Corporate Governance, Personal Scorecard and Environmental Management Accounting to the Value Chain of the Firms: Evidence from Indonesia’s State-Owned Enterprises (SOEs)

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Abstract
This study aims to examine the influence of corporate governance, personal scorecard and environmental management accounting and their implications to the value chain of the state-owned enterprises (SOEs) in Indonesia. Data were collected through survey questionnaires and interview with the respondents were 350 managers of 83 state-owned enterprises located in Province of DKI Jakarta, West Java and Banten. Structural Equation Modelling (SEM) with Partial Least Square (PLS) was used to analyze and the findings indicate that corporate governance and personal scorecard have no significant influence to the value chain; and the environmental management accounting has a significantly strong influence to the value chain.

Keywords: Corporate Governance, Personal Scorecard, Environmental Management Accounting, Value Chain, state-owned enterprises (SOEs)

1. Introduction
The importance of corporate governance became widely recognized with the publication of the seminal paper in agency theory by Jensen and Meckling (1976). The paper discussed how the theory and structure of the firm depends on the conflict of interests among several contractual agents in the firm including management, shareholders, and debtholders. This inspired research in multiple areas of business including finance, economics and management at a many area included all firms. In this paper, we direct our attention toward and focus our analysis exclusively on state owned enterprises (SOEs). We recognize that there are several factors that should be considered when evaluating a firm’s corporate governance structure. The fact that implementation of good corporate governance in Indonesia is influenced by culture and history which are integral and inseparable element of the communities which then creates barriers to particular government policies (Bastaman et al, 2003).

In line to this, Cornelius (2005) states that in the emerging markets, legal institutions play a key role for corporate governance besides factors like: politics, culture and more importantly historical roots of the country. In order to improve corporate governance in Indonesia, the government and non-governmental organizations had done several initiatives (Kurniawan & Indriantoro, 2000).

The Concentration of state ownership in SOEs can lead agency problems in its management that most state-owned enterprises in developing countries have governance weaknesses, among other problems agency problem that led to government intervention in the management of state-owned enterprises is quite high. The issue of transparency and openness that are likely to arise as a result of the existence of the agency problem. This is in line regarding the agency problems that arise that occurred asymmetry of information in which management (in this case the SOE managers) generally have more information about the financial position and the actual position of the operating entities (SOEs) than the owner ( in this case the community as owner of the resource, which is represented by state officials).

Organizations that consistently apply corporate governance will have an impact on the value chain of the organization that can be used to determine the overall strategy of the organization system components. Value Chain can explain the relationship between the function of value creation that takes the organization to providing products and services to consumers (Hoque, 2004). Porter (1980, 1985) developed the concept of value chain as a tool to analyze the company's cost structure and identifying competitive advantage. Some of empirical studies of the impact of corporate governance on the value chain of companies conducted by (Fischer, 2007; Gellynck & Molnar, 2009), which concluded that the GCG be one of the key success factors of the application of innovation in the value chain. Value Chain Governance impact on improving quality control, reducing opportunistic behavior of agents and improve performance of the company. The results of this study confirmed by (Fischer et.al, 2007), corporate governance increasing interdependence between functions within the company and gives an extra dimension of risk of business failure if the achievement of the performance is only done by separate functions of the company.

The Results study conducted by Zulkafli et.al (2013) on the implementation of corporate governance in Malaysia concluded corporate governance is an important component of profitability and growth of companies that can apply for the efficiency of scarce resources and can provide a high return on investment. The results studies conducted by Okpara (2010) on the application of corporate governance in South Africa concluded that the practice of good corporate governance can increase the price of the stock and raised the amount of capital so
as to facilitate international investors to invest in domestic companies. Chang et al (2008) and Chung and Shen (2009) concluded that corporate governance states consistently will facilitate business decisions that can help control the management and positive impact on investors’ assessment. Research conducted by Bhutta et al. (2014) in Pakistan concluded no impact on the corporate governance and investor reactions associated negative investor reaction. Companies with the implementation of governance already establish a competitive advantage that can control the business efficiently.

The Resource-Based Theory considers the organization as a party to have access to the scarce resources and have value to the organization (Barney, 1991). The best thing that could be done by an organization if the available resources can be a competitive advantage, and replicable (Barney, 1991). The organization should be able to identify the resources and capabilities, as well as specific competencies that can support strategic decision making by choosing differentiation costs as a strategy, and the final decision in the selection of the value chain (Henry, 2011). Resource theory focuses on the organization's resources and capabilities, and how to develop and sustain competitive advantage (Barney, 1991; Barney, et al, 2001), while the value chain complete equipment set up to operationalize and implement generic basic strategy so that the resource selection and capabilities and create value that can not be imitated, and has a special competence (distinctive competencies). (Porter, 1985, Shank and Govindarajan, 1992 a and b).

The results of research by Hubert K. Rampersad in 2005 concluded "The formulation of the personal balanced scorecard (PBSC), respectively the personal mission and vision of the employee is meant to improve its learning ability and Tus enable organizational learning to a collective pattern change, an organizational change", Personal Balanced Scorecard (PBSC) or personal scorecard can be used as a measurement of personal performance. PBSC is the approach seen in the context outside of work (non-work) and work performance (work performance) that are based on individual measurements (self-examination). Rampersad develop personal performance measurement model based on non work. Personal Scorecard focuses on a personal mission, vision, key roles, critical success factors, objectives, performance measures, targets, and improvement actions of the employee. The Total Performance Scorecard frame provides solutions for the utilization of personal abilities (personal's capabilities) to become a productive tool for achieving goals. This research was conducted by comparing the performance measurement where personal (personal scorecard) and measurement of organizational performance can improve performance management, competence management, and change management into one overall framework.

IFAC (2005) reported that organizations using Environmental Management Accounting (EMA) will conduct more extensive research on the 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). Hyslová & Hajek (2006: 455) stated EMA is an important part of sustainability accounting and become an important part of an organization that aims to minimize the total cost or the environmental costs and reduce the environmental impacts of production activities, and corporate services.

Previous studies have defined the EMA as a technique in generating, analyzing, and using financial information and non-financial, to improve the environmental performance and economics of a company, and contribute to the sustainability of business processes (Bennett et al., 2003; Deegan, 2003), 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).

Organizations that produce social and environmental information will develop internal control systems resulting in better decision-making process better (Adams and Zutshi, 2004). The new information is encouraging the development of new products, more advanced process technologies, and improved cost structure (Ferreira et al., 2010). In other words, the use of environmental management accounting may be related to both product and process innovation, and can improve the competitive position of an organization (Ferreira et al., 2010). Ferrari and Parker (2006) found that for manufacturing organizations, innovation process plays an important role in improving the competitive advantage as a key factor in obtaining long-term revenue growth. Ramdhani (2011) suggests the implementation of environmental management accounting can increase innovation and processes within the company so that the support towards the implementation of the value chain for improved performance.

2. Theoretical background
Agency theory explains that in a company there are two parties interact. These parties are the owners of the company (shareholders) and company management. Own shares referred to as principal, while management is a person authorized by the shareholders to run a company called agents. Jensen & Mecking (1976) define an agency relationship as a contract, wherein one or more person (employer or principal) employs another person (the agent) to carry out a number of services and delegate decision-making authority to the agent. Agency theory
is the basis of the theory underlying the company's business had been using. Good and bad corporate governance practices could exist either in good or poor governance systems. Cornelius (2005) notes that individual firm attributes in maintaining sound governance practices even where public institutions are relatively weak, factors such as: corporation’s ownership structure, its relationships with stakeholders, financial transparency, information disclosure practices, and configuration of its managing boards. While bad corporate governance practices could exist in good governance system like in the case of the US (Enron’s case) and the demise of HIH (in the case of Australia). The demise of Enron was due mostly to a lack of ethics rather than a lack of regulations under a condition of well-structured board of directors (Downes and Russ, 2005 and Van den Berghe and Baelden, 2005). While the demise of HIH was mainly due to the fact the board did not assess the effectiveness of company’s corporate governance (Lipton, 2003).

The existence of personal scorecard and environmental management accounting able to be explained by the Resource-Based Theory. Wernerfelt (1984) explains that in the view of the Resource-Based Theory of companies will excel in the competition and get a good financial performance in a manner own, control and utilize strategic assets that are important (tangible and intangible assets). Belkaoui (2003) suggests potential strategies to improve the performance of the company is to identify of fixed assets and intangible assets. Resource-Based Theory is a theory of thought developed in the strategic management and competitive advantage of companies that believe that the company will achieve excellence if they have superior resources (Solikhah et al., 2010). This theory assumes that the company can succeed if the company is able to achieve and maintain a competitive advantage through the implementation of a strategic nature in the process of value creation that are not easily imitated by other companies and there is no substitute (Barney, 1991).

3. Research methodology and data description
3.1. Data collections and resources
The population consists of 119 state-owned enterprises that is in the area province of Jakarta, West Java and Banten. Reasons for the selection is the number of state-owned companies in the three provinces that have represented 67% of state-owned companies is 83 (eighty three) companies. The results of distributing questionnaires to 119 state-owned company that has been done returns the completed questionnaires and collected as many as 59 companies, The state-owned companies are analyzed as many as 57 state-owned as shown in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Bidang Usaha</th>
<th>Target Populasi</th>
<th>Sampel Minimum</th>
<th>Sampel Penelitian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Industri Pengolahan</td>
<td>16</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Jasa Keuangan dan Asuransi</td>
<td>19</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Jasa Profesional dan Konstruksi</td>
<td>20</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Perdagangan Besar dan Eceran</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Pertanian, Kehutanan, dan Perikanan</td>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Transportasi dan Pergudangan</td>
<td>14</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>83</td>
<td>46</td>
<td>57</td>
</tr>
</tbody>
</table>

From the table below shows that as many as 57 companies (68.67%) of the total 83 companies, or 830 respondents who received the questionnaire and who have returned questionnaires of 350 respondents, or 42.17%. From table 3.2 obtained the achievement level of return the questionnaire has been included into the category of good, if guided by the respondent return rate of 30% has been categorized as good (Sekaran, 2013)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Prshn</td>
<td>Responden</td>
<td>Prshn</td>
</tr>
<tr>
<td>1</td>
<td>Industri Pengolahan</td>
<td>16</td>
<td>160</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Jasa Keuangan dan Asuransi</td>
<td>19</td>
<td>190</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Jasa Profesional dan Konstruksi</td>
<td>20</td>
<td>200</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Perdagangan Besar dan Eceran</td>
<td>6</td>
<td>60</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Pertanian, Kehutanan, dan Perikanan</td>
<td>8</td>
<td>80</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Transportasi dan Pergudangan</td>
<td>14</td>
<td>140</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>83</td>
<td>830</td>
<td>57</td>
</tr>
</tbody>
</table>

3.2. Variable definitions, independents and dependents variable
Good Corporate Governance is measured by 5 (five) dimention; transparency, accountability, responsibility,

3.3 The models and the hypothesis development
The approach used in this study is a joint analysis with giving questionaires to managers of SOEs and with survey data from direct interviews with managers from the sampled. The models that are developed for this research study were run by using Partial Least Square (PLS).

4. Results and analysis
4.1 The first hypothesis testing: Corporate Governance affect the Value Chain
Ho: Pyx1 = 0 Corporate Governance hasn’t significant effect on Value Chain.
H1: Pyx1 ≠ 0 Corporate Governance has significant effect on Value Chain.

Tabel 4.1 The Results testing of Corporate Governance to Value Chain

<table>
<thead>
<tr>
<th>Koef. Jalur</th>
<th>t-hitung</th>
<th>t-tabel</th>
<th>Ho</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,188</td>
<td>0,879</td>
<td>1,96</td>
<td>Accepted</td>
<td>rejected</td>
</tr>
</tbody>
</table>

As shown in Table 4.1 t value for the variable Principles of Good Corporate Governance amounted to 0,879. This figure is below the t-table by 1.96, then hypothesis (Ho) stating variable Principles of Good Corporate Governance is not signifkan to variable Value Chain can be accepted, and otherwise reject the alternative hypothesis (H1) who stated variable Principles Good Corporate Governance principles have a significant effect on the variable Value Chain. The magnitude of the effect of variable Good Corporate Governance of the Value Chain, as shown in table 4.74 consists of the direct effect of 3.6% and the indirect effect of 6.4% and resulting in a total effect of 9.9%, which means that 9.9% change in the variable Value Chain. described or caused by the application of the principles of Good Corporate Governance. The magnitude of the effect of variable Good Corporate Governance of the Value Chain, as shown in Table 4.1 consists of the direct effect of 3.6% and the indirect effect of 6.4% and resulting in a total effect of 9.9%, which means that 9.9% change in the variable Value Chain. described or caused by the application of the principles of Good Corporate Governance.

Tabel 4.2 The direct and indirect effect of Corporate Governance to value chain

<table>
<thead>
<tr>
<th>Variable</th>
<th>Koefisien Jalur</th>
<th>Direct Effect (%)</th>
<th>Pengaruh Terhadap Variabel Endogen VC (Y) Melalui (%):</th>
<th>Pengaruh Tidak Langsung (%), Total Pengaruh (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCG(X1)</td>
<td>0,188</td>
<td>3,6</td>
<td>-</td>
<td>2,0, 4,4, 6,4, 9,9</td>
</tr>
</tbody>
</table>

From the foregoing, it can be concluded that the effect of corporate governance to value chain in state-owned companies are not significant. However, though rejected, based on the results of the calculation of path coefficient of 0.188 indicates that the application of corporate governance have an influence on the value chain, either directly or indirectly influence, but with a degree of influence is weak.

4.2 The second hypothesis testing : Personal Scorecard affect to Value Chain
Ho: Pyx1 = 0 Personal Scorecard hasn’t significant effect to value chain
H1: Pyx1 ≠ 0 Personal Scorecard has significant effect to value chain

Tabel 4.4 The Results Testing of Personal Scorecard to Value Chain

<table>
<thead>
<tr>
<th>Koef. Jalur</th>
<th>t-hitung</th>
<th>t-tabel</th>
<th>Ho</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,175</td>
<td>1,155</td>
<td>1,96</td>
<td>diterima</td>
<td>Ditolak</td>
</tr>
</tbody>
</table>

As shown in Table 4.4, t value for the variable personal scorecard is equal to 1.155. This figure is below the t-table by 1.96, then hypothesis (Ho) stating variable personal scorecard to variabel value chain signifikan and not accepted, and otherwise reject the alternative hypothesis (H1) who stated variable personal scorecard significant effect to value chain. Personal scorecard has influence magnitude to value chain as shown in the above table consists of the direct effect of 3.1% and the indirect effect of 3.8% and resulting in a total effect of 6.9%, which means that 6.9% changes in value chain can be described or caused by the application of the personal scorecard in SOEs.
4.3 The third hypothesis testing: Environmental Management Accounting Impact to Value Chain

**Ho:** $\beta_{yx1} = 0$ Environmental Management Accounting not significant effect on Value Chain.

**H$_{1}$:** $\beta_{yx1} \neq 0$ Environmental Management Accounting has significant effect on Value Chain.

### Table 4.6 Results tests of Environment Management Accounting to Value Chain

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Koef. Jalur</th>
<th>Pengaruh Langsung (%)</th>
<th>Pengaruh Terhadap Variabel Endogen VC (Y) Melalui:</th>
<th>Pengaruh Tidak Langsung (%)</th>
<th>Total Pengaruh (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCG(X1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS(X2)</td>
<td>0.175</td>
<td>3.1</td>
<td>2.0</td>
<td>-</td>
<td>1.8</td>
</tr>
<tr>
<td>AML (X3)</td>
<td></td>
<td></td>
<td></td>
<td>3.8</td>
<td>6.9</td>
</tr>
</tbody>
</table>

As shown in Table 4.6, the t-value for the Environmental Management Accounting variable is equal to 4.494. This figure is above the t-table value by 1.96. Therefore, the hypothesis (Ho) stating Environmental Management Accounting did not influence significantly to Value Chain is rejected, and instead accept the alternative hypothesis (H$_{1}$) which states variables have a significant effect Environmental Management Accounting to Value Chain. The magnitude of effect of Environmental Management Accounting to Value Chain as shown in Table 4.7 consists of the direct effect of 35.1% and the indirect effect of 6.2% and resulting in a total effect of 41.3%, which means that 41.3% changes in Value Chain described or caused by the implementation of Environmental Management Accounting in state-owned companies.

### Table 4.7 The Direct and Indirect Effect of Environmental Management Accounting to Value Chain

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Koef. Jalur</th>
<th>Pengaruh Langsung (%)</th>
<th>Pengaruh Terhadap Variabel Endogen VC (Y) Melalui:</th>
<th>Pengaruh Tidak Langsung (%)</th>
<th>Total Pengaruh (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCG(X1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS(X2)</td>
<td>0.593</td>
<td>35.1</td>
<td>4.4</td>
<td>1.8</td>
<td>6.2</td>
</tr>
<tr>
<td>AML (X3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41.3</td>
</tr>
</tbody>
</table>

The results confirm the results of a study by Adams and Zutshi (2004) found that organizations that produce social and environmental information capable of developing internal control systems are better decision-making process better. The new information is encouraging the development of new products, more advanced process technologies, and improved cost structure (Ferreira et al., 2010). In other words, the use of Environmental Management Accounting may be related to both product and process innovation, and consequently can improve the competitive position of an organization (Ferreira et al., 2010).

Environmental management accounting (EMA) can help organizations to address social responsibility and play an important role in identifying the environmental and economic benefits of the activities of an organization (Burritt et al., 2002). Previous studies have defined EMA as a technique in generating, analyzing, and using financial information and non-financial information, to improve the environmental performance and economics of a company, and contribute to the sustainability of business processes (Bennett et al., 2003; Deegan, 2003).

Innovation in general is an important aspect of many businesses that can contribute to achieving competitive advantage. Application of the value chain are able to realize a competitive advantage (Porter 1985a, b). The efficiency arising from the implementation of the Environmental Management Accounting is able to provide a positive impact on the state-owned company. Evidence shows that companies that put more emphasis on business model based on innovation has experienced growth rates of operations and higher sales (Ferrari and Parker, 2006). Furthermore, Ferrari and Parker (2006) found that for manufacturing organizations, innovation process plays an important role in improving the competitive advantage as a key factor in obtaining long-term revenue growth. Innovation can be conceptualized in several ways, namely by considering product innovation and process innovation (Ferreira et al., 2010). Implementation of environmental management accounting can increase innovation and processes within the company so that the support towards the implementation of the value chain for improved performance (Ramdhani, 2011). Conditions in some state-owned companies that have implemented environmental management accounting properly gave the benefits of cost efficiency, improved image / corporate image and encourage the achievement of environmentally sound optimization value chain.

Based on the facts found that there’s associated with suboptimal implementation of environmental management accounting in state-owned companies (SOEs) that are in the category of "red" in the achievement of environmental performance. The ownership status of SOEs are majority or fully owned by the Government of the making SOEs many are "above the law" and made some state-owned companies ignore the damage and environmental pollution, some others make an effort to show its existence. Results study shows that companies use of environmental management accounting is in making business decisions. Environmental costs incurred by...
the company is still hidden in the form of overhead costs making it difficult for quantified and are not meaningful in decision making.

5. Conclusions and Implications
This research study addresses issues that are relevant for corporate and public governance and could open further research in similar field. Implications of the findings are discussed for a better practice of corporate governance, personal scorecard and Environmental Management Accounting in public sector in Indonesia. Companies’ environmental management accounting (EMA) are crucial in determining value chain of the firms. Consistently, EMA plays major role in determining success and failure of companies in value chain.

References


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