

Medical Service Purchasing Decision under Information Uncertainty

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Abstract

The purpose of this study is to overcome the limitations of previous researches in the medical services area and to explain the determinants of medical service purchasing decision through the institutional approach, which are not covered by existing studies. The institutional approach suggests the possibility of overcoming uncertainty in decision making by imitating institutional norms or leaders when there is not enough information for making a decision. In this respect, this study can complement limitations of the existing rational choice models.

Keywords: *Medical Tourism, Institutional Approach, Coercive Isomorphism, Normative Isomorphism, Mimetic Isomorphism*

1. Introduction

Medical services are basically high involvement products [1][2]. Foreign medical tourists are trying to seek various sources of information and to obtain helpful information for making a purchasing decision of a medical tourism product. Traditional researches in the area of health or medical services have approached to find influencing factors in a purchasing decision mainly from a marketing perspective or from a consumer behavior perspective [3][4][5][6][7][8][9]. The main determinants of previous studies are strongly related to medical service quality factors or attributes such as service providers' (medical institutions or physicians') competences and expertise, and so on.

However, when potential medical tourists make a decision to purchase medical services in a foreign country, it is hard for them to evaluate medical services quality or the expertise of medical institutions objectively. Generally, potential medical tourists do not have professional information and knowledge in that field. In particular, from the perspective of customers seeking foreign medical tourism services, it is more difficult to collect professional information on specific hospitals in foreign countries and to make an optimal decision. The most influential factors in purchasing medical services of foreign hospitals are the SNS information that is easily accessible or close acquaintances' opinions [10][11].

The theoretical premise of the existing researches seems to be based on the rational choice model. Potential medical tourists are assumed that they can collect enough information on competences and expertise of medical institutions, and evaluate medical service quality objectively (for example, by exploiting the SERVQUAL model), and finally choose the best medical tourism service. In other words, this model implicitly

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assumes that medical tourists can search for sufficient information on service quality requirements, and analyze the benefits/costs of each medical tourism service, and select the best alternative based on the optimization criteria.

In reality, it is very difficult for potential medical tourists to obtain professional and objective information related to medical tourism even if they ever navigate the necessary information through the Internet or SNS. In addition, the publicly known information on the Internet reflects only subjective opinions of individuals, and does not include in-depth information. Eventually, the purchasing decision of potential medical tourist is likely to be made by subjective bias or superficial data rather than by objective and professional information. This situation can be considered as a decision-making under uncertainty, that is, foreign medical tourists make a decision without retaining enough information for decision making.

What is the best decision or a realistic alternative for foreign medical tourists under information uncertainty? The answer to this question can be given from the institutional approach. The institutional approach suggests that when you do not have enough information needed for decision making, you can overcome the uncertainty by imitating the institutional norms or leaders with more information. In this respect, the institutional approach can fill the gap which the traditional rational choice model cannot explain.

According to the institutional approach or the social influence theory, individual's behavior can be influenced by the affiliated organization or other individuals [12][13][14]. Imitative isomorphism as a core concept of institutional approach explains that an individual's behavior mimics the norms widely recognized in a society [15]. Thus, the institutional approach and social influence theory can be very useful when applied to the medical tourists, because they have a difficulty in obtaining professional information about a foreign medical institution and its medical expertise. The difficulty can be doubled due to the intangible characteristics of healthcare services. In a such situation, the institutional approach suggest that the uncertainty caused by the lack of information can be overcome by imitating other organization or individuals on which they depend

The purpose of this study is to overcome the limitations of the previous researches in the medical services area, and to explain the determinants of medical service purchasing decision from the institutional approach, which is not tried in existing studies. The following points differentiate this study from the previous studies.

First, this study can fill in the blank parts of the existing research based on the rational choice model. In reality, it is difficult for potential medical tourists to obtain professional and objective information related to medical service quality through the Internet or publicly known information. In addition, the information that is publicly known on the Internet is subjective and does not contain in-depth information. How can medical tourists make purchasing decisions about health care services under uncertainty and without enough information? An institutional approach is useful in finding the answer to this question. The approach explains advantages of overcoming uncertainty in decision making by imitating institutional norms or leaders. In this respect, this study can complement limitations of the existing rational choice model.

Second, this study places particular emphasis on imitative isomorphism, which can better explain individual's decision making among three types of isomorphism in the institutional approaches. Generally, imitative isomorphism is divided into three sub-

dimensions, and more specific and multi-dimensional paths will be identified in this study.

2. Literature review

2.1. Rational choice approach

Traditional studies based on the SERVQUAL model are one of the representative studies in the marketing field assuming that potential medical tourists can make a decision rationally. These studies analyzed factors influencing the purchasing intention of medical tourists to select or visit hospitals by applying the items presented in the SERVQUAL model. Specifically, Büyüközkan, Çifçi and Gülerüñz [9] modified the SERVQUAL model to add medical service-specific qualities such as expertise of medical staffs, advanced medical facilities, up to date equipment and reputation of medical institutions. Other studies have also transformed the determinants of the SERVQUAL model to add such ones as reliability, responsiveness, accuracy, empathy, tangibles and assurance into factors appropriate for the healthcare industry. Reliability means the ability to provide operations and promised service. Responsiveness includes timeliness to receive medical services on time. Accuracy presents information about service in a clear and concise way, and it includes the accuracy of diagnose of disease, the accuracy of the cost of operations, the reliable image of hospital, expertise of medical staffs and privacy and safety such as protection of patients' data. Empathy includes the manners and communication skills of medical staffs. Tangibles mean building layout, the availability of equipment and hygiene condition of the hospital and personnel. Assurance includes favorable cost of service and giving compensation to the patients in case of a problem.

Turning attention to the studies evaluating the quality of healthcare services, Kim [3], Park and Lee [4], Lee and Lee [5] are representative researchers. Kim [3] presents the MEDI-SEVQUAL model and revises the items of the SERVQUAL model. Park and Lee [4] analyze medical tourism service quality by dividing medical tourism service quality into interaction quality, result quality and physical environmental quality, and subcategorize three quality factors into nine dimensions. Lee and Lee [5], based on related literature and previous studies, classify medical service quality into two dimensions-human dimension and physical dimension. Human dimension consists of medical treatment specialty and administrative excellence. Physical dimension is classified into accessibility, hygiene environment, medical equipment and facilities. They analyzed the relationship between these dimensions and medical customer's satisfaction. Basically, researchers of these studies seem to apply and extend the SERVQUAL model in order to measure healthcare service qualities

The planned behavior theory based on the consumer behavior theory is also classified as belonging to the rational choice model. The planned behavior theory attempts to demonstrate the validity and usefulness of internal and external factors that influence consumers' purchasing intention using a socio-psychological approach. In other words, consumers make purchasing decisions by considering both his internal conditions (economic power, time and attitude) and external conditions (reference groups' opinions) at the same time. Planned behavior theory is widely used in a medical tourism and leisure industry because medical tourism or foreign travelling products are comparatively expensive and cannot be recovered [6][7][8].

2.2. Institutional approach

This study aims to utilize the institutional approach to complement the limitations of existing researches. There is no existing research that applied the institutional approach to the study of a medical tourism industry. In this study, three types of institutional isomorphism are introduced to explain how medical tourists can overcome the uncertainty of decision making arising from the lack of information.

In an institutional approach, institution is defined as ‘rules of the game’ in the society to which they belong and the social order to which they obey [12][13]. Individuals become compliant with the dominant laws and beliefs of their societies in order to survive, and these systems can reduce individual uncertainty in everyday life. The tendency of individuals to resemble their beliefs and behaviors according to norms of the group on which they depend is called institutional isomorphism [14]. Institutional isomorphism allows individuals to justify their actions and results. Although the concept of institutional isomorphism has been mostly applied to explain the behaviors of organizations or companies, this study applies the institutional approach to an individual level.

Particular interest in the institutional approach arises from the limitations of the traditional rational choice model. Although it may be the most rational and desirable behavior for individual to act in accordance with a strict rationality, it is extremely unusual and unrealistic condition to be satisfied in reality. The assumption of the rational choice theory based on extremely high expectation and requests to individuals is unrealistic. In this respect, the institutional approach can be more effectively applied to understand a decision-making process of individuals under limited information, because the institutional approach reveals that there can be an institutional isomorphism pressure which is separate from the rational choice of individuals.

It is unrealistic that foreign medical tourists make purchasing decision with complete information based on a rational choice model. Most of foreign medical tourists experience the difficulty of decision making caused by the limited information. It seems natural that the purchasing decision based on the institutional isomorphism can be made if the uncertainty of decision-making increases due to limited information. In other words, the uncertainty of decision making can be overcome by imitating the decision of other organization or individual in the same institutional environment. DiMaggio and Powell [12] indicate three types of isomorphism; coercive, normative and mimetic isomorphism.

First, coercive isomorphism results from both formal and informal pressures exerted on organizations by other organization which depend on and are informed by cultural expectations in the society within which they operate. Organizations can receive these pressures as force, persuasion or invitation to join the collusion.

Second, normative isomorphism stems from professionalization that is derived from shared obligation and codes of conduct. Norms and values that professionals develop through formal education and professional networks increase the similarity of skills and knowledge of the total workforce in a given organizational field.

Finally, mimetic isomorphism will more likely occurs that organizations tend to imitate or copy those organizations perceived as more legitimate or successful in their field when faced with uncertain strategic choices and outcomes.

3. Integrative analysis model and hypotheses

The purpose of this study is to explain determinants of purchasing intention of Chinese medical tourists in Korea through the institutional perspective. Especially, this study will

concentrate on three types of institutional isomorphism from the institutional theory. The logical reasoning of this study can be developed based on the theoretical background of the institutional theory and the research hypothesis can be derived deductively. It, therefore, is posited that Chinese medical tourists cannot evaluate rationally under information uncertainty because of the lack of information about medical institutions in Korea. Faced with the uncertainty, Chinese medical tourists will be under the pressure of mimetic isomorphism, and, as a result, will try to mimic the behaviors of other Chinese medical tourists in the same institutional setting.

The research model can be summarized as <Figure 1>. In order to explain the determinants of medical service purchasing intention under information uncertainty, it is necessary to apply three types of isomorphism such as coercive isomorphism, normative isomorphism and mimetic isomorphism, and examine their effects on purchasing intention of potential medical tourists. According to the research model shown in <Figure 1>, the theoretical arguments representing the relationship of determinants are as follows.

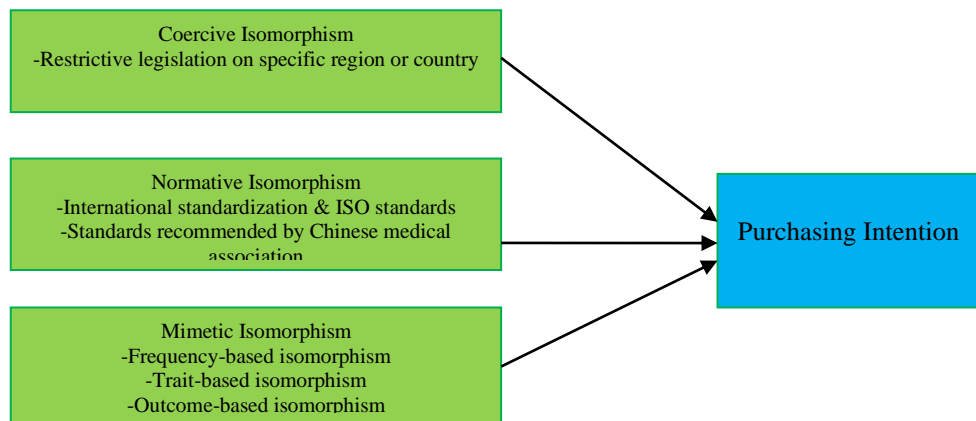


Figure 1. Integrative model

Hypothesis 1: Coercive isomorphism negatively affects the purchasing intention of potential medical tourists

Hypothesis 2: Normative isomorphism positively affects the purchasing intention of potential medical tourists

Hypothesis 3: Mimetic isomorphism positively affects the purchasing intention of potential medical tourists

4. Conclusion

This study suggests a way to supplement the rational choice model. In reality, it is difficult for foreign medical tourists to acquire professional and objective information necessary for foreign medical tourism. Existing studies do not have any academic interest in this issue and cannot explain how foreign medical tourists make decisions with limited information. In this respect, this study can help explain how a purchasing decision can be actually made in a realistic situation where uncertainty of decision making is high.

In addition, this study has a significant academic implication which complements the limitation of the existing rational choice model by utilizing the institutional approach. For example, the institutional approach has the *raison d'être* in replacement of the rational choice model, if foreign medical tourists may not make decisions rationally even when they acquired all the information necessary for purchasing medical services as well as when they knew what the optimal medical tourism service is. This paradoxical situation can be happened actually.

How can this situation be explained? The institutional approach can give a hint to the question. The rational choice model is based on the optimization of decision making but the institutional approach pursues the legitimacy of individual's decision making. That is, even if it is the optimal decision from the viewpoint of the rational decision model, it cannot be a legitimate decision from the institutional point of view. In this sense, the two theories have different logics of explanations, but this study has implication to suggest the process of achieving the optimization of decision making while overcoming the uncertainty of information that medical tourists face through institutional approach.

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