

# Chapter 71

## Selecting the Optimal Vendor of Customer Relationship Management System for Medical Tourism Industry Using Delphi and AHP

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### **ABSTRACT**

*This study builds a model to evaluate and select vendors of customer relationship management (CRM) system for the medical tourism industry from the viewpoint of medical tourism industry. Literature in related fields was reviewed, and the modified Delphi method was applied to find proper evaluation and selection criteria for the model. Then the analytic hierarchy process (AHP) was applied to determine weights of criteria in order to rank vendors and pick the optimal choice of vendor of CRM system for the medical tourism industry. The case used in this study was a teaching medical institution. This evaluation and selection model was applied for an empirical study. The results show that the five main criteria were, in order: system integrators' ability to provide services, system integrators' ability to develop software, economic factors of system implementation, ability to implement data mining, ability to implement CRM. Operators in the medical tourism industry could use this model to select the best vendor of CRM system.*

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## 1. INTRODUCTION

In the recent years, besides the influences of global financial crisis and economic recession, due to the changes of industrial structures and enterprise outflows, the government has started to help industries with transformation and put in a lot of efforts in making Taiwan a service-industry-oriented country. The government has also actively developed objectives for economic development and set the six emerging industries (bio-technology, green energy, medical care, tourism, cultural creativity, and intensive agriculture) as administration objectives (Executive Yuan Website, 2009).

In the recent years, tourists from Europe and the US have crowded into Asian countries, leading to the development of the tourism industry in Taiwan. The government has listed promoting the six emerging industries as one of the development priorities (Executive Yuan Website, 2009). And developing tourism and international medical services are the best way to be linked up with the world. Recently, more and more medical institutions have developed services combining medical treatments and tourism, creating a new business model for the medical tourism industry in Taiwan as the future direction to develop medical tourism. Medical costs in European and American countries have been rising. People there have chosen to receive medical treatments in Asian countries. In addition, they can also spend their leisure time traveling. One journey can satisfy their needs in both medical treatment and tourism. Asian countries have price advantages in developing medical tourism. The cost is only 1/3~1/5 of the cost in European and American countries. Medical tourism has become a weapon to earn foreign exchanges for Asian countries. In Taiwan, it is listed as one of the six emerging industries with more focus placed on it.

Therefore, to develop medical tourism, besides referencing medical tourism related experiences in other Asian countries, it is also necessary to build an innovative business model with unique advantages and competitiveness. However, after that, the more important things are how to reference successful experiences of corporatized management to implement CRM systems into medical tourism to increase values of customer services through CRM systems, and how to bring medical tourists back to be engaged in medical tourism services again to increase their lifetime values.

Many medical institutions have achieved good effects and received good responses in developing innovative medical tourism business models. And there are even medical tourists going back to the same medical institutions “again” for different medical tourist services. And medical institutions have started to care about how to provide better “customer services” to medical tourists and do “CRM” better for them. This caused our interest. How to implement a CRM system? How to select a vendor or CRM system with the ability to help customers who are not general enterprises? This is the motive of this study.

The “medical tourist service providers” in this study are those providing medical tourist services to foreigners. The CRM vendors in this study are those current providing “software/hardware, implementation, consulting, and training” services. This study aimed to build a model to evaluate and select vendors of CRM system for the medical tourism industry. The criteria to evaluate and select vendors of CRM system were determined using the modified Delphi method. And the choices were ranked based on the criterion weights determined by the AHP. This study used a teaching medical institution which had implemented a CRM system to evaluate and select a vendor of CRM system as the case study, to verify the model to select the optimal vendor of CRM system proposed by this study.

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