Medical tourism: The impact of service quality, price and perceived risk on perceived value and behavioral intentions

Karim Garrouch  
*University of Sousse, Tunisia*

**Abstract**

The purpose of the medical tourism is to offer a treatment which has a better quality or a better quality/price ratio then what exists in the consumer’s country. Perceived value and quality are powerful predictor of actual and intentional reactions (Garrouch et al, 2012; Babin and Attaway, 2000; Dodds et al., 1991; Zeithaml, 1988), and this is something that patients care for in the medical tourism experience (Hallem and Barth, 2011). The impact of quality, perceived value, perceived risk and price on behavioral intentions pertaining to medical tourism have been studied by Choi et al (2004). The purpose is to verify a comprehensive model integrating these variables, in the context of medical tourism in Tunisia and integrating price perceptions, service quality, value and satisfaction as predictors of attitudinal loyalty. A survey has been distributed to 206 foreign patients, with the help of their doctor or the hospital employees after the medical treatment. Structural Equation modeling has been used to verify the conceptual model. Results show that Perceived value is influenced only by the quality related to physician’s concern and perceived price. Perceived value of medical services seems to be a well established antecedent of satisfaction, which has a significant impact on behavioral intentions.

Keywords: Medical tourism, service quality, perceived value, behavioral intentions

1. **Introduction**

Medical tourism consists of the outsourcing medical services, for cost purposes (Bies and Zacharia, 2007), via ‘the practice of travelling to another country with the purpose of obtaining health care’ (elective surgery, dental treatment, reproductive treatment, organ transplantation, medical checkups, etc.)’ (Smith et al., 2009).

It is remarked that this form of medical tourism has intensively expanded (Hallem and Barth, 2011; Boumediene, 2012; Connell, 2005). Viewing the demand and its expansion, it is considered as a promising niche market for the future (Boumediene, 2012; Connell, 2005) and an industry, which is globalised because of lower labor costs and advanced telecommunications (Viladrich and Baron-Fost, 2014; Connell, 2005)

In an intensely competitive international medical tourism marketplace, practitioners need to attract new foreign patients and retain them via service efforts/strategies (Han and Hyun; 2014; Han, 2013). The later have to rely on important factors in medical travelers' repurchase decision making processes (Han and Hyun; 2014)
In addition to dental procedures, dialysis and aqua therapy, the Tunisian dispensaries received more than 20,000 European patients by the means of specialized tour operators and websites (Boumediene, 2012). In 2011, Libyan patients have been estimated to more than 100,000 (Boumediene, 2012).

In the tourism sector perceived quality is a crucial variable to guaranty a positive experience for the consumer (Yu and Smith, 2005). It is a critical factor relating to tourist decision process beginning by the destination choice (Connell, 2005). Service quality perception in medical tourism deserves a special interest. It is obvious that the main element that the consumer is searching for in this field is not tangible even if the result is quite permanent. The main service is the intervention or the medication notice prescribed by a doctor. In many cases the service integrates accommodation and related services like nursery, food.…

The purpose of the medical tourism is to offer a treatment which has a better quality or a better quality/price ratio then what exists in the consumer’s country. Even if the price is a good reason to attract consumers to the hospital, clinic or even the county, the service quality has to be acceptable. Perceived value is also a powerful predictor of the purchase and return intentions (Garrouch et al, 2012; Babin and Attaway, 2000; Dodds et al., 1991; Zeithaml, 1988). Hallem and Barth (2015) consider that patients care for perceived value of the medical tourism experience in developing countries. As far as we know, the impact of quality, perceived value, perceived risk and price on behavioral intentions pertaining to medical tourism have been studied by an only one framework Choi et al (2004). The purpose is to verify a comprehensive model integrating these variables, in the context of medical tourism in Tunisia and integrating price perceptions; service quality; value and satisfaction as predictors of attitudinal loyalty. The principal research questions is, then, to what extent the service quality, the perceived value, risk and price have an impact on behavioral intentions and satisfaction?

2. Literature review

Behavioral intentions towards a touristic destination

Favourable behavioural intentions generally represent attitudinal loyalty, which is a key factor of firm’s sustainability (Chen and Chen, 2010). Behavioural intentions can be accessed through the return intention, which may lead to the stability of the touristic activity, and the Word of Mouth used as a form of influence practiced by the consumer, who has a tendency to recommend the touristic destination to others (Choi et al, 2004). Actually, most loyal customers recommend relatives, friends, colleagues… to a service by acting as free word-of-mouth advertising agents (Chen and Chen, 2010; Bigné, Sánchez and Sánchez, 2001).

The return intention to a touristic destination seems to be an important experience outcome and have to be considered in the marketing activities of the touristic destination (Murphy, Pritchard and Smith, 2000). Many studies have used these variables to assess tourist’s loyalty (Baker and Crompton, 2000; Bigné et al., 2005; Castro, Amario and Ruiz, 2007). The Word of Mouth is an important variable because consumers, who have not experienced the service or who can’t decide about the destination with the information they have, rely on recommendations from friends or even unknown persons to choose amongst the possibilities. That’s why people use websites like trip advisor, to find out other customers’ opinions about a hotel or a destination.
Predictors of behavioral intentions

Satisfaction

Considered as a complex construct, satisfaction has widely interested researches in marketing (Babin and Griffin, 1998; Bigné, Sánchez and Sánchez, 2001; Rust and Oliver, 1994; Oliver, 1996; Cronin and Taylor, 1992) and tourism (Choi et al, 2004; Chen and Tsai, 2008).

Satisfaction is the extent to which the consumer believes that an experience evokes positive feelings (Rust and Oliver, 1994). It is the result of the perceived discrepancy between expectations and performance (Chen and Chen, 2010), which triggers positive or negative disconfirmation. This definition belongs to the expectancy disconfirmation paradigm in process theory, which is the theoretical basis for most satisfaction studies (Oh, 1999). This paradigm involves four constructs: expectations; performance; disconfirmation; and satisfaction (Oh, 1999; Oliver, 1981).

Expectation is what the customer believe "will" happen while or after the service experience (Oh, 1999; Bitner, 1990; Parasuraman et al., 1988).

Although different conceptualizations of satisfaction exist, there is a general consensus about the fact that satisfaction is a consumer’s assessment of the overall experience of consumption (Han and Hyun, 2014; Oliver, 1994). In the tourism experience context, one is satisfied when the journey or travel experience compared to expectations result in feelings of gratification, and vice versa (Chen and Chen, 2010).

Perceived value

It is an outcome of the trade-off between benefits and sacrifices (Dodds et al., 1991; Zeithaml, 1988). It is also considered as a complex multidimensional concept including experiential and utilitarian aspects (Sanchez-Fernandez et al., 2009; Sanchez-Fernandez and Iniesta-Bonillo, 2007; Mathwick et al., 2001, 2002; Sweeney and Soutar, 2001; Holbrook, 1999; Babin et al., 1994). It has been used in different studies about tourism activities (Yuksel, 2007; Choi et al., 2004).

Delivering superior value to customers is widely recognized as an important determinant of business success (McDougall and Levesque, 2000; Spiteri and Dion, 2004).

Value has been studied using different theories, such as means-end theory, social exchange theory (Liu et al., 2005), customer value theory (Woodruff, 1997) and consumption value theory.

Commonly conceptualized as the customer's perceived trade-off between benefits and sacrifices (Lapierre, 2000; Woodruff, 1997; Zeithaml, 1988), customer value can also be construed as a summary judgment (Woodruff 1997) or as an interactive relativistic preference experience (Holbrook, 1999). Benefit is mostly assimilated to the quality, while sacrifice is understood as effort, price or time costs (Baker et al, 2002).

Perceived value have been assessed through one-dimensional measures (Choi et al, 2004 ; Oh, 2003; Baker et al, 2002; Grewal et al. 1998; Dodds et al., 1991; Zeithaml, 1988) or multidimensional scales (Mathwick et al, 2001; Sheth, Newman, and Gross (1991).

Although the one-dimensional assessment does not recognize the complexity of perceived value, it has the advantage of being effective, straightforward (Chen and Hu, 2010; Sweeney and Soutar,
2001) and adapted to medical tourism evaluation (Choi et al, 2004). Moreover, some services are not related to intrinsic, dimensions of value, i.e. serious medical surgery or treatments.

**Perceived service quality**

Service quality is defined as the degree to which a service meets or exceeds customer needs and expectations, or the discrepancy between consumer’s perceptions of a particular firm’s services and their expectations about other firms offering the same services (Parasuraman et al., 1988).

Most definitions of service quality perception consider it is as the result of the consumer’s comparison between expectations and the perception the service performance (Grönroos, 1984; Parasuraman et al., 1988, 1994).

Grönroos (1984) focuses on two main dimensions of service quality: technical and functional quality. The first is what the consumer receives. The second, considered as the most critical aspect, deals with the way how a service is provided and, specifically, with the psychological interaction taking place during the exchange transaction. Extremely subjective, this dimension involves the perception all the cues that the customer deals with during the transaction.

From a consumer perspective, quality is not necessarily objectively evaluated; it is assessed through the consumer’s quality perception regarding the overall excellence or superiority of a service, relatively to other alternatives, with respect to its intended purpose (Han and Hyun, 2014; Zeithaml, 1988).

The competitiveness of medical tourism relies on offering, to consumers, a same or even a better service quality, than what he could find in his country.

Han and Hyun (2014) adapted a definition of service quality to the medical tourism context: for them,

“Perceived medical quality refers to an individual's evaluation of core medical product performance (e.g., excellence of medical care, surgical/medical skills, wider availability of medical/healthcare products, continuity of care, modernity of medical facilities); and perceived service quality indicates the assessment of the service performance of medical professionals and staff (e.g., service delivery skills and competencies, efficient/ comfortable communication, kindness).”

**Perceived risk**

Considered as a subjective evaluation associated with possible consequences (Peter and Ryan, 1976), perceived risk is a combination of negative consequence and uncertainty, (Chen and Chang, 2012). It is also defined as the assessment of risk in a new situation or venture (Brockman et al, 2006).

It can be explained by consumers' doubts about the results of the buying decisions (Arslan et al, 2013).

Perceived risk theory argues that, for the consumers, it is more important to minimize the risk that to maximize their utility (Chen and Chang, 2012; Mitchell, 1999, 1992). Therefore, it has to be decreased in order to ease customer skepticism and to raise customer trust (Chen and Chang, 2012).

Five types of perceived risks are generally recognized: physical, financial, social, functional and psychological (Arslan et al, 2013).
The first, being the most important especially in medical interventions, relates to the possible physical damaging consumer’s health. The second pertains to risk of a monetary loss by purchasing an inadequate brand or the possibility of an overpriced product relatively to its quality or to the market price (Arslan et al, 2013). The third corresponds to a possible negative impact on social status through the purchase of a particular brand (Arslan et al, 2013). The fourth is expressed as the consumer's fear that the product will not meet consumer expectation. The fifth, the psychological risk, is a concern pertains to discontent with owning or using the product (Arslan et al, 2013).

**Perceived price**

Price is the cost of having a product or a service. It may be considered as the global cost of owning a product (Murphy and Enis, 1986; Lambey, 2000). Perceived price is defined as what a consumer gives up or sacrifices in order to obtain a product (Zeithaml, 1988). Even if the actual price is unknown, consumers may have a perceived price in mind by forming an opinion on the product price on the basis of available product attributes. Generally, the perceived price is considered as a sacrifice that the consumer gives in order to have a product.

3. **Conceptual Model:**

Generally, the main antecedents of perceived value of tourism services are perceived quality and price (Chen and Chen, 2010; Duman and Mattila, 2005; Murphy, Pritchard and Smith, 2000). The link between perceived price and value has been proposed in Zeithaml (1988) model. The price is considered as the sacrifice given by the consumer in order to have a product. It has a separate effect, relatively to quality, on perceived value. Sheth, Newman and Gross (1991) consider that perceived quality is a component of the functional value, while many researches showed that quality have a positive influence on perceive value (Dodds et al., 1991; Sweeney and Soutar, 2001; Sánchez, Callariza, Rodríguez and Moliner, 2005; Choi et al., 2004). Many researchers have found that perceived value is directly influenced by perceived service quality (Choi et al., 2004; Baker et al., 2002; Oh, 2000; Gooding, 1995) and price (Chen and Chen, 2010; Choi et al., 2004; Oh, 2000). It is here advocated that medical service value perceptions are directly influenced by perceived service quality as a benefit and perceived price as a sacrifice. In the medical field benefits are generally the results of a good service quality (Choi et al, 2004).

**H1:** perceived value is positively influenced by perceived quality of medical services.

**H2:** Perceived value is positively influenced by perceived price.

**Perceived Risk**

Theoretical and empirical evidences showed that consumers perceive greater risks in services than goods (Chiao and Nair, 2014). Perceived risk represents cognitive probabilities to be exposed to threats and dangers (Chiao and Nair, 2014). Sweeney et al. (1999) found that perceived risk of a bank service have a negative impact on value. Risk reduction causes an increase of perceived value (Chen and Dubinsky, 2003).

**H3:** perceived risk has a negative impact on perceived value

**The causal relationships between Perceived value, satisfaction and behavioral intentions**

Past studies have showed a positive relationship between satisfaction and post experience behavioural intentions; in on hand and service quality and value in another hand (Chen and Chen, 2010; Bigné, Sanchez, and Sanchez, 2001; Chen and Tsai, 2008; Oliver, 1996).
Since value can be perceived while and after the service is undertaken. It should be considered as an antecedent of satisfaction. Indeed, satisfaction is presented by Parasuraman (1997), as the result of a comparison between expected value and received value. Satisfaction is, then, a direct antecedent of behavioral intentions, while perceived value impact is exclusively indirect, via satisfaction.

For many authors perceived value is an antecedent of satisfaction (Filser et al, 2003; Woodruff, 1997).

In the medical tourism sector, the positive impact of perceived value on satisfaction has been tested in the Korean market (Choi et al, 2005). The same relationship is worth testing in the Tunisian context.

**H4: perceived value has a positive impact on satisfaction.**

Cronin et al. (2000) verified the relationship between service quality, perceived value satisfaction and behavioral intentions in six different industries. It has been proven that value has an impact on satisfaction and intentions. The latter is indirectly influenced by perceived value via satisfaction. McDougall and Levesque (2000) assessed value through three dimensions central quality, relational quality and service quality; they verified its impact satisfaction and intentions in the context of Dental care. Results show that the three dimensions have a significant impact on satisfaction; which influence future intentions. These results have been verified in the tourism context (Petrick, Morais and Norman, 2001; Petrick and Backman, 2002) and notably in medical tourism (Choi et al., 2005).

Many tourism researches show that satisfaction influence destination recommendation intentions of tourists (Bigné, Sánchez and Sánchez, 2001; Castro, Amario and Ruiz, 2007) and medical tourists (Choi et al, 2004).

**H5: satisfaction has a positive impact on behavioral intentions of medical Tourists.**

**H6: perceived value has an indirect impact on behavioral intentions of medical Tourists via the mediation of satisfaction**

4. **Methodology**

The conceptual model involves six variables, which assessment is based on previous researches.

The service quality has been measured using the adaptation of Parasuraman et al’s (1988) SERVQUAL by Choi et al (2004) in the medical service context. Composed of 19 seven point items, the final scale involves four dimensions: the convenience of the care process, physician’s concern, the care provider’s concern and tangibles.

Perceived value is assessed using a merge between the scales of Oh (2003) and Choi et al. (2004), which are based on previous basic scales (Dodds et al., 1991; Grewal et al., 1998; Zeithaml, 1988). The five seven point items have the particularity of being adapted to medical care service:

- The amount of money I paid for the care was appropriate
- The quality of the medical service I received was worth more than what I paid.
- The medical department offers a good value compared to the provided price.
- I consider that the choice of the service is a sound transaction.
-In sum, The clinic or/and the consulting room offers a good value

Perceived price is measured via Oh’s (2003) bi item scale:
- The care’s price in Tunisia is high.
- The care facilities correspond to a sound transaction.

Six items inspired by Stone and Gronhaug (1993)’s and Sempel’s (2005) works are used. This adaptation is quite interesting because it considers the six kinds of risk presented previously:
- Medical care in Tunisia can be dangerous.
- The quality of the received care can appear none in conformity with my expectations.
- The care in Tunisia can represent a bad expenditure.
- To look after itself in Tunisia can involve a disappointment with respect to Oneself.
- The fact of getting care in Tunisia can give a bad image of me to my entourage.
- To get care in Tunisia can make me waste time.

Satisfaction is globally measured through one item scale: Globally, i am satisfied with the medical services that I received in Tunisia.

Behavioral intentions are represented in our questionnaire by three items representing the intentions of recommending Tunisia as a medical tourism destination, of return and of positive word of mouth.

The Questionnaires have been distributed to foreign patients; with the help of their doctor or the hospital employees after the medical treatment. The tourist will be more confident to the survey procedure and will reply more seriously when his treating doctors or employee is in touch with him.

The Sample is composed of tourists who came to Tunisia in order to receive a medical treatment. Four clinics of Tunis city accepted to help us doing the survey. The final sample is composed of 206 patients who accepted to fill the questionnaire: their nationalities are French (141); Libyan (38); (Belgian (8); Ivorian (2); Canadian (2); Italian (6); English (4); Swiss (4) and Malian (1).
5. Results

Four factors representing perceived medical service quality explain more than 74.5% of the total variance (71.615). They have great levels of reliability and validity (See table 1).

<table>
<thead>
<tr>
<th>Items</th>
<th>Hc provider</th>
<th>tangibles</th>
<th>Phys concern</th>
<th>Convenience cp</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/ The procedure to get the lab test was convenient.</td>
<td></td>
<td></td>
<td></td>
<td>.864</td>
</tr>
<tr>
<td>2/ The lab test was done in a prompt way.</td>
<td></td>
<td></td>
<td></td>
<td>.852</td>
</tr>
<tr>
<td>3/ The payment procedure was quick and simple.</td>
<td></td>
<td></td>
<td></td>
<td>.581</td>
</tr>
<tr>
<td>4/ The process for setting up the appointment was simple and easy.</td>
<td>,440</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/ I did not have to wait long for the medical examination from the physician.</td>
<td>.746</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/ The nurses were friendly.</td>
<td></td>
<td></td>
<td></td>
<td>.802</td>
</tr>
<tr>
<td>7/ The nurses explained the medication process well.</td>
<td></td>
<td>.786</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/ Care providers tried to help me as much as they could.</td>
<td>.819</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/ Care providers truly cared for me.</td>
<td>.897</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/ There was a good coordination among the care providers.</td>
<td>.536</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/ The physician were polite.</td>
<td></td>
<td></td>
<td></td>
<td>.554</td>
</tr>
<tr>
<td>12/ The physician adequately explained my condition, examination results and the treatment process.</td>
<td></td>
<td></td>
<td>.815</td>
<td></td>
</tr>
<tr>
<td>13/ The physician allowed me to ask many questions, enough to clarify everything.</td>
<td></td>
<td></td>
<td>.746</td>
<td></td>
</tr>
<tr>
<td>14/ The physician paid enough consideration to my concerns in deciding on a medical procedure.</td>
<td></td>
<td></td>
<td></td>
<td>.873</td>
</tr>
<tr>
<td>15/ The physician made me feel comfortable.</td>
<td></td>
<td></td>
<td></td>
<td>.753</td>
</tr>
<tr>
<td>16/ The waiting areas for doctors and medication were pleasant.</td>
<td></td>
<td></td>
<td></td>
<td>.635</td>
</tr>
<tr>
<td>17/ It were easy to use amenities (e.g., public telephone, cafeteria, etc.).</td>
<td></td>
<td></td>
<td></td>
<td>.460</td>
</tr>
<tr>
<td>18/ The clinic or/and the consulting room seem to be equipped with the latest equipment.</td>
<td></td>
<td></td>
<td></td>
<td>.632</td>
</tr>
<tr>
<td>19/ It were easy to find care facilities (e.g., lab, doctor's office, etc.).</td>
<td></td>
<td></td>
<td></td>
<td>.757</td>
</tr>
<tr>
<td>Alpha</td>
<td>.93</td>
<td>.84</td>
<td>.90</td>
<td>.84</td>
</tr>
<tr>
<td>Joreskog</td>
<td>.94</td>
<td>.87</td>
<td>.92</td>
<td>.84</td>
</tr>
<tr>
<td>Rho vc</td>
<td>.70</td>
<td>.62</td>
<td>.69</td>
<td>.65</td>
</tr>
</tbody>
</table>
RMSEA=0.074; Chi-square = 278,370; Degrees of freedom = 135; NFI=.915; CFI=.953
The four factors preserve the same titles as the results of Choi et al (2004), even though some items have changed to other factors than initially structured.

The four dimensions of quality are:
- convenience of the care process
- health core providers’ concern
- physician’s concern
- tangibles

Perceived value presents good adjustment values as well. The one-dimensional structure conserves 75% of the variance and has a good reliability (Chronback’s Alpha=0,91 ; Joreskog’s Rho=0,9).

The confirmatory factorial analysis shows interesting values relatively to adjustment indicators (RMSEA=0,06; Chi-square =7,72; Degrees of freedom =4; NFI=0,99; CFI=0,99).

Perceived risk seems a very reliable scale because Cronback’s alpha and Jöreskog rho are acceptable (respectively 0,903 and 0,902). The items are all retained in a factor which captures 67,75% of the variance. CFA shows very interesting fit indicators: RMSEA=0,05; Chi-square =7,48; Degrees of freedom =5; NFI=0,99; CFI=0,99)

Behavioral intentions scale have a good reliability because Cronback’s alpha and Joreskog’s rho are acceptable (0,91). The items are all retained in a factor which captures 67,75% of the variance.

The perceived price bi-item scale is reliable since Cronback’s alpha equals 0,844.

6. The Structural model

The results show that the only service quality dimension which has an impact on perceived value is the perceived quality related to the physician concerns ($B=0,439; p=0,020$; see appendix 1 for the three other dimensions). Since an only one dimension of the quality has an impact on perceived value, H1 is partially infirmed.

Perceived risk didn’t have a significant impact on perceived value ($p=0,592$); contrarily to the perceived price ($B=0,682; p=0,000$), which gives support to H2 and refutes H3.

Perceived value of medical services is a well established antecedent of satisfaction. As expected its significant and positive impact ($B=0,26; p=0,000$) gives support to H4.

H5 is also accepted since satisfaction has a positive and significant impact on behavioral intentions ($B=0,72; p=0,05$).

The mediating impact of satisfaction between value and behavioral intentions is confirmed because the total effect is quite interesting (0,32), while the direct impact is null. H6 is rejected.

The structural model fit index is at the limit of the acceptable since the CMIN/DF index is less than five (4,047).
Discussion and conclusion

The purpose of this paper is to extend Choi et al’s (2004) model by integration antecedent of perceived value: perceived risk and price.

Perceived value is not linked to all the perceived quality dimensions. It is influenced only by the quality related to physician’s concern. This result is quite surprising because healthcare provider’s concern, expected to be the most important aspect, does not influence perceived value. This result is partially similar to Choi et al’s who finally found that the overall perceived quality is a significant predictor of perceived service value, without testing the specific effect of each dimension.

The impact of perceived risk on perceived value is not verified, contrarily to the results of Sweeney et al. (1999) and Chen and Dubinsky (2003). Perceived risk is classically known as a non-monetary sacrifice that lowers acquisition value, but in the medical tourism context this value seems uncorrelated to perceived value. The mental accounting theory (Thaler, 1999, 1990, 1985), which considers perceived risk as non-monetary aspect of transaction value, is then refuted in the Tunisian medical tourism context. This result may be due to the lack of precision of the moment when the patients filled the questionnaire. Is it before or after the medical intervention? If it is after, the risk is not really intense because the patient would have experienced most of the medical results. Even before the medical care, the problem will be related to perceived value. The latter will be precisely the expected value rather than perceived value.

Perceived price well established effect on perceived value is consistent with many previous researches (Kim et al., 2005; Oh, 2003, 2000; Dodds et al., 1991). Indeed, the acquisition and transaction utility is increased when price is perceived as lower than the reference price, already known before even coming to the country where the medical tourism experience is established.

Perceived value of medical services is obviously a powerful antecedent of satisfaction. The medical tourism service is another context that confirms the results of many previous researches in marketing and tourism (Filser et al, 2003; Choi et al, 2004. Eroglu et al, 2005).

The significant impact of satisfaction on behavioral intentions is consistent with the results and propositions of many researches (Petrick, Morais and Norman, 2001; Bigné, Sánchez and Sánchez, 2001; Castro, Amario and Ruiz, 2007) and notably those interested in medical tourism (Choi et al, 2004).

Managerial implications

Perceived medical service quality have to be amongst the most important variables that must interest all the medical service chain especially, the direct contact with the physician specialists. The proposed price has to be well perceived by customers. The overall medical care service should be inferior to the reference price known in the original countries. The medical service provider can gain a positive word of mouth from the consumers who find out that they received a good value i.e at least an equal quality for a lower price. Since the quality related to the physician concern is the most important antecedent of the perceived value, it is advised to concentrate on this factor as a corner stone of the communication policy of the hospital, clinic and even the country communication policy. Websites can be used and can underline the professional experience of the physicians and some descriptions of consumer experiences with them by using consumer records and witnessing.
**Limits**

The sample seems to be not enough to establish a structural model with a respectable number of variables. It has to be extended in number of patient and especially in the variety of nationalities.

The perceived risk lacks precision, since its measure did not take into account the time of its measure in the medical process: before, while or after the medical service.

This study lacks a broader vision of the medical tourism service. We were interested in the core medical service, its perceived price, risk and value, but there is other aspect in the medical tourism experience: the accommodation, the parallel touristic activities, hedonistic experience, the travel experience … the direct provider may be a travel agency which guaranties and markets all the medical service and a good touristic experience before and after the medical intervention.

The nature of medical service is not precised. It may more or less serious or risky, which will have certainly an impact on the model results.

**Future research propositions**

More precision about the nature of medical service have to be provided in future researches. The type of medical service may be used as a moderator variable.

Risk effect has to be measured in different steps of the process (before and after the medical process).

The after experience risk measure is not seen as a risk per se because the patient knows exactly the results of the experience.

Since it is proposed to evaluate the overall medical tourism experience, we propose to broaden the value concept by using a multidimensional approach of value. Many dimensions have been proposed in theory, such as functional, social, emotional, escapism values (Mathwick et al, 2001).
References


Connell J., 2005, Medical tourism: Sea, sun, sand and... surgery, Tourism Management. Vol.27, pp.1093–1100


Hallem Y, Barth I, 2015, L'utilisation d'Internet par les patients-touristes pour diminuer la forte dangerosité inhérente a un service de croyance , Revue internationale de psychosociologie et de gestion des comportements organisationnels 51/2015 (Vol. XIX) , p. 179-200


Kim, H-W; Sumeet, G. and Li, H., 2005, Different effects of perceived price and risk on purchase intention for potential and repeat customers, Pacific Asia Conference on Information Systems, July 7-10, Bangkok.


Murphy P.E., Pritchard M. & Smith B., 2000, The destination product and its impact on traveller perceptions, Tourism Management, Vol. 21, Iss. 1; P. 43-52.


Sempels C., 2005, L'intangibilité d'une offre globale de services : conceptualisation, opérationnalisation, variables d'influence & impact sur le niveau de risque perçu, Collection de thèse de la Faculté des Sciences Économiques, Sociales & Politiques.


