

## Chapter 3

# The CSFs Methodology and Modified DEA Approach to Construct a New Business Model to Evaluate Operational Performance of all International Tourist Hotels in Taiwan

Chieh-Heng Ko  
Chung Hua University, Taiwan

### ABSTRACT

*This chapter evaluates the operational performance of International Tourist Hotels in Taiwan, and explores the critical success factors that contribute to good performance. This research initially adopted data envelopment analysis (DEA) to measure the relative operational efficiency of 57 international tourist hotels in Taiwan. However, the DEA approach can only determine relative operational efficiency but does not identify the factors that give rise to inefficiency or lead to efficiency. Furthermore, DEA only calls attention to those hotels in which efficiency and inefficiency exist, but cannot provide suggestions on how to improve operational efficiency. A qualitative approach is a good way to address this limitation of DEA. Thus, after using DEA to evaluate hotel's operational efficiency, this research used a qualitative approach to further explore the critical success factors that contribute to hotels having good performance in Taiwan. Through determination of these factors, this research provides hotel managers with a list of advice and recommendations to develop effective strategies to meet a highly competitive environment.*

DOI: 10.4018/978-1-60960-129-4.ch003

## INTRODUCTION

The hotel industry in Taiwan is encountering a highly competitive environment due to the rapid expansion of hotels. For example, the total number of international tourist hotels has increased from 44 in 1985 to 60 in 2005 (Taiwan Tourism Bureau, 2007). However, due to inappropriate hotel management (Sun & Lu, 2005; Hwang & Chang, 2003), eight international tourist hotels have closed down over the last six years. Average occupancy rate has decreased from 73% to 69% between 2005 and 2006 which is surprising given the surge in new demand entering the market.

Hwang and Chang (2003) noted that Taiwanese hotels have adopted two ways to respond to competition. First, by targeting international travelers and domestic tourists to increase the source of customers. Second, to join franchise-chains, outsourced management and acquired membership in international hotel associations to introduce international management systems and improve their managerial capacities. Even so, it has still been hard for these hotels to improve their performance. According to monthly report on international tourist hotel operations in Taiwan in 2006, the occupancy rate and average room rate of international hotels in 2006 were 69% and US\$ 95 respectively, (Taiwan Tourism Bureau, 2007a). Compared with Hong Kong (87%, US\$ 140) (Hong Kong Tourism Board, 2007), the occupancy rate and average room rate in Taiwan is much lower. Most of the hotel owners were not satisfied with this result. Furthermore, according to Taiwan Tourism Bureau, 43 hotels and approximately 12165 rooms have been scheduled to open between 2007 and 2010. This will make the hotel industry in Taiwan encounter a highly competitive environment.

Facing this situation, the formulation of competition strategy, strengthening operational efficiency, and developing corporate advantage are essential for hotel operations. When formulating any strategy, it is necessary to have a sound

knowledge of the operating efficiency of a given hotel relative to the entire industry (Hwang, Chang, 2003).

Efficiency was defined by Jones and George (2003) as a measure of how well or how productively resources are used to achieve a goal. Organisations are efficient when managers minimize the amount of input resource or the amount of time needed to produce a given output of goods or service. A manager's responsibility is to ensure that an organisation and its members perform as efficiently as possible. The fewer the inputs required to produce a given output, the higher will be the efficiency of the production system. Therefore, it is very important for managers to evaluate organisational efficiency, and a number of different approaches and techniques have been employed to conduct such evaluations. However, the often-used mechanisms for measuring and analyzing efficiency of organisations have remained too narrow in their focus to capture the broad spectrum of factors that actually contribute to an organisation's success (Reynold, 2003). One approach that has been successful is data envelopment analysis (DEA), used in this research as it can integrate multiple input and output variables and remedy this shortcoming.

Moreover, one of the issues which hotel managers are most concerned about is the differences in performance levels that exist between different hotels and what possible factors may justify those differences. Therefore, based on the results of efficiency evaluation, this study will use a qualitative approach to identify the critical success factors contributing to efficient hotel operations to assist hotel managers to develop strategy and enhance operational performance. The objectives of this study are:

1. To evaluate the operational efficiency of international tourist hotels in Taiwan.
2. To identify the critical success factors contributing to good performance.

25 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/csfs-methodology-modified-dea-approach/51501](http://www.igi-global.com/chapter/csfs-methodology-modified-dea-approach/51501)

## Related Content

---

### The Urgency of Digital Financial Services in Islamic Boarding Schools to Improve Financial Literacy

Zainal Abidin and Khotibul Umam (2021). *Handbook of Research on Disruptive Innovation and Digital Transformation in Asia* (pp. 511-522).

[www.irma-international.org/chapter/the-urgency-of-digital-financial-services-in-islamic-boarding-schools-to-improve-financial-literacy/275927](http://www.irma-international.org/chapter/the-urgency-of-digital-financial-services-in-islamic-boarding-schools-to-improve-financial-literacy/275927)

### The Business Transformation Framework for Managers in Transformation Projects

Antoine Trad and Damir Kalpi (2019). *Advanced Methodologies and Technologies in Business Operations and Management* (pp. 1290-1311).

[www.irma-international.org/chapter/the-business-transformation-framework-for-managers-in-transformation-projects/212199](http://www.irma-international.org/chapter/the-business-transformation-framework-for-managers-in-transformation-projects/212199)

### Sustainopreneurship: A New World Order

Jawad Iqbal and Shakeela Kousar (2020). *Handbook of Research on Managerial Practices and Disruptive Innovation in Asia* (pp. 322-350).

[www.irma-international.org/chapter/sustainopreneurship/236915](http://www.irma-international.org/chapter/sustainopreneurship/236915)

### Informed Decision Making With Enterprise Dynamic Systems Control

Sérgio Luís Guerreiro (2019). *Advanced Methodologies and Technologies in Business Operations and Management* (pp. 694-707).

[www.irma-international.org/chapter/informed-decision-making-with-enterprise-dynamic-systems-control/212150](http://www.irma-international.org/chapter/informed-decision-making-with-enterprise-dynamic-systems-control/212150)

### Management of Customer Lifetime Value in Organizations: Strategies and Initiatives

Pratap Chandra Mandal (2023). *Journal of Business Ecosystems* (pp. 1-15).

[www.irma-international.org/article/management-of-customer-lifetime-value-in-organizations/318471](http://www.irma-international.org/article/management-of-customer-lifetime-value-in-organizations/318471)