions and treatment outcomes as well as more experiential/hedonic prompts reflecting traditional leisure, aesthetic and sensory attributes of the tourism experience (Hanefeld et al., 2014; Lunt & Carrera, 2010).

1.3 Problem and Purpose

Researchers have pointed to the importance of understanding how travel patients use online information, how they compare different sites and how the information influence their decision making (Lunt et al., 2010). Information quality is an important dimension which strongly affects health decisions. Researchers have explored health information on the web and have highlighted that quality was problematic in a large proportion of web sites with some web pages presenting false and misleading content (Eysenbach, Powell, Kuss, & Sa, 2002). Furthermore, studies are shown to employ a variety of methods and quality evaluation criteria and hence impede the establishment of a rigorous methodology and the development of a commonly

accepted framework of health information evaluation (Eysenbach et al., 2002). Empirical findings indicate a gap between what medical professionals perceive as important information and the actual information needs of patients. Henderson and Chien (2004), report that physicians consider as important information, detailed descriptions of procedures whereas patients undergoing surgery are more concerned with details on their recovery process and functionality after the surgery. A field study of how individuals retrieve and appraise health information from the internet reported early indications that even though credibility and trust of the explored web sites was perceived as an important issue from participants, the observation of their actual behavior showed a variety of information retrieval strategies and no particular credibility assurance techniques (Eysenbach & Köhler, 2002).

In the context of medical tourism studies report that the internet is not always a trusted source of information. Specifically the type and quality of information provided by various MTFs (Medical Tourism Facilitators) and medical travel web sites varies and researchers call for further investigation and empirical findings explaining how prospective medical tourists use the information provided by such web sites (Lunt & Carrera, 2011). Studies have shown that the content of medical tourism broker web sites includes persuasive appeals and new media features in order to attract prospective medical tourists but the medical risks involved with certain procedures are usually downplayed (H. Lee, Wright, O'Connor, & Wombacher, 2014). Research has indicated that treatment complications or malpractice can result in dangerous health outcomes that may affect health care systems in home countries since it is the home system that a medical tourist will rely on in the long term (Hanefeld et al., 2014).

The purpose of this study is to explain medical tourists' online information search behavior and specifically to propose a model of determinants and antecedents of the information retrieval and evaluation process. The subsidiary research questions that will be investigated in order to reach the research objective are:

- *Which information attributes provided by medical tourism web-sites are more important for prospective medical tourists?*
- *How subjective attitudes and expectations towards medical tourism consumption influence the online information content evaluation process?*

1.4 Thesis Structure

In order to provide an overview for easier navigation the following figure *(figure1)* presents the structure of the thesis.

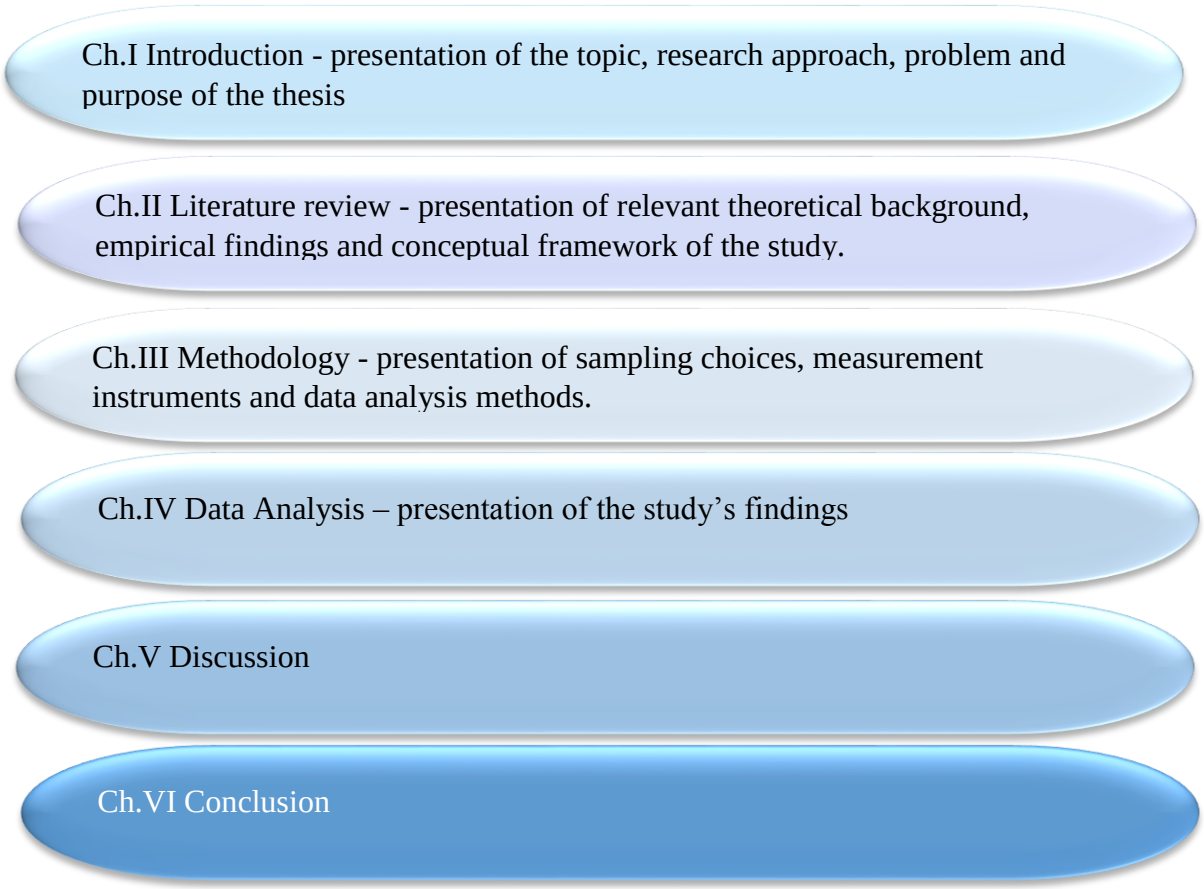


Figure 1. Thesis Structure.

Chapter II. Literature Review

2.1 Medical Tourism Phenomenon

The phenomenon of individuals/patients travelling overseas in order to obtain medical, dental and surgical care while engaging in conventional holiday making in a traditional way has been emerged into a niche industry of the general tourism domain (Connell, 2006).

Other definitions of medical travel emphasise on the comparative cost advantage of travelling to various destinations in order to receive medical care and simultaneously exploit tourism opportunities offered in those destinations (Awadzi & Panda, 2006). Researchers argue that individuals' volition to engage in medical travel is an important element that should be included in the definition of medical tourism. In that sense a distinction must be made between patients that are referred to offshore health care service providers by their home physicians and national health care systems (Connell, 2013). Researchers argue for different definitions of medical travel to apply for various medical tourism importing countries. Lunt et al. (2010), distinguish patient mobility within Europe from that of US citizens in the sense that in the European context national health systems reimburse patients for medical treatment services received in other European countries. Crooks et al. (2010), suggest that evaluation of alternatives and decision making are key issues pertaining the medical travel experience especially for prospective medical tourists that are solely responsible for planning their trip, choosing medical service provider and making the necessary related arrangements.

From the supply side of view studies define medical tourism as the effort of various destinations to attract international patients by promoting their high quality medical infrastructure accompanied by traditional leisure and tourism amenities (Goodrich & Goodrich, 1987). Researchers that have studied the industry and the medical tourism market structure have focused on influential factors such as governmental policies, bilateral network building and information technology infrastructure (Sarantopoulos, Vicky, & Geitona, 2014). In general

there is a debate among researchers concerning what really constitutes medical tourism. Connell (2013), reports on the heterogeneity of various approaches towards medical tourism and attributes this complexity on the variability of motivations, activities and travel behaviors of international patients. Individuals being expatriates may travel in the countries of origin for medical purposes whereas other patients may travel short or longer distances for minor or serious elective medical treatments. Thus sub-categories of medical travel with different scopes and situational characteristics require different conceptualizations and consequently adopted research approaches (Connell, 2013).

Another central issue in the academic debate on the nature of medical tourism is the term itself and the pleasurable and leisure behaviors that are related to traditional tourism activities. Connell (2013), reports that a major portion of the medical travel literature refutes the existence of leisure behaviors and expectations and focus on the uncertainty, the physical strain and the various psychological and mental states related to sickness. On the other hand literature examining medical travelers' experiences and perceptions indicated the vacation aspect as an important factor influencing medical tourists (Gan & Frederick, 2013).

Medical tourists are driven by several factors to travel for health care treatment. Researchers indicate the rise of medical costs in the developed nations, long waiting lists, unavailability of certain treatments, the desire for privacy/confidentiality and the easier exchange of information through the internet as main components of patient mobility (Altin et al., 2011).

Studies report that patient mobility was traditionally directed towards the more developed countries in search for high medical expertise and advanced medical technology, in the recent decades though this mobility has shifted towards the developing world where several countries have invested in high quality medical services offered in considerable lower costs (Bookman & Bookman, 2007; Horowitz, Rosensweig, & Jones, 2007).

This investment in medical infrastructure has aided the development of the medical tourism industry for several destinations such as Singapore, Thailand, India and South Africa (Connell, 2006, 2013).

Medical tourism has been asserted to a 60 billion dollar industry which involves governments, medical service providers and support service companies such as medical tourism facilitators (Altin et al., 2011). Gill and Singh (2011), report that 43% of US patients will be likely to receive care abroad by 2017. Other studies have reported that approximately 50.000 medical tourists visit UK per year and that 30% of those seek cosmetic surgery and 18% aim to undergo elective surgery such as hip repair treatment (Lunt & Carrera, 2010). However there seems to be little agreement among researchers concerning the economic figures and the reported statistics concerning the true economic potential of the medical tourism industry.

2.2 Medical tourism conceptualizations

The literature has indicated major factors the led to the growth of patient mobility such as the increased medical services costs in the developed nations, the increasing number of uninsured population, the development of quality medical infrastructure in developing countries and the reduced air transportation costs (Keckley & Underwood, 2008). Furthermore the advancement in communications technology and the increasing access to the internet provide an information highway for medical tourism service providers and destinations enabling them to facilitate the promotion of their services and the interaction with prospective medical travelers (Cormany & Baloglu, 2011; Lunt et al., 2010).

Important elements in the concept of medical tourism are the market structure and the description of the industry. Caballero-Danell and Mugomba (2007), highlight various stakeholders such as target groups, operators, communication channels and intermediaries as key players shaping the medical travel market. The authors also indicate several social issues,

customer benefits, risks and legal issues as important components to be taken under consideration. Other researchers approach the medical tourism phenomenon from the demand side of view and posit important determinants of medical traveler's decision making process (P. C. Smith & Forgione, 2007). Political and economic conditions, climate, legislation and policies are shown to influence the choice of destinations and factors such as hospital accreditation and quality of healthcare services influence the decision concerning medical service provider (P. C. Smith & Forgione, 2007).

Another important component of medical travel is the marketing and distribution channels that link destinations and providers with consumer/patients. These include medical tour operators, representatives of offshore health care providers within the medical tourism importing countries and word of mouth (Caballero-Danell & Mugomba, 2007).

Heung et al. (2010), proposed and integrative framework which pertains both the demand and the supply side of the medical tourism market and that employs an holistic perspective of medical travel, presenting factors and dimensions that can be ranked differently depending on the medical need and the type of treatment sought for. Heung et al. (2010), build on motivation theory and suggest that several "push" and "pull" factors motivate patients to engage in medical travel, factors which reflect their medical needs and their expectations concerning destination attributes and health care service characteristics. Another central concept indicated in this later study is the importance of the advertising and promotional channels such as the internet.

Potential medical tourists are likely to engage in online information search behavior in order to evaluate alternatives and assess the outcomes and benefits of their prospective destination choice, facilitating in that way their decision making process (Gursoy & McCleary, 2004; Heung et al., 2010). Thus an important area related to medical tourism destination choice that influences travel patients' decision making is the field of internet marketing.

2.3 Internet Marketing

Internet marketing has been defined as the development of online activities which aim to build and maintain customer relationships, to facilitate the interaction between buyers and sellers and to promote the exchange of products and services (Ngai, 2003).

In the context of medical tourism promotion both the elements of tourist destination and health services communications are included. The recent developments in ICT (Information and Communication Technologies) have highly influenced the growth of the medical tourism industry (Mohammad Jamal, Chelliah, & Haron, 2016). The most common external source of information for prospective medical tourists besides doctor referrals and word of mouth from friends and family is web advertising and online marketing (Jotikasthira, 2010b).

The traditional patient doctor relationship seems to be virtually replaced as patients use online information about hospitals and physicians (E. V. Wilson & Gustafson, 2003). A study of medical tourism marketing in the global market suggested that patients make decisions based on online information search and highlighted that appealing web site layouts and user friendly interfaces are vital system characteristics for online marketing strategies to be effective (Turner, 2010). The importance of formulating efficient internet marketing strategies is also supported by another study of Canadian medical tourism broker web sites, indicating a high turnover rate in the industry with a large proportion of those facilitators no longer operating (Turner, 2011).

An important component of medical tourism online marketing communications is the development of web spaces and online forums providing user/patient generated content in order to best inform the decisions of prospective medical travelers who seek health care abroad. This patient centered communication strategy can create a competitive advantage for medical tourism destinations and service providers. Eugene (2013), found that patients relied on peer-

patients' experiences in order to gather information concerning the Malaysian medical tourism industry. Another study indicated the influence of word of mouth in trust attitudes and behavioral intentions towards visiting Turkey for medical treatment (Abubakar & Ilkan, 2016).

Various types of internet marketing are used by DMOs (Destination Marketing Organizations), national tourism organizations, MTFs (Medical Tourism Facilitators) and medical travel agents. Some of the major types are presented below:

Search Engine Optimization (SEO): SEO is a technique that uses certain key words from corporate web sites in order create semantic connections between search terms and those key words. As a result search engines will display a particular web site among the first results on the first search return page, hence more traffic is directed in the web site (Nguyen & Wang, 2011).

Email Marketing: Clientele databases can be used in order to promote medical tourism destination and service providers. Nguyen and Wang (2011), conducted a qualitative study to investigate the effectiveness of DMOs and indicated that e-mail marketing campaigns are essential online marketing practises for tourism destination promotion that have been widely accepted as a communication tool for tourists and businesses. Chaffey, Ellis-Chadwick, Mayer, and Johnston (2009), report certain advantages of e-mail marketing such as lower costs coupled with the possibility to target a specific consumer group and the bilateral communication which allows for customer feedback that can be used to improve service attributes and customer satisfaction.

Social Media Marketing: Social media have emerged as the most frequently used marketing strategy. National tourism organizations and DMOs can create online platforms were experienced and potential travellers can interact and share their experiences. Prospective travellers searching online for the purpose of planning their trip are more likely to be directed in social media sites as

the later appear to be a substantial part of search engine returns (Xiang & Gretzel, 2010). According to the Theory of Planned Behaviour (Ajzen, 1991) behaviours are highly influenced by word of mouth. Jalilvand and Samiei (2012), found that electronic word of mouth and experiences shared on social media are effective marketing tools. Researchers studying the content of medical tourism facilitator web sites report that patient testimonials are a key component of such web sites (Cormany & Baloglu, 2011). Lu, Wu, and Chen (2014), investigated how service quality and corporate image influence the perceived value of medical travel and indicated that word of mouth is an important moderator of this relationship. However problems do emerge from the fact that in most of the cases regulation and control on what is being published in online communities and social media is limited. The abundance of reviews published in such web spaces increases the cognitive costs of travellers in a sense that more effort is requested in order to judge their quality thus leading to an information overload that can negatively influence the information search behaviour of prospective travellers (H. A. Lee, Law, & Murphy, 2011)**.**

The types of online marketing discussed above are prominent strategies used in medical tourism. Generally, existing literature reveals that online marketing is given considerable focus by medical tourism DMOs and when used by customers, it may influence their consumer behaviour and their decision making process in terms of destination choice.

2.4 Consumer Behaviour

Understanding how customers think and predicting consumers' behaviour has been pointed out by researchers as a key issue in developing marketing strategies and promoting customer satisfaction, loyalty and consequently corporate success (Johnson & Gustafsson, 2006).

Consumer behaviour has been defined as the processes that individuals or groups apply in order to select, purchase, use and dispose products, services or ideas during their needs gratification effort. It reflects the consumers' rational behind product or services usage as

well as the underlying mechanisms pertaining the decision making and the selection between alternatives (Swarbrooke & Horner, 2007). Researchers have highlighted that during the pre-purchase and post-purchase phases the consumer goes through a psychological process of identifying his or her needs and evaluating the gratification that is produced by obtaining and consuming a product. During this process there are significant psychological factors in play such as motivations, perceptions and belief systems (Blackwell, DSouza, Taghian, Miniard, & Engel, 2006). Research has indicated that evaluation of alternatives in the housing market context is determined by a weighted sum of the life values that each alternative can lead to (Lindberg, Gärling, & Montgomery, 1989). In that sense examining solely the purchasing reasons may not be adequate as the wider consumer feelings, perceptions, ideas and experiences are subject to constant changes influenced by cultural, social, personal and psychological factors (Kotler & Keller, 2005).

Kotler and Keller (2005) highlight culture as an important determinant of consumer behaviour. Empirical findings concerning factors influencing consumers' ethical judgements suggest that cultural values and ideas affect ethical values and attitudes towards various consumer practises as well as the relationships between sellers and buyers (Vitell & Muncy, 1992). Kotler and Keller (2005) also suggest several social and demographic factors such as social class, social rolls that a person assumes, reference groups, family, age, economic status, self-image and personality traits. According to Kotler and Keller (2005) there are five steps in the consumers purchasing process. The first step is "Problem recognition", in this phase consumers become aware of a problem or a need. During the next step that of "Information seeking" the rise of the need drives the consumer to find more information on how to attend those needs. In this effort various sources of information are consulted which are categorized in four categories: personal sources such as family and friends, commercial sources as sales promotions, marketing communications and advertising, public sources as

mass media and experiential sources where the consumer engages products and services examining their attributes and the produced outcomes via actual consumption. The third step is to "Evaluate the alternatives" that have been identified in the previous phase and finally through the "Buying decision" phase a choice is made and consequently the consumer makes judgements of satisfaction by the usage of the product.

Similar theoretical models have been developed by other researchers, such as the seven stages consisting the Consumer's Buying Decision Process model (BDP), namely: need recognition, search for information, pre-purchase evaluation of alternatives, consumption, post consumption evaluation and divestment (Blackwell et al., 2006). This model represents a continuum where the consumer acts differently as he or she progresses from the pre consumption to the post consumption stage. These later stages of post consumption experience are mainly determined by an interplay of cognitive and affective constructs such as satisfaction and emotional responses towards service and product attributes (Westbrook & Oliver, 1991).

The importance of attitudes in reflecting consumer preferences and ultimately predicting choice is eminent throughout the consumer behaviour research literature (Assael, 1984). But relying on preference measurement may not be an efficient predictor of consumer behaviour in a sense that an individual may hold back on a purchase decision which is based solely on preference. Attitudes according to the Theory of Reasoned Action are based in an "*expectancy-value*" model which posits the existence of a functional combination of salient beliefs that an individual holds towards potential outcomes of a behaviour adoption and how those outcomes are valued by the consumer (Ajzen & Fishbein, 1980). In the context of medical tourism, a study examining attitudes of Chinese medical tourists' towards Taiwan as a medical tourism destination reported that perceived benefits such as medical service quality and enjoyment from

the one hand and perceived sacrifices such as risks influence the perceived value and the customer's intention to travel (Wang, 2012).

Oher researchers extent this notion of the subjective attribute evaluation held by consumers to include a value expressive function of attitudes in allowing individuals to connect specific product or service attributes with the expression of their self-concepts (Katz, 1960). Considering the above conceptualizations it can be assumed that the level of the perceived importance attached to various attributes and benefits of a product or a service strongly affects the individual's evaluative judgements and consecutively the behavioural intentions. Research supports that appreciated product and service attributes become mentally associated with brands and these memory associations can lead to positive or negative attitudes towards the brand and more or less favourable reactions to the brand's marketing communications mix (Keller, 1993). However in a competitive environment brands of the same or similar product/service category may share those associations, in such a case it is the strength of relative attitudes that can be more predictive of loyalty and repeat patronage behaviour. Brand attitudes that are more prominent in consumers' memory or attitudes with more positive affective connotations may result in stronger relative attitudes and heavily affect the consumer's decision (Dick & Basu, 1994). A study of international patients in Thailand reported positive relationships between service quality attributes, brand trust and satisfaction indicating the effect of those attitudes on behavioural loyalty and the intention to reuse the services of private medical service providers in Bangkok (Lertwannawit & Gulid, 2011).

In the context of medical tourism, consumers and prospective health travellers share an additional characteristic that of being patients, hence there are several aspects of health behaviour that integrate in the overall travel behaviour. Studies on patients' health behaviours indicate that in a large proportion of the literature of patients' behaviour motivations are reported as weak predictors indicating the probability of other factors being more influential

(Carter & Kulbok, 2002). Weinstein (1993), tested competing theories of health protective behaviour and pointed to issues such as the perceived likelihood, the severity of health outcomes, the perceived ability to control health issues and an interplay between risk factors (which directly threaten ones well-being) and non-risk drivers such as emotional experience, self-esteem and social approval that may influence patients actions. These issues stressed by Weinstein (1993) have occupied other researchers as well. The notion of self-efficacy to control ones health can be reflected in the concept of patient empowerment (A. C. Johnston, Worrell, Di Gangi, & Wasko, 2013) and in the construct of health locus of control which directly reflects to an individuals' perception of capability to control their personal health (Moshki, Ghofranipour, Hajizadeh, & Azadfallah, 2007). Markley Rountree and Davis (2011), indicate how risk tolerance attitudes can be influenced by factors such as self-concept and social approval in the context of high risk aesthetic surgery. Hence considering such subjective attitudes of international patients can provide insight in the formulation of medical tourist's behaviour.

Another important concept related to consumers' behaviour is the way individuals respond to various consumption stimuli and what "sub" behaviours they adopt while consuming. Researchers have posited that individuals consume in various ways directed by intrinsic and extrinsic motivations, social, economic and psychological factors. Holt (1995), observed various practises performed during consumption and proposed that people consume as an experience, as integration and as classification. These metaphors reflect various mental modes and personalized behaviours and practises that individuals undertake prior, during and post the consumption process. According to Holt (1995), consuming as experience refers to the subjective and emotional states and reactions towards consumption objects. Consuming as an integration reflects utilitarian and self-production values in the sense that consumers obtain consumption objects as a mean to either utilise specific product/service attributes or with the

purpose of self-production and extension, linking in a way objects with self-identity. The classification metaphor refers to consumption practises that distinguish or affiliate individuals within social and cultural groups.

Other researchers have also suggested experiential/hedonic and utilitarian incentives directing consumer behaviour. Hirschman and Holbrook (1982), have examined the subjective and aesthetic dimension of consumption and indicated emotions and affective reactions as distinct to other cognitive mechanisms that are in play during the various stages of consumption. Regarding utilitarian orientations towards consumption, utility maximization and functionality evaluations have been highlighted as key dimension related to behaviours adopted by consumers with specific shopping goals who engage in consumption activities in order to satisfy specific functional needs (Batra & Ahtola, 1991; Childers, Carr, Peck, & Carson, 2001).

2.4.1 Experiential/Hedonic Motivations

General literature on consumer behaviour suggests that experiential and hedonic motivations reflect to individuals' perceptions of product or service characteristics that can stimulate feelings and emotional change (Sheth, Newman, & Gross, 1991). In the medical tourism context researchers have indicated that there is a segment of medical travellers, such as those seeking cosmetic surgery abroad, who evaluate both medical treatment and traditional experiential/hedonic benefits of their trip (Connell, 2006). Thus it can be asserted that consumption driven by hedonic motivations underlines those dimensions of the consumer behaviour relating to multi-emotive and fantasy aspects of the experience of a certain medical tourism product.

Denys and Mendes (2014), studied tourist behaviour and destination choice process and found that experiential values are major determinants of tourist behaviour, suggesting that hedonic

consumption behaviours are related to the willingness to spend more in order to acquire pleasurable experiences. Concerning the implications that these hedonic/experiential motivations have in the measurement of consumer behaviours, studies have argued that the irrationality that underlies those dimensions must be taken under consideration especially when behavioural models that are based on rational mechanisms are applied in the context of tourism destination choice (Gnoth, 1997). Hence, there is need for a better understanding of hedonic motivations and how they influence the choice of destination for medical tourism, which is one of the research objectives of this study.

2.4.2 Utilitarian Motivations

Utilitarian motivations are related to the functional utility of the attributes of tourism products and their functional benefits (Sheth et al., 1991). Utilitarian motivations serve to practically influence the tourist's decisions making processes regarding the tourism product. As enshrined in the economic theory of utility requirement, functional value is one of the major drivers of decision making (Loewenstein, 2000). Consumers who are motivated by utility will always look for information about the services offered by a certain medical tourism destination, the certification and the accreditation of the perceived clinic and the qualification and ability of the physician and other specialised doctors to solve their medical problem (Lunt et al., 2010). Such patients, using facilitator websites, will search for functional cues which in turn, inform their decision making.

In medical tourism, functional value can be acquired of a destination in terms of human made aspects such as medical services (R. Smith, Álvarez, & Chanda, 2011). Quality, comfort, safety, costs, variety, reliability are the most common utilitarian motivations when making travel destination choices (Connell, 2013). According to Denys and Mendes (2014) economical holidays and receiving value for money have been found to be independent

utilitarian factors driving destination choices. This supports models previously developed by (Petrick, 2002) and (Sweeney & Soutar, 2001) on the influence of functional values on the choices made by tourists.

2.5 Destination Choice

The underlying mechanism and the rational that consumers apply during the evaluation and selection between alternative choices is a central element of consumer behaviour and decision making (Swarbrooke & Horner, 2007).

Making a choice about a destination can be explained by motivation theory and the hierarchy of human needs (Maslow, 1943). Tourists are initially motivated to undertake a trip by "*push factors*" such as desire to escape or to experience something new and they also consider "*pull factors*" which reflect various attributes of potential destinations that are evaluated by potential travellers in terms of their ability to satisfy their specific needs (Dann, 1977, 1981). Choosing for a destination is a decision making process that is characterized by a large amount of uncertainty for the reason that potential tourists are called to make a choice considering various destination attributes that are either unknown prior to the actual experience or that may change and thus represent only probabilities of utilities to be acquired (Mansfeld, 1992).

Travellers' choice of destination has been conceptualized as a multistep process in which potential tourists initially form subjective beliefs about various destinations by passively encountering information, consequently once the decision to undertake a trip is made consumers start to develop a set of potential alternative destinations based on situational constraints such as time and money. Lastly the initial attitudes towards the alternative destinations tend to change as consumers actively search and solicit information, during the

final decision making, in order to identify attributes of those destinations that can most efficiently satisfy their needs within the situational constraints (Um & Crompton, 1990). In that sense the situational constraints and the active information search process can alter the initial preferences of potential tourists. The model developed by Um and Crompton (1990) suggests that "external inputs" such as stimuli created by social interactions and marketing communications raise the awareness of various alternative destinations which are then reduced into an evoked set.

Choosing a destination is a decision making process that can be approached by various perspectives. Mansfeld (1992), proposed two theoretical approaches as a framework, the traditional deterministic approach and the behavioural probabilistic approach. The former suggests that consumers are driven by an economic, benefit maximization rational and their choices are based on utility and attractiveness judgements. However such utilities of a destination as quality of service, quality of accommodations or attitude of the hosts are sometimes unknown prior to the actual experience and thus represent only probabilities of utilities to be acquired, in that sense the probabilistic approach may be more efficient in the study of destination choice. In an effort to reduce this uncertainty consumers are likely to engage in an extended information search and evaluation of various alternatives (Crompton, 1992; Mansfeld, 1992).

In the context of medical tourism, studies have investigated the factors that influence the motivations of patients to travel abroad for treatment and have suggested important motivators beyond the most frequently cited cost benefit (Connell, 2006). Singh (2013), examined US patients that engage in medical tourism and reported that primary doctors' recommendations, high quality medical services and facilities, hotel accommodations, food and beverage quality and general tourism supply and infrastructure of destination countries influence the decisions of prospective health travelers. Jotikasthira (2010b), posits that medical tourists are motivated

to find high quality medical services at affordable costs and asserts quality and cost as two crucial factors influencing prospective medical tourists' decisions. The literature on travel behavior suggests that when tourists are evaluating alternatives they use decision rules that are classified into: a) compensatory rules and b) non compensatory rules meaning that certain destination attributes are strongly sought for and are unnegotiable pre-requisites for potential visitors whereas other factors can be merely overlooked (Perdue & Meng, 2006). Jotikasthira (2010b), argues that medical tourists are likely to compromise for higher cost but not for health care quality. This can be supported by a study examining marketing messages and communications of the medical tourism in India (Crooks, Turner, Snyder, Johnston, & Kingsbury, 2011), highlighting that even though low cost is the most cited motivational factor for potential medical travelers, persuading patients and their families that a medical service provider is of high quality and that treatment procedures followed comply to "western" standards is crucial for the effective promotion of medical tourism destinations in Asia. Hence it can be deducted that the perceived risk travelling patients associate with receiving medical treatment abroad, heavily affects their decision making process. In order to reduce uncertainty and risk perceptions medical travelers turn to both internal information sources such as past experiences and personal knowledge and external information channels such as physicians, friends, family and marketing communications (Jotikasthira, 2010b). Lunt et al. (2010), indicate that the main sources of external information search for medical tourists are doctors and word of mouth from other patients. Studies in the general tourism context indicate that tourists that tend to adopt riskier travel behaviors are more likely to seek information from travel agents (Bieger & Laesser, 2004). Medical travelers primarily being patients have particular information needs comparing to traditional leisure tourists, thus their information search behavior is likely to be affected by those needs.

2.6 Online Information Search Behavior

Information search and acquisition processes are key issues pertaining the consumers' decision making and have been conceptualized as integral elements of consumer behaviour models. Specifically information search has been indicated as a necessary step occurring after the identification of purchasing goals and before consumers make their final decisions. This approach assumes that consumers, knowing what product or service they want, they conduct a direct search of alternatives in order to find the appropriate brand (Xia & Monroe, 2005).

The information behaviour concept includes direct and purposive information seeking once a need for information rises, passive or casual information acquisition activities such as browsing or glimpsing where one encounters information that might be of interest unintentionally, as well as other intentional behaviours that do not involve seeking such as information avoidance (Case, 2007, p. 5). Conceptualizations of information behaviour have described it as a wider notion pertaining the various responses to information encounter such as processing, information use and transferring, as well as reflecting those activities that a person engages when a need for information rises (T. D. Wilson, 1999).

T. D. Wilson (1999, p. 249), defines information as "*…those activities a person may engage in when identifying his or her need for information, searching for information in any way and using or transferring that information*". In the centre of his model (*figure1*) lies the notion of information need.

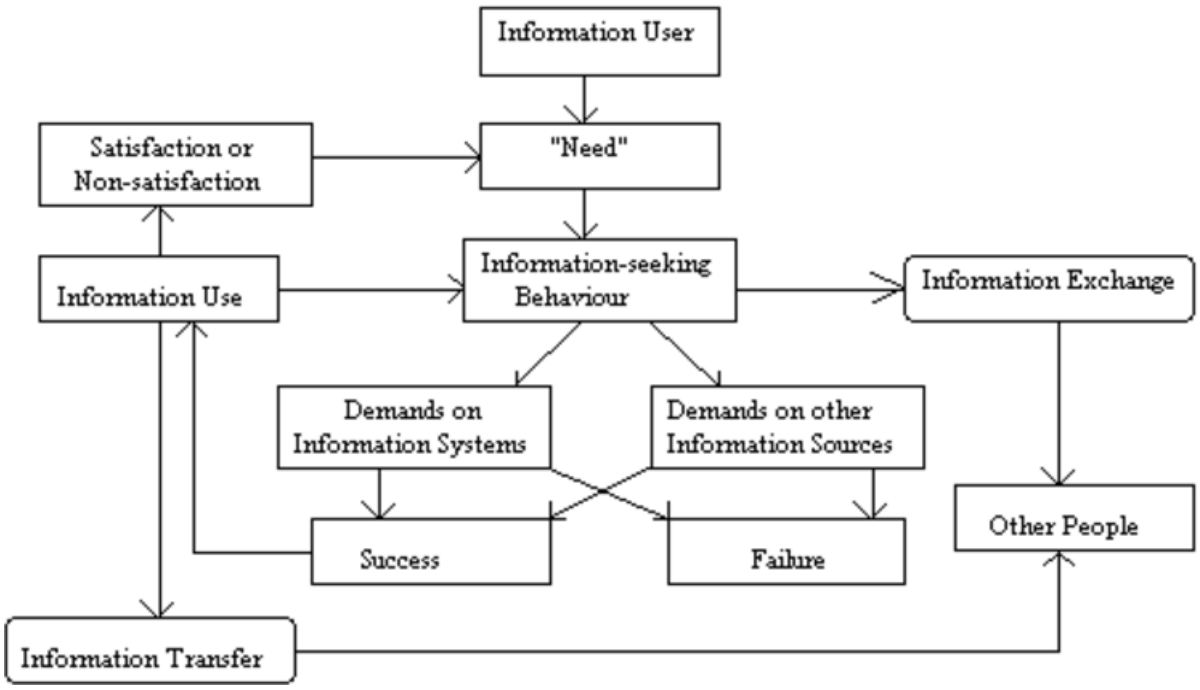


Figure 1: Wilson's information search behaviour model **(Source:** Wilson, 1999**).**

The concept of the information need pertains underlying psychological, cognitive and affective incentives that direct an individual in initiating an information seeking process thus underlying personality traits, working rolls and functional prompts will produce various different information needs (T. D. Wilson, 1999). This notion is further supported by the concept of task. Wood (1986), postulates that information inputs are crucial components for a completion of a task and they represent perceived attributes of a stimulus complex which triggers the undertaking of a task. In that sense it can be argued that stimuli are perceived differently from different individuals. The way individuals perceive their tasks in the various stages towards completion is also shown to influence the type of needed information and research has shown that as the task performance process proceeds, the mental model of the task changes and the focus narrows down from a broad and vague range to more specific cognitions of the task outcome, affecting the type, the quantity and the relevance judgments of the information (Vakkari, 2001).

Another factor influencing how individuals perceive a task and consequently their information requirements is motivation. Experiments examining dimensions of information processing such as the assessment of the information relevance, observed that significant subjectivity among assessors led to variation of relevance assessments, these observations led to the development of the concepts of pertinence and situational relevance that describe the relationship between the intrinsic motivation of the users and the information objects (Borlund, 2003).

In the context of medical tourism Jotikasthira (2010b), posits that information search behaviour is a crucial element of potential medical tourists' decision making and individuals are likely to seek for information from external sources if they can't base their decision on previous experiences or knowledge. M. Lee et al. (2012), studying Japanese patients' intention to travel for medical treatment indicate that opinions and experiences of friends and family are important determinants of behavioural intentions. Other researchers highlight the important consequences that the retrieved information have on medical travellers and indicate the importance and the ethical aspects of the messages that are provided by medical tourism broker web sites (Penney, Snyder, Crooks, & Johnston, 2011). The internet is an important factor of the growth of medical tourism (Heung et al., 2010) and many researchers have pointed to the increasing reliance of patients in MTF and medical travel web sites in order to gather information concerning their trip (Hall, Lunt, & Carrera, 2011; Lunt et al., 2010). Thus the interaction of medical tourists with online information systems is an important aspect of their online information search behaviour.

This study builds on general online consumer behaviour literature in order to conceptualise the online information search behaviour of prospective medical tourists.

A prominent model pertaining online consumer behaviour is the TAM (Technology Acceptance Model) (Davis, Bagozzi, & Warshaw, 1989; Venkatesh, 2000). The TAM proposes two main attitudinal constructs namely the "perceived usefulness" and the "perceived ease of use" reflecting the attitudes and beliefs of users towards their efficiency in using an information system (Venkatesh, 2000). According to Davis et al. (1989), both these constructs are strong determinants of the intention to use an online system. Other researchers in the context of tourism have combined the Technology Acceptance Model with the Theory of Planned Behaviour (Ajzen, 1991) in order to account for more external factors, besides system characteristics, influencing behavioural intentions towards information systems, such as the external influence of the presented "Marketing Mix" on user attitudes and other user-centred psychological variables (Lin, Wang, & Hwang, 2010).

From the supply side of view system related characteristics such as information quality, web site features and services have been studied in terms of their influence on the interaction between the system and the end user (Petter et al., 2008). Other studies have pointed to the relationship between information content, content presentation within a web site and end user satisfaction (J. Kim, Lee, Han, & Lee, 2002; Palmer, 2002).

The concept of task has also been integrated in the context of online behaviour. Researches indicate that individual performance can be enhanced by an information system to the degree that the system features will fit the requirements of a task (Goodhue & Thompson, 1995). The researchers introduce the Task Technology Fit notion and describe it as the ability of an information technology system to provide functionalities that will match specific task requirements and individual abilities (Goodhue & Thompson, 1995). In a later study aiming to the development of an instrument for measuring the degree that technology fits the needs and expectation of users, the observation of different system functionalities being required by

different user for the accomplishment of the same task was the basis for the operationalisation (Goodhue, 1998).

2.7 Conceptual Framework

This section presents the conceptual framework developed to examine the online consumer behaviour in the context of medical tourism and the influence of various online information cues in the choice of medical tourism service provider. The analysis of the main concepts and their interrelationships will provide the hypotheses to be tested and the theoretical constructs that will be applied.

According to conceptualizations of information search behaviour it can be asserted that an important dimension of prospective medical tourists' online information search behaviour is the information retrieval and evaluation process (Ingwersen, 1996). The Technology Acceptance Model, in an effort to explain this process, pertains that medical travellers form perceptions and attitudes concerning how useful a web site is in facilitating an informed decision making and those attitudes influence consequent behaviours (Davis et al., 1989). Thus this study aims to investigate important determinants and antecedents of prospective health travellers' perceived usefulness of the online information provided.

The proposed model for this study is based on T. D. Wilson (1997) and his assertions that, given the rise of a need for information, there are several personal and environmental factors that influence the information search behaviour of medical tourists. Furthermore the model integrates the Task-Technology Fit concept, presented in the previous chapter (Goodhue & Thompson, 1995), which postulates that given the generic task of choosing a medical tourism destination, the information needs of medical tourists reflect information inputs related to destination characteristics, medical service attributes and benefits to be acquired. These expectations, concerning benefits and attributes, influence prior attitude formulation and

patient consumption orientations towards medical tourism as well as beliefs towards the outcomes of their actual behaviour of undertaking a medical trip (Ajzen & Fishbein, 1980). In that sense patients' expectations towards medical tourism need to be taken under consideration from MTF and DMOs web sites in order to convey an attractive image(M. Lee et al., 2012).

This study aims to test a model that examines the performance of MTFs and medical travel web sites in providing the information cues that fit the medical traveller's expectations and consumption orientations towards medical tourism. According to the literature on general consumer behaviour, various service attributes have a varying level of influence on perceived quality and customer satisfaction (Oliver, 1980; Arun Parasuraman, Zeithaml, & Berry, 1988). Hence it is asserted (and aimed to be tested) that some information content factors are stronger determinants of perceived usefulness of information. The main constructs that are suggested, in this study, to interact during the information retrieval and evaluation process in the context of online promotion of medical tourism services and destinations are: *Perceived usefulness of information* (dependent variable), *information content performance factors* (independent variable) and *consumer orientations and prior attitudes towards the medical tourism product* (independent variables) (*figure 2*).

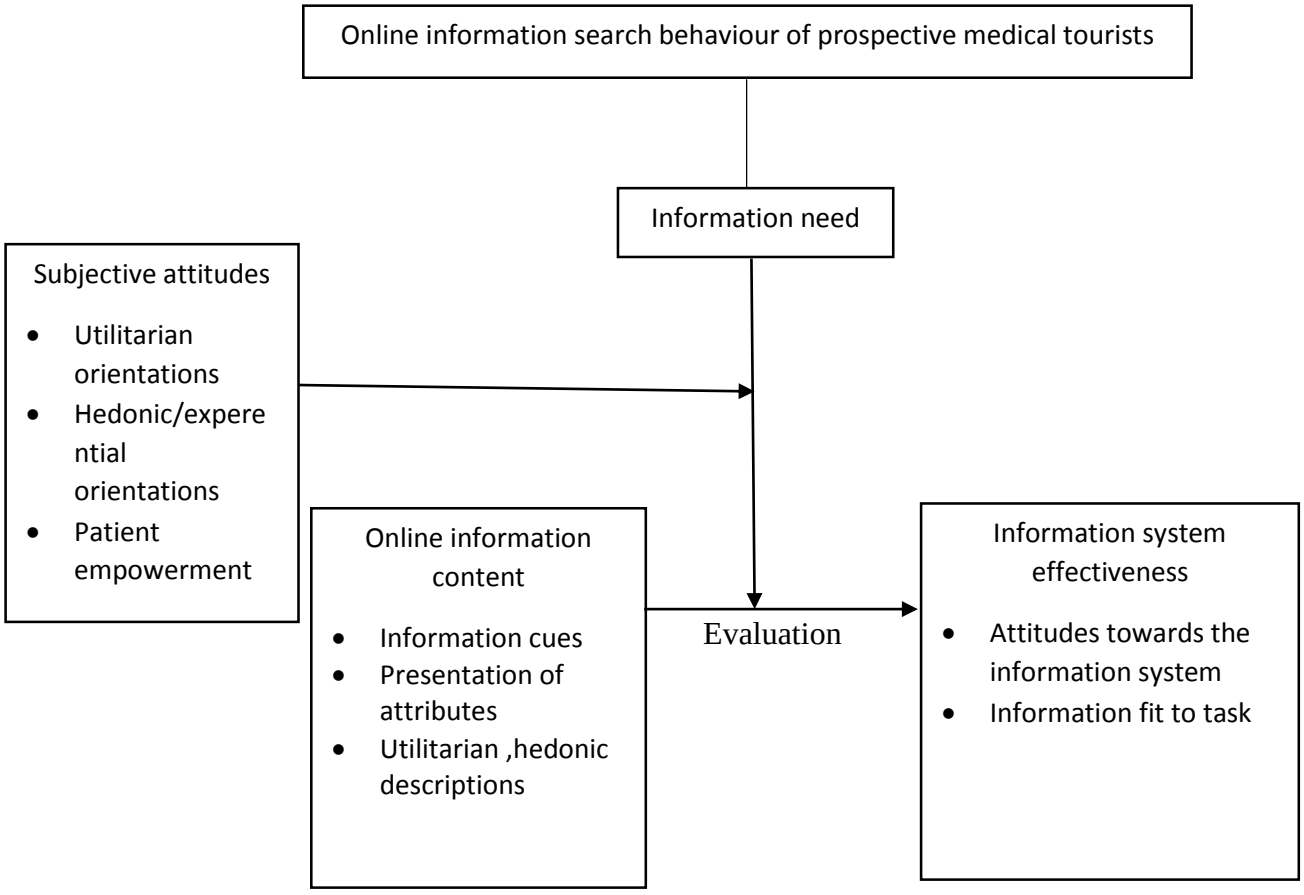


Figure 2. Conceptual Framework of prospective medical tourists information search behaviour

2.8 Perceived Usefulness of Information

Perceived usefulness has been defined as the ability of an information system to facilitate a better performance in accomplishing a task and it reflects the instrumentality and functionality of the systems usage (Davis et al., 1989; Taylor & Todd, 1995). Studies have shown that perceived usefulness is a central extrinsic motivation to use an IS (Information System) and it influences the behavioural intentions and attitudes of the user, both in the stage of pre acceptance of the information technology and in the post-use stage where the end user forms attitudes towards the reuse of the system (Davis et al., 1989). In the organizational context considerations of the efficiency of an IS application in increasing job performance are critical as the user's experience with the system advances (Karahanna, Straub, & Chervany, 1999). In

that sense in the context of medical tourism, MTFs and medical travel web sites are consistently evaluated after the initial interaction in terms of how efficiently the travel patient's informational needs are addressed (Turner, 2011). Another study examining the interrelationships between perceived usefulness and user satisfaction in the various stages of an IS adoption, found that perceived usefulness leads to higher satisfaction with the system and thus indirectly influences usage continuance intentions (Bhattacherjee, 2001a). In this later study it was posited that even though the attitudes and beliefs concerning the efficiency of the system are important predictors of the system's acceptance, it is their effect on user satisfaction that affects more significantly the intention to continue using it.

Research on user satisfaction has pointed to the dimension related to satisfaction with the provided information and indicated that measuring the perceived levels of the information's compatibility, relevance, timeliness and reliability is important in order to assess the overall satisfaction with the information content (Ives, Olson, & Baroudi, 1983). In that sense it can be asserted that certain information content attributes are important antecedents of perceived usefulness. This is further supported by other researchers investigating the development of valid and reliable measures for satisfaction with information. A study of the psychometric properties of the perceived usefulness of information scale proposed a two factor construct of perceived usefulness, with each dimension measuring different information attributes. The "perceived importance" component was used as an indicator of weather the information is meaningful and informative and a scale termed "perceived usableness" explored the appropriateness of the format and the ambiguity of the system's output (Larcker & Lessig, 1980).

Perceived usefulness of information has also been studied in terms or information processing styles and effective decision making. Soane, Schubert, Lunn, and Pollard (2015), examined the information seeking behaviour of a sample of individuals presented with information

concerning Salmonella and indicated that individuals adopting an analytical processing behaviour tend to continue seeking for information if their perceptions about the information's utility are positive. In the medical tourism context patients are more likely to engage in analytical information processing since their involvement in the decision making is higher (Crooks et al., 2010; Horowitz et al., 2007). In that sense and in convergence with the findings from Soane et al. (2015) it can be argued that high perceived usefulness of information will prompt prospective medical travellers to spent more time exploring a web site.

Other operationalisations of the perceived usefulness of information construct highlight the dimension of the information's relevance to the task at hand. Loiacono et al. (2007), focused on the necessity to account for the level that certain aspects of technology support or impede the consumer's accomplishment on his/her task. The authors found that perceptions of usefulness are empirically related to certain characteristics such as level of information's fit to task, provision of tailored information and perceptions of relative advantage in completing a certain transaction through the services offered by a web site. Thus it can be argued that in the context of MTFs and medical travel agents, services and information content that aid patients in arranging many critical aspects of their trip such as visas, medical records communication/translation, pre-consultation and follow up services can influence their perceptions of usefulness in a sense that it will be time saving, cost efficient and convenient or helpful to use a particular web site comparing to alternatives (Cormany & Baloglu, 2011).

The concepts of usefulness and quality of information are empirically tested as key dimensions of IS success. An integrated model of predicting IS performance evaluations postulates that information quality (i.e the desirable characteristics of the system output) affects the perceptions of the end user in terms of the benefits of using an information system (Petter et al., 2008). These information quality characteristics include reliability, authoritativeness, relevance, accuracy, compatibility to the needs of the user and promote the belief that a decision

based on such information will be more efficient especially in an organizational context where high task performance is sought for (Petter et al., 2008). In the context of medical tourism efficient decisions are directly influencing an individual's health improvement and well-being hence the prospective medical tourist relies on the reliability and accuracy of the provided information content in an effort to receive effective and safe health care services.

Another important concept relative to the domain of IS evaluation is online service quality. Yang, Cai, Zhou, and Zhou (2005), explored the influence that certain quality dimension have on the overall perceived quality and indicated that usefulness of information content and adequacy of information were the most significant predictors. The authors operationalized the usefulness of information content construct by the level of reliability, currency, accuracy and value of the provided information, converging with the studies mentioned previously. These findings provide further support to the assertion of the usefulness of information content, provided by MTFs, as a central dimension of the online information search behaviour of prospective medical tourists. Even though seminal studies examining individuals' attitudes towards technology and information systems suggested that user characteristics, motivation, attitudes and behaviours towards technology are more important antecedents of system related behaviours (Venkatesh, 2000), the prominence of system attributes such as quality of information, observed in the reviewed literature, in combination with the intangibility of the medical tourism product, that in a way predisposes the patient to engage in online information search, justifies the investigation of the information content's usefulness and its significant predictors.

In the context of e-travel systems Ho and Lee (2007) tested the ability of an e-travel service quality model to predict customer satisfaction and loyalty. Their model included the dimensions related to usefulness of the information content as predictors of service quality and their results indicated a high level of extracted variance explained by the information content

factor (0,6), meaning that perceptions of the information content have a significant influence on the overall quality evaluation of travel web sites. Mills and Morrison (2003) included the construct of perceived usefulness, termed in their study as "perceived value", as a dimension influencing satisfaction with travel web sites and found that first order factors of the construct, such as shopping convenience, transaction utility, the potential for higher consumer involvement and the lower resource expenditure (time and money) while planning a trip, could significantly explain a respective percentage of the variance in customer satisfaction.

Perceived usefulness is also included in studies examining the acceptance of health information technology. Or and Karsh (2009), conducted a systematic review of the literature related to determinants of health information systems acceptance and reported that human-technology interaction factors were examined in a substantial number of previous studies. Factors such as perceived usefulness and perceived reliability of the information were shown to be frequently employed dimensions of user acceptance in a variety of health information web sites. P. Kim, Eng, Deering, and Maxfield (1999), explored frequently used published criteria for evaluation of health information on the web and reported that content quality, accuracy, reliability and authority of the information sources were among the most important. These qualitative characteristics have been recognized by health practitioners, health policy makers and institutions internationally and led to the formulation of standardised measures of health information quality such as HON (health on the net) code and BAPRAS (British Association of Plastic Reconstructive and Aesthetic Surgeons) guidelines (Berland et al., 2001).

As presented above perceived usefulness has been extensively examined as an integral dimension of user satisfaction, and system quality evaluations. System output attributes such as information quality are consistently asserted as critical antecedents of users' perceptions of usefulness among other moderating factors such as contextual and situational differences (Sun & Zhang, 2006). However the aforementioned studies employ perceived usefulness as an

independent dimension influencing technology acceptance and user's behavioural intentions without investigating the direct influence that various factors may exert on perceived usefulness itself. Hence this study aims an exploration of the effect that information content performance factors and medical tourism consumption expectations have on the prospective health travellers' perceptions towards the usefulness of information included in MTFs and medical travel web sites.

2.9 Online Information Content Factors

Online information content preparation is defined as the process of determining what information is needed from the user of a web site and how to organize and structure this information so they can be easily retrieved (Liao, Proctor, & Salvendy, 2008). The process in which users perceive the provided online information has been conceptualized to progress in three stages namely exposure, attention and comprehension and during this process individuals form attitudes and behavioural intentions towards the information exchange medium (Liao et al., 2008).

The information content presented in e-commerce web sites has been classified in underlying categories such as product and retailer related information. These second order categories include information such as detailed product descriptions, product specifications, qualitative characteristics and product performance comparisons, retailer policies and retailer services descriptions (Liao et al., 2008). Detlor, Sproule, and Gupta (2003), studied consumer preferences for web based information display. Their main assertion was related to the Task-Technology fit (Goodhue & Thompson, 1995), suggesting that the web site must provide consumers with information that support their task performance. In their study participants were asked to perform specific online shopping tasks and to evaluate the web site's information

display. Product related information items such as price comparisons, quality features, performance ratings and retailer related cues such as retailer reputation, transaction services and product delivery processes were exerted as the most influential information cues.

Information items that add value and differentiate a brand from its competitors are shown to increase recall and persuasion of consumers towards the offered products or services (Stewart & Koslow, 1989). The informative factor of commercials has been asserted in a key determinant of ad likability and brand attitudes (Aaker & Stayman, 1990). Abernethy and Franke (1996), performed a meta-analysis of more than sixty studies, which applied a certain model of information categories, proposed by Resnik and Stern (1977), in order to measure the information content in advertising materials. One of the important findings of their study related to the context of MTF web sites is the effect that different types of products have on the measurements of the information content. In that sense advertisements of experience products that can't be evaluated prior to consumption, such as medical tourism services, need to provide extended messages that aid consumers to reduce uncertainty about the service or product attributes (Lunt et al., 2010).

An important factor influencing information structure and presentation is the limited human information processing capacity, this limited cognitive capacity will lead some information to be ignored and other content items to be attended (Liao et al., 2008). In this point an argument can be made that the consumer in order to minimize the cognitive effort, he/she will allocate his attention on the information items that represent the main expectations related to a consumption decision (Bhattacherjee, 2001b). This notion can be supported by the findings of Moser, Korstjens, van der Weijden, and Tange (2010). The authors studied how patients evaluate comparative consumer information in order to choose a hospital for elective surgery and indicated that individual treatment needs and expectations regarding treatment outcomes influenced the way the provided information were perceived. In the context of medical tourism,

a study of patients' intentions to travel indicated that WOM (word of mouth) information items were a primary driver of actual engaging in medical tourism (Abubakar & Ilkan, 2016). An important issue related to WOM and patient reviews, elicited from patient narratives, is the subjectivity under which evaluations are made. Patients have reported the need to understand the value system, the beliefs and the way other people, as word of mouth sources, experience a medical service, in order to compare with their own attitudes and motivations (Edgman-Levitan & Cleary, 1996). In general, interpersonal communication has been consistently shown to influence health behaviour change more than mass communications (Cline & Haynes, 2001). Other studies have identified a gap between patients' information needs and physicians' perceptions of those needs. Patients have been shown to identify "situational information" such as treatment description and treatment outcome expectations, as the most important information content whereas health professional indicated information dealing with worries and concerns higher (Henderson & Chien, 2004). In the same study patients identified information about treatment complications and medication as priority in the pre-treatment stage and information concerning the return in daily functionality and normality critical for the post-treatment phase (Henderson & Chien, 2004).

The concept of expectations is a central issue influencing online consumer satisfaction. McKinney et al. (2002), applied an expectation disconfirmation theoretical model and indicated that a gap between online user's expectations and perceived performance of a web site in providing the expected information quality, influences online consumer's satisfaction. Several information quality constructs have been used by researchers. Y. J. Kim, Kishore, and Sanders (2005), suggested factors such as information accuracy, information completeness and information relevance to predict content quality. Guo and Salvendy (2009), proposed certain content performance factors that reflect specific information cues that are considered important by consumers. Participants in that study were asked to indicate information cues that are

considered necessary in order to facilitate their purchasing process. Information concerning quality of the product/service, content related to transactional services offered, reviews and testimonials and information related to the provider/manufacturer were extracted as important performance indicators. In the context of medical tourism empirical findings are mainly found in qualitative studies. Cormany and Baloglu (2011), analysed the content of MTFs and reported themes such as patient testimonials, treatment descriptions, scientific evidence concerning medical treatments, accreditation of hospitals, transportation and accommodation services as a dimensional structure of the provided information. Mohamad et al. (2012), indicated the moderating role of MTFs in facilitating medical tourists' decision making. The content of medical travel web sites reported from the studies above reflects what web designers and marketers of medical tourism services perceive as important for prospective medical tourists. But the expectations and information needs of prospective travel patients vary as deducted from the literature review. Applying a consumer perspective on the usefulness of MTFs and medical travel web sites, this study aims to examine the influence of information content's performance on perceived usefulness of information (*figure 3*). The content performance factors proposed are provider content (PRVCON), quality content (QUALCON), peer-patient reviews, (PEEREV) and service content (SERVCON) (Cormany & Baloglu, 2011; Guo & Salvendy, 2009). Specifically the extracted hypotheses are:

- H1: Perceived performance of the provider content factor (PRVCON) has a significant influence on perceived usefulness of information content.
- H2: Perceived performance of the quality content factor (QUALCON) has a significant influence on perceived usefulness of information content.

- H3: Perceived performance of the peer-reviews content (PEEREV) has a significant influence on perceived usefulness of information content.
- H4: Perceived performance of the service content (SERVCON) factor has a significant influence on perceived usefulness of information content.

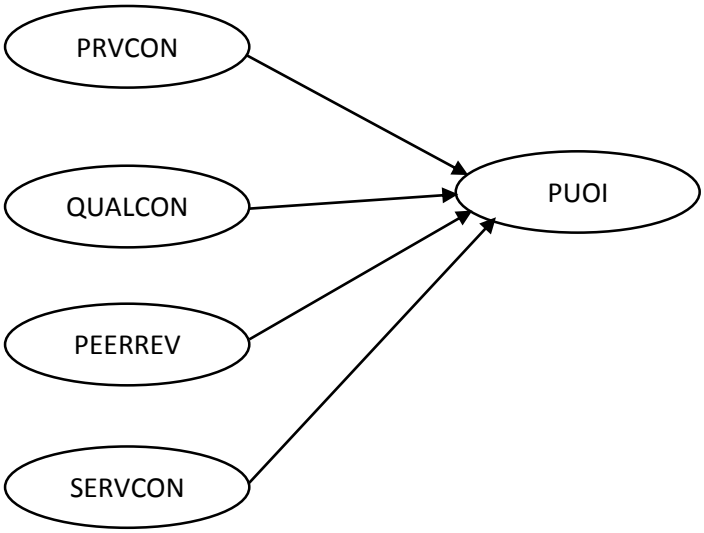


Figure 3. Information Content Determinants of Perceived Usefulness of Information Content.

2.10 Prior Attitudes towards Medical Tourism Consumption

A central component of information search behaviour is the user's information needs which reflect their task requirements. Task theory suggests that when individuals are faced with judgement and inference tasks such as the evaluation of alternatives during a decision making process, their task performance depends on information that represent attributes of the task stimulus (Wood, 1986). In this sense information processing is influenced by how this stimulus is perceived by an individual and by the expected attributes of the task outcome. Other researchers suggest that individual perceptions and mental models of the task at hand progress along the different stages towards the task completion and move from a broad range to more specific conditions. This progression affects the type and quantity of information input, the

information needs and consequently the interactions between the user and the information system (Vakkari, 2001).

Researchers argue that task characteristics are evaluated subjectively and posit that prior attitudes towards a task influence the consumers' online information search process. Individuals with higher attitude strengths towards an issue tend to place more value and attention to information that are attitude consistent than to those that produce disconfirmation of their beliefs or prior experiences towards a product or a service (van Strien, Kammerer, Brand-Gruwel, & Boshuizen, 2016).

Another important factor influencing users' information requirements is motivation. The concepts of pertinence and situational relevance that pertain the relationship between intrinsic motivation and information utility have been explored by experimental studies examining dimensions of information processing, such as the assessment of the information relevance. In these studies variations in motivation accounted for a significant subjectivity among assessors that caused the observed variation of relevance assessments (Borlund, 2003).

In the context of tourism, potential tourists appear to have distinct mental models when they process the information concerning various destinations or hospitality services and their information search activities vary in terms of types of information sought (Pan & Fesenmaier, 2006). Research has suggested that consumption attitudes are bi-dimensional and consumers inherently purchase products or services in order to gain either affective/hedonic gratification from sensory attributes or for instrumental, utilitarian reasons, seeking benefits from functional attributes (Batra & Ahtola, 1991)

Based on the approaches of consumption suggested by Holt (1995) it could be argued that medical tourism services can be consumed as experience, as integration or as classification. Even though these approaches may not be able to tap accurately on the nature of medical

tourism, they can be extended to reflect general experiential/hedonic, utilitarian and self-production orientations (Andrews & Drennan, 2007). Sources of motivation for prospective medical tourists identified by the literature are certain utilitarian goals related to specific health conditions and treatment outcomes as well as more experiential/hedonic prompts reflecting traditional leisure, aesthetic and sensory attributes of the tourism experience (Hanefeld et al., 2014; Lunt & Carrera, 2010). Other studies examining the perceptions and experiences of medical travellers have indicated that both utilitarian and hedonic attributes are perceived and experienced by patients (R. Johnston, Crooks, & Snyder, 2012).

M. Lee et al. (2012), identified certain behavioural beliefs concerning the outcomes and consequences of engaging in medical travel, that have a significant influence on the intention of Japanese tourists to travel to Korea for medical treatment. Their analysis reported utilitarian and experiential/hedonic benefits to be expected by prospective medical travellers.

2.10.1 Utilitarian Orientation

Utilitarian motivation is defined as a mission critical, rational and goal directed decision making process, which orders a shopping behaviour and aims in acquiring specific benefits with the later depending on the efficiency of the followed process (Hirschman & Holbrook, 1982), meaning that such external motivations to engage in certain consumption behaviours are formed by assessments of value and attribute beliefs. According to the Utility theory of decision making (Fishburn, 1970, p. 7) the ordering of alternative choices is preserved by utility attributes that an individual perceives and evaluates in relation with his preferences and situational constrains. Such assessments of the overall benefits and sacrifices are considered by consumers who engage in specific task behaviours (Overby & Lee, 2006). Babin, Darden, and Griffin (1994), in an effort to verify the existence of utilitarian motivations empirically, reported that consumers perceptions of value reflected the amount of money spent, satisfaction

and convenience procured. By employing this economic perspective of cost and benefit considerations while making decisions, medical tourists activate a rational process through which they judge the product characteristics, focusing mainly on price and qualitative differences among medical tourism providers and ultimately aim in increased chances for overcoming a health problem. Such utilitarian attributes are likely to be unnegotiable for medical tourists. Utilitarian product or service attributes such as quality and cost effectiveness are shown to be the last to sacrifice in favour of ease or convenience (Dhar & Wertenbroch, 2000).

Utilitarian orientations are asserted to influence the information search behaviour of prospective medical tourists. Research shows that utilitarian consumers have a specific shopping plan and they purposively seek information on specific product or service attributes(Janiszewski, 1998), Research has also indicated that utilitarian motivations have positive influences on the online search and purchase intentions (To, Liao, & Lin, 2007). Bridges and Florsheim (2008), indicate that utilitarian elements of a web site that facilitate the ease of navigation and create feelings of control are positively related with online buying and user satisfaction. Martínez-López, Pla-García, Gázquez-Abad, and Rodríguez-Ardura (2014), explored and validated a dimensional structure and the respective sub-dimensional scales of utilitarian values which function as second-order constructs of utilitarian motivations towards online shopping. Their results indicated that convenience attributes, information availability and customization services ranked high among others in an order of intensity of their relationship with the latent utilitarian motivations. This is a finding that advocates in favour of the conceptualization of this study in a sense that prospective medical tourists with utilitarian orientations would perceive such cues of the online information content more useful. In addition Overby and Lee (2006), report that the existence of utilitarian values in an online retailer is highly correlated with preference towards the vendor and repurchase intentions.

Utilitarian consumers tend to be price conscious, brand conscious, quality sensitive and habitual (Sprotles & Kendall, 1986). To et al. (2007), investigated shopping values as predictors of online shopping motivations and reported that cost savings, convenience, selection range and information availability were ranked as more important factors positively correlated with utilitarian motivations.

In this study the expectation and disconfirmation approach (McKinney et al., 2002), is applied in order to investigate the combined influence of perceived performance of information content factors and consumer orientations on perceived usefulness of information. Considering the information cues sought by utilitarian medical tourists it is expected that quality content (QUALCON) and service content (SERVCON) information factors will be more important in the overall evaluations of usefulness thus:

- H5: The relationship between perceived performance of quality content (QUALCON) and perceived usefulness of information is influenced by utilitarian orientations towards medical tourism
- H6: The relationship between perceived performance of service content (SERVCON) and perceived usefulness of information is influenced by utilitarian orientations towards medical tourism.

2.10.2 Experiential/Hedonic Orientation

Experiential/hedonic consumer orientations reflect a consumption behaviour mainly characterised by subjective state of consciousness with a variety of symbolic meanings, that is driven by hedonic/emotional expectations (Holbrook & Hirschman, 1982).

These experiential/hedonic perspectives of consumption have been argued to influence the information processing of consumers in a sense that the information inputs are appraised based on the sensory pleasure, the emotional response and the representation of certain hedonic attributes of the product or the service that is sought for (Hirschman & Holbrook, 1982).

Holbrook and Hirschman (1982), suggest a shift in the information processing paradigm in order to include the notion of the experiential consumer who deviates from the rational information processor and seeks not only to weigh the potential benefits offered by alternatives but also to fantasise aesthetic attributes to be acquired and to receive information concerning multisensory aspects of product/service enjoyment.

Experiential/hedonic values have been recognised as important dimension of the online consumer behaviour that reflects affective elements of the online shopping experience itself and influence the preferences and intentions of online consumers (Overby & Lee, 2006). Experiential and hedonic aspects of the shopping experience have a significant influence on the overall satisfaction and loyalty. Jones, Reynolds, and Arnold (2006), operationalised experiential orientations towards a purchasing experience by investigating certain affective responses towards the offered products or services and reported that these experiential aspects of consumption have a significant influence over the attitudes and intention towards the provider. Sprotles and Kendall (1986), explored the dimensional structure of the consumption behaviour in terms of benefits and values that direct consumer's decisions and developed the Consumer Style Inventory index. According to their conceptualisation consumer decisions are not only influenced by perceptions of utility and quality but are also characterised by impulsiveness and experiential values such as novelty and amusement or habitual behaviours. Extending the notion of experiential consumption to the context of healthcare services, it can be asserted that hedonic and experiential treatment outcomes can influence patient/consumer behaviour. Markley Rountree and Davis (2011), studied the primary motivations of

individuals' undergoing medically unnecessary aesthetic surgery and reported affective and emotional factors that drive patients to engage in such practices. Other researchers indicated affective variables such as the desire to feel "pretty" are significant predictors of the intention to undergo cosmetic surgery among women (Nerini, Matera, & Stefanile, 2014). Luomala, Paasovaara, and Lehtola (2006), in order to explore the healthcare services consumption behaviour, empirically investigated the meanings that consumers attach to their health in their everyday life. Experiential and emotional elements, such as feelings of harmony and balance, stress relief, connectivity among individuals, feelings of belonging and affections from self-indulgence were the main themes extracted.

In the tourism context, experiential orientations and motivations, such as escapism and novelty have been consistently highlighted as important aspects of the tourist behaviour (Dann, 1981; Urry, 2002). Other researchers have explained risky tourist behaviours, such as high risk leisure activities as function of experiential motivations (Celsi, Rose, & Leigh, 1993). Hall, Voigt, Brown, and Howat (2011), indicated experiential/hedonic benefits such as indulgence, novelty, escape and feelings of relaxation as important factors influencing tourists' behaviour in the context of wellness tourism.

Experiential/hedonic prompts reflecting traditional leisure, aesthetic and sensory attributes of the tourism experience are asserted to important incentives in the context of medical tourism (Hanefeld et al., 2014; Lunt & Carrera, 2010). Hence it is hypothesized that online information content that provides aesthetic and sensory cues concerning the offered services will influence the attitudes and intentions of prospective medical travellers with experiential orientation towards medical tourism. Y.-K. Kim, Lee, and Park (2014), support this argument by reporting that experiential and hedonic aspects of the shopping experience are important factors of the buyer-seller interaction. Other researchers have also indicated the importance of providing online consumers with content elements that correspond to attribute values and benefits that

are sought for (Bridges & Florsheim, 2008). In this study it is hypothesized that peer-patient reviews (PEERREV) and service (SERVCON) content factors are perceived more useful from prospective health travellers with experiential/hedonic orientations (Bridges & Florsheim, 2008). Hence the following hypotheses are extracted:

- H7: The relationship between perceived performance of peer-reviews content (PEEREV) and perceived usefulness of information is influenced by experiential/hedonic orientations towards medical tourism.
- H8: The relationship between perceived performance of service content (SERVCON) and perceived usefulness of information is influenced by experiential/hedonic orientations towards medical tourism.

2.10.3 Patient Empowerment and Self-production

The self-production notion is integrated in marketing messages promoting medical tourism and researchers have indicated that marketers relay the practise of medical tourism with a more savvy and libertarian self-presentation (Sobo, Herlihy, & Bicker, 2011). Sobo et al. (2011), report that self-construction behaviours that are stressed from various medical travel agents include consumer driven health care planning and elective options for treatment which are components of the patient empowerment concept (Prigge, Dietz, Homburg, Hoyer, & Burton, 2015).

Conceptualizations of treatment decision making have identified the notion of patient empowerment, supporting that some patients have more control over their health care and desire to be more involved in decisions concerning their treatment (Charles, Gafni, & Whelan, 1999). The concept of patient empowerment is defined as a set of self-determined behaviours that an individual engages, aiming to develop autonomy and competence with his/her health care (Prigge et al., 2015). Blanchard, Labrecque, Ruckdeschel, and Blanchard (1988), studied

adult cancer patients and reported that 69% of the respondents preferred to actively participate in therapeutic decisions. Patients' level of involvement in the decision making has been shown to be influenced by factors such as age, level of education, diagnosis, health status and experience with their health care (Say, Murtagh, & Thomson, 2006). Satisfaction with the current medical care is reported as an important predictor of patients' desire to make decisions themselves suggesting that unsatisfied patients may be more involved in their treatment planning (Ende, Kazis, Ash, & Moskowitz, 1989). In that sense it can be asserted that prospective medical travellers are likely to engage in medical tourism as an empowerment behaviour seeking access to experimental procedures, to treatments unavailable in their home health care system or elective treatments that home physicians might consider as unnecessary. These motivations that are recognized by the literature on medical tourism (Jotikasthira, 2010a; Lunt & Carrera, 2010) might in a certain degree connote low levels of satisfaction with the home system. Empowerment behaviours are shown to be characterised by high involvement, with individuals engaging in extensive online information search activities and patients surmounting the traditional authority of the physician (Hardey, 2010). A. C. Johnston et al. (2013), explored the influence of participation in online health communities on patient empowerment and reported that the utility of information reflecting online community members' health experiences, positively influences patient empowerment.

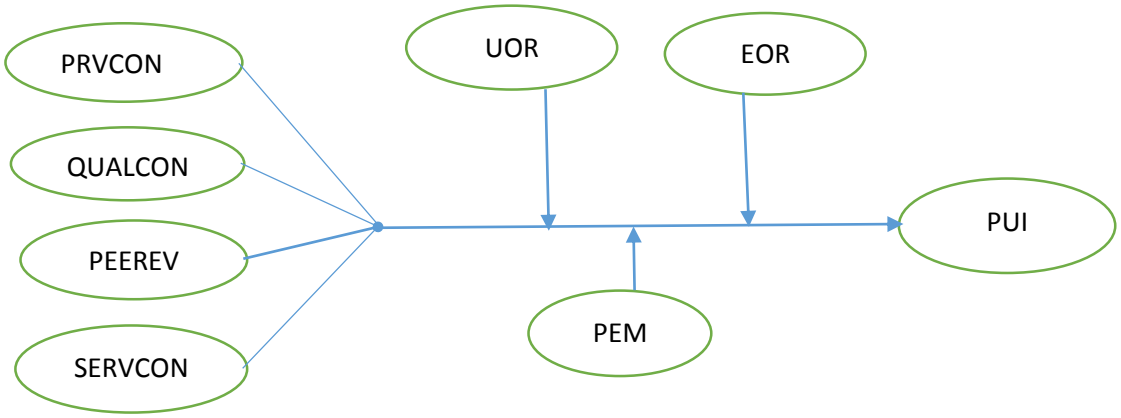
In this study it is hypothesized that certain information content factors are considered more useful from empowered patients. Specifically the hypotheses are stated as follows:

- H9: The relationship between perceived performance of service content (SERCCON) and perceived usefulness of information is influenced by the level of patient empowerment.

- H10: The relationship between perceived performance of peer reviews content (PEEREV) and perceived usefulness of information is influenced by the level of patient empowerment.

2.10.4 Summary

In summary, the model of this study builds on the conceptualisation of information search behaviour proposed by T. D. Wilson (1999), according to which in the centre of information search lies the need for information. The need for information is not directly observable and researchers have proposed the investigation of the underlying motivation behind quest for information (Xia & Monroe, 2005). Research in the field of online consumer behaviour, based on expectation disconfirmation approaches drawn from general consumer behaviour literature (Oliver, 1974; Anantharanthan Parasuraman, Zeithaml, & Berry, 1985), further supports a focus on online consumer's incentives and recognises the influence of pre consumption expectations in the perceived performance of the provided information (McKinney et al., 2002). The study also draws from Task-Technology Fit theoretical approaches (Goodhue & Thompson, 1995), in the sense that prior attitudes and expectations of prospective medical travellers towards the task of finding a medical tourism destination and service provider, will influence the information retrieval and evaluation process. Supporting studies have indicated that the information processing is task based (Vakkari, 2001) and that the retrieved information are evaluated in terms of relevance to the information need (Borlund, 2003). The proposed dimensions of online information evaluation process in the context of medical travel e-commerce are shown in the figure below (*figure 4*)



UOR: Utilitarian orientations

EOR: Experiential orientations

PEM: Patient empowerment

Figure 4. Proposed dimensions influencing information evaluation.

Chapter III. Methodology

3.1 Research Paradigm

Scientific research follows certain research paradigms that guide the actions, methods of enquiry and data collection used by the researcher (Neuman, 2005). Three general research paradigms can be identified: 1) constructivist, 2) critical, 3) positivist.

The constructivist paradigm is mainly pertained by the belief that reality depends on the interpretation and the meaning that people place to their social world and to various phenomena. Neuman (2005), suggests that understanding the individual motivation and attitude is central in explaining behaviours that manifest within specific contexts. In that sense the constructivist research paradigm postulates that behaviours and social phenomena do not occur in isolation, they are rather affected by the interactions and interrelationships between actors. Thus researchers following the constructivist paradigm are mainly focused in interpreting behaviours taking under consideration individual and contextual circumstances.

The critical paradigm, even though similar to the constructivism in the belief that the meaning that individuals attach to behaviours and social phenomena must be taken under consideration, it differs in the belief that society is "ill" and people are supressed without being aware of such social malignant, hence is the researcher who must bring about change through critical investigation of social behaviours (Neuman, 2005).

The positivist approach holds that the world exists objectively and empirically and that research methods should focus in observing and recording the social reality within which individuals are hypothesized to behave in a rational and predictable form. The main aim of the positivism method is to capture empirically abstract concepts of the social reality. For this purpose these abstract notions are reduced in measurable constructs and once quantification is achieved,

various hypotheses concerning the relationships between these constructs can be tested (Neuman, 2005).

The purpose of this study is to provide a model that explains the online information retrieval process of prospective medical tourists, that can be used to predict and assess the information system effectiveness longitudinally and cross sectional. The validity and predictability of the applied constructs as well as the ability of the study to replicate is a central issue in this research design. The findings of the study must be quantifiable in order to allow for comparison between several settings of online promotion of medical tourism services and hence provide substantial theoretical and managerial implications. Considering these matters above it can be argued that the positivist approach is appropriate for the study.

3.2 Research Design

A research design is a plan of how to obtain the required information in order to answer the research question. During the research design process the researcher makes decision such as what kind of information are required, what is the unit of analysis, what sample is more appropriate to reflect the population for which conclusion are to be drawn, which constructs better tap the phenomenon under investigation and what is the most reliable and valid way to measure these constructs (Neuman, 2005).

Research designs can be classified into: 1) exploratory research, which aims to provide early insights concerning the existence of any relationships and explanatory mechanisms for a research situation, 2) descriptive research which focuses on pre-established relationships among variables and aims to describe the interaction mechanism between them and 3) causal research design which focuses on direct cause and effect relationships between variables (Neuman, 2005).

Descriptive research design can be sub-categorised in predictive research where the primary purpose is to develop an appropriate set of predictors for a given variable and explanatory research in which the researcher aims mainly to test and validate theories that can explain how a social phenomenon operates (Malhotra, 2010).

This study follows a predictive research design using the online survey method to investigate the determinants of information content's perceived quality in medical tourism facilitator/agencies web sites. Online survey was chosen as an administration method because given time and cost constrains, it was considered as the most cost efficient way to collect the required data. Furthermore researchers have asserted that online surveys have higher response rates and respondents tend to be more willing to complete web based surveys due to higher flexibility and assurance of their anonymity (Tierney, 2000).

The main aim is to investigate the relationship between the perceived performance of online information content factors and the overall perception of information usefulness. A subsidiary purpose is to test the proposed theoretical model in order to provide a useful theoretical background for further research. As Johnson and Gustafsson (2006) highlight it is important to apply a model that reflects the consumer's perspective towards the quality of the offered service and integrates consumers' expectations as a critical factor which affects the way that the service is perceived and experienced by the customer. Even though a large amount of studies exploring online systems' evaluations have employed longitudinal methods and field testing (Loiacono et al., 2007; Richard, Chebat, Yang, & Putrevu, 2010; Venkatesh, 2000), in order to measure the respondents' evaluation immediately after the encounter with the IS, it was difficult to apply this approach in a specific context such as medical tourism for the reason that temporal and spatial location of a unit of analysis that integrate the specific attributes of medical tourists is a major constrain.

3.3 Sample

For the research objectives convenience sampling was used, as featured in other studies investigating medical tourists (Guiry, Scott, & Vequist IV, 2013; Singh, 2013). Convenience sampling methods include in the drawn sample all the respondents that are conveniently available and it is a method followed when large samples are required by the research objectives (Malhotra, 2010). Medical tourists are a difficult population to locate and frame and thus a convenience sample was more feasible. Participants in online medical tourism discussion forums, blogs and online communities were invited to participate in an online survey. A medical tourism facilitator located in Greece was also contacted in order to forward the online survey to their clientele database. The link to the online survey was also posted in several online communities related to several medical ailments in an effort to increase the variance in the sample so as to capture the heterogeneity in the medical travel context in terms of medical conditions and requested treatments. This study, given the lack of a solid empirical background in the online information acquisition behaviour of prospective medical tourists (Lunt et al., 2010), aimed to capture a wide spectrum of variance in the collected data so as to increase the possibilities of falsification of the chosen theoretical model. In order to exclude respondents that have no intention to use online medical travel agencies and facilitators a dichotomous screening question was used: "Have you used a medical travel facilitator/agency web site in order to plan for a medical travel, within the last six months?" The responses of those answering "NO" to this question were excluded from analysis.

The online survey consisted of four sections. The first section included items measuring consumption orientations towards medical tourism, the second section measured the performance of various information cues, the third section measured the overall perceptions of information usefulness and the fourth section investigated demographic elements such as age

and marital status. This last section also included a question related to the type of medical treatment sought for.

3.4 Measurements

Dependent variable: In order to examine how prospective medical tourists evaluate the relevance of the provided information and the overall information quality of the information system that they use when planning for a medical travel, the *perceived usefulness of information* construct was applied as the dependent variable. Usefulness and usability of information are important determinants of a web site's effectiveness and research has suggested that separating content of information from other aspects of the delivery system can elucidate the process by which the overall evaluations of web service quality are formed (Yang et al., 2005). Several dimensions of information quality, such as relevance, adequacy, compatibility, reliability and accuracy that are related to perceptions of usefulness, have been proposed (Petter et al., 2008). In this study three items were used to measure the overall perception of information usefulness (Appendix 1). The items were adapted from Loiacono et al. (2007). Respondents were asked to rate on seven point Likert type scales their level of agreement from 1(strongly disagree) to 7(strongly agree), with statements concerning how useful the information was in performing their task, how efficient was the web site in satisfying their information needs and how efficient was the web site's information content compared with other medical travel web sites. Johnson and Gustafsson (2006), support the use of those items as they suggest that overall measures of satisfaction should be indirect and include comparisons with the ideal service and with the experience from other service providers.

Independent variables: The model presented in the previous chapter postulates that the performance of the web site in providing adequate and compatible information cues to prospective medical tourists will influence the perceptions of usefulness. Thus the independent variables used in this study reflect the perceived adequacy of important online information content factors. Since research in the field of medical travellers' online behaviour is scarce, the items for the measurement of the independent variables were mainly extracted from qualitative studies examining the information content of medical tourism facilitators and web sites for prospective health travellers (Cormany & Baloglu, 2011; Hall, Lunt, et al., 2011; Sobo et al., 2011). (Appendix 1). Cormany and Baloglu (2011), posit that given the difficulty in sampling medical tourists, examining the content of MTF web sites can provide insight in what marketers of medical tourism services consider as important information for medical travellers. The item development followed the deductive approach of scale development process (Hinkin, 1998) with the aim of validating the measures and thus providing a useful tool for future research.

The next step in the development of the measurement scales for the independent variables was to group the information cues, which emerged as important elements of the online information content of medical tourism web sites and to decide on the classification categories that would represent the underlying structure of the information content. The factor structure proposed and validated by Guo and Salvendy (2009) was applied and adapted to the medical tourism context. The latent factors used as independent variables in this study are namely: 1) provider content (PRVCON) which included items measuring the performance of the MTF web site in providing information concerning the provider of medical treatment services, 2) quality content (QUALCON) which is operationalised as the performance of MTF web sites in providing information concerning the quality of the medical treatments provided and assessments of risks, 3) peer reviews content (PEEREV) which was operationalised in this study as the performance of the MTF web site in providing word of mouth information and patient testimonials

concerning treatments similar or the same as the one that the respondent intents to follow and 4) service content (SERVCON) that included items measuring the performance in providing information concerning certain services such as transportations, accommodations and interaction with physicians. The respondent were asked to rate in seven point Likert type scales ranging from 1(strongly disagree) to 7 (strongly agree), their level of agreement with statements of sufficiency of the information provided.

In order to investigate how consumption orientations towards medical tourism, that function as antecedents for consumer expectations, influence the relationship between performance of the information factors and the overall perceived usefulness, three more independent variables were applied namely: patient empowerment, utilitarian orientation and experiential orientation. The later served also the purpose of investigating if experiential values can be included in the conceptual definitions of medical tourism. In general these variables were employed in order to investigate a potential segmentation of prospective medical tourists in terms of information preferences and expectations.

Patient empowerment served as a proxy for the concept of self-production via consumption of medical tourism services (Sobo et al., 2011) in order to examine if international patients that are driven to medical tourism by values reflecting a higher level of participation in the treatment planning process, have different information needs and preferences. The construct was included in the study in order to tap medical travellers that engage in medical tourism in order to have more autonomy in their health care management. The items for this variable were adapted from (Ende et al., 1989) and (A. C. Johnston et al., 2013) (Appendix 1). Respondents were asked to rate on seven point Likert type scales their level of agreement with statements related to the benefit of active participation in decision making acquired by engaging in medical travel.

Utilitarian orientation towards medical tourism consumption was operationalised by measuring the respondents' expectations towards certain utilitarian benefits derived from receiving treatment abroad. The variable aimed to measure expectancy of benefits such as convenience and assortment in receiving the desired treatments. The items for this variable were adapted by general consumer behaviour literature and were modified to reflect the medical tourism context (Y.-K. Kim et al., 2014). The respondent were asked to rate on seven point Likert type scales their level of agreement with six statements concerning certain utilitarian attributes sought for when undertaking a medical travel.

Experiential orientation was operationalised by measuring expectations towards experiential and hedonic attributes of medical tourism. The aim was to investigate medical travellers with no major health problems, undergoing mainly minor elective and/or cosmetic surgery. The items for this construct were adapted from Y.-K. Kim et al. (2014) and Hall, Voigt, et al. (2011). The respondents were asked to rate their level of agreement, in seven point Likert type scales, towards the expectancy of certain experiential/hedonic benefits.

3.5 Analysis

The first part of the analysis of the collected data focused on the validation of the measurement scales following the validation process proposed by Churchill Jr (1979). Exploratory Factor Analysis, using the Principal Components extraction method, was used to test the loadings of the items on the factor that they were theoretically intended to measure and to identify items with problematic cross loadings, thus providing insight on the convergent validity of the constructs. Reliability analysis using Cronbach's alpha (Nunnally, Bernstein, & Berge, 1967) was employed in order to test for the internal reliability of the construct scales and to determine if any items need to be excluded from further analysis.

Examination of the measurements for discriminant validity issues was performed by comparing the average variance extracted (AVE) from the items of each factor with the shared variance (squares of bivariate correlations) between the underlying factors (Bagozzi, Yi, & Phillips, 1991; Fornell, Johnson, Anderson, Cha, & Bryant, 1996).

Determination of the influence that the perceived adequacy of important information cues has on the overall perceived usefulness of the information content was achieved with the use of regression analysis. Regressing the performance measures against the overall perceptions of service quality is suggested to minimize the inflation of direct importance perceptions (Lai & Hitchcock, 2015) and hence to provide a more reliable set of predictors and a more realistic conception of the consumer decision making process. Researchers have posited that the level of impact on the overall quality perceptions varies among different product or service attributes and this variance can be explained by categorizing those attributes in basic and excitement factors depending on the outcome that their performance produces both in high and low measurements (Matzler, Bailom, Hinterhuber, Renzl, & Pichler, 2004). This point of view is consistent with theoretical approaches of customer satisfaction postulating that failure to meet minimum consumer requirements leads to grater dissatisfaction and at the same time high perceived performance of those basic required attributes do not produce more satisfaction (Oliver, 1980). Research related to corporate image determinants in the tourism industry has proposed the "*Kano model*" (Kano, 1984) which also recognizes the variating effect of different attributes to the perceived value of the service provided, suggesting that if the service meets or exceeds the expectation of the customer then the perceived value is increased and the corporate image is strengthened (Shahin & Zairi, 2009).

Previous research in the field of service quality in general and in the online information system context in particular, support the use of regression analysis when the research objective is to measure the differential impact of different service attributes on the overall beliefs and attitudes towards the system or the service provider (Johnson & Gustafsson, 2006; Loiacono et al., 2007; Lu et al., 2014; Arun Parasuraman et al., 1988; Yang et al., 2005). A common argument among the researchers mentioned above is the influential role of customers' expectations on the perceptions of performance. Fornell et al. (1996), in their model of The American Customer Satisfaction Index (ACSI), have pointed to the influence of customer expectations in perceived quality, perceived value and overall satisfaction with products and/or services. The actual service delivery to consumers sometimes either fails to incorporate the features that correspond to individual needs or the acquired attributes fail to achieve the appropriate performance levels that would match the customer's expectations, in those cases service quality evaluations score low and the overall satisfaction is inhibited. Thus this study aimed to incorporate medical tourists' consumption orientations as antecedents of expectations. For that reason, in addition to the initial examination of the regression coefficients for the information content factors, the independent variables measuring the MT's consumption orientations were hierarchically regressed against the dependent variable after the effect of the information cues in the observed variance of the overall evaluations was controlled for. In that sense any additional variance explained by the content factors could be attributed to the input of the consumption orientation constructs(Pallant, 2007), indicating that when correlation exists between an orientation construct and the perceived performance of certain information content factors then the effect on the dependent variable is stronger.

Finally due to the orientation of the study to develop a theoretical model to explain the dimension of medical tourists' online information search behaviour which reflects the information retrieval and evaluation (Ingwersen, 1996), the consumption orientations towards

medical tourism were integrated in the model as antecedents of consumer expectations. This integrated model includes relationships between latent constructs thus the model's fit to the data was tested, using the $AMOS_{18}$ software, by Confirmatory Factor Analysis and Structural Equation (Bagozzi & Yi, 1988).

Chapter IV. Data Analysis

4.1 Findings

A total of 385 responses were received. Of the 385 responses only 351 were valid with a total of 34 respondents being excluded from the study as they responded negatively in the filter question regarding their usage of medical tourism facilitator/agencies web sites. A valid response rate of 91% was recorded. A summary of the achieved sample's demographic profile is presented in **Table1**. Among the respondents a 53% were females and 47% were males. The group with the most significant number of responses was the age group 39-49 with 31% of the total responses, equal percentages of 24% were observed for the age groups of 30-39 and 49-59, while only an approximately 5% are over 69 years old. Regarding respondents' health insurance plans a 53% are covered by their national health insurance plans and a 45% are privately insured a small percentage of 2,4% reported uninsured. Most of the respondents had received cosmetic and orthopaedic surgery abroad with 22% and 21% respectively, heart surgery (9%), dental treatments (9%) and in vitro fertilization (7%) were also mentioned. These findings concerning the different types of medical procedures sought by medical tourists coincide with the findings of H. Lee et al. (2014), where cosmetic and orthopaedic surgery were the most frequently reported. Another finding of importance is the respondents' travel behaviour in terms of companions showing that the majority travels for treatment accompanied by family members or friends (33% and 20% respectively). This indicates that even though medical services are the most important element, accommodation and wider hospitality services for the medical traveller and his/her family/friends is to be considered in the trip planning phase.

Table.1 Respondents profile (n=351)

	frequency	percentage
age		
30-39	86	25
39-49	108	30
49-59	85	24
59-69	55	16
69-79	17	5
Gender		
Male	165	47
female	186	53
marital status		
married	172	49
single	94	26,8
widowed	42	12
never married	43	12,3
health insurance		
national	186	53,2
private	158	44,4
uninsure	7	2,4
partially insured	-	-
treatment		
dental	32	9
cosmetic surgery	77	22
gastric bypass	31	9
orthopedic surg.	75	21
heart surg.	32	9
Ivf	26	7
diagnostic	24	7
robotic	7	2
elective surg.	19	5
Other	28	8
travel behaviour		
travel with friends	70	20
travel with family	115	33
travel withpartner	64	18
travel alone	101	28

4.1.1 Descriptive Statistics

The descriptive summary of all questionnaire items is presented in **Table2.** It can be observed that all items were measured in seven point Likert like type scales ranging from 1 to 7 and standard deviation values are low, as it can be noticed coefficients of variance (std.dev/mean) are below 1 indicating that there is no large dispersion of the data. In addition the skewness and kurtosis values are within acceptable limits (-2, +2) (Pallant, 2007), suggesting that there

are no major violations of the normality assumptions that are required for the multiple regression analysis

4.1.2 Exploratory Factor Analysis and Reliability

The data analysis followed the procedure proposed by Churchill Jr (1979) in order to identify the underlying constructs of the model and establish reliability and content validity of the measurement instrument. Other researchers in the field of Information Systems performance propose similar methods for measurement purification (Davis et al., 1989; Loiacono et al., 2007). An iterative exploratory factor analysis was performed, using the Principal Components Analysis extraction method, in order to identify the underlying factors, the rotation method used was the *Promax* rotation, as it has been suggested the factor solution produced by orthogonal rotation is easier to interpret and report (Pallant, 2007, p. 192). The KMO index is .87 and the Bartlett's test of spheracity was significant at $p < .001$ indicating that the data are appropriate for factor analysis (Pallant, 2007).

Initially 8 factors were extracted with the majority of the items loading above .5, a threshold proposed by (Hair, Black, Babin, Anderson, & Tatham, 2006). After the first iteration of the process, it was decide that 4 items (P18, P14, P15, P20) would be excluded from further analysis due to cross loadings and factor loadings below .5. Further reliability analysis of the underlying constructs' scales indicated that if two more items (UO5 and UO6) of the Utility Orientation construct were deleted the Cronbach's alpha coefficient increased. An item measuring the PRVCON (Provider Content) construct (P4) was also negatively influencing the reliability of the scale, thus it was also excluded from further analysis. The Cronbach's alpha coefficients recorded for each scale were all well above the threshold of .7 proposed by Nunnally et al. (1967). Specifically **Table 3** presents the factor loadings and alpha coefficients for the underlying constructs measured by the questionnaire items. (*Appendix 2*).

Table2. Descriptive summary of questionnaire items

	N	Minimum	Maximum	Mean	Std.Deviation	CV	Skewness	Kurtosis
PE1	351	1	7	4.17	1.683	0.39	.213	-.921
PE2	351	1	7	4.28	1.677	0.45	.170	-1.012
PE3	351	1	7	3.97	1.771	0.42	.208	-.936
PE4	351	1	7	4.17	1.732	0.30	.143	-1.039
UO1	351	1	7	5.34	1.588	0.33	-.657	-.389
UO2	351	1	7	5.31	1.736	0.31	-.904	-.233
UO3	351	1	7	5.46	1.682	0.32	-.863	-.250
UO4	351	1	7	5.26	1.696	0.24	-.755	-.361
UO5	351	1	7	5.43	1.321	0.23	-.709	.161
UO6	351	1	7	5.63	1.309	0.45	-.864	.076
EO1	351	1	7	4.15	1.873	0.50	-.010	-1.032
EO2	351	1	7	3.57	1.779	0.55	.225	-.989
EO3	351	1	7	3.58	1.953	0.48	.266	-1.028
EO4	351	1	7	3.82	1.831	0.45	.038	-1.011
EO5	351	1	7	3.73	1.690	0.27	.147	-.758
PI1	351	1	7	5.15	1.367	0.29	-.861	.407
PI2	351	1	7	5.11	1.489	0.30	-.878	.230
PI3	351	1	7	4.74	1.423	0.27	-.512	-.107
PI4	351	1	7	5.05	1.365	0.29	-.864	.648
PI5	351	1	7	4.87	1.392	0.30	-.542	.045
PI6	351	1	7	4.61	1.374	0.29	-.545	.168
PI7	351	1	7	4.53	1.318	0.28	-.473	.208
PI8	351	1	7	4.65	1.310	0.33	-.521	.130
PI9	351	1	7	4.23	1.384	0.40	-.185	-.399
PI10	351	1	7	3.91	1.565	0.36	.184	-.668
PI11	351	1	7	4.89	1.740	0.35	-.763	-.436
PI12	351	1	7	4.73	1.639	0.35	-.682	-.328
PI13	351	1	7	4.75	1.648	0.32	-.686	-.339
PI14	351	1	7	4.87	1.580	0.32	-.833	.065
PI15	351	1	7	4.78	1.549	0.30	-.767	.013
PI16	351	1	7	4.76	1.433	0.27	-.378	-.142
PI17	351	1	7	5.23	1.395	0.32	-.888	.474
PI18	351	1	7	5.02	1.583	0.27	-.779	-.062
PI19	351	1	7	5.40	1.446	0.31	-1.095	.961
PI20	351	1	7	4.54	1.428	0.29	-.327	.040
PI21	351	1	7	4.85	1.410	0.23	-.734	.380
PI22	351	1	7	5.51	1.252	0.25	-1.139	1.610
PI23	351	1	7	5.26	1.294	0.27	-.735	.538
PUI1	351	1	7	5.13	1.402	0.37	-.828	.045
PUI2	351	1	7	4.46	1.666	0.36	-.269	-.967
PUI3	351	1	7	4.67	1.660	0.39	-.520	-.683

Table 3 Principal Components Analysis

Survey items	PEM a= .96	UOR a= .92	EOR a= .88	PRVCON a= .913	QUALCON a= .913	PEERREV a= .96	SERVCON a= .89	PUIT a= .93
PE1	.903							
PE2	.957							
PE3	.983							
PE4	.950							
UO1		.889						
UO2		.969						
UO3		.936						
UO4		.775						
EO1			.755					
EO2			.807					
EO3			.857					
EO4			.869					
EO5			.814					
PI1				.918				
PI2				.897				
PI3				.884				
PI5					.733			
PI6					.913			
PI7					.904			
PI8					.841			
PI9					.811			
PI10					.719			
PI11						.909		
PI12						.912		
PI13						.965		
PI16							.698	
PI17							.899	
PI19							.797	
PI21							.630	
PI22							.885	
PI23							.756	
PUI1								.630
PUI2								.885
PUI3								.756

4.1.3 Convergent and Discriminant Validity

Next step in the validation process of the measures used in the study was to test for convergent and discriminant validity. A first indication for convergent validity was the high factor loadings

on each underlying factor and the high inter-correlations between the respective items of each construct (Appendix 2). Further investigation indicated that the *average factor loading* of each factor was above .7 (**Table 4**), which indicates convergent validity (Tabachnick, Fidell, & Osterlind, 2001).

Table 4. Average factor loadings

Factors	Average loadings	Cronbach's alpha
PEM	.94 > .7	.96
UOR	.9 > .7	.92
EOR	.82 > .7	.88
PRVCON	.89 > .7	.91
QUALCON	.82 > .7	.91
PEERREV	.92 > .7	.96
SERVCON	.78 > .7	.89
PUIT	.76 > .7	.93

In order to test for discriminant validity the square of the average factor loading (Average Variance Extracted) of each factor was calculated and compared with the squared correlations (shared variance) between factors. As Hair et al. (2006, p. 778) suggest the "average variance extracted should be greater than the squared correlation". In **Table 5** the diagonal represents the AVE which is greater from all of the rest values of square correlations, thus supporting the discriminant validity of the measures (component correlation matrix can be found in Appendix 2). In brief the measurement model presents sufficient indices for reliability, convergent and discriminant validity.

Table 5. AVE and shared variance matrix

	PEM	UOR	EOR	PRVCON	QUALCON	PEERREV	SERVCON	PUIT
PEM	**.883**							
UOR	.066	**.81**						
EOR	.021	.039	**.672**					
PRVCON	.013	.018	.011	**.792**				
QUALCON	.010	.014	.001	.156	**.672**			
PEERREV	.655	.007	.033	.209	.219	**.846**		
SERVCON	.0134	.001	.001	.112	.213	.05	**.608**	
PUIT	.002	.001	.053	.048	.120	.3	.04	**.577**

4.1.4 Regression Analysis

The next step in the data analysis process after the identification of the factors is to examine the level of influence of these factors on the dependent variable PUIT (perceived usefulness of information). For this investigation regression analysis was applied to examine the effect of the independent variable to the dependent variable. This process was followed in two stages, first a multiple regression analysis was performed between perceived usefulness of information PUIT and the independent variables representing the perceived performance of the online information factors identified in the previous section. In the second phase an hierarchical multiple regression was used in order to test if any additional variance in the dependent variable could be explained by medical tourists' consumption orientations towards medical travel, after the statistically significant online information factors were controlled.

Normality plots and scatterplots indicate that the assumptions of normality and multicollinearity are not violated by the data (Appendix 2). Hair et al. (2006, p. 216), suggest a ratio of 15 observations for every independent variable, hence the achieved sample of the study (n = 351) is considered adequate for the application of multiple regression. The results indicate that the perceived performance of four online information content factors is able to explain approximately 46% of the variance in perceived usefulness of information (PUIT) $F(4, 346) = 73{,}251, p < .001$(Appendix 2). The independent test F statistic for 4 independent variables with 346 *(n-k-1)* degrees of freedom at the significance level of .001 yields 4.728. The significance level of the standardized regression coefficients shows that only the quality content (QUALCON) (*beta = .18, p < .001*) and the peer review content (PEERREV) (*beta = .40, p < .001*) factors are significant predictors of perceived usefulness of information (**Table 6**). In contrast provider content (PRVCON) (*beta = -.040, p > .05*) and service content (SERVCON) *(beta= .08, p > .05)* were found to be statistically insignificant.

Table 6. Regression Analysis

Model	Unstandardized coefficients		Standardized	t	p	Decision
	B	Std. error	beta			
PRVCON	-.035	.046	-.042	-.751	.453	Insignificant
QUALCON	.109	.036	.180	3.017	.000	Significant
PERREV	.348	.047	.403	7.387	.000	Significant
SERVCON	.047	.031	.085	1.529	.127	Insignificant

Dependent variable PUIT

In the next stage, the two important online information content factors from the first step were controlled and the independent variables (PEM, UOR and EOR), representing the consumption orientations towards medical tourism, were hierarchically regressed against the dependent variable in a sequence. The results of the hierarchical regression analysis indicate that when the variance accounted by the two significant factors (peer reviews and quality content) is controlled the experiential orientation (EOR) towards medical tourism construct was able to explain for an additional 6% of the variance in perceived usefulness of information. The model, when experiential orientation variable (EOR) is added, can account for a 52%, $F\ (7, 343) = 52{,}659,\ p < .001$ of the variance in the dependent variable (PUIT). The F statistic for 7 independent variables with 343 degrees of freedom at the significance level of .001 yields 3,573. Utilitarian orientation (UOR) $beta = .004,\ p > .05$ and patient empowerment (PEM) $beta = .054,\ p > .05$ are statistically insignificant. Furthermore utilitarian orientation seems to produce an overfitting of the data since the *adjusted R square* decreases when this variable is added in the regression, indicating that no predictive accuracy is added (Hair et al., 2006, p. 215). However when the experiential orientation (EOR) (bet$a = .142,\ p = .002$) is added to the model the standardized coefficient of the PEERREV factor increases ($beta = .46,\ p < .001$) while QUALCON (beta = .181, p < .001) is not influenced significantly (**Table 7**).

Table 7. Regression Analysis

Model	Unstandardized coefficients		Standardized	t	p	Decision
	B	Std. error	beta			
QUALCON	.109	.036	.181	3.047	.000	Significant
PERREV	.397	.050	.459	7.902	.000	Significant
PEM	.021	.034	.031	.636	.525	Insignificant
UOR	.037	.039	.048	.947	.344	Insignificant
EOR	.082	.028	.142	2.925	.002	Significant

Dependent variable PUIT

4.1.5 Model Fit test

One of the aims of this study is the development of a model that can be of use for providing important determinants of perceived usefulness of information content in the context of medical tourism facilitators/agencies web sites as an important dimension of the overall information quality and web site effectiveness (Petter et al., 2008; Yang et al., 2005) The results indicate that only three of the latent constructs of the initial model managed to predict a percentage of the variance in the dependent variable. The next step was to measure this reduced model for its overall appropriateness of fit in order to provide some theoretical contributions concerning factors that influence prospective medical tourists' online information search behaviour.

A Confirmatory Factor Analysis was conducted via AMOS 18 in order to test the reduced measurement model. Four first-order factors were included in the model and six model fit measures were investigated: CMIN/DF, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), normalized fit index (NFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA). The suggested acceptable values for these measures above are: CMIN/DF < 5.00, GFI > .9, AGFI > .80, NFI > .90, CFI > .90 and RMSEA < .10 (Hair et al., 2006). The results for all of the model fit indices exceeded these threshold values. The recorded values are: CMIN/DF = 2.718, GFI = .919, AGFI = .884, NFI = .947, CFI = .966 and RMSEA = .070, indicating a good fit to the data. Even though the model fit test is statistically

significant at .000 meaning that the null hypothesis is accepted Hair et al. (2006), suggest that it is common in cases with large samples due to the large number of degrees of freedom.

The structural/causal model was also tested and the resulted fit indices are: CMIN/DF = 3.299, GFI = .898, AGFI = .859, NFI = .934, CFI = .953, RMSEA = .081. The modification indices output indicated that if item P10 is deleted then the small discrepancy in the GFI measure would decrease producing a better fit. The standardized path coefficients indicate that the PEEREV information content factor significantly predicts the dependent variable (*beta = .45, p < .001*). Also the QUALCON factor predicts the dependent variable with standardized coefficient *beta = .15, p < .001.* Both of the values approximate the results of the regression analysis mentioned above.

Chapter V. Discussion

5.1 Research Hypotheses Testing

This chapter discusses the main findings of the study and how they relay to the research objectives and the stated research hypotheses presented in previous chapters. The first section of this chapter concerns the hypotheses testing and further explains the results of the data analysis section. The second and third section are concerned with theoretical and managerial implications and the last section presents the major limitations of the study.

The research objective of this study is to identify important determinants of perceived usefulness of information provided by MTF and medical travel agencies web sites. The applied model suggests information content performance factors and medical travellers' consumption orientations as important dimensions of the information evaluation process. The research hypotheses are summarised below:

- H1: Perceived performance of the provider content factor (PRVCON) has a significant influence on perceived usefulness of information content.
- H2: Perceived performance of the quality content factor (QUALCON) has a significant influence on perceived usefulness of information content.
- H3: Perceived performance of the peer-reviews content (PEEREV) has a significant influence on perceived usefulness of information content.
- H4: Perceived performance of the service content (SERVCON) factor has a significant influence on perceived usefulness of information content.
- H5: The relationship between perceived performance of quality content (QUALCON) and perceived usefulness of information is influenced by utilitarian orientations towards medical tourism

- H6: The relationship between perceived performance of service content (SERVCON) and perceived usefulness of information is influenced by utilitarian orientations towards medical tourism.
- H7: The relationship between perceived performance of peer-reviews content (PEEREV) and perceived usefulness of information is influenced by experiential/hedonic orientations towards medical tourism.
- H8: The relationship between perceived performance of service content (SERVCON) and perceived usefulness of information is influenced by experiential/hedonic orientations towards medical tourism.
- H9: The relationship between perceived performance of service content (SERCCON) and perceived usefulness of information is influenced by the level of patient empowerment.
- H10: The relationship between perceived performance of peer reviews content (PEEREV) and perceived usefulness of information is influenced by the level of patient empowerment.

The regression analysis results show the information content performance factors that significantly influence perceived usefulness of information content (PUIT). The peer-reviews content factor appears to have the most significant influence on perceived usefulness of information (*beta = .40, p < .001*), followed by the quality content factor (QUALCON) which had a respectively lower standardised beta coefficient (*beta = .18, p < .001*). In contrast the provider content factor (PRVCON) and the service content factor (SERVCON) were found statistically insignificant in predicting any variation in the dependent variable (PUIT). Hence hypotheses H1 and H4 were refuted and hypotheses H2 and H3 were confirmed.

The examination of the influence that medical tourist's consumption orientations have on perceived usefulness of information content for a given performance of the information content

factors was conducted by the application of hierarchical regression analysis. The results suggest that experiential/hedonic orientation (EOR) has a statistically significant effect on perceived usefulness of information and can account for an additional 6% of the variance. Specifically peer-reviews content (PEEREV) is shown to have an additional effect on usefulness perceptions when experiential orientation was added in the regression, indicating that the later variable influences the information content's performance perceptions. Utilitarian orientation (UOR) and patient empowerment (PEM) were found statistically insignificant and the service content factor (SERVCON) was found insignificant in the previous stage of the regression analysis. Hence hypothesis H7 is confirmed and hypotheses H5, H6, H8, H9 and H10 are refuted.

5.2 Discussion of Research Findings

This study's research objective was to examine medical travellers' online information evaluation process. Specifically, subsidiary research objectives were:

- To identify online information content factors that influence perceptions of information usefulness.
- To determine which of the extracted information content factors are most significant predictors of perceived usefulness.
- To test a model that integrates pre-consumption expectations as antecedents of the information evaluation process.

The results indicate e-WOM (word of mouth) information cues to be the most important factor influencing the information evaluation in terms of usefulness. This finding converges with other studies in the online consumption context were it was shown that opinions and reviews that are contributed by other fellow consumers are the most influential in the intentions of information technology adoption (Cheung, Lee, & Rabjohn, 2008). Other researchers have

indicated that the perceived similarity with the reviewers will enhance the communication's persuasive appeal (Petty, Ostrom, & Brock, 2014). This is in line with the operationalisation of the peer-reviews content factor that was chosen in this study. J. Lee, Park, and Han (2008), indicated the impact that negative online reviews have on consumers' attitudes towards products or services. Furthermore, research has shown that subjective norms and beliefs of important others have significant effect on individuals' intentions in the context of medical tourism due to the high risk perceptions involved in the decision making (Reddy, York, & Brannon, 2010). In that sense the performance of the web site in providing adequate e-WOM information cues was expected to significantly influence perceptions of usefulness. Consumer reviews are important in demonstrating the performance of online information systems and researchers have indicated this demonstrability of results as a significant dimension influencing the adoption of information technology (Mun, Jackson, Park, & Probst, 2006). In that sense the effects of word of mouth content reported in this study are further supported considering that patient reviews are a main source for the demonstration of medical treatment outcomes.

The performance of the quality content factor (QUALCON) is also found to influence perceived usefulness of information but in a lower level, this indicates that description of the treatments, effectiveness rates and information concerning implicated risks are considered as basic performance factors (Oliver, 1974) from prospective health travellers, meaning that they reflect minimum informational expectations, thus high performance of MTFs and medical travel web sites in providing such information doesn't affect the overall perceptions. Furthermore detailed treatment descriptions are indicated as key information cues included in medical tourism facilitator web sites (Cormany & Baloglu, 2011; Lunt et al., 2010). In that sense quality content (QUALCON) represents an area of performance for such information systems and there is no observed disconfirmation of the travel patients' informational

expectations concerning treatment descriptions. The same argument can be made for the provider content (PRVCON) and the service content (SERVCON) factors.

The integration of utilitarian patient orientations towards medical tourism and patient empowerment as dimensions influencing the information evaluation process was found insignificant in explaining the variance in the dependent variable. An important finding though is the effect of experiential/hedonic expectations towards medical tourism. This finding can provide a useful insight in the academic debate on the issue of issue of weather travelling for treatment includes the leisure and frivolity connotations of tourism (Connell, 2006, 2013). The results indicate that experiential/hedonic motivations related to the notion of tourism (Dann, 1977, 1981; Urry, 2002) can actually be reflected in the online information search behaviour and decision making of prospective medical tourists.

5.2.1 Theoretical Implications

The reliability and validity tests indicate that the measurement instrument and the scales that were applied and adapted to the medical tourism e-commerce context were able to appropriately measure the dimensions of prospective medical tourists' information evaluation process. Quantitative research in the field of medical tourism is scarce, thus measurement instruments are needed in order to test specific hypotheses and advance theory. The findings of the study contribute an effective measurement infrastructure for future studies. Furthermore the study suggests a valid factor structure describing the online information content that is useful in the attempt to approach the IS performance from the patient consumer perspective. Seminal work in the general service quality field and the development of measures such as SERVQUAL (Arun Parasuraman et al., 1988) and the User Satisfaction with Information index (Ives et al., 1983) that have been highly cited in the literature indicate the importance of

measuring system attributes such as quality of information and their respective influence level on the overall perceptions of the end user.

The preliminary analysis ordered the reduction of the initial model. In the next phase of the analysis the extracted dimensions were tested for their explanatory power over the data. The Confirmatory Factor Analysis results show a valid measurement model with the proposed constructs and the factor structure showing a good overall fit to the data. The structural model fit indices suggest that the observed data support the proposed relationships between the underlying constructs.

The validation process followed in this study extracted an instrument measuring important dimensions of the online information evaluation process in the context of medical tourism. The model can provide a basis for future longitudinal and experimental studies aiming to investigate factors that influence online consumer behaviour of prospective medical tourists.

5.2.2 Managerial Implications

Peer-patient reviews are extracted as the most significant predictors of perceived usefulness. Moreover the operationalisation of the construct (PEEREV), which reflects the need of prospective medical travellers to find information describing the experience of individuals that are similar to them, suggests that marketers and web designers should focus on the development of user generated content and online communities within the information system in order to adequately facilitate medical tourists' decision making (Marco Leimeister, Schweizer, Leimeister, & Krcmar, 2008; Van Dijck, 2009).

The element of hedonic and experiential components of medical tourism can be used to segment potential medical travellers. Specialised medical travel web sites targeting travellers with such motivations can allocate their investment and resources in developing online peer

interaction and user generated content that highlights experiential/hedonic benefits and attributes.

Chapter VI. Conclusion

6.1 Conclusion

This study shows a preliminary exploration of how the Technology Acceptance Model and Task-Technology fit concept can be applied in the domain of online promotion of medical tourism services. In the sense of providing insight concerning web site characteristics that influence medical travellers perceptions and attitudes towards the system. Given the lack of previous research in this specialised field and the scarcity of valid measures, the main contribution of the study is in providing a measurement model that can be used in real settings and field studies. Furthermore longitudinal and experimental examinations of medical tourist's online consumer behaviour can apply the proposed constructs in order to investigate the nomological network of medical travellers' online information search behaviour.

The difficulty of framing the medical tourist population was a major limitation of this study. The convenience sampling method that was used poses threats to the generalisability of the results. The use of the online survey technique does not allow to control for non-response bias. In addition the retrospective examination of the respondents can also produce bias in the sense that the actual experience with the use of MTFs and medical travel may differ from the travel patients' retrospective accounts. Another major limitations of the study, caused by the difficulty in both sampling medical tourists and in achieving an adequate sample, is the fact that both the measurement validation process and the examination of the relationships between the proposed constructs was conducted with the same sample as opposed by Churchill Jr (1979), who calls for different samples to be used in the exploratory analysis stage and in the

confirmatory analysis stage. Thus future research is warrant in order to determine on the robustness of the proposed model. Overall a systematic scientific approach was followed in order to address the research questions and to provide reliable and valid findings.

Reference List

Aaker, D. A., & Stayman, D. M. (1990). Measuring audience perceptions of commercials and relating them to ad impact. *Journal of Advertising Research*.

Abernethy, A. M., & Franke, G. R. (1996). The information content of advertising: A meta-analysis. *Journal of advertising*, *25*(2), 1-17.

Abubakar, A. M., & Ilkan, M. (2016). Impact of online WOM on destination trust and intention to travel: A medical tourism perspective. *Journal of Destination Marketing & Management*.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour.

Altin, M. M., Singal, M., & Kara, D. (2011). Consumer decision components for medical tourism: a stakeholder approach.

Andrews, L., & Drennan, J. (2007). 'Extending Holt's (1995) typology of consumption to examine the marketing domain in the experimental consumption of mobile phones''. *Queensland University of Technology (unpublished thesis)*.

Assael, H. (1984). *Consumer behavior and marketing action*: Kent Pub. Co.

Awadzi, W., & Panda, D. (2006). MEDICAL TOURISM: GLOBALIZATION AND THE MARKETING OF MEDICAL SERVICES. *Consortium Journal of Hospitality & Tourism*, *11*(1).

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 644-656.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, *16*(1), 74-94.

Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative science quarterly*, 421-458.

Batra, R., & Ahtola, O. T. (1991). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing letters*, *2*(2), 159-170.

Berland, G. K., Elliott, M. N., Morales, L. S., Algazy, J. I., Kravitz, R. L., Broder, M. S., . . . Lara, M. (2001). Health information on the Internet: accessibility, quality, and readability in English and Spanish. *Jama*, *285*(20), 2612-2621.

Bhattacherjee, A. (2001a). UNDERSTANDING INFORMATION SYSTEMS CONTINUANCE: AN EXPECTATION-CONFIRMATION MODEL. *MIS quarterly*, *25*(3), 351-370.

Bhattacherjee, A. (2001b). Understanding information systems continuance: an expectation-confirmation model. *MIS quarterly*, 351-370.

Bieger, T., & Laesser, C. (2004). Information sources for travel decisions: Toward a source process model. *Journal of Travel Research*, *42*(4), 357-371.

Blackwell, R., DSouza, C., Taghian, M., Miniard, P., & Engel, J. (2006). Consumer behaviour: an Asia Pacific approach.

Blanchard, C. G., Labrecque, M. S., Ruckdeschel, J. C., & Blanchard, E. B. (1988). Information and decision-making preferences of hospitalized adult cancer patients. *Social Science & Medicine*, *27*(11), 1139-1145. doi: http://dx.doi.org/10.1016/0277-9536(88)90343-7

Bookman, M. Z., & Bookman, K. R. (2007). *Medical Tourism in Developing Countries*. Gordonsville, VA, USA: Palgrave Macmillan.

Borlund, P. (2003). The concept of relevance in IR. *Journal of the American Society for information Science and Technology, 54*(10), 913-925.

Bridges, E., & Florsheim, R. (2008). Hedonic and utilitarian shopping goals: The online experience. *Journal of Business research, 61*(4), 309-314. doi: http://dx.doi.org/10.1016/j.jbusres.2007.06.017

Caballero-Danell, S., & Mugomba, C. (2007). Medical tourism and its entrepreneurial opportunities: A conceptual framework for entry into the industry.

Carter, K. F., & Kulbok, P. A. (2002). Motivation for health behaviours: a systematic review of the nursing literature. *Journal of advanced nursing, 40*(3), 316-330.

Case, D. (2007). Looking for information: a survey of research on information seeking, needs, and behavior. *Library and information science*.

Celsi, R. L., Rose, R. L., & Leigh, T. W. (1993). An exploration of high-risk leisure consumption through skydiving. *Journal of Consumer Research*, 1-23.

Chaffey, D., Ellis-Chadwick, F., Mayer, R., & Johnston, K. (2009). *Internet marketing: strategy, implementation and practice*: Pearson Education.

Charles, C., Gafni, A., & Whelan, T. (1999). Decision-making in the physician–patient encounter: revisiting the shared treatment decision-making model. *Social Science & Medicine, 49*(5), 651-661.

Cheung, C. M., Lee, M. K., & Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet Research, 18*(3), 229-247.

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of retailing, 77*(4), 511-535. doi: http://dx.doi.org/10.1016/S0022-4359(01)00056-2

Churchill Jr, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research (JMR), 16*(1), 64-73.

Cline, R. J., & Haynes, K. M. (2001). Consumer health information seeking on the Internet: the state of the art. *Health education research, 16*(6), 671-692.

Connell, J. (2006). Medical tourism: Sea, sun, sand and… surgery. *Tourism management, 27*(6), 1093-1100.

Connell, J. (2013). Contemporary medical tourism: Conceptualisation, culture and commodification. *Tourism management, 34*, 1-13.

Cormany, D., & Baloglu, S. (2011). Medical travel facilitator websites: An exploratory study of web page contents and services offered to the prospective medical tourist. *Tourism management, 32*(4), 709-716.

Crompton, J. (1992). Structure of vacation destination choice sets. *Annals of Tourism Research, 19*(3), 420-434. doi: http://dx.doi.org/10.1016/0160-7383(92)90128-C

Crooks, V. A., Kingsbury, P., Snyder, J., & Johnston, R. (2010). What is known about the patient's experience of medical tourism? A scoping review. *BMC Health Services Research, 10*(1), 1.

Crooks, V. A., Turner, L., Snyder, J., Johnston, R., & Kingsbury, P. (2011). Promoting medical tourism to India: Messages, images, and the marketing of international patient travel. *Social Science & Medicine, 72*(5), 726-732.

Dann, G. M. (1977). Anomie, ego-enhancement and tourism. *Annals of Tourism Research, 4*(4), 184-194.

Dann, G. M. (1981). Tourist motivation an appraisal. *Annals of Tourism Research, 8*(2), 187-219.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science, 35*(8), 982-1003.

Denys, V., & Mendes, J. (2014). Consumption Values and Destination Evaluation in Destination Decision Making. *Journal of Spatial and Organizational Dynamics, 2*(1), 4-22.

Detlor, B., Sproule, S., & Gupta, C. (2003). Pre-Purchase Online Information Seeking: Search versus Browse. *J. Electron. Commerce Res., 4*(2), 72-84.

Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of marketing research, 37*(1), 60-71.

Dick, A. S., & Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework. *Journal of the academy of marketing science, 22*(2), 99-113.

Edgman-Levitan, S., & Cleary, P. D. (1996). What information do consumers want and need? *Health affairs, 15*(4), 42-56.

Ende, J., Kazis, L., Ash, A., & Moskowitz, M. A. (1989). Measuring patients' desire for autonomy. *Journal of general internal medicine, 4*(1), 23-30.

Eugene, Y. (2013). Patient-Centeredness Communication Strategy for the Medical Tourism Industry. *Journal of Tourism Research & Hospitality*.

Eysenbach, G., & Köhler, C. (2002). How do consumers search for and appraise health information on the world wide web? Qualitative study using focus groups, usability tests, and in-depth interviews. *Bmj, 324*(7337), 573-577.

Eysenbach, G., Powell, J., Kuss, O., & Sa, E.-R. (2002). Empirical studies assessing the quality of health information for consumers on the world wide web: a systematic review. *Jama, 287*(20), 2691-2700.

Fishburn, P. C. (1970). Utility theory for decision making: DTIC Document.

Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: nature, purpose, and findings. *the Journal of Marketing*, 7-18.

Gan, L. L., & Frederick, J. R. (2013). A Survey of Consumers' Perceptions Toward Medical Tourism (2012 Study). *Available at SSRN 2232201*.

Gill, H., & Singh, N. (2011). Exploring the factors that affect the choice of destination for medical tourism. *Journal of Service Science and Management, 4*(3), 315.

Gnoth, J. (1997). Tourism motivation and expectation formation. *Annals of Tourism Research, 24*(2), 283-304.

Goodhue, D. L. (1998). Development and measurement validity of a task-technology fit instrument for user evaluations of information system. *Decision Sciences, 29*(1), 105-138.

Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS quarterly*, 213-236.

Goodrich, J. N., & Goodrich, G. E. (1987). Health-care tourism—An exploratory study. *Tourism management, 8*(3), 217-222.

Guiry, M., Scott, J. J., & Vequist IV, D. G. (2013). Experienced and potential medical tourists' service quality expectations. *International journal of health care quality assurance, 26*(5), 433-446.

Guo, Y., & Salvendy, G. (2009). Factor structure of content preparation for e-business web sites: results of a survey of 428 industrial employees in the People's Republic of China. *Behaviour & Information Technology, 28*(1), 73-86.

Gursoy, D., & McCleary, K. W. (2004). AN INTEGRATIVE MODEL OF TOURISTS'INFORMATION SEARCH BEHAVIOR. *Annals of Tourism Research, 31*(2), 353-373.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6): Pearson Prentice Hall Upper Saddle River, NJ.

Hall, C. M., Lunt, N., & Carrera, P. (2011). Systematic review of web sites for prospective medical tourists. *Tourism Review, 66*(1/2), 57-67.

Hall, C. M., Voigt, C., Brown, G., & Howat, G. (2011). Wellness tourists: in search of transformation. *Tourism Review, 66*(1/2), 16-30.

Hanefeld, J., Smith, R., Horsfall, D., & Lunt, N. (2014). What do we know about medical tourism? A review of the literature with discussion of its implications for the UK National Health Service as an example of a public health care system. *Journal of travel medicine, 21*(6), 410-417.

Hardey, M. (2010). Consuming Professions User-review websites and health services. *Journal of Consumer Culture, 10*(1), 129-149.

Henderson, A., & Chien, W. T. (2004). Information needs of Hong Kong Chinese patients undergoing surgery. *Journal of clinical nursing, 13*(8), 960-966.

Heung, V. C., Kucukusta, D., & Song, H. (2010). A conceptual model of medical tourism: Implications for future research. *Journal of Travel & Tourism Marketing, 27*(3), 236-251.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational research methods, 1*(1), 104-121.

Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: emerging concepts, methods and propositions. *the Journal of Marketing*, 92-101.

Ho, C.-I., & Lee, Y.-L. (2007). The development of an e-travel service quality scale. *Tourism management, 28*(6), 1434-1449. doi: http://dx.doi.org/10.1016/j.tourman.2006.12.002

Holbrook, M. B., & Hirschman, E. C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 132-140.

Holt, D. B. (1995). How consumers consume: A typology of consumption practices. *Journal of Consumer Research, 22*(1), 1-16.

Horowitz, M. D., Rosensweig, J. A., & Jones, C. A. (2007). Medical tourism: globalization of the healthcare marketplace. *Medscape General Medicine, 9*(4), 33.

Ingwersen, P. (1996). Cognitive perspectives of information retrieval interaction: elements of a cognitive IR theory. *Journal of documentation, 52*(1), 3-50.

Ives, B., Olson, M. H., & Baroudi, J. J. (1983). The measurement of user information satisfaction. *Communications of the ACM, 26*(10), 785-793.

Jalilvand, M. R., & Samiei, N. (2012). The impact of electronic word of mouth on a tourism destination choice: Testing the theory of planned behavior (TPB). *Internet Research: Electronic Networking Applications and Policy, 22*(5), 591-612.

Janiszewski, C. (1998). The influence of display characteristics on visual exploratory search behavior. *Journal of Consumer Research, 25*(3), 290-301.

Johnson, M., & Gustafsson, A. (2006). *Improving customer satisfaction, loyalty and profit: An integrated measurement and management system*: John Wiley & Sons.

Johnston, A. C., Worrell, J. L., Di Gangi, P. M., & Wasko, M. (2013). Online health communities: An assessment of the influence of participation on patient empowerment outcomes. *Information Technology & People, 26*(2), 213-235.

Johnston, R., Crooks, V. A., & Snyder, J. (2012). "I didn't even know what I was looking for": A qualitative study of the decision-making processes of Canadian medical tourists. *Globalization and health, 8*(1), 1.

Jones, M. A., Reynolds, K. E., & Arnold, M. J. (2006). Hedonic and utilitarian shopping value: Investigating differential effects on retail outcomes. *Journal of Business research, 59*(9), 974-981.

Jotikasthira, N. (2010a). Salient factors influencing medical tourism destination choice.

Jotikasthira, N. (2010b). *Salient factors influencing medical tourism destination choice.* (Phd Thesis), Southern Cross University. Available from http://epubs.scu.edu.au

Kano, N. (1984). Shinichi Tsuji, Nobuhiko Seraku, and Fumio Takerhashi."Miryokuteki Hinshitsu to Atarimae Hinshitsu"("Attractive Quality and Must-Be Quality"). Quality, JSQC 14 (2) Tokyo, Japan. *Society for Quality Control*.

Karahanna, E., Straub, D. W., & Chervany, N. L. (1999). Information technology adoption across time: a cross-sectional comparison of pre-adoption and post-adoption beliefs. *MIS quarterly*, 183-213.

Katz, D. (1960). The functional approach to the study of attitudes. *Public opinion quarterly, 24*(2), 163-204.

Keckley, P. H., & Underwood, H. R. (2008). Medical tourism: Consumers in search of value. *Washington: Deloitte Center for Health Solutions*.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *the Journal of Marketing*, 1-22.

Kim, J., Lee, J., Han, K., & Lee, M. (2002). Businesses as buildings: Metrics for the architectural quality of Internet businesses. *Information systems research, 13*(3), 239-254.

Kim, P., Eng, T. R., Deering, M. J., & Maxfield, A. (1999). Published criteria for evaluating health related web sites: review. *Bmj, 318*(7184), 647-649.

Kim, Y.-K., Lee, M.-Y., & Park, S.-H. (2014). Shopping value orientation: Conceptualization and measurement. *Journal of Business research, 67*(1), 2884-2890.

Kim, Y. J., Kishore, R., & Sanders, G. L. (2005). From DQ to EQ: understanding data quality in the context of e-business systems. *Communications of the ACM, 48*(10), 75-81.

Kotler, P., & Keller, K. L. (2005). Marketing Management (Marketing Management): Upper Saddle River: Prentice Hall.

Lai, I. K. W., & Hitchcock, M. (2015). Importance–performance analysis in tourism: A framework for researchers. *Tourism management, 48*, 242-267. doi: http://dx.doi.org/10.1016/j.tourman.2014.11.008

Larcker, D. F., & Lessig, V. P. (1980). Perceived Usefulness of Information: A Psychometric Examination*. *Decision Sciences, 11*(1), 121-134.

Lee, H., Wright, K. B., O'Connor, M., & Wombacher, K. (2014). Framing medical tourism: an analysis of persuasive appeals, risks and benefits, and new media features of medical tourism broker websites. *Health communication, 29*(7), 637-645.

Lee, H. A., Law, R., & Murphy, J. (2011). Helpful reviewers in TripAdvisor, an online travel community. *Journal of Travel & Tourism Marketing, 28*(7), 675-688.

Lee, J., Park, D.-H., & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. *Electronic Commerce Research and Applications, 7*(3), 341-352.

Lee, M., Han, H., & Lockyer, T. (2012). Medical tourism—attracting Japanese tourists for medical tourism experience. *Journal of Travel & Tourism Marketing, 29*(1), 69-86.

Lertwannawit, A., & Gulid, N. (2011). International tourists' service quality perception and behavioral loyalty toward medical tourism in Bangkok metropolitan area. *Journal of Applied Business Research (JABR), 27*(6), 1-12.

Liao, H., Proctor, R. W., & Salvendy, G. (2008). Content preparation for cross-cultural e-commerce: a review and a model. *Behaviour & Information Technology, 27*(1), 43-61.

Lin, W.-B., Wang, M.-K., & Hwang, K. P. (2010). The combined model of influencing on-line consumer behavior. *Expert Systems with Applications, 37*(4), 3236-3247.

Lindberg, E., Gärling, T., & Montgomery, H. (1989). Belief-value structures as determinants of consumer behaviour: A study of housing preferences and choices. *Journal of Consumer Policy, 12*(2), 119-137. doi: 10.1007/bf00412067

Loewenstein, G. (2000). Emotions in economic theory and economic behavior. *The American Economic Review, 90*(2), 426-432.

Loiacono, E. T., Watson, R. T., & Goodhue, D. L. (2007). WebQual: An instrument for consumer evaluation of web sites. *International Journal of Electronic Commerce, 11*(3), 51-87.

Lu, H.-Y., Wu, W.-Y., & Chen, S.-H. (2014). Influences on the perceived value of medical travel: the moderating roles of risk attitude, self-esteem and word-of-mouth. *Current Issues in Tourism*, 1-15.

Lunt, N., & Carrera, P. (2010). Medical tourism: assessing the evidence on treatment abroad. *Maturitas, 66*(1), 27-32.

Lunt, N., & Carrera, P. (2011). Systematic review of web sites for prospective medical tourists. *Tourism Review, 66*(1/2), 57-67. doi: doi:10.1108/16605371111127224

Lunt, N., Hardey, M., & Mannion, R. (2010). Nip, tuck and click: medical tourism and the emergence of web-based health information. *The Open Medical Informatics Journal, 4*(1).

Luomala, H. T., Paasovaara, R., & Lehtola, K. (2006). Exploring consumers health meaning categories: towards a health consumption meaning model. *Journal of Consumer Behaviour, 5*(3), 269.

Malhotra, N. K. (2010). *Marketing research: An applied orientation* (Vol. 834): Pearson Education New Jersey.

Mansfeld, Y. (1992). From motivation to actual travel. *Annals of Tourism Research, 19*(3), 399-419. doi: http://dx.doi.org/10.1016/0160-7383(92)90127-B

Marco Leimeister, J., Schweizer, K., Leimeister, S., & Krcmar, H. (2008). Do virtual communities matter for the social support of patients? Antecedents and effects of virtual relationships in online communities. *Information Technology & People, 21*(4), 350-374.

Markley Rountree, M., & Davis, L. (2011). A dimensional qualitative research approach to understanding medically unnecessary aesthetic surgery. *Psychology & Marketing, 28*(10), 1027-1043.

Martínez-López, F. J., Pla-García, C., Gázquez-Abad, J. C., & Rodríguez-Ardura, I. (2014). Utilitarian motivations in online consumption: Dimensional structure and scales. *Electronic Commerce Research and Applications, 13*(3), 188-204. doi: http://dx.doi.org/10.1016/j.elerap.2014.02.002

Maslow, A. H. (1943). A theory of human motivation. *Psychological review, 50*(4), 370.

Matzler, K., Bailom, F., Hinterhuber, H. H., Renzl, B., & Pichler, J. (2004). The asymmetric relationship between attribute-level performance and overall customer satisfaction: a reconsideration of the importance–performance analysis. *Industrial Marketing Management, 33*(4), 271-277. doi: http://dx.doi.org/10.1016/S0019-8501(03)00055-5

McKinney, V., Yoon, K., & Zahedi, F. M. (2002). The measurement of web-customer satisfaction: An expectation and disconfirmation approach. *Information systems research, 13*(3), 296-315.

Mills, J. E., & Morrison, A. M. (2003). *Measuring customer satisfaction with online travel*: na.

Mohamad, W. N., Omar, A., & Haron, M. S. (2012). The moderating effect of medical travel facilitators in medical tourism. *Procedia-Social and Behavioral Sciences, 65*, 358-363.

Mohammad Jamal, K., Chelliah, S., & Haron, M. S. (2016). International Patients' Travel Decision Making Process-A Conceptual Framework. *Iranian Journal of Public Health, 45*(2), 134.

Moser, A., Korstjens, I., van der Weijden, T., & Tange, H. (2010). Themes affecting health-care consumers' choice of a hospital for elective surgery when receiving web-based comparative consumer information. *Patient Education and Counseling, 78*(3), 365-371.

Moshki, M., Ghofranipour, F., Hajizadeh, E., & Azadfallah, P. (2007). Validity and reliability of the multidimensional health locus of control scale for college students. *BMC Public health, 7*(1), 295.

Mun, Y. Y., Jackson, J. D., Park, J. S., & Probst, J. C. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & Management, 43*(3), 350-363.

Nerini, A., Matera, C., & Stefanile, C. (2014). Psychosocial predictors in consideration of cosmetic surgery among women. *Aesthetic plastic surgery, 38*(2), 461-466.

Neuman, W. L. (2005). *Social research methods: Quantitative and qualitative approaches* (Vol. 13): Allyn and bacon Boston, MA.

Ngai, E. W. (2003). Internet marketing research (1987-2000): a literature review and classification. *European Journal of Marketing, 37*(1/2), 24-49.

Nguyen, V. H., & Wang, Z. (2011). Practice of Online Marketing with Social Media in Tourism Destination Marketing: The Case Study of VisitSweden, Sweden.

Nunnally, J. C., Bernstein, I. H., & Berge, J. M. t. (1967). *Psychometric theory* (Vol. 226): JSTOR.

Oliver, R. L. (1974). Expectancy theory predictions of salesmen's performance. *Journal of marketing research*, 243-253.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of marketing research*, 460-469.

Or, C. K., & Karsh, B.-T. (2009). A systematic review of patient acceptance of consumer health information technology. *Journal of the American Medical Informatics Association, 16*(4), 550-560.

Overby, J. W., & Lee, E.-J. (2006). The effects of utilitarian and hedonic online shopping value on consumer preference and intentions. *Journal of Business research, 59*(10–11), 1160-1166. doi: http://dx.doi.org/10.1016/j.jbusres.2006.03.008

Pallant, J. (2007). SPSS survival manual: A step-by-step guide to data analysis using SPSS version 15. *Nova Iorque: McGraw Hill*.

Palmer, J. W. (2002). Web site usability, design, and performance metrics. *Information systems research, 13*(2), 151-167.

Pan, B., & Fesenmaier, D. R. (2006). Online information search: vacation planning process. *Annals of Tourism Research, 33*(3), 809-832.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual. *Journal of retailing, 64*(1), 12-40.

Penney, K., Snyder, J., Crooks, V. A., & Johnston, R. (2011). Risk communication and informed consent in the medical tourism industry: a thematic content analysis of Canadian broker websites. *BMC medical ethics, 12*(1), 17.

Perdue, R. R., & Meng, F. (2006). Understanding choice and rejection in destination consideration sets. *Tourism Analysis, 11*(6), 337-348.

Petrick, J. F. (2002). Development of a multi-dimensional scale for measuring the perceived value of a service. *Journal of leisure research, 34*(2), 119.

Petter, S., DeLone, W., & McLean, E. (2008). Measuring information systems success: models, dimensions, measures, and interrelationships. *European journal of information systems, 17*(3), 236-263.

Petty, R., Ostrom, T. M., & Brock, T. C. (2014). *Cognitive responses in persuasion*: Psychology Press.

Prigge, J.-K., Dietz, B., Homburg, C., Hoyer, W. D., & Burton, J. L. (2015). Patient empowerment: A cross-disease exploration of antecedents and consequences. *International Journal of Research in Marketing, 32*(4), 375-386. doi: http://dx.doi.org/10.1016/j.ijresmar.2015.05.009

Reddy, S. G., York, V. K., & Brannon, L. A. (2010). Travel for treatment: students' perspective on medical tourism. *International Journal of Tourism Research, 12*(5), 510-522.

Resnik, A., & Stern, B. L. (1977). An analysis of information content in television advertising. *the Journal of Marketing*, 50-53.

Richard, M.-O., Chebat, J.-C., Yang, Z., & Putrevu, S. (2010). A proposed model of online consumer behavior: Assessing the role of gender. *Journal of Business research, 63*(9), 926-934.

Sarantopoulos, I., Vicky, K., & Geitona, M. (2014). A Supply Side Investigation of Medical Tourism and ICT Use in Greece. *Procedia-Social and Behavioral Sciences, 148*, 370-377.

Say, R., Murtagh, M., & Thomson, R. (2006). Patients' preference for involvement in medical decision making: A narrative review. *Patient Education and Counseling, 60*(2), 102-114. doi: http://dx.doi.org/10.1016/j.pec.2005.02.003

Shahin, A., & Zairi, M. (2009). Kano model: A dynamic approach for classifying and prioritising requirements of airline travellers with three case studies on international airlines. *Total Quality Management, 20*(9), 1003-1028.

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business research, 22*(2), 159-170.

Singh, N. (2013). Exploring the factors influencing the travel motivations of US medical tourists. *Current Issues in Tourism, 16*(5), 436-454.

Smith, P. C., & Forgione, D. A. (2007). Global outsourcing of healthcare: a medical tourism decision model. *Journal of Information Technology Case and Application Research, 9*(3), 19-30.

Smith, R., Álvarez, M. M., & Chanda, R. (2011). Medical tourism: a review of the literature and analysis of a role for bi-lateral trade. *Health Policy, 103*(2), 276-282.

Soane, E., Schubert, I., Lunn, R., & Pollard, S. (2015). The relationship between information processing style and information seeking, and its moderation by affect and perceived usefulness: Analysis vs. procrastination. *Personality and Individual Differences, 72*, 72-78. doi: http://dx.doi.org/10.1016/j.paid.2014.08.029

Sobo, E. J., Herlihy, E., & Bicker, M. (2011). Selling medical travel to US patient-consumers: the cultural appeal of website marketing messages. *Anthropology and Medicine, 18*(1), 119-136.

Sprotles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumers' decision-making styles. *Journal of Consumer Affairs, 20*(2), 267-279.

Stewart, D. W., & Koslow, S. (1989). Executional factors and advertising effectiveness: A replication. *Journal of advertising, 18*(3), 21-32.

Sun, H., & Zhang, P. (2006). The role of moderating factors in user technology acceptance. *International Journal of Human-Computer Studies, 64*(2), 53-78.

Swarbrooke, J., & Horner, S. (2007). *Consumer behaviour in tourism*: Routledge.

Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of retailing, 77*(2), 203-220.

Tabachnick, B. G., Fidell, L. S., & Osterlind, S. J. (2001). Using multivariate statistics.

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research, 6*(2), 144-176.

Tierney, P. (2000). Internet-based evaluation of tourism web site effectiveness: Methodological issues and survey results. *Journal of Travel Research, 39*(2), 212-219.

To, P.-L., Liao, C., & Lin, T.-H. (2007). Shopping motivations on Internet: A study based on utilitarian and hedonic value. *Technovation, 27*(12), 774-787. doi: http://dx.doi.org/10.1016/j.technovation.2007.01.001

Turner, L. (2010). "Medical tourism" and the global marketplace in health services: US patients, international hospitals, and the search for affordable health care. *International Journal of Health Services, 40*(3), 443-467.

Turner, L. (2011). Canadian medical tourism companies that have exited the marketplace: Content analysis of websites used to market transnational medical travel. *Globalization and health, 7*(1), 1.

Um, S., & Crompton, J. L. (1990). Attitude determinants in tourism destination choice. *Annals of Tourism Research, 17*(3), 432-448. doi: http://dx.doi.org/10.1016/0160-7383(90)90008-F

Urry, J. (2002). *The tourist gaze*: Sage.

Vakkari, P. (2001). A theory of the task-based information retrieval process: a summary and generalisation of a longitudinal study. *Journal of documentation, 57*(1), 44-60.

Van Dijck, J. (2009). Users like you? Theorizing agency in user-generated content. *Media, culture, and society, 31*(1), 41.

van Strien, J. L. H., Kammerer, Y., Brand-Gruwel, S., & Boshuizen, H. P. A. (2016). How attitude strength biases information processing and evaluation on the web. *Computers in Human Behavior, 60*, 245-252. doi: http://dx.doi.org/10.1016/j.chb.2016.02.057

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research, 11*(4), 342-365.

Vitell, S. J., & Muncy, J. (1992). Consumer ethics: An empirical investigation of factors influencing ethical judgments of the final consumer. *Journal of Business Ethics, 11*(8), 585-597. doi: 10.1007/bf00872270

Wang, H.-Y. (2012). Value as a medical tourism driver. *Managing Service Quality: An International Journal, 22*(5), 465-491.

Weinstein, N. D. (1993). Testing four competing theories of health-protective behavior. *Health psychology, 12*(4), 324.

Westbrook, R. A., & Oliver, R. L. (1991). The Dimensionality of Consumption Emotion Patterns and Consumer Satisfaction. *Journal of Consumer Research, 18*(1), 84-91.

Wilson, E. V., & Gustafson, N. (2003). Modeling Patients' Acceptance of E-Health. *AMCIS 2003 Proceedings*, 118.

Wilson, T. D. (1997). Information behaviour: an interdisciplinary perspective. *Information processing & management, 33*(4), 551-572.

Wilson, T. D. (1999). Models in information behaviour research. *Journal of documentation, 55*(3), 249-270.

Wood, R. E. (1986). Task complexity: Definition of the construct. *Organizational behavior and human decision processes, 37*(1), 60-82.

Xia, L., & Monroe, K. (2005). Consumer information acquisition. *Review of Marketing Research (Review of Marketing Research, Volume 1) Emerald Group Publishing Limited, 1*, 101-152.

Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism management, 31*(2), 179-188. doi: http://dx.doi.org/10.1016/j.tourman.2009.02.016

Yang, Z., Cai, S., Zhou, Z., & Zhou, N. (2005). Development and validation of an instrument to measure user perceived service quality of information presenting Web portals. *Information & Management, 42*(4), 575-589.

Appendix 1

Questionnaire items

Personal Information

1. Age *
Please type your age in the box below

2. Gender *

- male
- Female

3. Marital Status *

- Married
- Single
- Widowed
- Never married

4. What kind of health insurance or health care coverage do you have? *

- national health insurance
- private health insurance
- uninsured
- partially insured

5. Have you used a medical travel facilitator/agency web site in order to plan for a medical travel, within the last six months? *

- Yes
- No

6. What kind of treatment have you received from a medical servise provider abroad? *
Please choose the treatment that you received the last time that you travelled abroad for treatment

- Dental
- Cosmetic surgery
- Gastric bypass
- Orthopedic surgery
- Heart surgery
- In vitro fertilization

- ○ Invasive diagnostic, imaging services
- ○ Robotic surgery
- ○ Experimental therapy
- ○ I haven't received treatment abroad
- ○ Other: [ ]

7. How do you travel for health treatment *
Please choose the option that indicates your most often travel beahavior

- ○ Travel with friends
- ○ Travel with family
- ○ Travel with partner
- ○ Travel alone
- ○ I haven't travelled for health treatment

Attitudes towards medical tourism service consumption.

9. By engaging in medical tourism I primarily seek to gain a great deal of control over the planning of my treatment. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

10. By engaging in medical tourism I primarily seek the opportunity to decide how to go about my personal health care. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

11. By engaging in medical tourism I primarily seek to gain significant influence over the planning of my treatment. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

12. By engaging in medical tourism I primarily seek to gain considerable independence and freedom in how I manage my personal health care. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

13. By engaging in medical tourism I primarily seek better access to desired treatments. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

14. By engaging in medical tourism I primarily seek readily available medical treatments. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

15. By engaging in medical tourism I primarily seek access to a wide selection of medical service providers. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

16. By engaging in medical tourism I primarily seek access to a wider selection of medical treatments. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

17. By engaging in medical tourism I primarily seek high standards of medical technology. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

18. By engaging in medical tourism I primarily seek high standards of medical expertise. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

19. By engaging in medical tourism I primarily seek to enjoy my self by combining tourist attractions with medical treatment. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

20. By engaging in medical tourism I primarily seek to relax by having treatment to a new environment. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

21. By engaging in medical tourism I primarily seek excitement by a new experience. *

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

22. By engaging in medical tourism I primarily seek to enjoy my self while recovering from my treatment. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

23. By engaging in medical tourism I primarily seek to enjoy with family and friends while recovering from treatment. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

On line information content

E1. The web site that I most recently explored provides sufficient information concerning accrediation of affiliated hospitals and medical centers *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E2. The web site that I most recently explored provides sufficient information concerning physician credentials *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E3. The web site that I most recently explored provides sufficient information concerning the reputation of affiliated hospitals and medical centers *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E4. The web site that I most recently explored provides sufficient information concerning the location of affiliated hospitals and medical centers *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E5. The web site that I most recently explored provides sufficient descriptions of the available medical procedures *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E6. The web site that I most recently explored provides sufficient scientific evidence/records concerning the effectiveness of the provided treatments *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E7. The web site that I most recently explored provides sufficient information concerning evaluations of the medical equipment and treatment materials *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E8. The web site that I most recently explored provides sufficient information concerning effectiveness rates of the treatments provided *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E9. The web site that I most recently explored provides sufficient information about the risk and side effects of the provided treatments *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E10. The web site that I most recently explored provides sufficient information concerning patient rights and malpractice regulations *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E11. The web site that I most recently explored provides sufficient testimonials, concerning treatment outcomes, from patients that received the same treatment as me. *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E12. The web site that I most recently explored provides sufficient patient testimonials concerning their interaction with physicians and health personnel *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E13. The web site that I most recently explored provides sufficient patient testimonials describing their post treatment recovery experience in the destination *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E14. The web site that I most recently explored provides sufficient pictorial and multimedia information cues depicting the medical facilities *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E15. The web site that I most recently explored provides sufficient pictorial and multimedia information cues depicting the accommodation facilities *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E16. The web site that I most recently explored provides sufficient information concerning medical records translation *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E17. The web site that I most recently explored provides efficient information concerning ground transportation from and to the hospital or medical center *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E18. The web site that I most recently explored provides sufficient interaction with physicians services *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E19. The web site that I most recently explored provides sufficient interaction and personal contact with medical travel consultants services *

1 2 3 4 5 6 7

strongly disagree ○ ○ ○ ○ ○ ○ ○ strongly agree

E20. The web site that I most recently explored provides sufficient information concerning follow up post treatment services *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E21. The web site that I most recently explored provides sufficient cost comparison and cost effectiveness information *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E22. The web site that I most recently explored provides sufficient information concerning hotel accommodations *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

E23. The web site that I most recently explored provides sufficient information concerning tourist attractions *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

Perceived Usefulness of information

1. The information on the web site is pretty much what I need to carry out my tasks *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

2. The web site adequately meets my information needs *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

3. The web site meets my information needs more adequately compared to other web sites. *

	1	2	3	4	5	6	7	
strongly disagree	○	○	○	○	○	○	○	strongly agree

Appendix 2

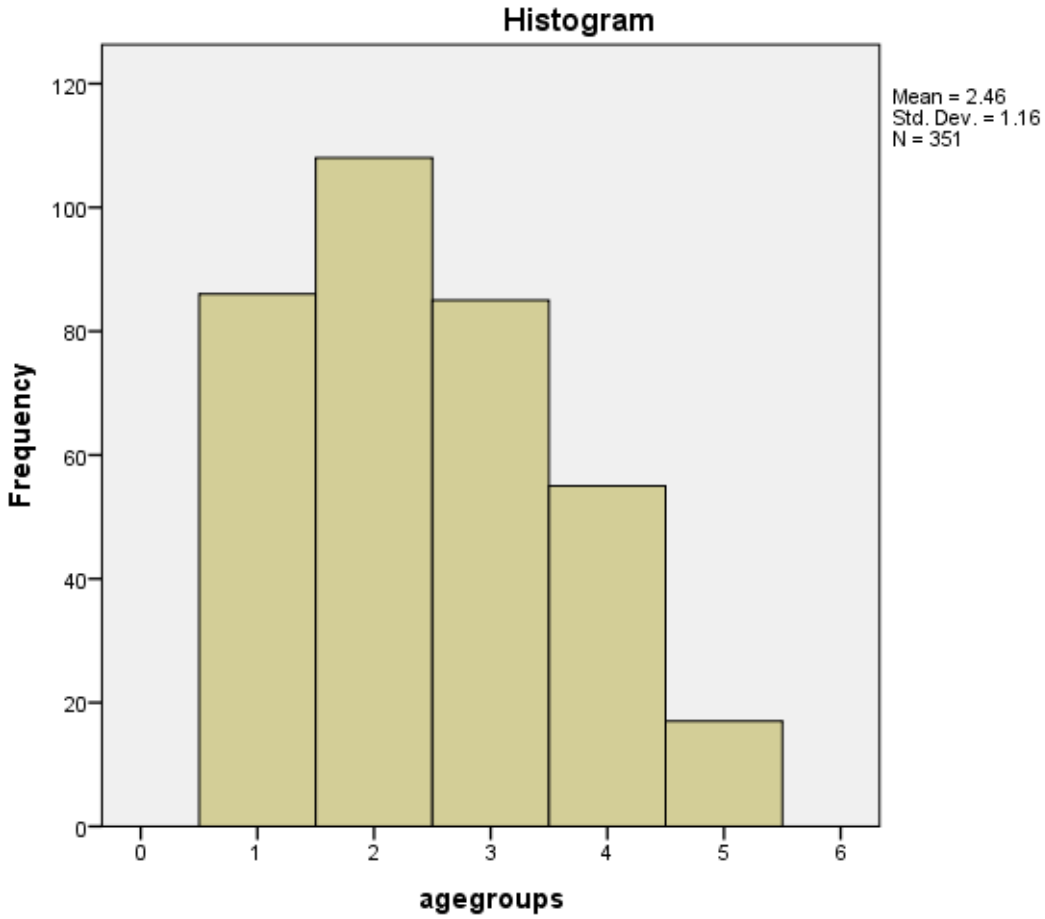
Statistics

agegroups

N	Valid	351
	Missing	0
Mean		2.46
Std. Deviation		1.160

agegroups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	86	24.5	24.5	24.5
	2	108	30.8	30.8	55.3
	3	85	24.2	24.2	79.5
	4	55	15.7	15.7	95.2
	5	17	4.8	4.8	100.0
	Total	351	100.0	100.0	



gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	165	47.0	47.0	47.0
	female	186	53.0	53.0	100.0
	Total	351	100.0	100.0	

maritalst

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	married	172	49.0	49.0	49.0
	single	94	26.8	26.8	75.8
	widowed	42	12.0	12.0	87.7
	never married	43	12.3	12.3	100.0
	Total	351	100.0	100.0	

healthins

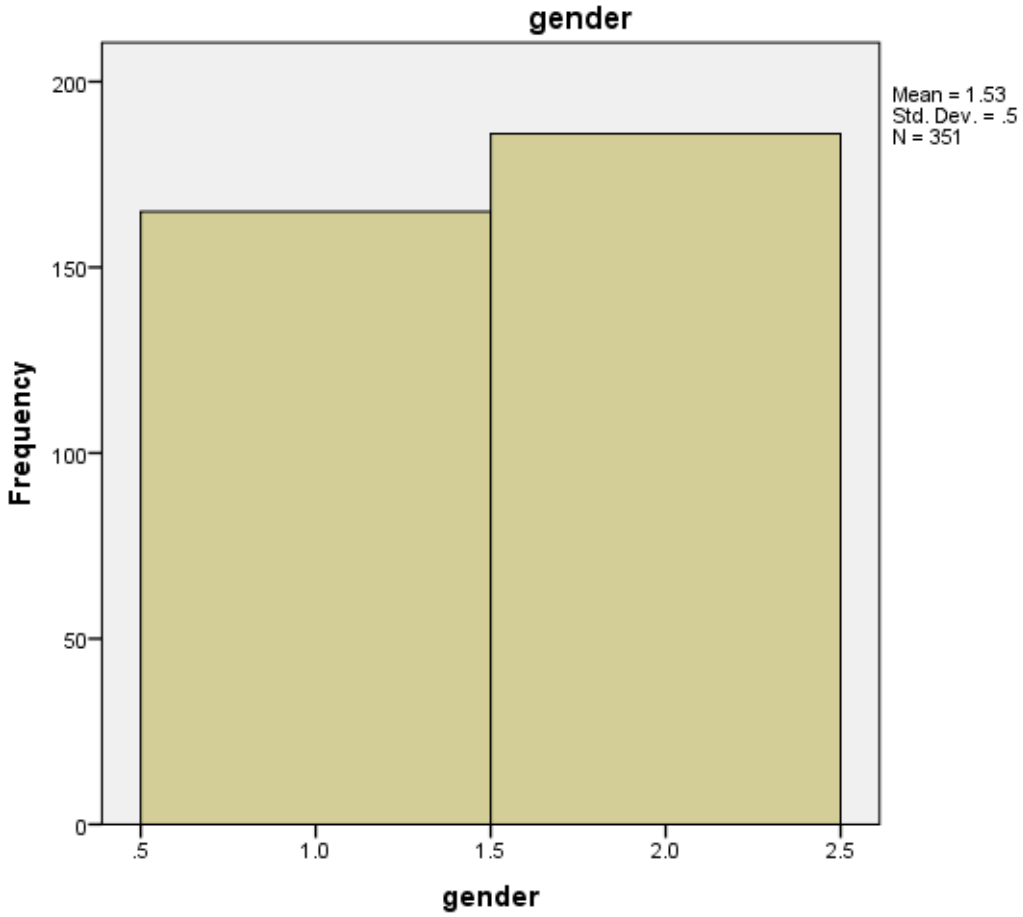
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	national isurance	186	53.0	53.0	53.0
	private insurance	158	45.0	45.0	98.0
	uninsured	7	2.0	2.0	100.0
	Total	351	100.0	100.0	

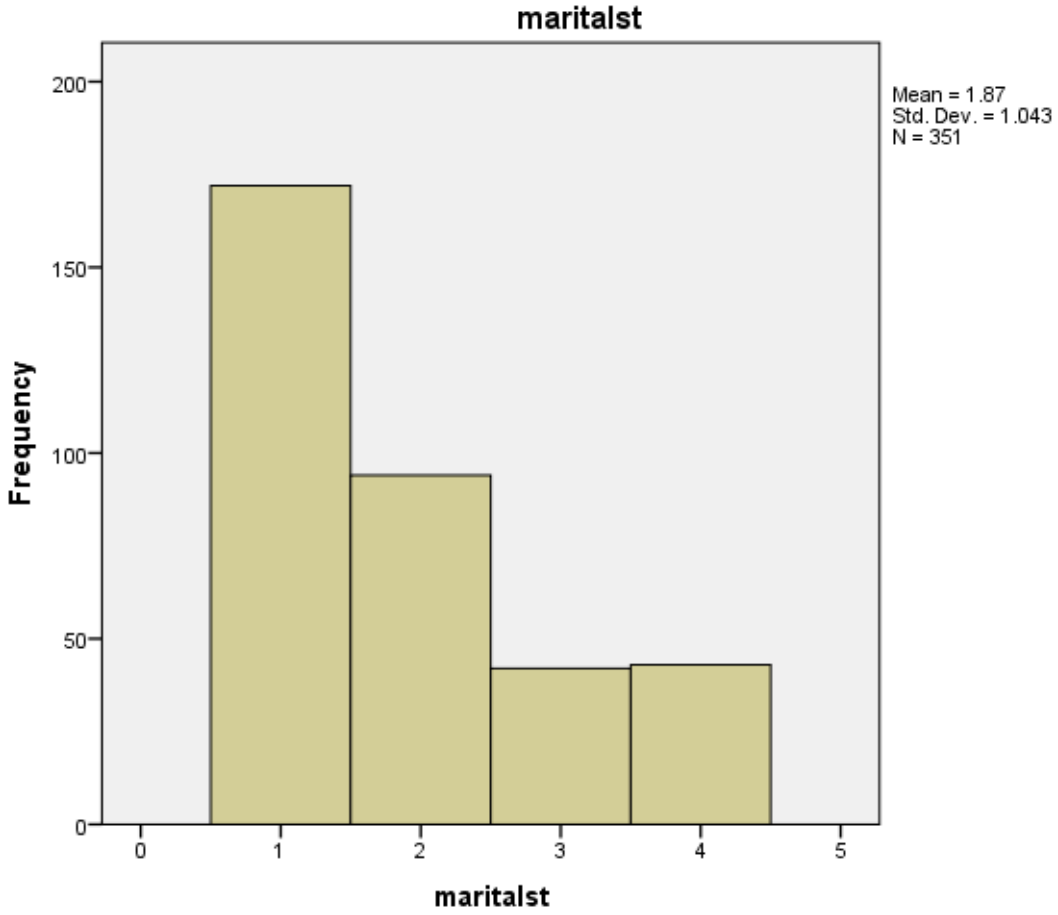
treatment

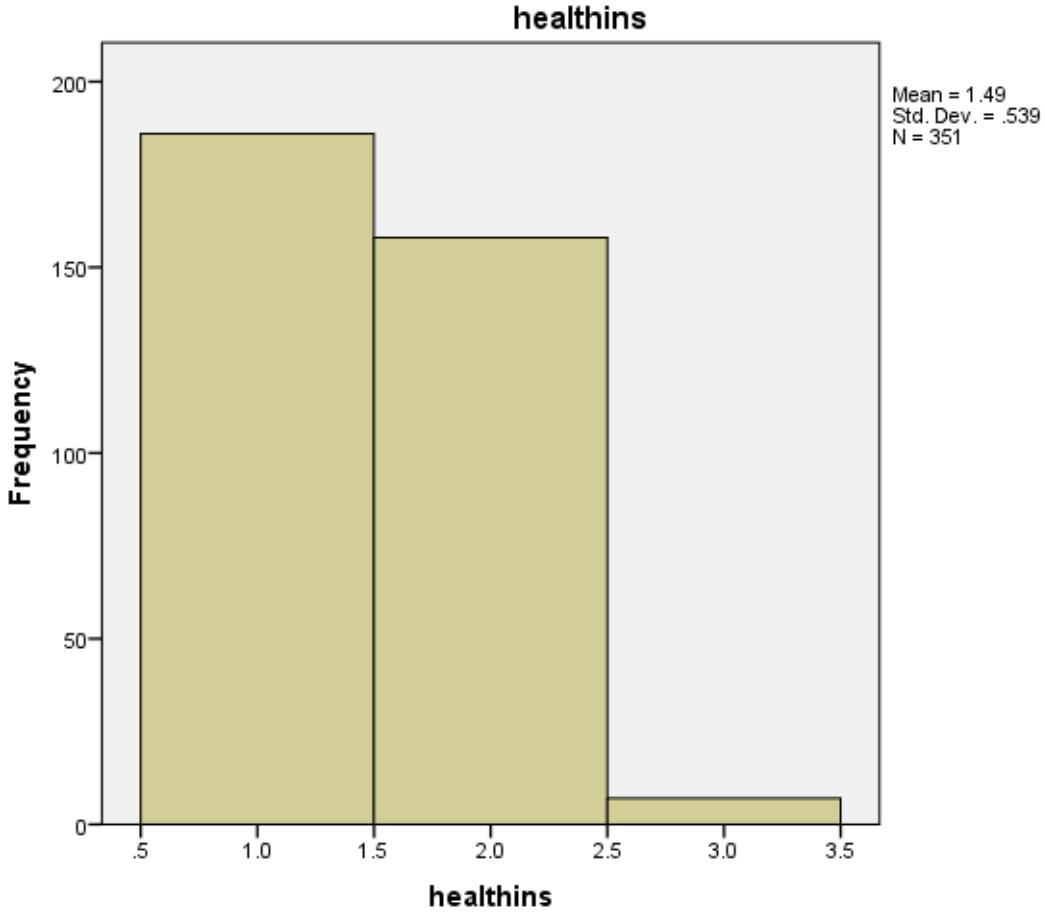
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	dental	32	9.1	9.1	9.1
	cosmetic surgery	77	21.9	21.9	31.1
	gastric bypass	31	8.8	8.8	39.9
	orthopedic surgery	75	21.4	21.4	61.3
	heart surgery	32	9.1	9.1	70.4
	ivf	26	7.4	7.4	77.8
	diagnostic	24	6.8	6.8	84.6
	robotic surgery	7	2.0	2.0	86.6
	elective surgey	19	5.4	5.4	92.0
	other	28	8.0	8.0	100.0
	Total	351	100.0	100.0	

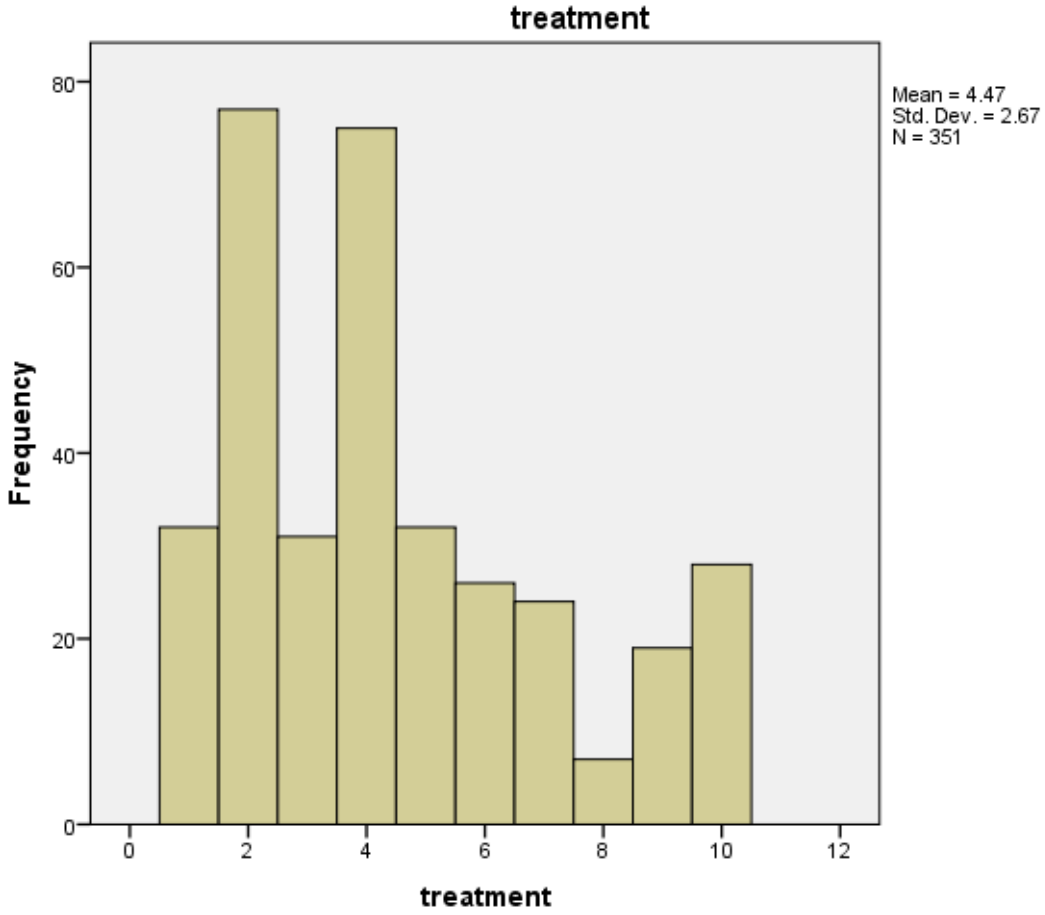
travbeh

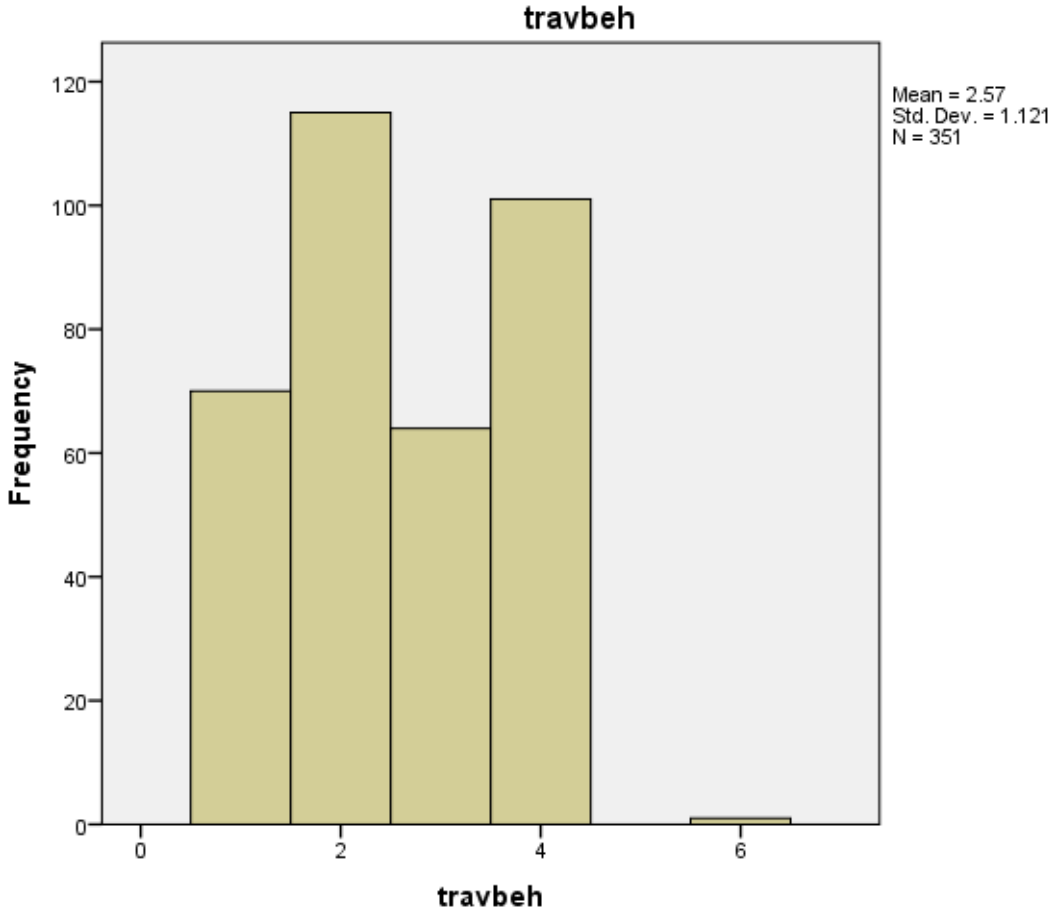
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	travel with friends	70	19.9	19.9	19.9
	travel with family	115	32.8	32.8	52.7
	travel with partner	64	18.2	18.2	70.9
	travel alone	101	28.8	28.8	99.7
	6	1	.3	.3	100.0
	Total	351	100.0	100.0	


gender
Mean = 1.53
Std. Dev. = .5
N = 351
Frequency
200
150
100
50
0
.5
1.0
1.5
2.0
2.5
gender


maritalst
Mean = 1.87
Std. Dev. = 1.043
N = 351
Frequency
200
150
100
50
0
0
1
2
3
4
5
maritalst


healthins
Mean = 1.49
Std. Dev. = .539
N = 351
Frequency
200
150
100
50
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
healthins


treatment
Mean = 4.47
Std. Dev. = 2.67
N = 351
Frequency
80
60
40
20
0
0
2
4
6
8
10
12
treatment



Principal Components Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.869
Bartlett's Test of Sphericity	Approx. Chi-Square	11275.128
	df	595
	Sig.	.000

Communalities

	Initial	Extraction
PE1	1.000	.862
PE2	1.000	.923
PE3	1.000	.923
PE4	1.000	.900
UO1	1.000	.850
UO2	1.000	.887

UO3	1.000	.866
UO4	1.000	.701
EO1	1.000	.662
EO2	1.000	.605
EO3	1.000	.760
EO4	1.000	.820
EO5	1.000	.747
P1	1.000	.869
P2	1.000	.887
P3	1.000	.812
P5	1.000	.713
P6	1.000	.803
P7	1.000	.804
P8	1.000	.740
P9	1.000	.724
P10	1.000	.673
P11	1.000	.920
P12	1.000	.892
P13	1.000	.914
P16	1.000	.637
P17	1.000	.772
P19	1.000	.678
P20	1.000	.629
P21	1.000	.651
P22	1.000	.715
P23	1.000	.652
PUI1	1.000	.879
PUI2	1.000	.887
PUI3	1.000	.892

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.243	26.409	26.409	9.243	26.409	26.409	7.091
2	4.911	14.030	40.440	4.911	14.030	40.440	5.841

3	4.062	11.607	52.046	4.062	11.607	52.046	4.308
4	2.503	7.152	59.198	2.503	7.152	59.198	3.783
5	2.112	6.035	65.233	2.112	6.035	65.233	4.108
6	1.917	5.478	70.711	1.917	5.478	70.711	4.292
7	1.827	5.220	75.931	1.827	5.220	75.931	4.840
8	1.074	3.067	78.999	1.074	3.067	78.999	6.121
9	.837	2.391	81.390				
10	.706	2.018	83.408				
11	.583	1.666	85.074				
12	.520	1.487	86.561				
13	.447	1.276	87.837				
14	.428	1.222	89.059				
15	.385	1.100	90.159				
16	.336	.961	91.120				
17	.304	.870	91.989				
18	.266	.759	92.748				
19	.245	.700	93.448				
20	.239	.682	94.130				
21	.221	.631	94.761				
22	.215	.615	95.376				
23	.204	.582	95.958				
24	.184	.525	96.482				
25	.159	.453	96.936				
26	.151	.431	97.367				
27	.138	.393	97.760				
28	.134	.382	98.142				
29	.123	.353	98.494				
30	.117	.333	98.828				
31	.098	.279	99.107				
32	.086	.246	99.353				
33	.081	.232	99.584				
34	.079	.226	99.811				
35	.066	.189	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Component Matrix[a]

	Component							
	1	2	3	4	5	6	7	8
PE1		.766						
PE2		.789						
PE3		.749						
PE4		.745						
UO1			-.586					
UO2			-.561					
UO3			-.599					
UO4		.575						
EO1			.662					
EO2			.657					
EO3			.744					
EO4			.846					
EO5			.798					
P1	.598					.595		
P2	.618					.569		
P3	.578							
P5	.721							
P6	.733							
P7	.717							
P8	.724							
P9	.698							
P10	.662							
P11	.718							
P12	.724							
P13	.705							
P16	.533							
P17	.541							
P19	.575							
P20	.690							
P21	.690							
P22		.521						
P23		.564						
PUI1	.540			.548				
PUI2	.605			.522				
PUI3	.537			.557				

Extraction Method: Principal Component Analysis.

a. 8 components extracted.

Pattern Matrix[a]

	Component							
	1	2	3	4	5	6	7	8
PE1			.903					
PE2			.957					
PE3			.983					
PE4			.950					
UO1					.889			
UO2					.969			
UO3					.936			
UO4					.775			
EO1				.755				
EO2				.807				
EO3				.857				
EO4				.869				
EO5				.814				
P1							.918	
P2							.897	
P3							.884	
P5	.733							
P6	.913							
P7	.904							
P8	.841							
P9	.811							
P10	.719							
P11								.909
P12								.912
P13								.965
P16		.698						
P17		.899						
P19		.797						
P20								
P21		.630						
P22		.885						
P23		.756						
PUI1						.938		
PUI2						.860		
PUI3						.928		

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

Component Correlation Matrix

Component	1	2	3	4	5	6	7	8
1	1.000	.462	-.104	-.014	-.121	.344	.395	.469
2	.462	1.000	.116	.035	.013	.210	.336	.240
3	-.104	.116	1.000	.145	.257	-.015	-.115	-.256
4	-.014	.035	.145	1.000	-.199	.073	-.034	-.182
5	-.121	.013	.257	-.199	1.000	-.100	-.135	-.275
6	.344	.210	-.015	.073	-.100	1.000	.221	.449
7	.395	.336	-.115	-.034	-.135	.221	1.000	.419
8	.469	.240	-.256	-.182	-.275	.449	.419	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Reliability

Scale: pem

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.962	4

Scale: uor

Reliability Statistics

Cronbach's Alpha	N of Items
.920	4

Scale: eor

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.882	5

Scale: prvcon

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.913	3

Scale: qualcon

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.913	6

Scale: peerrev

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.962	3

Scale: servcon

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.895	8

scale PUIT

Case Processing Summary

		N	%
Cases	Valid	351	100.0
	Excluded[a]	0	.0
	Total	351	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.930	3

Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.676[a]	.458	.442	3.334

a. Predictors: (Constant), servcont, peerrev, provcon, qualcon

b. Dependent Variable: puit

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3251.589	4	812.897	73.251	.000[b]
	Residual	3847.955	346	11.121		
	Total	7099.544	350			

a. Dependent Variable: puit

b. Predictors: (Constant), servcont, peerrev, provcon, qualcon

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.088	.993		5.124	.000
	provcon	-.035	.046	-.042	-.751	.453
	qualcon	.109	.036	.180	3.017	.000
	peerrev	.348	.047	.403	7.387	.000
	servcont	.047	.031	.085	1.529	.127

a. Dependent Variable: puit

Hierarchical Regression

Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.676[a]	.458	.449	3.334
2	.679[b]	.459	.450	3.336
3	.679[c]	.459	.448	3.341
4	.721[d]	.520	.511	3.158

a. Predictors: (Constant), provcon, peerrev, servcont, qualcon

b. Predictors: (Constant), provcon, peerrev, servcont, qualcon, pe

c. Predictors: (Constant), provcon, peerrev, servcont, qualcon, pe, uor

d. Predictors: (Constant), provcon, peerrev, servcont, qualcon, pe, uor, eor

e. Dependent Variable: puit

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.088	.993		5.124	.000
	qualcon	.109	.036	.180	3.017	.000
	peerrev	.348	.047	.403	7.387	.000
	servcont	.047	.031	.085	1.529	.127
	provcon	-.035	.046	-.042	-.751	.453
2	(Constant)	4.434	1.149		3.860	.000
	qualcon	.112	.036	.185	3.092	.000
	peerrev	.359	.048	.416	7.464	.000
	servcont	.039	.031	.072	1.263	.207
	provcon	-.033	.046	-.040	-.710	.478
	pe	.037	.033	.054	1.129	.260
3	(Constant)	4.363	1.404		3.107	.002
	qualcon	.112	.036	.185	3.088	.000
	peerrev	.360	.049	.417	7.325	.000
	servcont	.039	.031	.071	1.254	.211
	provcon	-.033	.046	-.040	-.710	.478
	pe	.037	.034	.053	1.088	.277
	uor	.003	.038	.004	.088	.930
4	(Constant)	2.174	1.578		1.378	.169
	qualcon	.109	.036	.181	3.047	.000
	peerrev	.397	.050	.459	7.902	.000
	servcont	.035	.031	.063	1.122	.263
	provcon	-.039	.046	-.047	-.849	.396
	pe	.021	.034	.031	.636	.525

	uor	.037	.039	.048	.947	.344
	eor	.082	.028	.142	2.925	.002

a. Dependent Variable: puit

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3251.589	4	812.897	73.251	.000[b]
	Residual	3847.955	346	11.121		
	Total	7099.544	350			
2	Regression	3258.688	5	651.737	58.541	.000[c]
	Residual	3840.852	345	11.132		
	Total	7099.544	350			
3	Regression	3258.762	6	543.127	48.645	.000[d]
	Residual	3840.782	344	11.165		
	Total	7099.544	350			
4	Regression	3677.561	7	525.365	52.659	.000[e]
	Residual	3421.983	343	9.976		
	Total	7099.544	350			

a. Dependent Variable: puit

b. Predictors: (Constant), provcon, peerrev, servcont, qualcon

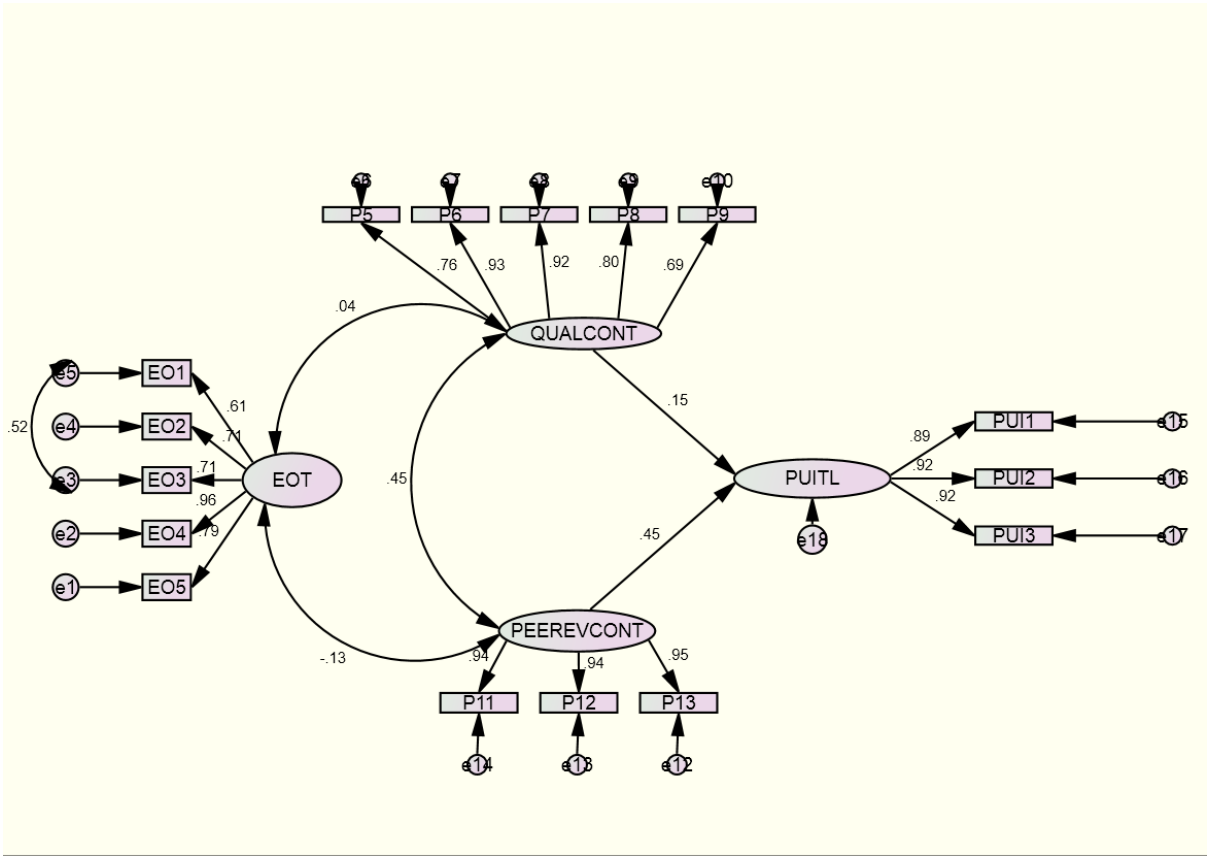
c. Predictors: (Constant), provcon, peerrev, servcont, qualcon, pe

d. Predictors: (Constant), provcon, peerrev, servcont, qualcon, pe, uor

e. Predictors: (Constant), provcon, peerrev, servcont, qualcon, pe, uor, eor

AMOS output

Structural Model



Measurement Model

CFA