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Assessing the domestic and foreign Islamic banks efficiency: Insights from selected Southeast Asian countries

Fakarudin Kamarudin[a,*], Fadzlan Sufian[b], Foong Wei Loong[a], Nazratul Aina Mohamad Anwar[c]

[a]*Faculty of Economics and Management, Universiti Putra Malaysia, 43400 Serdang, Selangor Darul Ehsan, Malaysia*
[b]*Universiti Islam Malaysia, Blok I, Bangunan MKN Embassy Techzone, Jalan Teknokrat 2, 63000 Cyberjaya, Selangor Darul Ehsan, Malaysia*
[c]*Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia, Bandar Baru Nilai, Nilai 71800, Negeri Sembilan, Malaysia*

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Abstract

The objective of this study is to examine the technical efficiency (TE) and the decomposition of pure technical efficiency (PTE) and scale efficiency (SE) of domestic and foreign Islamic banks from the selected Southeast Asian Countries. The sample comprised of 29 domestic and foreign Islamic banks from Malaysia, Indonesia and Brunei over the period of 2006–2014. This study employ the Data Envelopment Analysis (DEA) method to measure banks' efficiency. In addition, the parametric (*t*-test) and non-parametric (Mann-Whitney [Wilcoxon] and Kruskall-Wallis) tests also performed to examine the difference in the efficiency of the foreign and domestic Islamic banks. The results indicate that the domestic Islamic banks have exhibited higher efficiency levels compared to their foreign bank peers. In addition, the empirical findings from this study seem to suggest that the domestic Islamic banks have exhibited a higher efficiency levels for all three efficiency measures and consistent with home field advantage theory. The findings of this study are expected to contribute significantly to the regulators or policymakers, Islamic banking itself, investors and existing knowledge on the operating performance of the Islamic banking sector.

JEL Classifications: G21; D24

Keywords: Islamic banks; Efficiency; Data envelopment analysis; Malaysia; Indonesia; Brunei

1. Introduction

According to Kamarudin, Sufian, and Nassir (2016) Islamic and conventional banks operate on different principles. Among others the Islamic banking system prohibits interest (*Riba'*) and substitutes it with the principle of Profit and Loss Sharing (PLS) and is based on *Syari'ah* rules (Ariff, 1988; Ariff, 2006). Despite differences in principles, Islamic banks share the same objective as their conventional bank peers i.e. to enhance shareholders'

*Corresponding author.
E-mail addresses: fakarudinkamarudin@gmail.com (F. Kamarudin), fadzlan.sufian@gmail.com (F. Sufian), foong.mba14@grad.putrabs.edu.my (F.W. Loong), nazratulaina@usim.edu.my (N.A.M. Anwar).
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value or wealth creation through profit maximization (Olson & Zoubi, 2008). To remain competitive Islamic banks have to efficiently utilize their scarce resources so as to attain the most optimal profit level. Therefore, it would be reasonable to expect Islamic banks strive to be profit efficient.

Southeast Asian countries especially Malaysia, Indonesia and Brunei are one of the largest concentration Muslims in the world. There were approximately 61.4%, 88.1%, and 51.9% of Muslim population in Malaysia, Indonesia and Brunei respectively (Pew Research Center, 2011). Khan and Bhatti (2008) reported that Southeast Asia represent as one of the central hubs of Islamic banking and finance.

Islam has greatly influenced the economic growth of these countries in last three decades. Islamic financial institutions such as Islamic banks are well-established and operating efficiently. The efficient Islamic banking industry contributed to the stability of the financial system and better able to withstand negative shocks (Venardos, 2005). Given the rapid development of the Islamic banking sector, it is reasonable to expect that the performance of Islamic banks has become the center of attention among Islamic bank managers, stakeholders, policymakers, and regulators.

Despite its humble beginning, Islamic banks have blossomed throughout the world. The Islamic banking system has today become more competitive compared to the conventional banking system. At present, Islamic banks have presence in more than 75 countries, from Malaysia to Bahrain to Europe and the U.S. Qorchi (2005) reported that the number of Islamic financial institutions has quadrupled to more than 300 institutions over the past three decades. Total assets of Islamic financial institutions are estimated to be US$250 billion and are projected to be increase at about 15% rate per year, three times the rate of conventional banks. According to Ghafour (2007), the size of the world Islamic banking industry assets is estimated to have grown in excess of $265 billion from merely hundreds of thousands of dollars in the 1970s.

Given the rapid development of the Islamic banking sector, it is reasonable to expect that the performance of Islamic banks has become the center of attention among Islamic bank managers, stakeholders, policymakers, and regulators. Berger and Humphrey (1997) point out that studies focusing on the efficiency of financial institutions have become an important part of banking literature since the early 1990s. Furthermore, Berger, Hancock, and Humphrey (1993) suggest that if banks are efficient, they could expect improvement in profitability levels, better prices and service quality for consumers, and greater amounts of funds intermediated.

Although considerable developments in the Islamic banking sectors worldwide, very few attention has been given on the efficiency of its operations. Instead of focusing on the Islamic banks' expansion, it is better to examine their efficiency level to ensure their improvement sustainability. Therefore, the ultimate objective of this study is to examine the efficiency of foreign and domestic Islamic banks in Malaysia, Indonesia and Brunei over the period of 2006–2014. Furthermore, this paper focuses on the question whether the efficiency of foreign banks differs from domestic Islamic banks. Why would the efficiency of a foreign bank differ from the efficiency of domestic bank? According to Lensink, Meesters, and Naaborg (2008) and Demirguc-Kunt and Huizinga (2000) there are two important reasons for this. First, foreign banks may be less subject to domestic credit allocation rules than domestic banks. Second, domestic banks may have informational advantages relative to foreign banks.

By employing a non-parametric Data Envelopment Analysis (DEA) method, we analyze the technical efficiency (TE), pure technical efficiency (PTE) and scale efficiency (SE) of foreign and domestic Islamic banks in Malaysian, Indonesia and Brunei over the period of 2006 to 2014. In addition to DEA, this study performs a series of parametric (*t*-test) and non-parametric (Mann-Whitney [Wilcoxon] and Kruskall-Wallis) tests to examine whether the foreign and domestic banks are drawn from the same population.

The article begins with a brief review of related studies. Section 3 discusses on the methods employed in the study and variables employed in the panel regression analysis. We present the empirical findings in Section 4. The article concludes and provides discussions on the policy implications in Section 5.

2. Review of literature review

Despite considerable developments in the Islamic banking sector, there have been very limited studies done focusing on the efficiency of Islamic banks. To date, empirical evidence examining the performance of the Islamic banking sector focuses more on the profitability with the help of financial ratios and are constrained by the time span and the number of Islamic banks (Rahim, Bakar & Ganapathy, 2015). However, studies that address the efficiency of