



Faculty of Economics and Business

**DETERMINANTS OF BANK TECHNICAL EFFICIENCY:
DOMESTIC ISLAMIC AND FOREIGN ISLAMIC BANK IN
MALAYSIA**

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Bachelor of Finance with Honours

2015

**DETERMINANTS OF BANK TECHNICAL EFFICIENCY: DOMESTIC
ISLAMIC AND FOREIGN ISLAMIC BANK IN MALAYSIA**

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This project is submitted in partial fulfillment of the requirement for the degree of
Bachelor of Finance with Honours

(Finance)

Faculty of Economic and Business
UNIVERSITI MALAYSIA SARAWAK
2015

Statement of Originality

The work described in this Final Year Project, entitled
**“Determinants of Bank Technical Efficiency: Domestic Islamic and Foreign
Islamic Bank in Malaysia”**

is to the best of the author’s knowledge that of the author except where due reference is
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ABSTRACT

DETERMINANTS OF BANK TECHNICAL EFFICIENCY: DOMESTIC ISLAMIC AND FOREIGN ISLAMIC BANK IN MALAYSIA

By

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The main objective of this study is to identify the determinants affecting the Islamic banks' technical efficiency (foreign Islamic bank and domestic Islamic bank) in Malaysia for the year of 2008 to 2012. This study is focuses on 16 Islamic banks in Malaysia which are Affin Islamic Bank Berhad, Alliance Islamic Bank Berhad, AmIslamic Bank Berhad, Bank Islam Malaysia Berhad, Bank Muamalat Malaysia Berhad, CIMB Islamic Bank Berhad, Hong Leong Islamic Bank Berhad, Maybank Islamic Berhad, Public Islamic Bank Berhad, RHB Islamic Bank Berhad, Al Rajhi Banking & Investment Corporation (Malaysia) Berhad, Asian Finance Bank Berhad, HSBC Amanah Malaysia Berhad, Kuwait Finance House (Malaysia) Berhad, OCBC Al-Amin Bank Berhad and Standard Chartered Saadiq Berhad. This study used secondary panel data and each of the bank data is take from annual report. The dependent variable in this study is technical efficiency (EFF). While the independent variables are bank size (BKS), bank expenses (EXP), bank equity (CAP) and bank loan (LOA). The overall results of this study shows that CAP have negative relationship with EFF and LOA have positive relationship with EFF. However, BKS and EXP shows that there is no relationship with technical efficiency in this study.

ABSTRAK

PENENTU KECEKAPAN TEKNIKAL BANK: BANK ISLAM DOMESTIK DAN BANK ISLAM ASING DI MALAYSIA

Oleh

Tan Jia Ming

Tujuan kajian ini adalah untuk mengenal pasti penentu yang mempengaruhi kecekapan teknikal bank-bank Islam di Malaysia (Bank Islam Domestik dan Bank Islam Asing) bagi tahun 2008 hingga 2012. Kajian ini memberi tumpuan kepada 16 bank Islam di Malaysia iaitu Affin Islamic Bank Berhad, Alliance Islamic Bank Berhad, AmIslamic Bank Berhad, Bank Islam Malaysia Berhad, Bank Muamalat Malaysia Berhad, CIMB Islamic Bank Berhad, Hong Leong Islamic Bank Berhad, Maybank Islamic Berhad, Public Islamic Bank Berhad, RHB Islamic Bank Berhad, Al Rajhi Banking & Investment Corporation (Malaysia) Berhad, Asian Finance Bank Berhad, HSBC Amanah Malaysia Berhad, Kuwait Finance House (Malaysia) Berhad, OCBC Al-Amin Bank Berhad and Standard Chartered Saadiq Berhad. Kajian ini menggunakan data panel dan setiap data bank akan dikumpulkan melalui laporan tahunan. Pembolehubah bersandar dalam kajian ini adalah kecekapan teknikal (EFF). Manakala, pembolehubah bebas adalah saiz bank (BKS), perbelanjaan bank (EXP), ekuiti bank (CAP), dan pinjaman bank (LOA). Keputusan keseluruhan kajian ini menunjukkan bahawa CAP mempunyai hubungan negative, LOA mempunyai hubungan positif, BKS dan EXP menunjukkan bahawa tidak mempunyai hubungan dengan kecekapan teknikal.

Acknowledgement

First of all, I would like to take this opportunity to express my special thanks to my supervisor, Norlina Hj. Kadri, my “ Final Year Project” supervisor, for her patient, kindness and her willingness to spending her time to share and guide me to complete this project is very much appreciated.

Besides that, I would like to thank my parents who always support me during the process of doing this project. They also have provided me some financial support such as petrol fee, photocopy fee and hard cover fee to finish this project.

Lastly, I would like to thank all the lectures and friend who guide me on how to use STATA 11.0 software and advice upon completion of my final year project.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction

Financial development is important to economic growth. It is because financial development is a process that marks the improvement in quality, quantity and efficiency of financial intermediary services. Recently, the financial crisis lead to the large amount of bank failures and its make the banking industry are more complicated than other industries when to fill in the financial detail into their bank's annual report Ng and Rusticus's study (as cited in Rozzani & Abdul Rahman, 2013).

Therefore, efficiency can be used as an indicator to measure a bank's success possibility that's been one of the reasons that efficiency used as an indicator. Mohamed Ibrahim, Ade Wirman, Bakhtiar Alrazi, Mohd. Nor and Pramono (n.d.) also stated that performance of a company is a part of control measures and it can help banking sector to improves their future performance. Hence, by using the efficiency criterion, the performance of banks can be measured. Moreover, efficiency also can be used to measure the potential impact of government policies on a bank's efficiency. Efficiency of a bank can divided several parts such as technical, pure technical, allocative, cost and scare efficiency. While, allocative efficiency is deals with the minimizing the cost of production with the proper combination of inputs to given a level of output, technical

efficiency is maximize the output to given an inputs or minimized the input to produce a given output. Scale efficiency is measure the output and input to work at its optimal level of operation and affects the technical efficiency. Efficiency is very important in Islamic banking system because the main function dealt with mobilizing resources when finance some productive output or activities (Zainal & Ismail, 2012). During the past decade, the topic about efficiency of Islamic banking have been conducted by many scholars in finance field, yet do we really know what determines Islamic bank's technical efficiency? Islamic bank is still facing the difficulties to determine the determinant of technical efficiency of Islamic bank, especially the financial manager. All of the previous studies are study about the involving the measurement of the efficiency (Hassan, Mohamad & Bader, 2009; Lang & Welzel, 1996; Saaid, Rosly, Ibrahim & Abdullallah, 2003). Therefore, this research study is focuses on the determinant of Islamic bank's technical efficiency in Malaysia. This is because the factor of a company has directly relationship towards the bank's technical efficiency by given an input used to produce an output. A bank can produce the maximum output from the minimum quantity of input, it will be say as technical efficient. Thus, when investigate the determinant of bank's technical efficiency every analysis should take attention and proper care. According to the theory of Conventional Economic Efficiency, bank should structure their output to reach the lowest possible cost per unit produce (QFinance, 2010). There are two main approaches such as intermediation approaches and production approaches in the banking theory (Sealey and Lindley as cited in Sufian, 2006; 2007). Hence, we can conclude that in this study we use intermediation approaches to choose the determinant of a bank that impact on the bank's technical efficiency. Ong, Lim & Teh (2011) stated that determinant of one

bank such as capital strength, expenses, loan quality and asset size has significant relationship with the bank efficiency. On the contrary, Rozzani and Abdul Rahman (2013) stated that in the Islamic bank model, bank size and credit risk have not significant relationship with the bank efficiency but operational cost had a significantly negative relationship with the efficiency.

The purpose of this study is to identify the determinant that affecting Islamic bank's technical efficiency in Malaysia. From this study, it provides us some information that about which determinant will impact the Islamic bank's technical efficiency in Malaysia. Since the determinant play an important role in bank's technical efficiency, therefore this paper is carried out to measure the impact of the determinant to the Islamic bank's technical efficiency in Malaysia.

1.1 Background of Study

1.1.1 Islamic banking system

Islamic banking also known as Shariah compliance banking activities that run a business with the principles of Shariah law through the development and application of Islamic principle that promote ethical and responsible financing. Islamic banking exist in all part of the world and grown rapidly all over the world during the last three decades. In Malaysia Islamic finance has grown enormously since it first emerged in the 1970's. Current Islamic banking assets and assets under management within Malaysia's banking industry have almost doubled, expanding from RM303 billion (about US \$93 billion) at

the end of December 2009 to RM557 billion (about US \$171 billion) at the end of December 2013 (Frasier-Nelson, 2014), a good increasing over 4 years as the industry expands in Malaysia. Besides that, Islamic banking now has spread all over the world from East to the West such as the way from Malaysia, Bahrain to Europe and US (Ahmad Mokhtar, Naziruddin Abdullah & Alhabshi, 2008). McKinsey (2007) states that there are over 300 Islamic financial institutions worldwide across 75 countries and the world's 100 largest Islamic banks target an annual asset growth rate of 26.7%, while the global Islamic finance industry is experiencing an average growth of 15-20% annually. The first Islamic banks in Malaysia are Bank Islam Malaysia Berhad (BIMB) and the second is Bank Muamalat Malaysia Berhad. Bank Negara Malaysia (BNM, 1994, 1999) has indicated that BIMB runs the business for 10 years since July 1983 before the government allowed conventional banks to offer Islamic banking services and products by using their existing infrastructure and branches in the year 1993 and BIMB are the only Islamic bank at that time. The first local-based banking group that launched Islamic subsidiary was RHB Islamic Bank Berhad. The second was the Commerce Tijari Bank (Bernama, 2005) and the third banking group was Hong Leong Islamic Bank. In March 1993, twenty one Islamic product were offered by three banks but in July 1993, the scheme was Islamic banking at the shortest time frame with the lowest cost, the government decided to offer conventional banking institutions use the Islamic banking services or "Islamic windows" (BNM, 1994, 1999). Several studies (Alias, Kamarulzaman & Bhupalan, 1994; Kaleem, 2000) have been stated that by doing so, it would force the Malaysia banking industry to be more competitive and lead to an improved performance and enhanced efficiency of the Islamic banking industry.

According to Siddiqi (2006), Islamic banking theory appeal with the cost-plus financing or proliferation of murabahah during the late nineteen-seventies and early eighties. With the concept of murabahah, businessman needed purchased by the bank at his necessity and promise to buy it from the bank at the price that higher than its purchase price and paid it after a period of time. Each murabahah transaction can consider as debt. Siddiqi (2006) also stated that funds that invest in murabahah transaction were safe compare to the funds that supplied on a profit-sharing basis. So, the establishment of BIMB has built up the development of the Islamic financial system in Malaysia. BIMB running the similar banking business with the other commercial banks, but it is along with the principles of Syariah. This means that all business that operation in Islamic bank such as transaction, financing or deposit must be based on syariah principle. BIMB offers current deposit and saving deposits under the concept of guaranteed custody (Al-Wadiah Yad Dhamanah) and investment deposits under the concept of profit-sharing (Al-Mudharabah). Besides that, the banks also offer the grants financing instrument such as working capital financing under cost-plus (Al-Murabahah), house financing under deferred payment sale (Bai' Bithman Ajil), project financing under profit and loss sharing (Al-Musyarakah) and leasing under Al-Ijarah (leasing).

The Islamic banking system includes full-fledged Islamic banks and Islamic windows within the conventional bank. The conventional banks are commercial banks, finance companies and merchant banks. In Malaysia, there are currently had two full-fledged domestic Islamic banks such as Bank Islam Malaysia Berhad and Bank Muamalat Malaysia Berhad (Bank Muamalat). There are also have three new full-fledged

foreign Islamic banks that government gives the license to operate in Malaysia starting from the year 2004, namely Al-Rajhi Banking & Investment Corporation, Kuwait Finance House and the consortium led by Qatar Islamic Bank.

1.1.2 History of Islamic banking in Malaysia

The history of Islamic banking in Malaysia can traces back to 1963 when Lembaga Tabung Haji (the Pilgrims Management and Fund Board) is established by the government. It is a financial institution that provides a savings mechanism for Malaysia Muslim to assist them perform pilgrimage in Makkah as same as encourage them to involve in the investment and collection money. The fund that they invested in productive sectors of the economy is to aim at the yielding return uncontaminated by riba.

As a country that almost of population is dominated by Muslims, it also affect by the Islam resurgence that had taken place in Middle East. Many parties were asking for the establishment for an Islamic bank in Malaysia. For example, in 1980, the Bumiputera Economic Congress had suggested to the Malaysian Government to setting up an Islamic bank in the country. Beside setting up the Islamic bank, it also sets up the National Steering Committee in 1981to undertake a study and make recommendations to the Government about the setting up and operations of the Islamic bank in Malaysia. It includes the legal, religious and operational aspects. Lastly, this study concludes that Bank Islam Malaysia Berhad (BIMB) is the first Islamic bank in Malaysia when July 1983 with the total capital of RM80 million.

1.2 Problem Statement

The recent financial crisis has led to a large number of the bank fail and making the banking sector more complicated in despite the financial detail of the bank in their financial reports, Ng and Rusticus's study (as cited in Rozzani & Abdul Rahman, 2013). The issue of the bank survival in this period has attracted a high interest to scholars of financial regulators and financial services. At the same time, the growth in Malaysia Islamic banking sector is higher and rapidly compare to the overall growth of the country's banking industry (Alywyni, 2011). Besides that, Rozzani and Abdul Rahman (2013) stated that, the researches of Hassan (2005) that examine the factor affecting performance does not provided a depth explanation on how variable use and any restrictions variable being use.

Besides that, the Ninth Malaysia Plan, covering 2006-2010 stated that Malaysia is seeking to the top position of Islamic finance. In order to achieve the goal, Bank Negara Malaysia has offer a number of full-fledged Islamic bank licenses to allow conventional banking institutions to practice Islamic banking services and thus offer Islamic banking products and services to both Muslim and non-Muslim customers or its call Islamic windows. By offering this, it would force the Malaysia banking industry to be more competitive an enhanced the efficiency. Why Islamic banking in order to face the competitive, its financial growth still increasing? Therefore, there is a need to measure the determinant of the Islamic bank's technical efficiency why Islamic bank financial growth still increase. Bashir (2011) stated that the evaluation of bank's efficiency and its

determinants are very imperative due to the environment growing in today's economic, so it has created a specific curiosity whether which among the potential determinants of the Islamic bank's technical efficiency. There is less research focused on the determinant of Islamic bank's technical efficiency in Malaysia. Most of the researches only focus on the determinant of bank's efficiency in conventional bank versus Islamic bank, not have any researches just focuses only the Islamic bank. Hence, this issue has gained my interest to conduct this research and it also can play a important role in filling the gap in measuring the determinant of bank's technical efficiency in Islamic banking Malaysia. The study also can help the Islamic bank in Malaysia to re-evaluate and mark their performance based on their efficiency level.

1.3 Objectives of Study

1.3.1 General objective

The main objective of this study is to define the determinants affecting the Islamic banks' technical efficiency (foreign Islamic bank and domestic Islamic banks) in Malaysia for the year of 2008- 2012.

1.3.2 Specific Objective

The specific objectives include:

1. To measure the relationship between the bank size and the technical efficiency of the Islamic bank (domestic and foreign) in Malaysia.

2. To determine the relationship between bank equity (capitalization) and the technical efficiency of the Islamic bank (domestic and foreign) in Malaysia.
3. To study the relationship between the bank expenses and the technical efficiency of the Islamic bank (domestic and foreign) in Malaysia.
4. To investigate the relationship between loan and the technical efficiency of the Islamic bank (domestic and foreign) in Malaysia.

1.4 Significance of the Study

The studies measure the determinant of bank's technical efficiency of domestic Islamic bank and foreign Islamic bank in Malaysia. From the previous study, the researchers have measured the determinant of bank's efficiency and comparing with the Malaysian conventional bank and Islamic bank, but there no have studies attempted to focus on the determinant of the Islamic bank's technical efficiency in Malaysia. Due to the lack of the empirical studies that examines the determinant of bank's efficiency of Islamic banking, this study attempts to fill this gap by using the Data Envelopment Analysis (DEA) to measure the technical efficiency of Islamic banking and investigate the determinant of Islamic bank's technical efficiency. Therefore, the determinant of the Islamic bank's efficiency would be the interest study to know which determinant will impact on the bank's efficiency. This study also important to the public policy implications such as Malaysia's Financial Sector Master Plan (FSMP), a long-term development plan the future direction of the financial services industry in Malaysia to achieve a more competitive, elastic and efficiency financial system (BNM Financial Sector Masterplan, 2001). The study could help the regulatory authorities in determining

the future course of action to be trailed to further strengthen of the Malaysian banking sector, especially the domestic incorporated Islamic banks, to meet the challenges of foreign banks' entry from 2007 onwards.

1.5 Scope of the Study

This study intends to look at the determinant of bank's technical efficiency of the Islamic banking industry in Malaysia from 2008-2012, by using the Data Envelopment Analysis (DEA). DEA is a non-parametric technique that computes a relative ratio of outputs to each unit of inputs (Avkiran, 1999). Thus, to calculate the efficiency, the data of fixed asset, total asset, total deposit, total investment and total loan will collected from the annual report and financial statement of the 16 Islamic banking in Malaysia during the period of 2008-2012 while data of the determinant such as total asset (bank size), bank expenses, total bank loan and equity (capitalization) also will collect from financial statement and balance sheet of each bank.

1.6 Organization of Study

This study is set out in several sections as discussed briefly follows. The next chapter presents the literature review. Any related studies that have been done by the other researchers will be discussed in this section. Chapter three outlines the data description and methods or approaches that will be used in this study. Chapter four will discussed about the data results, analysis of findings and the empirical results. Finally, a

summary of an overall study as well as proper recommendations for further studies will be presented in chapter five.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of this study is to investigate the determinant of Islamic bank's technical efficiency in Malaysia for the period of 2008-2012. The objectives of this study are to examine determinant of the foreign and domestic Islamic bank's technical efficiency in Malaysia. This section contains a meaning of efficiency, bank efficiency studies and the determinant of bank's efficiency study.

2.1 Meaning of Efficiency

Hassan (2006) stated that regardless of a bank's underlying philosophy, the bank's long run sustainability depends on economic efficiency. If a bank operates with both technical efficiency and price efficiency then the bank is considered as economically efficient. A bank is said to be more technically efficient and cost efficient than another bank if it can produce relatively larger output from the same set of input and maximizes its profit. Al-Delaimi and Al-Ani (2006) stated that the common concept of efficiency is technical efficiency, which is transferring physical inputs such as labor and capital into output at the best level of the performance. Besides that, another concept of efficiency is allocative efficiency and cost efficiency. Allocative efficiency refers to the choosing of input to the specific level of output at specific level of the prices of the later, where the