

UDC 334

INFLUENCES OF CORPORATE GOVERNANCE AND INTELLECTUAL CAPITAL ON INDONESIAN BANKING PERFORMANCE WITH BUSINESS EFFICIENCY AS THE MEDIATOR VARIABLE

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ABSTRACT

This study was aimed to examine and analyze the direct influences of corporate governance and intellectual capital on corporate performance as well as the indirect influences of both through business efficiency. This study used a quantitative approach with samples of banking sector companies listed on the Indonesian Stock Exchange selected using a purposive sampling method. The number of observed companies was 156 during the period of 2013-2016. The results of this study showed that corporate governance positively influenced the corporate performance either directly or through business efficiency. Meanwhile, the testing of intellectual capital on corporate performance suggested the same results indicating that intellectual capital positively influenced corporate performance either directly or through business efficiency. In this study, business efficiency partially mediated the influences of corporate governance and intellectual capital on corporate performance.

KEY WORDS

Corporate governance, intellectual capital, business efficiency, corporate performance.

Nowadays, the financial crisis happening in Asia, the uncertainty in global financial markets and the unanticipated *Yuan* devaluation increasingly exacerbate the pressure of the domestic economy including the Indonesian banking industry (Indonesian Economic Report, 2015). *Return on Assets* as the banking performance indicator continues to experience fluctuations and tends to weaken (Indonesian Banking Statistics, 2015). This shows that the Indonesian banking industry is less optimal in the corporate operational performance according to the financial performance as the fundamental aspect of real company conditions (Permana, 2013). A study conducted by *Asian Development Bank* identified that non-optimal performance of company operations may be caused by the weakness of "corporate governance" (Zhuang *et al.*, 2000).

In line with the agency theory of Jensen & Meckling (1976) on the separation concept between ownership and control in a company, corporate governance can be used as a legal mechanism that oversees the management in performing the duties and avoids potentially hazardous practices (Tobing *et al.*, 2013). According to Windah & Andono (2013), the good implementation of corporate governance is the success key for a company to gain long-term profits and compete well in the global business.

Research conducted by Murwaningsari (2009), Tomyeva & Wereko (2012), Klapper & Love (2002), and Haniffa & Hudaib (2006) have suggested that corporate governance has significant effects on financial performance. This result indicates that corporate governance mechanism is able to overcome the existing agency problems. Thus, the objective alignment between principals and agents as well as the equality between the majority and minority shareholders can influence corporate performance.

At the same time, business has grown rapidly by prioritizing the role of technology as well as the speed of information and innovation as the key driver of organizational operational performance (McGrattan & Prescott, 2007). One of the efforts to follow the rapid business growth is by changing the way of business from labour-based business to knowledge-based business in which its main characteristics is science (Sawarjuwono & Kadir, 2003). Therefore, companies must begin to realize the importance of the ownership of intangible assets. One of the intangible assets that play an important role in improving

corporate performance and achieving competitive advantage is intellectual capital (Barney, 1991).

The utilization of intellectual capital owned by companies significantly will lead to better corporate performance (Chen *et al.*, 2005). Linear with the *resource-based theory* view stating that companies will gain competitive advantage and optimal performance by acquiring, combining, and using vital assets (Lev, 1997), the unification of tangible and intangible assets is a potential strategy to improve corporate performance (Belkaoui, 2003).

At this moment, most companies operate in a wide industrial environment and even reach out the borders between countries, making a very thin difference in internal-external company borders. Similarly, the company's stakeholders become increasingly critical in responding the company's operations, particularly the corporate information disclosure/openness. Thus, in carrying out the duties, managers must be able to satisfy various parties concerned with the company (covering employees, customers, suppliers, community organizations) that can affect the corporate outcomes (Freeman, 1984). Furthermore, Freeman & Evan (1990) argued that managers can increase efficiency as their organizational adaptation to external demands.

Empirical studies specifically examining the influences of corporate governance and intellectual capital on business efficiency are still relatively limited (Nanka-Bruce, 2011; Zou *et al.*, 2011). This may be caused by the different views on whether business efficiency is purely influenced by internal company factors or whether there are external factors that also play roles in maximizing the level of company's operations (Demsetz & Lehn, 1985). Meanwhile, previous studies on the influence of corporate governance and intellectual capital on corporate performance showed various results (Tornyeva & Wereko, 2012; Windah & Andono, 2013; Tan, *et al.*, 2007; Yuniasih *et al.*, 2010). The various results can be attributed to several other variables that affect the relationship. Consistent with Freeman & Evan's (1990) thought, the primary motivation of this research was to use business efficiency as the variable mediating the influences of corporate governance and intellectual capital on corporate performance. The use of business efficiency as the mediator variable was based on the Leibenstein's (1996) view on the x-efficiency concept stating that a company will have a competitive advantage and good performance through reduced inefficiency in the organization or company. Therefore, this study tried to examine the influences of corporate governance and intellectual capital on corporate performance by adding business efficiency as the mediator variable.

THEORY AND DEVELOPMENT OF HYPOTHESES

Influences of Corporate Governance and Intellectual Capital on Corporate performance. One of the theoretical principles underlying corporate governance issues is the agency theory developed by Jensen & Meckling (1976) concerning the separation concept between ownership and corporate control. The existence of such separation can trigger agency problems as a result of information asymmetry and moral hazard potentials. Therefore, corporate governance as a legal mechanism organizing relationships between internal and external stakeholders regarding their rights and obligations is expected to protect the outside investors (minority shareholders) from expropriations made by controller managers and shareholders (insiders) with an emphasis on the legal mechanism (Shleifer & Vishny, 1986). Some studies (Tronyeva&Wereko, 2012; Murwaningsari, 2009; Klapper & Love, 2002) have provided evidence that there is a positive relationship between good corporate governance practices and corporate performance.

Tornyeva & Wereko (2012) showed that board size, board expertise, management skills, the duration of being CEO, audit committee size, audit committee independence, foreign ownership, institutional ownership, dividend policy and annual general meeting have a positive relationship with financial performance in insurance companies in Ghana. Insurance companies are encouraged to adopt corporate governance practices for improving their financial performance and also protecting the interests of shareholders. Murwaningsih's (2009) research on public companies listed on the Capital Market Reference Center of the

Indonesian Stock Exchange found that corporate governance measured by managerial and institutional ownerships significantly influences financial performance measured using Tobin's-Q. This finding is consistent with the results of Klapper & Love's (2002) research examining the relationship of corporate governance to investor protection and the performance of companies listed on capital markets of developing countries. The corporate performance was measured using Tobin's-Q and ROA. The results of Klapper & Love's research showed that corporate governance obtained a significant effect on corporate performance both measured using Tobin's Q and ROA. Based on the description above, this research put forward the following hypothesis:

H₁: Corporate governance positively influences corporate performance.

Resource-based theories believing that companies will gain competitive advantage and optimal performance by acquiring, combining and using vital assets (Lev, 1997), underlying the issue of intellectual capital as an important part of companies which is also believed to play a role in improving the corporate performance and achieving competitive advantage. Several studies (Chen *et al.*, 2005; Tan *et al.*, 2007; Ulum, 2008) have provided evidence that intellectual capital positively influences corporate performance.

A research conducted by Chen *et al.* (2005) suggested that the utilization of intellectual capital owned by a company will significantly lead to the achievement of better corporate performance. Moreover, a research conducted by Ulum (2008) in Indonesian Banking showed that the utilization of intellectual capital has an effect on corporate performance. The results support previous studies conducted by Tan *et al.*, (2007); Pena, (2002); dan Bontis *et al.*, (2000) revealing that intellectual capital owned by a company will significantly influence the company performance. Based on the description above, the second hypothesis of this research is formulated as follows:

H₂: Intellectual capital positively influences corporate performance.

Influences of Corporate Governance and Intellectual Capital on Corporate Performance Mediated by Business Efficiency. In facing increasingly tough business world challenges, companies are required to continuously improve the efficiency of their performance. Companies that can operate efficiently are expected to control costs, maximize productivity and maintain performance (Jamali *et al.*, 2015). Moreover, Berger & Mester (1997) stated that banking efficiency depends on several things, one of which is the operational environment that can be influenced by internal and external bank mechanisms. According to Vilanova *et al.* (2009), there are five dimensions of competitive performance namely financial performance, quality, efficiency and productivity, innovation and image. These five dimensions match the fact of current company's operations that require companies to have a competitive advantage.

Hart (1995) revealed that resources or capabilities possessed by companies can lead to a sustainable competitive advantage. Therefore, the use of company's resources at the maximum level will lead companies to be able to increase the performance. Maximum utilization of these resources requires managerial skills to decide on the use of technology and investment required before explaining the resource allocation decision to the company's stakeholders. Stigler (1997) stated that managerial skills are one of some company's resources that can be attributed as an input. Managerial skills in maximizing the efficient use of company's resources will have an effect on the performance of the company (Byma & Tauer, 2010).

Previous research conducted by Nanka-Bruce (2011) showed that corporate governance mechanisms influence the efficiency of the company. This indicates that the implementation of corporate governance is an effective monitoring mechanism of stockholders on the managerial performance. Thus, the corporate management will try to maximize the management of assets owned and reduce inefficiency in the company to generate optimal profit. Based on the description above, the next hypothesis of this research is formulated as follows:

H₃: Corporate governance positively influences corporate performance through business efficiency.

On the other side, a research conducted by Zouet *et al.* (2011) showed that companies that maximize the utilization of intellectual capital have higher levels of corporate efficiency and productivity. These results indicate that managerial skills to maximize the efficient use of corporate resources will influence the performance of the company. Therefore, more efficient bankings are expected to reach optimal profits, more loan funds, and better service quality to customers (Eltivia *et al.*, 2013). Based on the description above, the fourth hypothesis of this research is formulated below:

H₄: Intellectual capital positively influences corporate performance through business efficiency.

METHODS OF RESEARCH

The population of this research was all banking companies listed on the Indonesian Stock Exchange during the period of 2013-2016. The sampling was done using a purposive sampling method with the criteria that the company published the annual report and financial report in the observation period.

Independent Variable:

- Corporate Governance:

In this research, corporate governance was measured using Corporate Governance Index (CGI), which refers to Cheung *et al.* (2005). According to Cheung *et al.* (2005), CGI consists of 86 items of disclosure and is filled based on information that has been published by the company. Each disclosure item will be assigned a value of 1 (one) if the item is disclosed and a value of 0 (zero) if the item is not disclosed. The results of each disclosure are then calculated in accordance with the weighting that has been determined, covering: shareholder rights (15%), equal treatment to shareholders (20%), stakeholder roles (5%), disclosure and transparency (30%), and the responsibility and composition of board members (30%). The final corporate governance scores that have been calculated for each company range from 0 (zero) to 100 (one hundred). High scores indicate high levels of corporate governance and vice versa.

- Intellectual Capital:

In this research, the intellectual capital was measured using Value Added Intellectual Capital (VAIC) developed by Pulic (2000). VAIC is calculated by adding the value added from physical capital (VACA), human capital (VAHU), and structural capital (STVA) (Firrer & Williams, 2003; Tan *et al.*, 2003; Ulum, 2008).

$$VAIC = VACA + VAHU + STVA$$

Dependent Variable:

Corporate performance is the company's achievement in market performance. According to Klapper & Love (2002), the measurement of corporate performance is reflected by return on assets (ROA). The formulation is as follows:

$$ROA = \frac{\text{Earnings Before Interest and Tax}}{\text{Total Assets}}$$

Mediator Variable:

In this research, business efficiency was measured using a non-parametric Data Envelopment Analysis (DEA) method. The efficiency calculated included the cost efficiency of banks. Moreover, an intermediation approach was used to determine inputs and outputs. The inputs and outputs operationalized in this research were based on Eltivia *et al.* (2013). The input variables include: 1) deposits (third party's funds in the form of deposits), 2) labour (operational costs incurred related to the cost of employees), and 3) capital (capital owned by banks). Meanwhile, the output variables include: 1) loan (the amount of credit granted by banks), and 2) investment (investment obtained from the securities data owned by banks)

Research Model. To answer the research hypotheses, regression equations were used with SPSS analysis as follows:

$$\begin{aligned}
 CP &= \alpha + \beta_1 (CG) + \beta_2 (IC) + e \dots\dots\dots (1) \\
 BE &= \alpha + \beta_1 (CG) + \beta_2 (IC) + e \dots\dots\dots (2) \\
 CP &= \alpha + \beta_1 (CG) + \beta_2 (IC) + \beta_3 (BE) + e \dots\dots\dots (3)
 \end{aligned}$$

Where: CP: Corporate Performance; CG: Corporate Governance; IC: Intellectual Capital; BE: Business Efficiency; α : Constants; β : Regression Coefficient; e: Residual Error.

Before performing the multiple regression analysis, a classical assumption test was first undertaken, including normality, multicollinearity, autocorrelation and heteroscedasticity tests (Ghozali, 2016: 103). The testings of classical assumption and hypotheses were carried out at the 5% significance level.

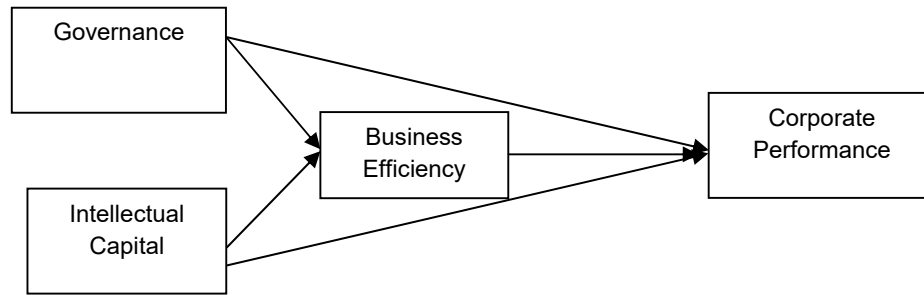


Figure 1 – Research Model

RESULTS AND DISCUSSION

Descriptive Statistics Analysis. Descriptive statistics in this research were made to describe various characteristics of sample data used, including mean, standard deviation, lowest (minimum) data, and highest (maximum) data. Based on the Indonesian Stock Exchange Data of 2013-2016, the total population of banking companies was 165 companies. With the sampling criterion using the purposive sampling method, the samples chosen in this research were only 156 companies. General description of the research data can be seen in Table 1 below:

Table 1 – Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Intellectual Capital	156	-.044	.089	.02479	.016711
Corporate Governance	156	.573	.771	.68184	.041448
Business Efficiency	156	.867	1.000	.97206	.028667
Corporate Performance	156	-.056	.058	.01805	.016007

The measurement results of the overall banking intellectual capital using VAIC during the period of 2013-2016 showed an average value of 0.248 with a standard deviation of 0.0167. The small standard deviation indicates that the data variability of the sample companies was at a low level so the sample data tended to be homogeneous. The minimum value of the intellectual capital variable was -0.044 and the maximum value was 0.089. The negative intellectual capital value indicates a negative profit from the banking company's operations during the observation period.

The variable of corporate governance measured using Corporate Governance Index (CGI) during the period of 2013-2016 showed an average value of 0.682 with a standard deviation of 0.0414. The average value indicates that the average banking companies disclosed 50-59 of total 86 CGI items used as a measurement. The minimum value of corporate governance variable was 0.573 while the maximum value was 0.771. These values indicate that the observed companies have implemented and reported well governance principles as most companies in this research could meet the criteria for the corporate governance measurement.

Viewed from the level of business efficiency measured using a non-parametric Data Envelopment Analysis (DEA) method during the period of 2013-2016, it was found that the average value reached 0.972 with a standard deviation of 0.0287. The minimum value of business efficiency was 0.867 and the maximum value was 1.00. These values indicate that most companies have operated efficiently in managing their company's resources.

The calculation results of corporate performance measured using Return on Assets (ROA) during the period of 2013-2016 showed an average value of 0.018 with a standard deviation of 0.0160. The minimum value of corporate performance was -0.56 and the maximum value was 0.58. Negative values of ROA indicate a loss from banking company's operations during the observation period.

Classical Assumption Test. Prior to the multiple regression tests, a classical assumption test was performed to find out whether the data were valid for further testing, including normality, multicollinearity, heteroscedasticity and autocorrelation tests. The normality test was performed with Kolmogorov-Smirnov test.

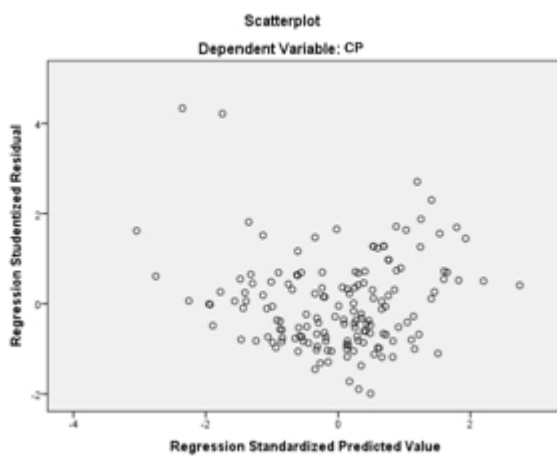


Figure 2 – Heteroscedasticity Test of Equation 1

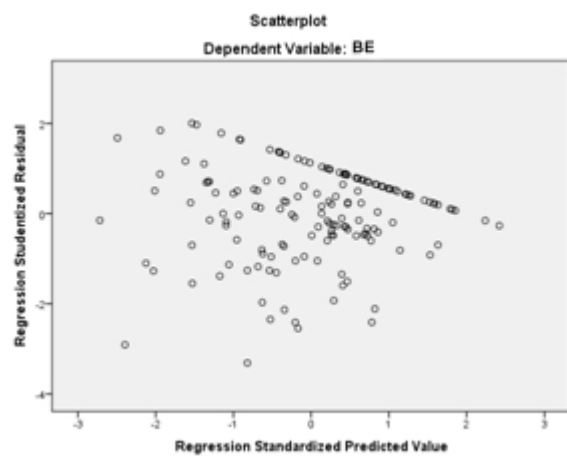


Figure 3 – Heteroscedasticity Test of Equation 2

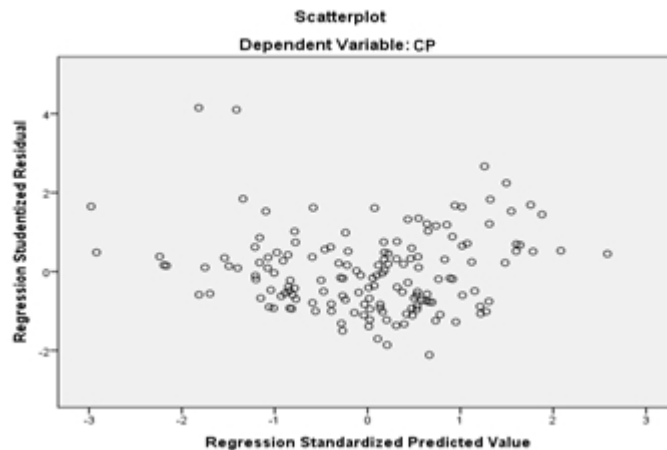


Figure 4 – Heteroscedasticity Test of Equation 3

A regression is said to be free of normality problems if the asymptotic significance is greater than the significance level of 0.05. The asymptotic significance of all variables in this research ranged from 0.059 to 0.074 so it can be concluded that the research data are distributed normally. On the other side, the multicollinearity test was conducted by looking at the value of Variance Inflation Factor (VIF). A regression contains multicollinearity if the VIF value is more than 10. The VIF value of all variables in this research ranged from 1.071 to 1.324. Thus, it can be concluded that there is no any multicollinearity. As for the heteroscedasticity, it was done by looking at the pattern contained in the scatterplot chart. If

there is no any clear pattern and the points spread above and below the number of on the Y-Axis, it means that there is no heteroscedasticity happened. From the results of heteroscedasticity test (see Figure 2, 3, and 4), it can be concluded that there is no heteroscedasticity happened in all regression equations in this research. Meanwhile, the autocorrelation test was performed using Durbin-Watson test. A regression is said to be free of autocorrelation problems if the calculated d -value is between d_U and $4-d_U$. The calculated d -value of all variables in this research ranged from 1.856 to 2.125. The value is still between d_U of 1.760 and $4-d_U$ of 2.240, so it can be concluded that there is no autocorrelation.

RESULTS AND DISCUSSION

The results of hypothesis testing using the multiple regression analysis techniques can be seen in Table 2 below.

Table 2 – Multiple Regression Analysis Result

	Coefficient	t-Statistics	Probability Value
Panel A: CP = α + β_1 (CG) + β_2 (IC) + e			
Constant	-0.055**	-3.574	0.000
CG	0.103**	4.534	0.000
IC	0.181**	3.221	0.002
F Value: 20,589 Adjusted R ² Value: 0,202			
Panel B: BE = α + β_1 (CG) + β_2 (IC) + e			
Constant	0.774**	23.002	0.000
CG	0.277**	5.516	0.000
IC	0.348**	2.796	0.006
F Value: 24,748 Adjusted R ² Value: 0,235			
Panel C: CP = α + β_1 (CG) + β_2 (IC) + β_3 (BE) + e			
Constant	-0.104**	-3.235	0.001
CG	0.086**	3.466	0.001
IC	0.159**	2.769	0.006
BE	0.063*	1.739	0.044
F Value: 14,915 Adjusted R ² Value: 0,606			

** Significant at level of 1% or 0.01, * Significant at level of 5% or 0.05

CP: Corporate Performance TKP: Corporate Governance
 IC : Intellectual Capital BE : Business Efficiency

Influences of Corporate Governance on Corporate Performance. Table 2 shows that the variable of corporate governance obtained a regression coefficient value of 0.103 and was statistically significant because the probability value was less than α : 5% ($0.000 < 0.05$). Based on the results, the hypothesis of H_1 stating that corporate governance positively influences corporate performance is acceptable. In other words, the results of this study showed that corporate governance made a positive effect on the corporate performance. These results are in line with the previous studies carried out by Dharmastuti & Wahyudi (2013), Tornyeva & Wereko (2012) dan Haniffa & Hudaib (2006).

Additionally, this research supports the agency theory of Jensen & Meckling (1976) discussing the separation concept of ownership and control. According to this theory, a good implementation of corporate governance in a company can guarantee that the management party (agent) will act in accordance with the best interests of the principal. Besides, corporate governance can be used as a legal mechanism to protect the minority shareholders from expropriations undertaken by controller managers and shareholders (Shleifer & Vishny, 1986). The long-term implementation of corporate governance is a key for companies in gaining profits and competing in the global business (Windah & Andono, 2013). Based on the results of this research, it also can be seen that the most sample companies have

implemented good corporate governance as a form of compliance with regulations that have been determined by the Capital Market Supervisory Agency (*Bapepam*) as the capital market supervisor.

Influences of Intellectual Capital on Corporate Performance. Based on Table 2 above, the variable of intellectual capital reached a regression coefficient value of 0.181 with a probability value less than $\alpha : 5\%$ that was 0.002 ($p < 0.05$). Therefore, the hypothesis of H_2 stating that intellectual capital positively influences corporate performance is statistically acceptable. The test results indicate that sample companies managing their intellectual resources optimally were able to create added values so as to improve the performance of the company. The results of this research are consistent with the results of previous studies conducted by Bontis *et al.* (2000), Chen *et al.* (2005), and Tan *et al.* (2007).

The findings of this research successfully support the resource-based theory stating that a company will gain competitive advantage and optimal performance by acquiring, combining, and using vital assets (Lev, 1997). In this context, employees in their position as stakeholders have been able to maximize their intellectual ability to create added value for the company, creating a competitive advantage reflected in the corporate performance. Based on the results of this research, it can be seen that banking companies have realized the importance of intellectual capital as an important part that plays a role in improving the corporate performance and creating competitive advantage amid the ever-growing economic dynamics (Barney, 1991).

Influences of Corporate Governance and Intellectual Capital on Corporate Performance Mediated by Business Efficiency. Based on the regression results in Table 2, it is shown that corporate governance, intellectual capital and business efficiency variables positively influenced the variable of corporate performance as much as 60.6%, the rest was influenced by other variables that were not included in this research model. The variable of corporate governance achieved a regression coefficient value of 0.086 and was statistically significant due to having a probability value of less than $\alpha : 5\%$ that was 0.001 ($p < 0.05$). The variable of intellectual capital also significantly affected the variable of corporate performance with a regression coefficient value of 0.159 and a probability value of less than $\alpha : 5\%$ that was 0.006 ($p < 0.05$). Furthermore, the variable of business efficiency obtained a regression coefficient value of 0.063 with a probability value of less than $\alpha : 5\%$ that was 0.044 ($p < 0.05$). These values indicate that business efficiency also positively influences corporate performance.

Based on the regression analysis results above, it can be explained that: *first*, corporate governance has a positive influence both on business efficiency and corporate performance. Therefore, it can be concluded that business efficiency is the mediator variable of the relationship between corporate governance and corporate performance.

Second, the regression analysis results also described that intellectual capital has a positive influence both on business efficiency and corporate performance. Thus, it can be concluded that business efficiency is the mediator variable of the relationship between intellectual capital and corporate performance.

Third, the determination on whether business efficiency can be said to be a mediator variable can be done by comparing the regression coefficients of corporate governance and intellectual capital variables in Panel A (direct influence) with Panel C (indirect influence). From Table 2, it can be seen that the regression coefficient value of corporate governance in Panel C is smaller than that in Panel A ($0.086 < 0.013$). Similarly, the regression coefficient value of intellectual capital in Panel C is less than that in Panel A ($0.159 < 0.181$). Thus, it can be said that business efficiency partially mediates the positive influences of corporate governance and intellectual capital on corporate performance so the hypotheses of H_3 and H_4 are also acceptable.

The research findings showed evidence that business efficiency mediated the relationship between corporate governance and intellectual capital. The condition indicates the achievement of business efficiency with an average efficiency level of 97.2% and lowest efficiency level of 86.7%. Furthermore, some companies have even operated at an excellent efficiency level (100%) and are able to improve the influences of corporate governance on

corporate performance. This condition indicates that corporate governance as a legal mechanism based on the principles of fairness, transparency, accountability, and responsibility can reduce the incidence of agency problems and improve overall corporate performance.

The research findings also suggested that business efficiency mediated the relationship between intellectual capital and corporate performance improvement. Moreover, the strategy of business efficiency carried out by the management was in line with the level of company's awareness on the utilization of intellectual capital owned to improve corporate performance. Therefore, to improve financial performance, a company must be able to improve corporate governance and intellectual capital which, in its turn, will have an effect on improving business efficiency.

Overall, the results of this research showed that corporate governance and intellectual capital implied a balance between economic goals, corporate environment and asset maximization to stakeholders, requiring to make business efficiency in applying the concept of sustainability, responsibility, accountability, transparency and to be responsible socially (Vitezic, 2011). Business efficiency functions as a strategic tool that can play an important role in overcoming the increased competitive pressure and structural changes in financial institutions (Favero & Papi, 1995).

CONCLUSION AND SUGGESTIONS

In this research, the implementation of corporate governance in Indonesia has been well performed and meets the conditions specified. Companies began to pay attention to the utilization of intellectual capital owned to create added values. Furthermore, the findings also indicate that business efficiency mediates the relationship of corporate governance and intellectual capital to the improvement of corporate performance. The strategy of business efficiency done by the management is in line with the level of corporate awareness of the implementation of corporate governance and the utilization of its intellectual capital to improve the performance of the company.

Based on the findings and results of the empirical testing, this research strengthens the agency theory underlying corporate governance as a means to improve corporate performance. This research also supports the resource-based theory explaining about the importance of intellectual capital as company's resources that can give added values to stakeholders and improve corporate performance so that companies get a competitive advantage in running the business.

Having known the results of this research, it can be concluded that companies must be able to improve corporate governance adjusted with the social and business progress as a legal mechanism that can be used as the solution to agency problems. In addition, in the face of the knowledge economy era, companies must be able to maximize the utilization of intellectual capital owned to improve their corporate performance. The research findings also show that business efficiency mediates the relationship of corporate governance and intellectual capital to the implementation of corporate governance as a legal mechanism based on the principles of fairness, transparency, accountability, and responsibility, as well as to the utilization of intellectual capital owned to improve the overall corporate performance.

We propose that further research can survey the implementation of corporate governance principles by providing questionnaires in order to know the complete corporate governance implementation by companies in improving corporate values. Moreover, further research is expected to explore the determinants of business efficiency in addition to cost efficiency so that more diverse factors influencing business efficiency can be found. Besides, further research is also expected to be done using a parametric approach to analyze cost efficiency.

The research findings indicate that business efficiency is not entirely as the mediator of the inconsistency of the relationship of corporate governance and intellectual capital to corporate performance. Therefore, future research needs to develop other variables as the

mediator of the relationship of corporate governance and intellectual capital to corporate performance. Moreover, we expect that further research can develop corporate performance indicators such as Tobins'Q as the market performance that describes the company's long-term achievement or can use ROE (*Return on Equity*) as the corporate achievement that can describe corporate profitability skills. Lastly, it is recommended that future research can observe all companies in the Indonesian Stock Exchange in order to provide more comprehensive information and more theoretical and practical contribution, especially for policy-making.

REFERENCES

1. Bank Indonesia. (2015). Laporan Perekonomian Indonesia 2015. Jakarta: Bank Indonesia.
2. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
3. Belkaoui, A. R. (2003). Intellectual capital and firm performance of US multinational firms: a study of the resource-based and stakeholder views. *Journal of Intellectual Capital*, 4(2), 215-226
4. Berger, A. N., & L. J. Mester. (1997). Inside the Black Box: What Explains Differences in Efficiencies of Financial Institutions?. *Journal of Banking & Finance*, 21(7), 895-947.
5. Bontis, N., W. C. C. Keow., & S. Richardson(2000). Intellectual Capital and Business Performance in Malaysian Industries. *Journal of Intellectual Capital*, 1(1), 85-100.
6. Byma, J. P., & L. W. Tauer.,(2010). Exploring The Role of Managerial Ability in Influencing dairy farm efficiency. *Agricultural and Resource Economics Review*, 39(3), 505–516.
7. Chen, M.C., S. J. Cheng., & Y. Hwang. (2005). An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. *Journal of Intellectual Capital*, 6(2), 159-176.
8. Cheung, J., J. T. Connelly., P. Limpaphayom., & L. Zhou. (2005). Do Investors Really Value Corporate Governance? Evidence From the Hong Kong Market. Working Paper Hong Kong Institute For Monetary Research, No.22.
9. Demsetz, H., & K. Lehn. (1985). The Structure of Ownership: Causes and Consequences. *Journal of Political Economy*, 93(6), 1155-1177.
10. Dharmastuti, C., & S. Wahyudi. (2013). The effectivity of internal and external corporate governance mechanisms towards corporate performance. *Research Journal of Finance and Accounting*, 4(4), 132-139.
11. Eltivia, N., M. Sudarma., Rosidi., & E. Saraswati. (2013). Determinan Efisiensi Biaya dan Dampaknya pada Kinerja Pasar Perbankan Indonesia. Disertasi Fakultas Ekonomi dan Bisnis. Universitas Brawijaya, Malang.
12. Favero, CA., & L. Papi. (1995). Technical Efficiency and Scale Efficiency in The Italian Banking Sector, A Non-Parametric Approach. *Applied Economic*, 27(4), 385-396.
13. Firer, S., & S. M. Williams. (2003). Intellectual capital and traditional measures of corporate performance. *Journal of Intellectual Capital*, 4(3), 348-360.
14. Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman Publishing Inc.
15. Freeman, R. E. (1990). Corporate governance: A stakeholder interpretation. *Journal of Behavioral Economics*, 9(4), 337–359.
16. Ghozali, I. (2016). *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23 (Edisi 8)*. Semarang: Badan Penerbit Universitas Diponegoro.
17. Haniffa, R. (2006). Corporate Governance Structure and Performance of Malaysian Listed Companies. *Journal of Business Finance & Accounting*, 33(7), 1034-1062.
18. Hart, S. (1995). A natural resource-based view of the firm. *Academy of Management Review*, 20(4) 986-1014.
19. Jamali, H., T. Sutrisno., I. Subekti., & P. Asih. (2015). The Influence of Corporate Governance and Corporate Social Responsibility on Financial Performance with

- Efficiency as Mediating Variable. *International Journal of Business and Management Invention*, 4(5), 1-10.
20. Jensen, M.C., & W. H. Meckling. (1976). Theory of the Firm : Managerial Behaviour, Agency, and Ownership Structure, *Journal of Financial Economics*. 3(4), 305-360.
 21. Klapper, L. F., & I. Love. (2002). Corporate governance, investor protection, and performance in emerging markets. Policy Research Working Paper series 2818, The World Bank. .
 22. Leibenstein, H. (1966). Allocative efficiency vs “x-efficiency”. *The American Economic Review*, 56(3), 392-415.
 23. Lev, B. (1997). Announcing the foundation of the intangible research center at the Vincent C. Ross Institute of Accounting Research. *Accounting Horizons*, 11(1), 136-138.
 24. McGrattan, E. R., & E. C. Prescott. (2007). Unmeasured Investment and the Puzzling U.S. Boom in the 1990s. Working Paper 13499, National Bureau of Economic Research.
 25. Murwaningsari, E. (2009). Hubungan corporate governance, corporate social responsibilities dan corporate financial performance dalam satu continuum. *Jurnal Akuntansi dan Keuangan*, 11(1), 30-41.
 26. Nanka-Bruce, D. (2011). Corporate governance mechanism and firm efficiency. *International Journal of Business and Management*, 6(5), 28-40.
 27. Pena, I. (2002). Intellectual Capital and Business Start-up Success. *Journal of Intellectual Capital*, 2(3), 180 - 198.
 28. Permana, D. M. R. A. (2013). Kemampuan pengungkapan tanggung jawab sosial perusahaan dalam memoderasi hubungan antara kinerja keuangan dengan nilai perusahaan pada perusahaan yang terdaftar di Kompas 100. Unpublished Thesis. Program Pascasarjana Universitas Udayana, Indonesia.
 29. Pulic, A. (2000). Basic Information on VAICTM. <http://www.ihyaul.staff.umm.ac.id/category/my-papers/>. Accessed on February 2016.
 30. Riandi, D., & H. S. Siregar. (2011). Pengaruh penerapan good corporate governance terhadap return on asset, net profit margin, dan earning per share pada perusahaan yang terdaftar di corporate governance perception index. *Jurnal Ekonomi*, 14(30), 127-133
 31. Sawarjuwono, T., & A. P. Kadir. (2003). Intellectual Capital: Perlakuan, Pengukuran dan Pelaporan (Sebuah Library Research). *Jurnal Akuntansi & Keuangan*, 5(1), 35 – 57.
 32. Shleifer, A., & R. W. Vishny. (1986). Large Shareholders and Corporate Control. *Journal of Political Economy*, 94(3), 461-488.
 33. Solimun. (2011). Investigation the mediating variables: What necessary?. *International Conference on Basic Science February 17 – 18th 2011 Brawijaya University. Malang*.
 34. Stigler, G. J. (1976). The Existence of X-Efficiency. *The American Economic Review*, 66(1), 213-216.
 35. Supatmi. (2007). Corporate Governance Dan Kinerja Keuangan. *Jurnal Bisnis dan Ekonomi*, 14(2), 183-192.
 36. Tan, H.P., D. Plowman., & P. Hancock. (2007). Intellectual capital and financial returns of companies. *Journal of Intellectual Capital*, 8(1), 76-95.
 37. Tobing, A., Y. Arkeman., B. Sanim., & R. N. Nuryantono. (2013). Pengaruh Penerapan Good Corporate Governance terhadap Tingkat Kesehatan dan Daya Saing di Perbankan Indonesia. *Jurnal Manajemen Teknologi*, 12(3), 298-318
 38. Tornyeva, K., & T. Wereko. (2012). Corporate governance and firm performance: Evidence from the insurance sector of Ghana. *European Journal of Business and Management*, 4(13), 95-112.
 39. Ulum, I. (2008). Intellectual Capital Performance Sektor Perbankan di Indonesia. *Jurnal Akuntansi Keuangan*, 10(2), 77-84.
 40. Vilanova, M., J. M. Lozano., & D. Arenas. (2009). Exploring The Nature of The Relationship Between Corporate Social Responsibility and Competitiveness. *Journal of Business Ethics*, 87(1), 57–69.
 41. Vitezić, N. (2011). Correlation Between Social Responsibility and Efficient Performance in Croatian Enterprises. Scientific affiliation: business performance analysis and auditing, controlling, corporate social responsibility, 29(2), 423-442.

42. Windah, G. C., & F. A. Andono. (2013). Pengaruh penerapan corporate governance terhadap kinerja keuangan perusahaan hasil survei The Indonesian Institute Perception Governance (IICG) periode 2008-2011. *Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 2(1),1-20
43. Yuniasih, N. W., D. Gede., & D, N. Badera. (2010). Eksplorasi Kinerja Pasar Perusahaan: Kajian Berdasar Modal Intelektual (Studi Empiris Pada Perusahaan Keuangan yang Terdaftar Di Bursa Efek Indonesia). *Simposium Nasional Akuntansi XIII, Purwokerto*.
44. Zhuang, J., D. Edwards, D. C. Webb, & M. Capulong. (2000). *Corporate Governance and Finance in East Asia: A study of Indonesia, Republic of Korea, Malaysia, Philipphines, and Thailand*. Asian Development Bank, 1.
45. Zou, X., & T. C. Huang. (2011). A Study of the Intellectual Capital's Impact on Listed Banks' Performance in China. *African Journal of Business Management*, 5(12), 5001-5009.