

Chap 10

# **Relative Efficiency of Malaysian Commercial Banks: A Non-Parametric Approach**

**Universiti Utara Malaysia**

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# **Relative Efficiency of Malaysian Commercial Banks: A Non-Parametric Approach**

**A thesis submitted to Othman Yeop Abdullah Graduate School of Business in  
partial fulfillment of the requirements for the Degree of  
Master of Science (Banking), College of Business  
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## **Abstract**

This paper investigates the relative efficiency of Malaysian commercial banks for the years of 2005 to 2009. Data Envelopment Analysis is the method used to evaluate efficiency of 20 commercial banks in Malaysia including 9 domestic banks and 11 foreign banks. Based on the definition of input-output, most of the studies related to bank efficiency adopt either production or intermediation approach. However, in this study both approaches have been employed to find how efficiency score change when inputs-outputs are changed. Findings of this paper suggest that in general commercial banks are more efficient via production approach than intermediation approach. This study also compares the efficiency scores between domestic and foreign banks to find differences or similarities of bank performance under different ownership. Evidence is not in favor of domestic banks via production method while it is in favor of domestic banks under intermediation approach. In other words, the empirical results imply that foreign banks in production approach and domestic banks in intermediation approach were more efficient than their counterparts. In the last section, this study examines the efficiency among large, medium and small banks which were categorized by total assets to find the influence of size in commercial banks' performance in Malaysia. Results suggest that size has no significant impact on banks' performance in Malaysia. Although the influence is not substantial, however, the empirical results show that small banks are somewhat more efficient under production method while they are least efficient banks under intermediation approach comparing with large and medium banks.

**Keywords:** Commercial Bank, Relative Efficiency, Malaysia, Non-Parametric Approach

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## **List of Abbreviations**

<b>SFA</b>	<b>Stochastic Frontier Approach</b>
<b>DFA</b>	<b>Distribution-Free Approach</b>
<b>DEA</b>	<b>Data Envelopment Analysis</b>
<b>BFIs</b>	<b>Banking Financial Institutions</b>
<b>NBFIs</b>	<b>Non-Bank Financial Institutions</b>
<b>PA</b>	<b>Parametric Approach</b>
<b>NPA</b>	<b>Non-Parametric Approach</b>
<b>FDI</b>	<b>Foreign Direct Investments</b>
<b>DMUs</b>	<b>Decision-Making Units</b>
<b>CRS</b>	<b>Constant Return to Scale</b>
<b>VRS</b>	<b>Variable Return to Scale</b>
<b>OECD</b>	<b>Organizations for Economic Co-operation and Development</b>

# Chapter 1

# Introduction

## 1.1 Introduction

The past two centuries have been fateful ones for Malaysia. After the United Kingdom established colonies and protectorates in what was modern Malaysia during the 18<sup>th</sup> and 19<sup>th</sup> centuries, the mid-20<sup>th</sup> century witnessed these regions being occupied by Japan during World War II, only to revert to British control after the war (Osborne, 2003, pp. 109-112). By 1948, other events swept across what is now modern Malaysia when the territories under British control, including Singapore, established the Federation of Malaya until 1957 when they achieved their independence. The modern country of Malaysia was created in 1963, but the country's early history was far from uneventful as well, with fundamental changes in organization taking place that culminated in Singapore's withdrawal from the confederation in 1965 (Osborne, 2003, pp. 30-33). More recently, a series of economic reforms and an emphasis on diversifying the nation's economic base have succeeded in providing a number of value-added industries for Malaysia that have included manufacturing and services industries, and increasingly, the travel and tourism trade (Osborne, 2003, pp. 208-210).

Today, Malaysia is characterized by the World Bank as being a middle-income country that has transformed itself from a producer of raw materials into an emerging multi-sector economy with much of the credit for the progress to date being attributed to the country's political leadership. For example, following his accession to office in 2003, former Prime Minister Abdullah attempted to transform the Malaysian economy by introducing initiatives designed to improve the value-added production chain through increased investments in high technology industries, medical technology, and pharmaceuticals; these initiatives have been continued under the nation's current Prime Minister Najib, as well (Razak, 2010). The Najib administration has continued to implement initiatives that are intended to increase foreign

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