THE INFLUENCE OF INTELLECTUAL CAPITAL TO COMPANY PERFORMANCE WITH CHARACTERISTICS ON THE BOARD OF COMMISSIONERS AS A VARIABLE OF MODERNATION

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ABSTRACT

In the last 4 years the firm performance tend to decrease because the less attention of the firm to the improvement of they intellectual capital, but this problem can be tackled by the board of directors performance, which can lead the firm to the increasing of firm performance. The aim of this research is examining the affect of intellectual capital on firm performance as well as the moderating effect of board of directors characteristics on the intellectual capital and the firm performance. SPSS IBM 21 is the tool of analysis which is used in this research. The research sample is the mining industry which was listed in the Bursa Efek Indonesia (BEI) and the sample is selected using purposive sampling method. The result show that intellectual capital can affect the firm performance and the board of directors characteristic cannot strengthen the positive effect of intellectual capital on the firm performance. This study contribute to the agency theory, stakeholder theory, and stewardship theory which discuss the conflict of interest between shareholder, stakeholder and firm management.

Keywords: Firm Performance, Intellectual Capital, Board of Director Characteristics

Introduction

In the era of globalization, business competition becomes increasingly competitive and very difficult to predict. This is, due to the rapid development of technology and the changing way of thinking for business people. Today, businesses are required to be able to change the paradigm of thinking and how to run the business from the traditional pattern of labor-based into a pattern based on science. The current growing pattern not only emphasizes quantity but also quality creation (Hitt, Bierman, Shimizu, & Kochhar, 2000).

The development of the company can be seen from the performance and successful of the company in creating value that shows the prospect of the company in the future. Performance is evaluating process of the efficiency and effectiveness that have been done during a certain period. Company performance is generally assessed based on financial and non-financial performance. The financial statements are tools used to evaluate the company's financial performance. The results of the financial performance evaluation can be used to look at future economic prospects and what resources can still be controlled (Prakoso, 2012). The financial statements based on traditional patterns that emphasize of tangible assets are still widely used in Indonesia. Whereas, the presence of changes in the pattern of business toward the science-based pattern of intangible assets become the most important critical resources (Prakoso, 2012).

In the business organization, optimum performance is the main motivation for the company to continue conducting business operations, so that the company can meet the shareholders' expectations of transferring welfare to all shareholders with maximum value (Gorriz, Carmen Galve & Fumas, 1998). In fact, these assumptions do not always match expectations, often companies experience a decrease in performance and even experience liquidation. The phenomenon of the decline in corporate performance is closely related to the effectiveness and success of managers in managing tangible and intangible resources that exist within business organizations.

The phenomenon of declining company performance can also be reflected by the level of profit generated by business organizations, the decline in the level of profit this year from the previous year indicates a problem in the company's operations such as low sales levels, decreased total profits and the number of defective products produced. Meanwhile, the interest of investors to take advantage of investment opportunities depends on the financial statement information presented by the company.

The decline in company performance in Indonesia can be seen from the fall in stock prices in 2008, in the event of global financial crisis. Indonesia's capital market has decreased share price by 40% to 60% from its initial position in 2008 (Kompas, 2008). In 2015, the performance of Indonesia's manufacturing industry is declining, in the index of PMI (purchasing manager index) the performance of manufacturing companies is always below 50. Eventually, the latest report indicates that the index in December 2015 could reach only 47.8, this indicates the performance of manufacturing companies Indonesia declined for 15 consecutive months. The main cause of the decline in the performance of manufacturing companies is the decline in production and orders, and this affects to the termination of employment to a number of employees (Kurniawan, 2015). Meanwhile, the financial services authority stated that in the fourth quarter of 2015 the performance of the Indonesian banking industry also declined, this reflected by the profit of the banking industry throughout 2015. The return on assets (ROA) of the banking industry in December of 2014 was 2.85 and in November 2015 to 2.30. This occurs because of the Bank is careful in conducting business...
activities, such as the Bank to establish reserves of declining financial values (CKPNL) in line with the increasing ratio of credit bemasalah (Rini, Anisa & Fadhila, 2016).

The mining industry also experienced a decline in performance in the same year, Price Waterhouse Coopers (PWC) reported that global mining companies collectively lost in US$ 27 billion. In collective losses, indicating that 2015 will be a challenging year for the mining industry, mining companies must strive to improve productivity, which are reportedly still struggling to survive, followed by asset disposals or business closures (pwc.com, 2016).

Increasing the gap between market value and book value of equity firms in the capital market is also one of the problems that often arise in the presentation of financial performance information (Garcia-Meca & Martinez, 2005). This is supported by the findings of Lev (2001, p.9) in Chen, et al 2005, which concludes that there are about 80 percent of the firm's market value not reflected in the financial statements. This indicates that in the process of making decisions about the performance of the company, information about economic resources is not the only report that can be the main source of information by investors, therefore measurement and disclosure of intangible assets such as intellectual capital is needed to supplement the shortage (Chen, Cheng, and Hwang, 2005).

In previous studies, it has been emphasized that companies are more interested in focusing on the management of tangible and financial assets, but more recent research has focused more on intellectual capital, especially on the components of human capital, innovation and relationship capital (Mondal & Ghosh, 2012).

There has been a number of previous studies examining the relationship and influence between intellectual capital and firm performance, including research from Mondal and Ghosh (2012), Wang and Chang (2005), Meles, Porzio, and Sampagnar (2016), Chen, Hsian-Lan, Wen-Tsung and Chang (2015) and Samagiao, and Rodrigues (2016) who concluded that intellectual capital proved to affect the company's performance.

On the other hand, Jeneo (2013) finds results that are contrary to previous research. In a journal entitled the effects of human capital, structural capital, and physical capital in 2013, Jeneo explained that human capital proved to have no effect on ROA and ROE on banks in Indonesia. This confirms that intellectual capital proved not to affect the performance of banks in Indonesia.

Based on the results of previous research is proved inconsistent, researchers are motivated to examine the influence of intellectual capital on corporate performance and the role of characteristic variables in moderating the influence of both variables. The object of the research is the mining company, which has suffered considerable fluctuations over the past few years. This study uses historical data of the company during the last 4 years (2013-2016). Company performance is measured using two indicators such as Return on Assets (ROA) and Tobin'sQ. One of the factors that influence the company's performance is the intellectual capital. The purpose of this research is to test and analyze the influence of intellectual capital on company performance.

Development of Hypotheses

Stakeholder theory explains that corporate management is expected to report corporate activities to stakeholders, as stakeholders have the right to be informed of the company's impact on them, even if they are not used or have a constructive role in survival company (Purnomosidhi, 2006). Thus, intellectual capital is one of the modalities whose information must be disclosed to the stakeholders, since it also assumes that organizational accountability is not limited to economic or financial performance alone, so companies need to disclose intellectual capital and other information beyond what is required by the body (Purnomosidhi, 2006).

Intellectual capital is also a company asset that is difficult to trade (Teece, Pisano, and Shuen, 1997). There is an interaction between two types of resources within the firm, ie human and material resources that can affect productivity services, thus affecting the company's competitive advantage (Penrose, 2009). If the company is able to compete, it will build a positive market perception, and the value of the company will increase. Market value may increase if the company's intellectual capital is well managed (Chen et al., 2005).

Firer and Williams (2003) tested on the same topic in 75 public companies in Africa and found that there was no correlation between intellectual capital and firm profitability. While, research from Chen, et al. (2005) found that there is a correlation between intellectual capital and corporate kidney. Juma and McGee (2006) examined that the relationship of intellectual capital to the performance of high tech ventures in the USA and found that human capital is the most critical component of intellectual capital. Ulum (2008) found that intellectual capital positively affects to the financial performance of Banking in Indonesia. Kuryanto and Syafrudin (2012) test both variables and show the opposite result.

Based on the description of the theory and the results of previous research that has been described above, then the research hypothesis can be formulated as follows:

**H1: Intellectual capital has a positive effect on company performance.**

In the perspective of agency theory, corporate conflicts occur due to the separation of roles and responsibilities between shareholders and corporate managers. The modern state of the corporation as it currently exists requires supervision. In carrying out its activities the management must act in the interest of the stakeholders, therefore it is necessary for those who can monitor the management behavior, that is the board of commissioners, who is the party chosen by the shareholders, which is expected to
help balance the interests of shareholder and stakeholder management. So, as to create good governance and this can provide maximum value and results for shareholders, company performance (Jensen and Meckling, 1976), also for all corporate stakeholders (Freeman and Reed, 1983). The board of commissioners also has an independence in disciplining managers' decision-making and this independence aspect gives the board of commissioners a formal force that can encourage it self to objectively assess and monitor (Zahra and Pearce, 1989).

The agency theory also provides a framework that links disclosure behavior with corporate governance (Jensen and Meckling, 1976). The relationship between governance and disclosure is substitute and complementary. Intellectual capital disclosure can be categorized as complementary disclosure. Intellectual capital will have a positive effect on the improvement of the company's performance depending on the strength of the control owned by the company. One of the core organs that is a part of corporate governance in the board of commissioners. The board of commissioners has characteristics that may affect intellectual capital disclosure (Al-musalli, Nor, and Ku, 2012). To see the characteristics on the board of commissioners can refer to the size on the board of commissioners, independent commissioners and qualifications on the board of commissioners. Moreover, the number of boards on commissioners the company will be more actively in disclosing information intellectual capital. A board with a composition with a fairly strong independent commissioner composition will have a more rigorous managerial oversight behavior. Qualification on the board of commissioners is also a cognitive characteristic that may affect to the board of commissioners for decision making. According to the performance agency theory is influenced by the independence on the board of commissioners to oversee managerial decisions (Baysinger and Butler, 1985). Similarly, Wright, Kroll and Elenkov (2002) who argue that the presence an independent board of directors can produce increase in company performance. Meanwhile, Santoso (2012) found that the characteristics on the board of commissioners have a significant effect on intellectual capital disclosure.

Based on the description of theory and the results of previous research described above, then the research hypothesis formulated as follows:

**H2: Characteristics on the board of commissioners strengthens the positive influence to intellectual capital on corporate performance.**

**Research methods**

Based on research objectives, this research uses positivist paradigm with quantitative approach. This study examines the effect of human capital and social capital on firm performance, with monitoring role variables as moderating variables. The type of this research is explanatory, which is to obtain an explanation of the causal relationship between two or more variables and the influence between variables conducted through hypothesis testing, by measuring the research variables, and also using statistical procedures (Hartono, 2011).

The population of this study for all companies listed in Indonesia Stock Exchange, with observation period from 2014-2016. The purposive sampling method is the sample selection method used in this research.

The sample selection with this method is determined based on the following criteria:
2. The company's annual report provides complete data on the board's profile.
3. Mining companies are listed on the Indonesia Stock Exchange.

Data were obtained by using archiving method, which came from Indonesia capital market directory (ICMD), osiris website, company website, yahoo finance site, and IDX website. Required data is include data on financial statement, sustainability reporting, and board of commissioner profile such as education level, work experience, expertise background and board of commissioner biodata. Furthermore, data collected in the analysis by using Moderated Regression Analysis. The model used in this research is:

\[ KP = \alpha + b_0 \text{MI} + b_2 \text{KDK} + b_3 \text{MI} \times \text{KDK} + e \]

**KP:** Company Performance
\( c: \) Constants
\( b_1-b_3: \) Regression coefficient
\( \text{MI}: \) Intellectual Capital
\( \text{KDK}: \) Characteristics of Board of Commissioners (Moderation)
\( \text{MI} \times \text{KDK}: \) Interaction between Intellectual Capital with Characteristics of Board of Commissioners
\( E: \) Error terms, i.e the level of error estimators in the study

**Result**

The results for the influence of the intellectual capital on company performance and moderation variables can be seen in table 1.
Table 1. Summary of Moderated Regression Analysis Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual capital</td>
<td>0.10</td>
<td>0.030</td>
</tr>
<tr>
<td>Characteristics of the Board of Commissioners</td>
<td>2.60</td>
<td>0.000</td>
</tr>
<tr>
<td>Intellectual capital*KDK</td>
<td>0.002</td>
<td>0.529</td>
</tr>
</tbody>
</table>

Noted: **significancy pada α = 0.05%

The result for intellectual capital variables in table 1 shows that the coefficient of intellectual capital is positive 0.10, which means that the higher of the intellectual capital will be the higher of the company performance. The variable of moderation interaction with intellectual capital symbolized by intellectual capital * KDK has coefficient of 0.002 and has a significance of 0.529, which means the characteristic variable on the board of commissioners is not able to moderate the influence of intellectual capital to the company performance.

**Discussion**

**Intellectual Capital Influence on Corporate Performance**

The one hypothesis states that intellectual capital positively affects to the firm's performance. The test results show that the first hypothesis (H1) is proven to be received. Company performance is measured using ROA and TobinsQ indicators and then factored into. The results of this study do not support the results of research from Santoso (2012) who found that intellectual capital does not affect to the company performance. The results of this study support the results of research from Ulum (2008) and Chen, et al. (2005) which concluded that the higher the IC value of a company, the higher the company's performance value. Ulum Research (2008) concluded that there is a positive influence to intellectual capital on the company's financial performance. The results of this study also does not support the results of research from Kurniawan (2013) who found that intellectual capital affect to the company's performance. Intellectual capital is a long-term capital, so that its impact on the company's financial performance will be seen over a longer period of time, one or more. It shows that the development and management of intellectual capital as long-term capital will have an impact on the company's financial performance (Kurniawan, 2013 and Chen, et al., 2005).

The positive value of intellectual capital also reflects that physical capital, human capital and structural capital are attractive to investors. Investors tend to rate mining companies through their physical capital, owned funds and assets. Efficient use of physical capital is an important indicator to know the company performance. Mining companies focus on the use of machinery and equipment for production. In the VAIC model made by Pucic (1998), measurement for the use of company's capital efficiency is more focused on human capital or in other words Public treats labor as a value creation entity.

Furthermore, the value of intellectual capital also reflects to the ability of mining companies in Indonesia has met the process of routines and good structure in support of employees business to produce optimal performance. In applying some ideas and develop more ideas and products than the company is quite good. Structured routine process, good technology and operational system, the company is able to increase the added value so as to deliver mining companies to better future performance through efficient management of intellectual resources.

Furthermore, in the perspective of stakeholder theory, companies are not only tasked to fulfill the interests of shareholders, but also need to balance the needs of stakeholders, ie stakeholders, among others, employees, suppliers, creditors, governments and the public. These findings support to some stakeholder theories and theories of legitimacy, stating that companies are required to disclose additional information in the form of intellectual capital to shareholders and stakeholders, in order to be used as needed. The results of this hypothesis testing provide evidence that intellectual capital as a long-term resource in every company, affect the company's performance.

**Characteristics of Board of Commissioners Strengthening Intellectual Capital Influence on Company Performance**

The result on research of second hypothesis (H2) shows that characteristic variable of board of commissioner not able to moderate influence of intellectual capital to company performance. For the second hypothesis test shows that the second hypothesis is rejected. The test results show that moderation which is the interaction between the intellectual capital and the characteristics of the board of commissioners proved to be insignificant. This means that the characteristics on board of commissioners is not a variable pure moderni, but an independent variable. This result does not support the research of Uzliawati (2015) which concludes that the characteristics on the board of commissioners influence the extent of intellectual capital disclosure. However, the results of this study support the study of Nugroho (2012) which states that the characteristics on the board of commissioners have no effect on the extent of intellectual capital disclosure. This result also supports the results of research from Arifah (2012), which found that the characteristics on the board of commissioners did not significantly affect to the disclosure of intellectual capital.
Thus, it can be concluded that the characteristics on the board of commissioners cannot moderate the influence of intellectual capital on the company's performance. The results of this study contradict the assumptions logic in agency theory also affirms that the characteristics on the board of commissioners such as the number on boards of commissioners, the proportion on independent board of commissioners and the qualifications on the board of commissioners are able to encourage management to disclose intellectual capital that can affect to the improvement of company performance. The study found that a large number on boards of commissioners will degrade the company's performance. The number of boards within the company should be based on a certain amount, if the number of boards in the company is too much in providing input to management, then the decision will be less effective and will require considerable consideration (Luthan, et al. (1993) states that a small board of commissioners will be more effective in taking action than the board of commissioners in large numbers. Thus, the characteristics on the board of commissioners are not able to encourage management to disclose the company's social capital if the board of commissioners is large and this does not affect the company's performance.

Conclusions and recommendations

Conclusion

Generally, the results of this study support the theory used in assessing company performance. The company's ability to manage, select the right resources, build and maintain relationships with the company's external environment can provide added value and improve company performance. The result of this research can be concluded that intellectual capital influence to company performance, and characteristic variable on board of commissioner is not a moderation variable, but only acts as independent variable. This study aims to explore and intensify the intellectual capital component and social capital that is believed to provide value to the benefits and influence the company's performance.

Suggestion

The results of this study are expected to provide benefits in the development of similar research efforts and become part of the reference for future research with consideration of suggestions that subsequent research, can change the classification of samples used in conducting proof of the influence of intellectual capital contribution to other types of companies included in the company which are solid intellectual capital. It is intended that further research can provide insights into the contribution of intellectual capital to different types of industries, such as asset structure, business operations and company size. Future research may still use variable intellectual capital but it is advisable to use samples of other types of companies that have solid intellectual capital, such as service firms, manufacturing and IT.

References


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