

## THE CORPORATE GOVERNANCE EFFICIENCY AND ISLAMIC BANK PERFORMANCE : AN INDONESIAN EVIDENCE

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**Abstract:** The objective of this study is to investigate the effect of the corporate governance efficiency consisting of variables board director's size, board commissioner's size and sharia supervisory board's size on the Islamic bank performance in Indonesia. The study of the corporate governance structure in the banking sector is an important component within the enhancement of banks' efficiency and performance. Using purposive sampling, 11 Islamic banks were selected as the sample for the period of the year 2010 to 2014. The data were from the financial statements and annual reports of the Islamic banks. The measurement of the corporate governance efficiency employed the Data Envelopment Analysis with the help of the EMS software. Regression using panel data were employed to analyze the relationship between the efficiency and bank's performance. The findings show that the efficiency level of corporate governance of Indonesian Islamic banks improved significantly during the period of research. In addition, the corporate governance efficiency significantly correlated to the Islamic bank performance. The study results draw some implications for policy that helps to improve performance of the banking sector.

**Key words :** corporate governance, efficiency, bank's performance, Islamic Banks

DOI: 10.17512/pjms.2016.13.1.11

### Introduction

Corporate Governance is a principle that directs and controls the company in order to achieve a balance between the power and authority of the company in providing accountability to the shareholders in particular, and stakeholders in general (Jensen and Meckling, 1976). It is intended to regulate the authority of the director, managers, shareholders and other parties associated with the development of companies in a particular environment. With the implementation of good corporate governance, the enterprise resource management is expected to be efficient, effective, economical and productive with always goal-oriented company and pay attention to stakeholders approach (Jenkinson and Mayer, 1992). At the national level, best practices of governance helps companies access and are successful on the market (Pietrasieński, 2014).

Previous results raise the question whether corporate governance is a critical factor for better performances of banks. Empirical studies have showed mixed results. A set of literatures has shown a positive and significant relationship between block holders ownership and corporate performance ((Naushad and Malik, 2015; Al-

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Amarneh, 2014), while other research have showed no significant relationship between ownership concentration and corporate performance (Demsetz, 1983; Murali and Welch, 1989). A probable explanation of these mixed results lays on the different measurement of the corporate governance. Studies like Naushad and Malik (2015) and Al-Amarneh (2014) employed Board Size and CEO Duality, while Felício et al. (2014) used block ownership, board size, insider representation and other variables. In addition, El-chaarani (2014) used board size, the proportion of independent directors in the board and CEO-duality. Larcker et al., (2007) further argue that the lack of consistent empirical results on the influence of corporate governance on the performance is due to the difficulty in adequately measuring corporate governance.

Lehmann and Warning (2004) suggested employing a single unique technique called Data Envelopment Analysis (DEA) to measure corporate governance. DEA is a non-parametric mathematical programming methodology that can be used to evaluate the efficiency of a variety of organizations using multiple inputs and multiple outputs. The DEA technique was initially proposed by Charnes, Cooper, and Rhodes (1978). This methodology can measure the efficiency of the corporate governance structure in an objective way. Bauer, Berger, Ferrier, and Humphrey (1998) argued that efficient frontier approaches, such as the DEA model, seem to be superior compared to traditional measures.

Studies on the corporate governance have been conducted by various scholars. However, it is instructive to note that there is still ambiguity regarding the appropriate variables that might serve as a proxy for corporate governance. In addition, the examination of the previous studies reveals that there is no such empirical evidence on the corporate governance and its impact on the firm profitability in the case of Islamic banks. The current study is an attempt to fix these gaps and estimates the relationship between the efficiency of corporate governance structure and the Islamic bank performance. Following Lehmann and Warning (2004), a two-step quantitative research design was employed to accomplish the purpose of the current study: Data Envelopment Analysis (DEA) and panel regression analysis. DEA is a non-parametric mathematical programming tool to measure the efficiency of the corporate governance structure in an objective way. Next, the efficiency score generated from the DEA program were used as an independent variable in a panel regression model to explain the Islamic bank performance.

### **Hypothesis Formulation**

An Islamic bank refers to a system of banks or bank activity that follows the principles of the Shariah (Islamic rulings) and its practical application through the development of Islamic economics. The principles that emphasize moral and ethical values in all dealings have wide universal appeal. Shariah prohibits the payment or acceptance of interest charges for the lending and accepting of money,

as well as carrying out trade and other activities that provide goods or services considered contrary to its principles.

In the context of banking system, Islamic banks are important institutions. These banks contribute fundamentally to financial growth in many countries. The number of Islamic financial institutions worldwide has risen from one institution in one country in 1975 to over 300 institutions, operating in more than 75 countries in the middle east, south east Asia, Europe and united state. Total assets of Islamic banks worldwide are estimated to be \$250 billion, and are expected to grow by 15% a year (Čihák and Hesse, 2008). The success of Islamic bank is a result of many factors, but the important one is corporate governance. The following section describes the efficiency of corporate governance and its impact on the financial performance of the Islamic banks in Indonesia.

### ***Corporate Governance Efficiency***

Learning curve theory can explain the improvement of corporate governance of the Islamic bank efficiency. Originally, the learning can be defined as the fact that experience gained from increased production of any commodity causes a decline in manufacturing costs, and therefore inevitably in prices in a competitive market environment. In other words, the theory states that every time the quantity of units produced is doubled the corresponding unit costs decline by an experience factor (Burr and Pearne, 2013). Similarly in economic terms, the learning curve refers as the anticipated improvements that are likely following early mistakes. Companies refer to mastering learning curves following troubled product introductions, difficult entries into new markets, or even to refer to improvements that a company has made in consolidating the acquisition of subsequent companies (Steven, 2010). In the context of corporate governance efficiency, the economic learning of efficiency generally follows the same kinds of experience curves. Efficiency improvement can be considered as whole bank learning processes. The general pattern is of first speeding up and then slowing down, as the practically achievable level of methodology improvement is reached. The effect of reducing effort and resource use by learning improved methods effect on the efficiency. In other words the efficiency of corporate governance incurs if Islamic banks improve, compared to their previous year's performance (Ayumardani, 2015).

Therefore we stated the hypothesis 1 as follow:

*In average, Islamic banks perform and operate efficiently*

### ***The Corporate Governance and Islamic Bank Performance***

Following prior studies by Chapra and Ahmed (2002); Haniffa and Hudaib (2006), the present study addresses a number of corporate governance characteristics that are implemented by Islamic banks in Indonesia. The first dimension is Shariah (Islamic law) supervision board (SSB). The SSB is an independent body within an Islamic bank and, therefore, it is not subject to instructions and influences by management, the board of directors, or shareholders. This additional but mandatory

board is to adhere to Islamic rulings relating to profit and loss sharing, equitable distribution and the prohibition of rib (interest). In addition, SSBs help ensure compliance with the principles of Islamic law. In addition, the responsibilities of SSBs normally include: advising the boards of directors; providing input to Islamic financial institutions on Islamic law matters that enable banks to comply with Islamic law principles; setting Islamic law related rules and principles and overseeing compliance to ensure that policies and procedures prepared by Islamic financial institutions are in conformity with Islamic laws and issuing verdicts to create confidence with respect to Islamic law compliance. Advocates of Islamic banking argue that Islamic law supervision enables Islamic banks to contribute to social justice, including financial performance (Mokhtar et al., 2008).

The board of directors plays an important role in running bank operations. According to the agency theory, the directors act as the agent on behalf of the principles (Jensen and Meckling, 1976). The investors or owners are the principal with the goal to maximize profit. This condition may raise the agency problems because of the different interests and goal between the two parties. However, the firms with large board directors have the ability to push the firm management to track on their main duties. The directors also are more effective to monitor the daily operation of the company, hence improve financial performance. According to Tanna, Pasiouras, and Nnadi (2011), there were mixed results after reviewing empirical evidence on the impact of board size on performance. They found evidences that board size is related to efficiency.

The last dimension of board's structure is the board of commissioners. The board focuses on the monitoring function of the director's policy implementation. Previous studies indicated that the bigger the board the bigger the agency problems are, and partly due to becoming less effective in monitoring the management (Eisenberg et al., 1998). Furthermore, a good board is likely small board as it will establish good decision making process for the enterprise (Leblanc and Gillies, 2003). Similarly, a company with a bigger size board has lower value than the other (Jensen, 1993). However, other studies argued that the board size is not significant on the performance of the board as well as in the company (Ramdani and Witteloostuijn, 2010).

Based on the above explanation, the research hypothesis 2 is formulated as follows:

*The efficiency of the corporate governance is positively related to the performance of Indonesian Islamic banks.*

### **Research Method**

This study analysed the efficiency of the corporate governance and its impacts on the financial performnace of Islamic banks in Indonesia. The completed quarterly data was extracted from the Indonesian central bank. The data are available on its sites of the [www. bi.go.id](http://www.bi.go.id) for the period of 2010-2014 consecutively. To test the first hypohthesis, we calculated the efficiency of the corporate governance with the the following formula:

$$CGEff = \frac{\sum_{i=1}^m uy}{\sum_{j=1}^n vx} \quad (1)$$

Where, CGEff is the efficiency of corporate governance in Islamic banks, u is the output and y is the number of output i in banks, v is the input and x is the number of input j. The input variables were the corporate governance variables consisting of Board of Directors size, Board of Commissioners size and Shariah Supervisory Board size while the output variables were the volume of murabahah receivables, financing, murabahah revenue, ishtisna' revenue, ijarah revenue, mudharabah revenue, musyarakah revenue. We used the help of the EMS (Efficiency Measurement Systems) software to calculate the quarterly efficiency of each bank in the sample. In addition the current study employs return on asset as a proxy of bank performance. This ratio represents the group of profitability ratios providing a picture of business performance.

To test hypothesis 2, this research used a statistical method by using equation 2. It was expected that the coefficient of CGEff<sub>t</sub> ( $\beta_1$ ) was positive and significant.

$$BP_t = \alpha + \beta_1 CGEff_t + \beta_2 Size_t + \varepsilon_t \quad (2)$$

Where:

- BP<sub>it</sub> = Bank's Performance in quarter t, measured by return on asset  
 CGEff<sub>it</sub> = Corporate Governance Efficiency of bank in quarter t  
 $\alpha$  = Constant  
 $\beta_1$  and  $\beta_2$  = variable coefficients  
 $\varepsilon$  = error  
 size = Control variable measured as the logarithm of total assets

### Findings and Discussions

This section contains the research findings and discusses about the result of the research. Table 1 shows descriptive statistics of the variable, consisting of the minimum, maximum values, the average (mean) and standard deviation of the variable values.

**Table 1. Descriptive Statistics**

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Efficiency	195	0.00290	1.00000	0.342777	0.300133
BanksSize	195	12.100884	17.995548	15.434695	1.365849
ROA	195	-0.010852	0.023661	0.005688	0.005278

In addition, Table 2 shows that each year the efficiency increases. On the average, the corporate governance efficiency improved by 0.002984 in the year 2011 compared to 2010. Similarly, the 2015 bank efficiency increased by 0.057176. To test whether the efficiency improved significantly over the span time, we employed

paired t-test by comparing the average score of the yearly bank efficiency. Table 2 shows the result supports the first hypothesis. The corporate governance efficiency in 2011 and 2012 was not significant. However, the efficiency both year 2013 (mean of 0.112392 and p-value of 0.000) and 2014 increased significantly (mean of 0.057176 and p-value of 0.004). Overall, the results suggests that the efficiency from the period of 2010 to 2014 improved significantly.

**Table 2. Paired Samples Test**

Yearly Pair	Mean	Std. Deviation	Std. Error Mean	t-value
YEAR2010-YEAR2011	-0.002984	0.044224	0.022112	-0.135
YEAR2011-YEAR2012	-0.000369	0.025311	0.012655	-0.029
YEAR2012-YEAR2013	-0.112392	0.011790	0.005895	-19.065**
YEAR2013-YEAR2014	-0.057176	0.006246	0.003606	-15.854 **
† p <0.10; *p <0.05; **p <0.01; ***p <0.001				

The improvement of the corporate governance efficiency implies that the aspects of the corporate governance have enhanced important roles (Ayumardani, 2015). For example, the board of directors has served as a source of advice and counsel, served as some sort of discipline, and acted in crisis situations (Bonin et al., 2005). The board of directors has been responsible for the operations and financial soundness of the bank. In addition, the existence of board of commissioners who are competent and independent is able to better monitor and provide more valuable input in solving agency problems between owners and managers (Fama, 1980; Fama and Jensen, 2009). This also suggests that independent boards play their monitoring roles well. This results is consistent to the evidence from this banking industry and shows that the internal monitoring supplied by the independent board has been effective in enhancing the directors of the banks to achieve the financial performance. Finally, to assure the application of the Islamic compliance on the bank operation, Islamic banks must have Shariah (Islamic law) supervisory board (Chapra and Ahmed, 2002). This result suggests that the board have been responsible for overseeing the application of various aspects of Shariah rules in the bank. The board also have implemented that the entire transactions adhere to the principles of Shariah.

**Table 3. Coefficients of Variables**

Model	Coefficients	Std. Error	t-values
Constant	0.016	0.006	2.692 **
Efficiency	0.007	0.002	3.828***
BanksSize	0.000	0.000	-2.007*
Adjusted R Square = 0.072			
† p <0.10; *p <0.05; **p <0.01; ***p <0.001;			

To investigate whether the efficiency of the corporate governance explains bank performance, we employed equation 1. The result of the test is indicated in Table 3. The regression in equation 1 met the classical assumption of a regression. Table 3 indicates that the regression coefficient of CGEff (corporate governance efficiency) variable has positive value (0.007) and significant at the 1% level (p-value of 0.000). This result suggests that the corporate governance efficiency (CGEff) positively effect on the bank performance significantly. More exactly, the higher efficiency of the corporate governance, the greater bank's performance is.

The theoretical perspective that guided the current study is linked to the idea that banks with an efficient corporate governance structure have better performance than those without it. The result of this study strongly supports this notion. In the light of academic works of Jensen and Meckling (1976); and Fama (1980), many studies have also discussed corporate governance structure with a focus on the agency theory. Jensen and Meckling (1976) showed that well-governed firms might have more efficient operations. Lehmann and Warning (2004) examined if companies that have more efficient governance structure have higher performance. They found that the performance differences between companies were significantly explained by the governance efficiency of companies.

Another result is that the control variable (SIZE) is significant (p-value of 0.046 < 5% level). Though this control variable is not the main concern in this study, scholars should consider this variable on their studies. Lastly, table 3 shows the amount of the adjusted coefficient of determination (adj-R<sup>2</sup>). This value indicates how much the two independent variables can explain the bank's performance. The model has the value of 0.072 or 7.2%, implying that the regression model (corporate governance efficiency and bank size) explains bank's performance about 7.2%, while the rest due to other factors. This suggests including additional variables that may improve the bank performance. The next research may add the variables of the leadership style and gender on the model.

### **Conclusions and Implications**

The efficiency of the corporate governance is critical to the proper functioning of the banking sector and the economy as a whole. With the implementation of good corporate governance, the enterprise resource management can improve company's financial performance. However, research on the relationship between corporate governance and financial performance for the Islamic banks is scare. In addition, review literature reveals that there is no such empirical evidence on that relationship in the case of Islamic banks in Indonesia. This study is also different from previous studies in term of the corporate governance measurement. While prior authors employ each of corporate governance dimensions as variable proxies, this study uses a single proxy; corporate governance efficiency. Overall, the result of the study support hypothesis expectations. The result of comparing the yearly average efficiency shows that the corporate governance efficiency score improved significantly during the research period. In other words Indonesian Islamic banks

operated and performed the corporate governance efficiently. In addition and more interesting, the corporate governance efficiency has a positive significant effect on the bank performance.

The result of this study may bring some practical implications. First, the rationale behind studying the relationship between corporate governance structure and banks' performance may be a determinant that helps investors to invest in the banks. If the quality of bank performance is affected by the efficiency of corporate governance, then the Shariah supervision board and the board of commissioners need to monitor the management to reduce the effect of the conflict of interests resulting from the use of bank's profitability. In addition, creditors can also be beneficial from the results of the current study. The result of this study can help them to justify their decisions whether to funding particular banks or not.

This study may be subject to limitations. The current study was conducted for only Islamic banks in Indonesia. It is suggested for future research to encompass a comparison between corporate governance structures of Islamic banks in Indonesia and those banks in Gulf Cooperation Council (GCC) countries. The small number of observations, despite its significant proportion to population, can also be a serious issue. Future research can extend the period of the study and employ a more rigorous statistical approach in examining the corporate governance efficiency. Another future research is investigating the efficiency of corporate governance structures for the entire banks in Indonesia. Employing the whole population will provide more reliable and adequate information. Furthermore, the present study emphasized on the relationship between the efficiency of corporate governance and the bank performance. Future research can be extended into the motivational factors of corporate governance that enhance efficiency in relation to bank performance.

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## EFEKTYWNOŚĆ NADZORU KORPORACYJNEGO I WYDAJNOŚĆ BANKU ISLAMSKIEGO: PRZYKŁAD INDONEZYJSKI

**Streszczenie:** Celem niniejszego artykułu jest zbadanie wpływu efektywności nadzoru korporacyjnego obejmującej zmienne wielkości zarządu dyrektorów, wielkości rady komisarza i wielkości rady nadzorczej szariatu w sprawie islamskiej wydajności bankowej w Indonezji. Badanie struktury nadzoru korporacyjnego w sektorze bankowym jest ważnym elementem w ramach poprawy efektywności i wydajności banków. Próbę stanowiło 11 islamskich banków, korzystano z celowego pobierania próbek, badaniu poddano okres od 2010 do 2014 roku. Dane uzyskane były ze sprawozdań finansowych i sprawozdań rocznych banków islamskich. Do pomiaru efektywności nadzoru korporacyjnego wykorzystano graniczną analizę danych z pomocą oprogramowania EMS. Do analizy zależności pomiędzy efektywnością i wydajnością banku użyto danych panelowych wykorzystujących regresję. Wyniki pokazują, że poziom efektywności nadzoru korporacyjnego indonezyjskich banków islamskich poprawił się znacząco w okresie badań. Ponadto, efektywność nadzoru korporacyjnego była znacząco skorelowana z islamską wydajnością bankową. Wyniki badań niosą za sobą pewne implikacje dla polityki, która przyczynia się do poprawy wyników sektora bankowego.

**Słowa kluczowe:** Ład korporacyjny, efektywność, wydajność banku, banki islamskie

### 公司治理效率和伊斯蘭銀行業績：一個印度尼西亞證據

**摘要：**本研究的目的是調查由變量導演的董事會規模，董事會專員的規模和伊斯蘭教監事會對印尼伊斯蘭銀行業績規模的公司治理效率的效果。公司治理銀行業結構的研究是對銀行的效率和性能的提升中的一個重要組成部分。使用立意抽樣，11伊斯蘭銀行被選為樣本為2010年期間至2014年的數據來自財務報表和伊斯蘭銀行的年度報告。公司治理效率的測量採用的數據包絡分析與EMS軟件的幫助。回歸採用面板數據被僱用來分析銀行的效率和性能之間的關係。調查結果顯示，印尼伊斯蘭銀行的公司治理的效率水平在研究期間顯著改善。此外，公司治理效率顯著相關伊斯蘭銀行業績。研究結果繪製政策有助於改善銀行業的表現一些啟示。

**關鍵詞：**公司治理效率，銀行的表現，伊斯蘭銀行