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# THE EFFECT OF CORPORATE GOVERNANCE ON BANK EFFICIENCY IN INDONESIA

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## ABSTRACT

*The objective of this study is to investigate the effect of board size, audit committee size, and institutional ownership as corporate governance variables on bank efficiency in Indonesia.*

*The populations in this research are all banks listed in Indonesia Stock Exchange (IDX) during the period of 2010-2013. Using purposive sampling, 28 banks are selected as the sample. The data are secondary data from the financial statements and annual reports of the banks. Panel data regression is employed to analyze the data.*

*The findings show that board size has significant negative effect on the efficiency of banks. Other corporate governance variables, audit committee size and institutional ownership, give no significant influence on bank efficiency in Indonesia.*

***Keywords:*** *Bank Efficiency, Corporate Governance, Board Size, Audit Committee Size, Institutional Ownership.*

## INTRODUCTION

Along with globalization, banking sector has a crucial role in the international economy needs. In any business, banks as financial institutions are always being involved for ease of strategies compliance and any kind of transaction such goods, services, and capital. Generally observing the relationship between bank and business, there is mutuality where banks in a certain degree contribute in business development while business is perceived as the costumer of bank. Banks are profit-oriented financial institutions which earn profit from financing activity. Therefore, banks will always try to maintain their activities to operate in secure space in order to gain profit. Furthermore, banks have direct responsibility to the owners of the funds, especially the customers, depositors and public generally.

Condition of banking in Indonesia in recent years has been an issue in national macro economy. Financial crisis in 2008 attempted business and financial institution around the world. Indonesia were struggling to held off the situation and avoid the massive effect experienced in 1998 when a number of Indonesian banks facing problems and were liquidated. Bank performance becomes a concern since it is considered as current condition of bank. In general, bank performance is measured by the profitability in certain

period. People usually assess bank performance using Return on Assets (ROA) ratio as indicator. Return on Assets can measure how management can manage their assets profitably (Anwar and Herwani, 2012). Perceiving from another side, bank performance can also be assessed from efficiency.

Suseno (2008) stated that efficiency is the major cause of bank healthiness and source of growth of bank. In simple accounting terms efficiency refers to the capability of company in their usage of assets, which is measured relatively to how a specific amount of asset would generate revenue using accounting-based financial ratio (Wild, Shaw & Chiappetta, 2009). Reported by Hidayat (2013) in Republika Online, Halim Alamsyah stated that efficiency is the end result of a series of regulatory policy bank performance. He added that Indonesia is relatively less efficient compared to other countries in the region.

Constantinescu and Morar (2009) stated that efficiency becomes a fundamental criterion to evaluate the management's activities. To evaluate the performance of bank is the authority of the owners. The efficiency of bank is then associated with management and owners in term of corporate governance. After financial crisis in 1997-1998, it was turned out that corporate governance is very important in economic sector. Adnan (2011) indicated how corporate governance of banks is more crucial than other industries. Banks should have good corporate governance in order to minimize transaction cost and cost of capital, and lead to capital market development. In other words, it can be implied that corporate governance has contribution to bank efficiency.

Corporate governance is perceived as one of factor influencing efficiency on banks. Taktak and Triki (2013) indicated that corporate governance is influenced by the specificities of banking sector. Corporate governance mechanism is divisible by external and internal mechanism. External governance mechanism concerns about banking market for goods and services while internal mechanism of corporate governance in banking and firms focuses on to monitor and to influence behavior of leadership in organization. The internal mechanism is then distinguished by role of disciplinary board and ownership structure.

The boards hold the major responsibility for the effectiveness of governance mechanism and internal control system. Their duty of establishing the objective and strategies of banks, control and discipline of employees, evaluation the performance of bank, managing communication system and information disclosure about the operation of bank. Other than that, ownership structure is also a substantial element of governance mechanism. The nature of shareholders, objectives, and scope of their disciplinary and executive decision making power determine its effectiveness (Poudel and Hovey, 2012). Agency theory suggests that shareholders need protection because the management as the agent may not always act in accordance with the interest of the owner of the company. Hence, in banking industry audit committee is expected to establish an efficient internal control of the bank.

Considering the importance of maintaining the efficiency of banks and the frame work of corporate governance influencing the efficiency, researcher is inspired to conduct

this research. The aim of this study is to investigate the effect of corporate governance on bank efficiency in Indonesia. The data is secondary data of banks listed in Indonesia Stock Exchange (IDX) during the period of 2010-2013. The independent variables will be the internal mechanism of corporate governance which are board size, audit committee size, and institutional ownership. The dependant variable is bank efficiency obtained from panel data regression model.

## LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Agency theory in industry perspective refers to a contract between the management and the investors. The separation of ownership and control may cause conflict of interests between the shareholder and management. Shareholder possesses a purpose to maximize the company's value to increase its wealth. The management itself has the control to run the company as it holds an access to wider information and the function of decision making.

This is in accordance with corporate governance which theoretically is an established system to control and to give direction to a company to attain a better, fair, and transparent relationship among related parties (stakeholders) towards the company interest. The separation on the duties between managing company and ownership aims so that the shareholder is able to earn maximum profit with the most efficient cost through a managerial function by professional resources. Hence, it is perceived that corporate governance mechanism involving management and ownership mean a great deal with the level of bank efficiency.

Similar studies conducted by previous researchers are focusing on the internal corporate governance mechanism. Taktak and Triki (2012) examined the effect of board and ownership structure on the efficiency of banks in Tunisia. The findings show that board size and institutional investors have significant influence on the efficiency of banks in Tunisia. In Nepal, Poudel and Hovey (2012) investigated the impact of corporate governance on efficiency of Nepalese commercial banks. The results asserted that bigger board and audit committee size lead to better efficiency.

Efficiency can be used as an indicator to measure the success of banks. In simple words, efficiency is defined as ratio of output an input or the output generated of an input used. Mochtar et al (2008) stated that not only assessing bank as individual but also the industry can be gauged. Banks as institutions which hold great position in business and macro-economy are expected to have well performance. We can refer this performance to the efficiency on bank by assessing the use of input to generate output in bank operation. The more efficient the operational of bank, it shows a better performance. Inefficiency is caused by bad allocation of input in operational activity. According to Pratikto and Sugianto (2011), global economic crisis has resulted in various global financial institution suffering losses and bankruptcy. Therefore, bank efficiency as performance parameter is useful for basic health and growth of the banking industry.

### The effect of board size on bank efficiency

Fama (1980) stated board of director is the main internal monitoring mechanism to monitor the manager. In the agency theory, the board holds big responsibility. It maintains the effectiveness of governance mechanism and internal control system. Board size represents the number of directors working in an entity. Anderson et al (2004) mentioned that firms with larger board size are deemed to have a more effective monitoring of their financial accounting process as they afford to push the managers to track lower costs. As stated in Bank Indonesia Regulation No. 8/4//PBI/2006, the minimum number of directors employed in Indonesian Banks is three. Jensen and Ruback (1983) argued that the size of board should be limited to seven or eight members. Besides, the empirical studies conducted by Tanna et al (2012) and Poudel and Hovey (2012) showed that board size gives positive contribution to bank efficiency. Given the explanation as above, the hypotheses is formulated as below:

**$H_1$: Board size has positive effect on bank efficiency**

### The effect of audit committee size on bank efficiency

Audit committee is a substantial part of corporate governance. Originally an Anglo-Saxon mechanism of corporate governance, audit committee has a crucial role to establish an efficient internal control in the company. In banking industry, it carries out the task to maintain the effectiveness of internal control of the bank. According to Pearce & Zahra (1992), a small audit committee is considerably ineffective since it lacks the diversity of skills and knowledge of its large counterpart. An audit committee with an ideal size enables members to employ experience and expertise to satisfy the interests of shareholders. Hence, it is expected that bigger audit committee size will lead to better efficiency of banks.

Empirical study conducted in Oman by Al-Matar (2014) showed that the larger the size of the audit committee, the better it will affect the firm performance. Filipovic (2008) and Poudel and Hovey (2012) found that bigger audit committee size will lead to better efficiency. These results are in accordance with Klein (2002) who revealed that there is positive relationship between audit committee and firm's performance. This leads the researcher to provide second hypotheses as follow:

**$H_2$: Audit committee size has positive effect on bank efficiency.**

### The effect of institutional ownership of bank efficiency

Mc Conel and Servaes (1990) found that institutional ownership gives positive contribution to firm's performance. In line with that, Spong et al (1996) demonstrated the determinant to substantiate firm performance positively which is banking capital concentration. In agency theory, the institutions as the owner of the bank aim to maximize the profit for their interests so institutions will likely take part to monitor the company to operate more efficiently. Institutional ownership will tend to sit on the board for active control of activities of the leader Agrawal and Knoeber (1996).

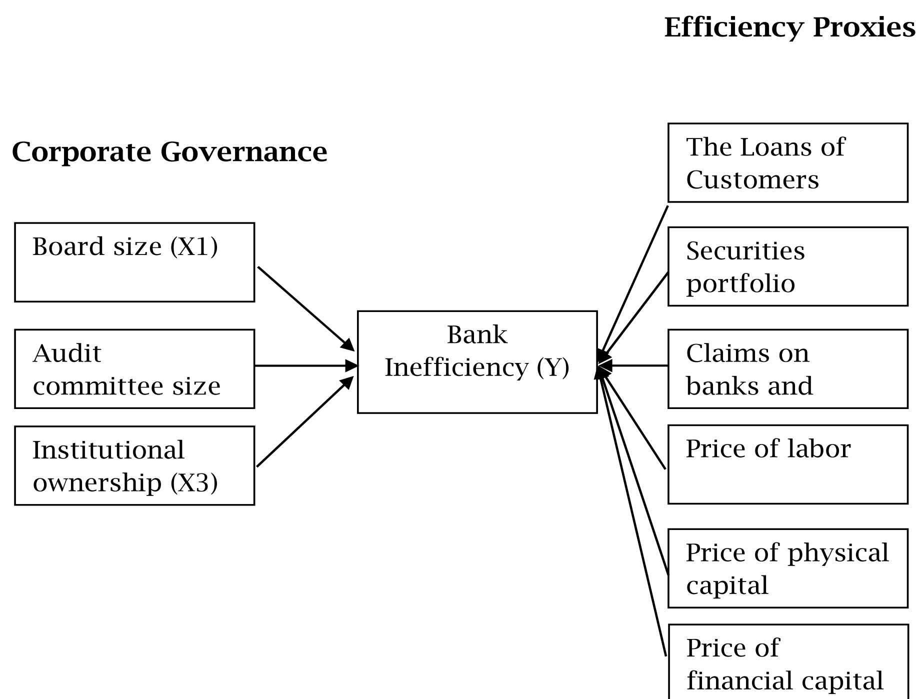
The presence on institutional ownership on the board empowers them to have a wider access to information and control to make decision. They can influence the disciplinary powers of the board and improve bank performance. A study concerning on the effect of ownership on bank efficiency in transition countries was conducted by Bonin et al (2004). This study used parametric approach to determine the efficiency. The finding indicated that institutional investor was shown to have a considerable additional positive impact on profit efficiency. Thus, institutional ownership is expected to take a role to attain better efficiency.

Therefore, researcher will formulate the third hypotheses as:

**$H_3$: Institutional ownership has positive effect on bank efficiency.**

The model that will be used is framed as below:

**Figure 1. Research Model**




## RESEARCH METHOD

### Data

The populations of this research are all companies which are listed on the Indonesia Stock Exchange during the period of 2010-2013. Purposive sampling is employed to select the sample. The criteria that researcher uses are as follows: 1.) listed in Indonesian Stock Exchange, 2.) publishing annual report listed in 4 years period continuously from 2010 until 2013 and providing data according to the needs of researcher. According to the criteria above, we select 28 banks to be used as research sample.

### Efficiency Proxies and Corporate Governance Variables

This paper sets the efficiency of bank as the dependent variable and other three are the independent variable of corporate governance which are board size, audit committee size, and institutional ownership . Board size is represented by the number of board directors, the audit committee size is proxied by the number of auditors and institutional ownership is the percentage of ownership owned by institution. Two regression models using one step approach as recommended by Battese and Coelli (1995) will be hired. The dependent variable is obtained from first regression model while the second model is the core model to discover the effect of corporate governance on the efficiency.

Dependent variable of this research is the parameter to represent bank efficiency obtained by conducting first equation. To do this, this research will employ several efficiency proxies as the following:

1. Total cost

   It is generated by adding operating cost and financial cost.
2. Price of labor

   The cost spent for employees is then divided by total assets.
3. Price of physical capital

   The sum of the administration and other operating expense is divided by fixed assets.
4. Price of financial capital

   The ratio between interest expenses of the banks and total deposits.
5. The loans of the customers
6. Securities portfolio
7. Claims on banks and financial institution.

### Data Analysis Method

Cobb-Douglas cost function for stochastic frontier is adopted for first equation of panel data regression in this research as done by Taktak and Triki (2012):

$$LnCit = \alpha_1 Ln(CL1it) + \alpha_2 Ln(SP2it) + \alpha_3 Ln(CBF3it) + \alpha_4 Ln(PLit) + \alpha_5 Ln(PPCit) + \alpha_6 Ln(PFCit) + vi + ui \quad (1)$$

Where:

| | | |
|---|---|---|
| C | = | Total cost of bank i at time t |
| CL | = | The loan of the customers |
| SP | = | Securities portfolio |
| CBF | = | Claim on banks and financial institutions |
| PL | = | Price of labor |
| PPC | = | Price of physical capital |

PFC = Price of financial capital

*vi* = term of random error, distributed independently according to normal distribution N $(0,v^2)$

*ui* = term and measuring inefficiencies that are positively identified with a semi normal distribution N $(m_{it}, u^2)$

The second equation as the core equation to examine the effect of corporate governance on the efficiency of:

$$mit = \delta 0 + \delta_1 BSIZE + \delta_2 ACSIZE + \delta_3 PINS \qquad (2)$$

Where:

*mit* = residual value *ui* representing inefficiency

BSIZE = number of director (board size)

ACSIZE = number of audit committee member

PINS = percentage of institutional ownership

## RESULTS AND DISCUSSION

### Descriptive Statistics

**Table 1.** Descriptive Statistics

| Variables | Observation | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Board Size | 112 | 7.0178 | 2.6371 | 3 | 12 |
| Audit Committee Size | 112 | 3.8839 | 1.1605 | 2 | 7 |
| Institutional Ownership | 112 | 0.7692 | 0.1940 | 0.1103 | 0.9996 |

From 112 observations of 28 banks during four year period, the descriptive statistics is described as above. The standard deviations of all variables are less than their average value. This can be interpreted that overall data is relatively homogeneous and well representing variables.

The statistical assumption of all independent variables can be interpreted as there is no multicollinearity exists in the regression model. No heteroscedasticity and autocorrelation problem is found in this regression model.

## Hypothesis Test

### The effect of board size on bank efficiency

This hypothesis will be accepted if the coefficient (µ1) is more than 0 and the p value is less than 0.05. According to the panel data regression result of the core model, the coefficient value of board size is 0.0648. BSIZE has a significance level of 0.033 which is less than 0.05. It is concluded that board size has a positive significant effect on bank inefficiency. Based on this result, it can be interpreted that larger board size will likely lead to lower bank efficiency.

### The effect of audit committee size on bank efficiency

The result of panel data regression presents coefficient for ACSIZE of -0.027 and p value of ACSIZE 0.401. The coefficient is less than 0 while p value is more than the determined level of significance which is 5% or p value > 0.05. Therefore, the null hypothesis is accepted and the alternative hyphothesis is rejected because it does not fulfill the criteria. This means that audit committee size has no positive contribution to bank efficiency.

### The effect of institutional ownership on bank efficiency

Panel data regression involving institutional ownership shows that the coefficient of PINS is 0.2563 which is more than 0. The p value obtained from the test is 0.181 or greater than 0.05. Since the p value is greater than the level of significance determined, the null hypothesis is accepted and alternative hypothesis is rejected. It can be interpreted that PINS as institutional ownership has no significant impact on bank efficiency.

**Table 2.** Regression Result

**Corporate Governance on Bank Inefficiency**

| Independent Variables | Coefficient | t value | p value |
|---|---|---|---|
| Board Size | 0.0648336 | 2.17 | 0.033 |
| Audit Committee Size | -0.0270453 | -0.84 | 0.401 |
| Institutional Ownership | 0.25639 | 1.35 | 0.181 |

Based on the statistical test, analysis and discussion that have been formulated in previous chapter, the following are the findings for each corporate governance variable. Board size as corporate governance variable has negative influence to bank efficiency. Not in line with the previous studies, this means that smaller board size will lead to better efficiency on banks. In another words, banks with relatively larger board size drives to inefficiency. There might be problem and conflict of interest between the person sitting on the board which brings to inappropriate decision. Larger board also has impact on the

financial condition of the bank in term of salary for the board . The bank need to spend a lot for the board yet it fails to increase the efficiency of the bank.

Audit committee size as corporate governance variable has no effect on bank efficiency. It is interpreted as larger or smaller number of audit committee member employed in banks will not influence bank efficiency. The insignificant result implies that Indonesian banks do not consider audit committee size as an important factor to improve the effectiveness of audit committee. The audit committee's effectiveness is comprised of independent, expert and well-informed members who carry out their task with proper authority professionally.

Institutional ownership as corporate governance has insignificant effect on bank efficiency. There are two possibilities of why institutional ownership gives no influence on efficiency on banks. Firstly, the institutional owners monitor the bank to which they invest in, but their controls do not affect the efficiency of the banks. Secondly, the institutional owners do not pay attention to monitor the banks. Hence, the investors should not depend on the institutional investors investing in the banks because there is a possibility that institutional investors do not monitor the banks they invest in.

## CONCLUSION AND RECOMMENDATIONS

### Conclusions

This research gives an insight that the larger number of board member working in banks will affect the bank efficiency in Indonesia negatively. The other corporate governance variables; audit committee size and institutional ownership, do not seem to give contribution to bank efficiency.

The management should emphasize not on the number of audit committee member employed, but on the effectiveness of audit committee itself such as its expertise and independency. This result also means that the researcher has not found the evidence about the effect of institutional ownership on efficiency of those banks during four years. It indicates that longer observation period is needed so it can respond with the change on the institutional ownership data over years

### Limitation

This research has some limitation which may affect the research result. First, the sample of this research is only banks in Indonesia. Thus, the findings of this research are limited and applied only for Indonesian banks. Second, observation period is relatively short since it only examines the data of banks from 2010 until 2013. The result might not reflect the best condition of banking industries in Indonesia. Third, dependent variable employed in the core model is not the exact efficiency scores while there is method to determine the efficiency score. Researcher uses the reflection of efficiency obtained from the regression of proxies which is expected to be able to explain efficiency. There are other factors or proxies that can be basis to determine the reflection of efficiency in banking industry. Fourth, this research only considered bank size, audit committee

size, and institutional ownership as the determinants of bank efficiency, while there are other variables, which might explain about bank efficiency.

### Recommendations

In order to overcome the research limitation as stated above, researcher suggests future research several recommendations. First, future research should not only use banking industries as the samples but also non-banking industries. Thus, the result gives more contribution and better comparison among industries. Second, extended observation period is needed to find the best result and to reflect the best condition of the industries. Third, future research should calculate efficiency score to obtain the exact value to be used for independent variable using other methods such as Stochastic Frontier Approach and Data Envelopment Approach. In another hand, the selection of proxies is important to get best result of the reflection of efficiency. Last but not least, other corporate governance variables which expected to influence bank efficiency should be considered such board independence and managerial ownership on the banking sectors.

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