CORPORATE GOVERNANCE, ENVIRONMENTAL MANAGEMENT ACCOUNTING AND FINANCIAL PERFORMANCE OF INDONESIA’S STATE OWNED COMPANIES

Nengzih
Department of Accounting,
Faculty of Economics and Business
Mercu Buana University – Indonesia
nengzibrahman@yahoo.com

ABSTRACT
Purpose – The purpose of this paper is to examine the influence of corporate governance and Environmental Management Accounting to Financial Performance of Indonesia’s state-owned companies. Findings Design/methodology/approach – The research method involved administering questionnaires to 83 state owned companies in Indonesia through the 350 respondents. The respondents are financial manager, operating manager, and GCG manager of the companies. The results show that corporate governance, Environmental Management Accounting (EMA) of the firms have small impact to the financial performance of the related companies. The results found that corporate governance and EMA are not the main causes that could influence the financial performance of the companies. Social implications – The government as the major stockholder of state-owned companies hold full authority over its companies to adjust the GCG and EMA systems consistently to create companies that are capable to provide efficient services and are able to contribute to the its country’s annual revenue and public welfare. Originality/value – This paper is one of the few that conducted research about good corporate governance and EMA along with the effect on the financial performance in state-owned companies.

Key words: Corporate Governance, Environmental Management Accounting, and Financial Performance

Introduction
Today, corporate governance became a determinant to many subjects in identifying company’s strengths and functions. One of the most important functions that corporate governance can play is to ensure the quality of the financial reporting process and financial performance (Cohen, Krishnamoorthy & Wright, 2004). Review of corporate governance has been done from time to time to optimize the operations of the companies. Good corporate governance is a corporate set up leads to maximize the value of the shareholders legally, ethically on sustainable basis, while ensuring equity and transparency to every stakeholder: the company’s customers, employees, investors, vendor-partners, the government of the land and the community (Murthy, 2006). The goal of most of this regulation was to improve firm’s corporate governance environments (Bhagat & Bolton, 2009).

The condition of most state-owned enterprises in Indonesia is that it has not been able to perform optimally and the level of the corruption in some of the companies allegedly caused by the weak enforcement of good corporate governance. The weakness of implementation of good corporate governance will lead the company failed achieve its objectives in the form of maximum profit, failed to develop the company to stay competitive and failed to meet the stakeholders’ interests. Organization for Economic Co-operation and Development (OECD) on 1999 has issued and published the OECD Principles of Corporate Governance. The underlying principles put forward by the OECD is: Transparency, Accountability, Responsiability, Independence and Fairness. Fairness and equal treatment in respect of minority shareholders in order to be protected from fraud and abuse perdagangandan by corporate insiders. Transparency is done through an accurate improvement of disclosure on corporate performance information accurately and timely. One form of transparency is the company's ability to contribute to the voluntary disclosure report based in the environmental problems related. There are so many environmental cases surfaced in several countries like environmental pollution research conducted by the State Owned Enterprises (SOE) shows there are SOE that still manage their environmental field poorly. Proper Team Secretary from Ministry of Environment, Sigit Reliantoro revealed, there are 11 SOE that labeled black or not environmentally friendly. Results of supervision from the Ministry of Environment in 2009 shows that 49 of the 1,002 companies are considered negligent and violating the rules and take participant in hazarding the environment. 11 of the 49 companies are SOE, five of them are subsidiaries of PT Perkebunan Nusantara (PTPN) IX, the sugar processing company operating in Central Java and one of them subsidiary of PTPN XIII.

International policies against environmental problems have affected companies to consider the establishment and marketing of a product from the point of view based environment (Gamble et al., 1995). Since the 1990s, the attention to environmental management accounting has increased dramatically (Schaltagger and Burrit, 2000). Hyrslova & Hajek (2006: 455) stated environmental management accounting is an important part of the organization to minimize the total cost (including environmental costs) and reduce environmental impact on the activity of production and services company. Accounting Environmental Management aims to provide physical information on the use of materials and energy, as well as monetary information on costs, revenues and savings related to the environment (Bennett et al., 1999; Bartolomeo et al., 2000; United Nations, 2001; IFAC 2005; Hansen and Mowen, 2007).
Environmental Management Accounting (EMA) is one of the disciplines in accounting, aims at providing information to the management about the management of environment and its impact on production costs. EMA is expected to be a set of system aims to measure the performance of a company. Performance measurement models in order to achieve a balance between the size of financial profit with environmental performance management (Rossje, 2006). Environmental Management Accounting (Environmental Management Accounting) has received concern from the researchers (Ferreira et al., 2010). Several studies have discussed the benefits of EMA’s implementation in a business (Deegan, 2003; Burrit and Saka, 2006; Masanet-Liodra, 2006; Staniskis and Stasiskeiene, 2006) as well as designing the general framework of environmental management that can be used in business processes (Burrit et al., 2002).

Organizations that produce social and environmental information will developed internal control systems for better decision-making process (Adams and Zutshi, 2004). Several Researches attempted to integrate technical, economic and environmental performance measures (e.g. Tyteca, 1996; or Scheel, 2001). Generally, The measures of environmental performance are obtained by making adjustments to standard parametric and non-parametric efficiency analysis techniques. The production’s efficiency includes the production process. Waste products are Considered to be an inefficient use of resources (Stanwick and Stanwick, 2009).

Literature Review and Hypothesis

Corporate Governance

Agency theory explained that a company has two parties interact. These parties are the owners of the company (stockholders) and the management. Jensen & Mecking (1976) define an agency relationship as a contract, wherein a person or more (Principal) employs another person (Agent) to carry out a number of services and delegate decision-making authority to the agent. Principal provides facilities and funding for the operation of the company, while the agent is obliged to manage the company and aiming to increasing the business’ profit. Agency theory is the basis underlying theory that most companies had been using. The main principle of this theory assert the working relationship between each party. Different "economic interests" have led to the emergence of asymmetric information (information gap) between the stockholders (majority and minority shareholders) as the principal and the managemen board as the agent. OECD (2004) defines corporate governance as follows: "Corporate governance is a set of system where business operations is directed and controlled. The corporate governance structure specify the distribution of rights and reponsibilities Among different participant in the corporation, such as the board, the managers, stockholders and other stakeholders, and establish the rules and procedures on the act of decision making for corporate affairs. By implementing this, it also provides the structure where company objectives are set

Good Corporate Governance is defined as a system to direct and control the company. The same definition proposed by Zarkasyi (2008: 36), good corporate governance is a system (input, process and output) and a set of rules that govern the relationship between the various interested parties (stakeholders), especially in the narrow relationship between shareholders, board of commissioners and the board of directors in achieving company’s objectives.Several studies on the impact of corporate governance has been widely studied. Results of research conducted by Beasley (1996) concludes that the implementation of good corporate governance can reduce fraud in the financial statements if the composition of the majority of the company's board of directors comes from outside of the company (outsiders). This condition will improve the quality of financial information which boosted investor confidence. The results of the study in implementation of good corporate governance and audit quality in the United States claimed that good governance can enhance the integrity of financial statements (Eugene and Imhaff, 2003). Researchers suggest the convening of the audit team turnover every three years and supported by ethics in applying GAAP to improve the transparency of financial reporting.

Results of study conducted by Cheung and Chan (2004) related to the implementation of good corporate governance in Asia concluded that countries in Asia apply corporate governance with different criterias. Each country implementing good corporate governance in economic, social, cultural, legal and regulatory fields. In order to these countries to develop good corporate governance standards independently. The study on the application of corporate governance in the United States expanded rapidly after the economic crisis. One of the causes in economic crisis arrived from the weak government that unable to strictly speaking about the importance in separation of duties within the company (Mariam, Subramaniam, and Johnson, 2006). Implementation of good corporate governance in a company will have impact on policy decisions and thus will effect in leverage, dividends, and other compensation. The managers will attempt to align with the principal objectives. In setting the dividend policy and debt and appear unrecognizable there has to be an agency conflict. Opportunistic behavior of the agent also has the potential to drive policies that will benefit themselves personally. However, it can be minimized if companies implement good corporate governance (Bushman and Smith, 2003). By reducing the opportunity for managers to manners and self-enrichment it is also expected to increase the company's value, which is characterized by the rising stock prices and the welfare of its stockholders.

Effectiveness corporate governance is expected to improve the company's performance. The benefits of implementing corporate governance can be found on the company's share price investors are willing to pay. GCG can provide a high level of investor protection (Denis, 2010) and may increase dividend payments (Choy, Gul, and Yao, 2011). Implementation of GCG will have an impact on investor protection thus reducing asymmetry information to the lower level (La Porta et al., 2002; Gul and Qin, 2012). Implementation of GCG is also considered to reduce the risk of business failures (Fischer et al., 2007). Black et al. (2003) showed that the index of corporate governance to be one factor that can explain the market value of a company. According to that description above can be concluded that good corporate governance affect the financial performance.

Environmental Management Accounting
Implementation of environmental management accounting allows the company to control the environmental costs that may previously difficult to control because it is hidden in the overhead cost. Environmental accounting allows the environmental costs to be identified, measured and allocated appropriately to the process or related products and making it easier for managers to exercise control and cost savings. For example, the cost to process and clean up toxic waste associated and allocated directly to those products can be done easily and precisely (United Nations Division for Sustainable Development, 2001). With the cost control based on information provided by the environmental accounting, cost efficiency can be achieved and will result in improving the financial performance of the company (Dascaliu et al. 2010).

IFAC (2005) reported that organizations using EMA will conduct more extensive research on EMA, as well as designing activity in producing environmentally friendly products and develop management techniques that do not harm the environment. It allows organizations to use a system of product life cycle to identify opportunities to obtain environmental improvements (Hansen and Mowen, 2007). EMA aims to provide physical information on the use of materials and energy, as well as monetary information on costs, revenues, and savings relating to the environment (Bartolomeo et al., 2000; United Nations, 2001; Bennett et al., 2003;; IFAC, 2005; Hansen and Mowen, 2007).

Ranganathan and ditz (1996) found that information the environmental costs generated by the environmental management accounting can help increase the performance of the company due to the existence of the specific information and will make manager more responsible for the resulting costs and trying to make efforts to reduce the cost of it. Research from Larrinaga and Bebbington (2001) figured by applying environmental accounting, companies can make cost savings that will increased financial performance. Likewise, Elewa (2007) found that the application of environmental management accounting can boost profit growth through the use of information in production costs. Meanwhile, Hayden (1989) in De Beer and Friend (2006) adds that other than through cost reduction, environmental accounting can also be used to indicate the potential for environmentally beneficial investments in order to generate significant financial benefits through the avoidance of environmental obligations.

Environmental Management Accounting nowadays has become part of important decision-making tool in most companies in developed countries (De Beer and Friend, 2006). Results of research Deegan (2002) states that the main motivation to develop environmental management accounting is to provide basis for improved environmental performance. The information generated by the accounting management of the environment, especially the environmental cost information helps management to control costs so that it will result in cost savings that will ultimately improve the financial performance (Burritt, 2002). Polluting companies that pay three times for non-product output in the form of waste and emissions. First, the company pays the cost of purchasing materials such as fuel, water, and the chemical that is a waste producers and emission. Second, the company pays for the operational use of raw materials through labor and infrastructure costs, which also produce waste and emission. Third, the company pays for the cost of waste disposal so as not to exceed the allowed limit. Charges of it makes inefficient enterprises and by itself will lower earnings (Porter and Van der Linde, 1995; Geil, 2006). Based on the description above, it can be concluded that environmental management accounting effect on financial performance.

Financial Performance

The financial performance is an indicator often used to measure the success of a company. According to the measurement, financial performance can be done with financial analysis, such as business analysis using financial statements to analyze the performance and financial position of a company in order to assess the financial performance, and to assess the financial performance in the future (forthcoming). The use of financial analysis as a measure of achievement of the performance is still using some of the contemporary financial performance indicators such as economic value added (EVA) and market value added as well as measurement of profitability in the form of ratios such as return on investment (ROI), return on assets (ROA) and return on equity (ROE) are still relevant because they are simpler to use, more comprehensive, and can be used by all companies. The ratio can not describe the good management, but can create better managers because it can help show things that require further research to develop the company's strategy in the future.

Other researchers such as Freedman and Patten (2004) and Al-Tuwairji et al. (2004) relate to the performance of the economy. Actually, the term economic performance is more general and financial performance included, but in various studies (Cormier and Magnan, 1999). Susi Sarumpaet (2005) stated that economic performance is more often associated with the size of the market-based to measure market portofolio, the annual return, stock price, market returns, stock market response, the price-earnings ratio, etc. -other.

As for the financial performance, it is often associated with the size of the accounting basis in the form of profitability with various size. Both size nor market-based accounting basis has advantages and disadvantages as a performance measure, but the market based measures can only be used on a public company in which the company's value is measured by the value of its shares. (Yusoff and Lehman, 2005).McGuire et al. (1988) found financial performance based accounting is a better tool for measuring the success of environmental and social management, including its disclosure. Freedman and Jagg (1982, 1992) states that the company's financial performance in the end is reflected in the income / profit generated. ROI, ROA and ROE is a profitability measure that palingumum used. ROI and ROA are often used interchangeably because it refers to the same thing, the ratio of profit to assets owned.

Research design

Data analysis in this study is using a second order confirmatory using a repeated indicator approach or commonly known as hierarchical component model (Lohmoller, 1989 in Chin et al., 1996). Based on the research variables, dimensions and indicators of the study, the authors make the path diagram of data analysis using Smart PLS 3.2. In Structural Equation Model, builds the
A path diagram of a causal relationship is a must. Path diagram will facilitate researchers see relationships causality to be tested and used to analyze the path in estimating the strength of causal relationships. Path diagram in this study illustrated in figure 1 below:

Figure 1: Path Diagram of Research Variable

In this study, Second order latent constructs Good Corporate Governance, measured with five components, consists of responsibility, accountability, fairness, transparency and independence. Responsibility is measured by two indicators: X1.1.1 - X1.1.2, the accountability is measured by indicators X1.2.1 - X1.2.2, fairness is measured by indicators X1.3.1 - X1.3.2, transparency is measured by indicators X1.4.1 - X1.4.2 and X1.5.1 independence is measured by indicators - X1.5.2. In the approach of repeated indicators, the size indicator X1.1.1 - X1.5.2 used twice, which is measured by the first and second Confirmatory First Order for Second Order Confirmatory measure.

The construct of Good Corporate Governance is measured using a model of formative indicators, so that the construct of GCG were not analyzed through convergent validity and composite reliability as in the model indicators reflexive, but to see the regression coefficient value and significance of the regression coefficients, because constructing a formative relationship regression of indicators to construct (Ghozali, 2011).

Figure 2: Construct Validity and Reliability Testing of GCG
Based on statistical tests above, there are indicators that X1.3.1 invalid, and the indicator is significant only at the 10% significance ie indicators X1.2.2 X1.2.2, but because of the use of indicator formative construct the indicators are not in the drop, Second order latent constructs Environmental Management Accounting (X2), measured with the six components, namely the First Order Materials Cost of Product Outputs (X2.1), Materials Cost of Non-Product Outputs (X2.2), personal key roles (X2.3), waste and Emission Control Costs (X2.4), Prevention and Other Environmental Management Costs (X2.5), and Research and Development Costs (X2.6).

Component (dimensions) Materials Cost of Product Outputs measured by indicators X2.1.1 - X2.1.3, Materials Cost of Non-Product Outputs measured by indicators X2.2.1 - X2.2.3, Waste and Emission Control costs measured by indicators X2.3.1 - X2.3.3, Prevention and Other Environmental Management Costs measured by indicators X2.4.1 - X2.4.3, Research and Development Costs measured by indicators X2.5.1 - X2.5.3, and Less Tangible Costs are measured by indicators X2.6.1 - X2.6.3. In the approach of repeated indicators, size-X2.6.3 X2.1.1 indicators used twice, which is measured by the first and second Confirmatory First Order for Second order confirmatory measure.
Testing the validity and reliability on each dimension of Environmental Management Accounting and the indicators using statistical software Smart PLS 3.2. The size of individual reflexive considered valid if it has a value of loading ($\lambda$) with latent variables to be measured $\geq 0.5$, if one indicator has a value of loading ($\lambda$) $<0.5$, the indicators are not valid. The following table describes the results of testing the validity of the Environmental Management and Accounting variable dimensions: table 2

### Table 2
Result of Validity Test

<table>
<thead>
<tr>
<th>Construct of Environmental Management Accounting ($X_2$)</th>
<th>Indicator</th>
<th>Outer Loading</th>
<th>$t$-statistik</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_2.1$</td>
<td>$X_{2.1.1}$</td>
<td>0.906</td>
<td>31.112</td>
<td>Valid dan signifikan**</td>
</tr>
<tr>
<td>$X_2.2$</td>
<td>$X_{2.2.1}$</td>
<td>0.898</td>
<td>25.981</td>
<td>Valid dan signifikan**</td>
</tr>
<tr>
<td>$X_2.3$</td>
<td>$X_{2.3.1}$</td>
<td>0.710</td>
<td>6.236</td>
<td>Valid dan signifikan**</td>
</tr>
<tr>
<td>$X_2.4$</td>
<td>$X_{2.4.1}$</td>
<td>0.908</td>
<td>39.287</td>
<td>Valid dan signifikan**</td>
</tr>
<tr>
<td>$X_2.5$</td>
<td>$X_{2.5.1}$</td>
<td>0.954</td>
<td>61.134</td>
<td>Valid dan signifikan**</td>
</tr>
</tbody>
</table>
Based on testing the validity above, all indicators in the Environmental Management Accounting construct valid and significant. Reliability testing for environmental management accounting constructs described in the following table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Management Accounting (X2)</td>
<td>0.948</td>
<td>0.941</td>
</tr>
<tr>
<td>X2.1</td>
<td>0.944</td>
<td>0.911</td>
</tr>
<tr>
<td>X2.2</td>
<td>0.941</td>
<td>0.906</td>
</tr>
<tr>
<td>X2.3</td>
<td>0.877</td>
<td>0.789</td>
</tr>
<tr>
<td>X2.4</td>
<td>0.920</td>
<td>0.869</td>
</tr>
<tr>
<td>X2.5</td>
<td>0.973</td>
<td>0.958</td>
</tr>
<tr>
<td>X2.6</td>
<td>0.951</td>
<td>0.922</td>
</tr>
</tbody>
</table>

In the study, a variable is said to be sufficient reliability when that variable has a value construct reliability greater than 0.6 (Ghozali, 2011). Based on the results of the output reliability of the above, we can conclude that for all the dimensions of the study variables have composite reliability above 0.6 so that it can be concluded that the indicators used in each dimension Environmental Management Accounting has good reliability or able to measure konstruknya. Based on testing the validity and reliability of all indicators question in this study is valid and reliable.

2. Evaluation of Goodness Fit Structural Model (Inner Model)
Evaluation of the goodness of fit of the structural model was measured using R2. R2 is the coefficient of determination, which is part of the total variation in the dependent variable explained by variation in the independent variable. The R2 in this model is 0.035, meaning that the value indicates that the Company's performance variation can be explained by the variable of Good Corporate Governance and Environmental Management Accounting at 3.5% while the remaining 96.5% is influenced by other variables that are not included in the model research. Evaluation inner models low enough in explaining the variables of Good Corporate Governance and Environmental Management Accounting.

To examine the relationship between variables (hypothesis testing), then use the value of output Smart PLS compared with the value ttable. Here is a table that provides the results of the relationship between the constructs (variables).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable Interactions</th>
<th>Coefficient Parameter</th>
<th>t Statistics</th>
<th>Sig P Values</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>GCG -&gt; Corporate Performance</td>
<td>0.181</td>
<td>1.251</td>
<td>0.10</td>
<td>Significant*</td>
</tr>
<tr>
<td>H2</td>
<td>Environmental Management Accounting &gt; Corporate Performance</td>
<td>-0.063</td>
<td>0.673</td>
<td>0.251</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

Det: ** Significant on 5%, * Significant on 10% ; Source: same as above

According to the table above, it can be made created a research model as follows: Company Performance = .181 -.063 GCG AKML + ε (0,965) ... (1)

Effect of exogenous latent variables to endogenous latent variables in the table above can be explained as follows: The coefficient parameters obtained from the path of good corporate governance variables influence the Company's performance is equal to 0.181 to 1.251 t value <1.674 at significance level α = 0.05 (5%) which states that there is a positive and significant influence between the variables of Good Corporate Governance on Corporate performance. But, at significance level α = 0.10 (10%) variable Good Corporate Governance positive and significant impact on the Company's performance.

Value of 0.181 on the coefficient parameter means is getting better Good Corporate Governance, the Company's performance will be better, and vice versa. The coefficient parameters obtained lines of EMA’s variable influence on the Corporate Performance amounted to -0.063 to 0.673 tstatistik value <1.674 at significance level α = 0.05 (5%), which states that there is a
positive and significant influence between the variables of the Environmental Management the Company's performance against the performance of the Company. So the second research hypothesis is rejected.

Conclusion

There is a positive and significant influence between the variables of the environmental management accounting (EMA) to the financial performance of the company. We found that corporate governance has significantly influenced to financial performance. Further research should be to examine the relationships between environmental management accounting (EMA) to financial performance with classify categories of services and non-services company so that the level of influence comparable significance. Corporate governance using primary data so that it will be very subjective to the opinion of the manager as respondents. Measurement of Corporate Governance can use the index CG.

References


