The Influence of Corporate Strategy, on Environmental Management Implications for Decision Making: A Survey of All Communities Affected by Landslides as Due to Environmental Damage in Nganjuk Regency

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ABSTRACT

The purpose of this study is to find out the effect of corporate strategy on the environmental management implications for decision making: A case study of landslides as a result of environmental damage in Nganjuk Regency. The results of the study show that the company strategy, the environmental management system implications for decision making which has characteristics possessed by someone to produce accurate decisions. Furthermore, it was found that the corporate strategy, the environmental management system implications for decision making.

Keywords: Corporate Strategy, Environmental Management, Decision Making

JEL Classifications: M1, Q56

1. INTRODUCTION

Negative impacts on business activities such as economic, social and environmental impacts. The negative impact is directly in contact with the community, such as changes in lifestyle, mindset and the most severe impacts are environmental damage such as pollution and damage to biological ecosystems (Zhu et al., 2008). Environmental activities have an impact in contact with the surrounding community due to environmental damage from the company’s operational activities that are not seen by many people (Hertati, 2015). Related to the environment that affects the activity of recording the company’s poor attention to the environment. PT Usaha Loka and PT Kasin were reprimanded by the Environment Agency of Malang City because it was proven to contaminate Badek River in Ciptomulyo Village, Malang City (Widianto, 2014). The Ministry of Environment plans to sue a textile industry company that pollutes agricultural land in Rancaekek Subdistrict, Bandung Regency, West Java, with an estimated area of polluted land covering 752 ha of the total land area of 983 ha of rice fields (Ministry of Environment, 2014). From June 2015 to October 2015, it is estimated that more than 100,000 fires devoured millions of hectares of forests in Indonesia. Losses to environmental impacts are estimated at more than US $ 15 billion or equivalent to Rp.196 trillion (Porter, 2016). The research team from the Center for International Forestry Research revealed that there were around 20 actors involved and benefiting from forest and land burning, both from communities, the middle classes, companies and officials both at the district, provincial and even state levels. The basic considerations of the perpetrators of fires that involve large companies are due to the low cost of land clearing, where by burning the land allocated costs of $ 10-$ 20 per hectare are far cheaper than cleaning the land mechanically for $ 200 per hectare (Zhu and Sarkis, 2004).
As a result of global warming from industrial activities, resulting in an increase in global temperatures from year to year because of the greenhouse effect (greenhouse effect) caused by increased emissions of gases such as carbon dioxide (CO$_2$), methane (CH$_4$), dinitrooxide (N$_2$O) and CFC so solar energy trapped in the earth’s atmosphere (Syafarudin, 2016). Most of the increase in global average temperature since the mid-20$^{th}$ century is most likely due to the increasing concentration of greenhouse gases whose dominance comes from industrial activities. The problem of environmental damage, waste and pollution is a form of corporate neglect of the rights of the environment and surrounding communities. Greed to exploit the environment and resources and efforts to pursue high economic growth are blamed as the main causes of the emergence of negative impacts from companies known as externalities (Porter and van der Linde, 1995; Klassen and McLaughlin, 1996; Chou, 2005). Due to the many negative impacts of the company that arise, especially those related to the surrounding community and the environment, a system or mechanism is needed that can oversee the company so that the negative impacts of the company’s operations can be minimized (Ikhsan, 2008).

Companies are required not only to exploit the community and the environment, but also are obliged to go down and play a role in advancing the surrounding community and preserving the environment. Social and Environmental Responsibility, which is better known as Corporate Social Responsibility (CSR), has been regulated in Article 74 of Law Number 40 of 2007 concerning Limited Liability Companies, where Social and Environmental Responsibility is mandatory for the Company to carry out its business activities in the field and/or related to natural resources. Social and Environmental Responsibility is the Company’s obligation that is budgeted and calculated as the company’s costs which are carried out by paying attention to propriety and fairness (Syafarudin and Sudiardith, 2018).

Increased public attention to environmental issues has forced companies to develop products and business processes that are more environmentally friendly with the intention of implementing activities that lead to healthier living for the environment and people in it. The opinion of Hertati and Zarkasyi (2015) states that environmentally friendly is not damaging the environment and disturbing the balance in it. The conception of an environmentally friendly life can be seen from four closely related pillars, namely economics, ecology, politics and culture. The concept of environmentally friendly is very good to be applied in order to maintain environmental sustainability for the next generation and improve the level of human health on earth.

Much benefit is gained from developing and marketing environmentally friendly products. These benefits include preserving natural resources, reducing emissions, reducing energy use, reducing waste, reducing environmental pollution, reducing production costs for companies, improving the quality of public health, and also increasing export potential.

Syafarudin and Mulyana (2019) states that environmentally friendly products are products that come from materials that do not pollute the environment, the packaging is easy to decompose, does not release much waste, even the production process uses alternative energy sources such as sunlight. Environmentally friendly products are now widely marketed. Eco-friendly products are directed in almost all areas of life. These environmentally friendly products include environmentally friendly products, solar powered watches, environmentally friendly computers, solar powered lamps, recycled packaging, and others. Hertati (2016) states that the development of environmentally friendly products turns out not only to be an innovation of companies proven by the existence of competitions with the concept of environmentally friendly products both nationally and internationally that stimulate enthusiasm and creativity to create new environmentally friendly products that can be useful in human life such as competition for creation and innovation of environmentally friendly products for households and Inception Design Competition that applies the concept of green manufacturing and green products.

According to the chief of Kediri Forest Chief (kepala Perum Perhutani Kesatuan Pemangkuan Hutan Kediri) mentioned at Tempo (2017), the mismanagement of the forest area triggered landslides in Mount Wilis, Nganjuk Regency. Damage to the irrigation canal at the top of the cliff is the trigger for the disaster. Cracks that occur in the irrigation canal before a landslide causes water to seep into the soil. Slowly the water erodes the soil layer which has a molecular bond of tenuous soil (Hertati, 2015). This condition is exacerbated by the rice fields at the base of the cliff which weakens the strength of the lower soil layer. This causes more water to seep into the soil to multiply when the forest Landslides as map images: Due to Environmental Damage in Nganjuk Regency, 2019 intensity and erosion is very high until landslides occur. It was clear that this disaster was a result of a combination of environmental damage in the mountains of Ngetos Village with high rainfall in the region. According to Sukarwo, the Governor of East Java published in the East Java Provincial Government Communication and Information Commission (2017), the landslide area has quite a lot of groundwater content and has a fairly steep slope reaching 70°.
On the other hand, the area planted with existing plant varieties is less able to grip the land due to the cultivation of residents. People tend to grow agricultural crops such as corn in sloping areas that lack depth of roots (Tempo, 2017). Since there has been information on the potential for landslides, the local government is trying to provide information to residents not to move in the area and continue monitoring the of risk of landslides (Ngetos Danramil in an interview on August 13, 2018). On the other hand, this area is a productive agricultural land owned by residents for rice fields and plantations because of the high level of soil fertility and sufficient abundant water supply (Hertati, 2016). There are still people who remained active in the region. In the end, when a landslide occurred several people were trapped at the scene. At the time of the landslide, some of them were farming and some teenagers were playing and taking pictures in the area that had such a beautiful view. Five victims was lost buried by the landslide. The landslide drowned 6 hectares of agricultural land belonging to 36 families in the region (Hertati, 2016).

2. COMPANY STRATEGY

Corporate strategy can be described as identifying organizational goals and plans and actions to achieve that goal (Lynch, 2006. p. 5). Every organization has the ability to manage strategies in three main areas, namely: (1) Internal organizational resources, (2) the external environment in which the organization operates, (3) the ability of the organization to add value to what it does. The strategy is a series of commitments and integrated and coordinated plans designed for competency and competitive advantage (Lemkin, 2011; Leonard and Singh, 2015). According to Hertati and Sumantri (2016) strategy is the science or art of using all the nation’s resources to carry out certain policies in war and peace. Strategy is a company management decision that has a medium and long-term impact on the company’s operations, including analysis that leads to resources and the implementation of decisions to create value for key stakeholders and outperform competitors (Syafarudin and Mulyana, 2019). The strategy is divided into 3 levels, namely: (1) Corporate level strategy (corporate strategy), (2) business level strategy (business strategy), (3) functional level strategy (functional strategy) (Han et al., 2009).

2.1. Company-level Strategy
This strategy is related to the organization’s mission, which involves long-term goals related to the company as a whole and direct financial benefit.

2.2. Business Strategy
The focus of this strategy is to seize the market in the community.

2.3. Functional Strategy
Strategy is a supporting strategy and to support the success of other strategies.

3. ENVIRONMENTAL MANAGEMENT

Hertati and Sumantri (2016) states that the environmental management system is part of a management system that includes organizational structures, planning, responsibilities, procedures and resources designed to assist, assess and manage environmental impacts caused by the company’s business activities. The environmental management system is a series of processes carried out by the company to reduce environmental impacts and improve the efficiency of the company (Enviromental Protection Agency, 2004). The environmental management system provides an overview of the roles and responsibilities as well as the period of implementation of environmental management, including the benefits and lessons for managing company waste facilities (Environmental Protection Agency, 2004). The environmental management system is a tool that aims to synergize economic growth with the environment and a systematic process related to company goals, actions and policies towards the environment (Radonjić and Tominc, 2007).

SML is an important part of the pollution prevention approach (Radonjić and Tominc, 2007). Adopting an EMS within a company will be able to improve environmental performance and can reduce the impact of environmental damage arising from company activities (Doorasamy and Garbharran, 2015). The implementation of the EMS can be done by referring to ISO 14001 guidelines. The application of ISO 14001 aims to assist companies in implementing an environmental management system (SML) that can meet certain criteria (Leung et al., 20005). ISO 14001 focuses on the process carried out by management. Companies can develop goals and objectives to achieve sustainable quality improvement (Henriques and Sadowsky, 2005).

The application of environmental management systems provides the following benefits (Edward, 2003. p. 1).

3.1. Ethical
Humans are expected to behave ethically so that they are obliged to preserve the environment. The environment is entrusted to the next generation, so it is expected to be able to submit it in good condition.

3.2. Economical
Companies that manage resources well tend to be careful of the waste they will produce in the production process. Strict oversight of industrial waste will bring companies to cost savings (efficiency) which leads to increased company profits and low claims that companies will pay for their environmental responsibility.

3.3. Law
The government is increasingly concerned about environmental sustainability by making regulations that limit company behavior that can potentially harm the community and the environment. The regulations and laws made are aimed at limiting harmful interactions between companies and the environment. There are many business cases that have caused the company to be closed down and prosecuted by the government related to environmental pollution. Therefore, companies are required to comply with environmental regulations so as not to damage the company’s reputation.

3.4. Commercial
Companies that implement a good environmental management system will block it. Level of operational control (Hertati, 2016).
This level manager is responsible for completing plans has been set by managers at a higher level. Level manager below includes department heads, supervisors and project leaders.

4. DECISION MAKING

Syafarudin and Sudiarditha (2018) states that decision making is a thought in which individuals evaluate various choices and decide on a choice of many choices. The statement was supported by Jackson and Jenkin (2009) stating that decision making is the process of identifying a variety of different actions and choosing the right decision for a particular situation in order to provide good benefits in the future (Hertati, 2015). Jamil et al., 2005 state the definition of decision making is decision making is when, in a continuous process to evaluate alternatives to meet objectives, where expectations about specific actions by decision makers to choose that actions are most likely to be expected to achieve goals (Hertati, 2015). According to McLeod and Schell (2007, p. 16) Management activities in an organization are closely related to the level of management in an organization. Management levels in an organization are generally divided into 3 (three) levels, namely.

4.1. Level of Strategic Planning (Hertati, 2016)
This high-level manager is responsible for deciding organizational goals, various changes in objectives, sources used to achieve goals and policies intended to regulate acquisition and use of these sources. High level managers include directors and deputy director.

4.2. Level of Management Control (Hertati, 2016)
This middle level manager is responsible for changing plans to become actions and ensure that organizational goals are achieved. Level manager medium includes regional managers, production directors and division heads.

4.3. Level of Operational Control (Hertati, 2016)
This level manager is responsible for completing plans has been set by managers at a higher level. Level manager below includes department heads, supervisors and project leaders.

4.4. Effect of Corporate Strategy on Environmental Management Accounting
Today’s business environment is characterized by high competitive pressures, so companies must implement strategies to manage costs and reduce these costs not only in the short term, but also long-term (Gray et al., 1996). Eco efficiency in the production process can be done if the company applies clean technology as part of a business strategy (Doorasamy and Garbharran, 2015). The application of business practices by combining sustainable efforts will create competitive advantages that lead to improved superior economic performance (Green et al., 2012). On the one hand, market oriented companies must adapt their strategies to the needs and desires of customers and other stakeholders related to broader corporate responsibility to the community (Han et al., 2009). Customer demand for products and services that are environmentally friendly has begun to develop based on the increasing consumer awareness of production processes that do not damage the environment (Han et al., 2009). Demand for sustainable and environmentally friendly products and services comes from end customers (Xiaomei, 2004). Strategies that adopt green practices are driven by social pressure and consumer demand (Hertati, 2015). Frost (2002) companies with strong market orientation such as efforts to support environmental sustainability, make products environmentally friendly, have competitive advantages in the market rather than companies that do not implement (Zhu and Sarkis, 2004).

Ferreira et al. (2009) explained that prospector strategies did not affect the implementation of environmental accounting. Frij-Andres et al. (2009) found that prospector strategies can be associated with the application of activity management. Gosselin (2007) also concluded that the strategies followed by organizations determine environmental needs related to management activities and tend to adopt environmental accounting. Thus the use of EMA can be said to be very large in organizations that carry out prospector strategies because it can help an innovative organization. Research conducted by Freeman (1984) shows that there is a positive influence between prospector strategies and EMA implementation. Where manufacturing companies that implement prospector strategies tend to apply EMA as part of the company’s accounting innovation. Frost (1998) research explains that the strategy allows companies to achieve environmental management accounting (AML) which is more effective in designing corporate objectives, such as cost efficiency, prestige and increasing company profits (Hertati, 2015).

4.5. Effect of Environmental Management on Decision Making
Manager’s decision making is influenced by the success of environmental management as stated by Hansen et al. (2007) that environmental management improves decision making, guides development strategies and evaluates existing strategies, and focuses related efforts to improve organizational performance and to evaluate the contribution and performance of organizational units and member (Hertati, 2015). The same thing was conveyed by Hansen and Mowen (2006) who stated that the main role of environmental management is to provide information that facilitates decision making. According to Taicu (2009) Environmental management systems are the main providers of information needed by management to make decisions within the company. For this reason, several frameworks have been developed that allow the use of information to solve problems. Information plays a role in solving management problems, problem solving is the main activity that is often used as a reference to the success and failure of career managers. This statement is reinforced by the statement of Laudon and Jane (2008) that problem solving will not be effective without the relevant information. The importance of relevant information in decision making stated by Rose in Teale et al. (2003) that decision making is the act of choosing between alternative programs designed to obtain specific results, and made review of relevant information guided by explicit criteria.

Furthermore, according to Chenhall and Morris (1986) that the design of management accounting systems, influenced by information features that are useful for management decision
making. From some of the statements above, reinforce the conclusion that the success of the application of information systems influences the decision-making process as stated by Gul and Chia (1994) which states that environmental management systems are organizational control mechanisms and are effective tools in providing useful information to predict possible consequences occurs in decision making from various activities that can be done. Management accounting information systems are control mechanisms through reporting (reporting) and creating visibility in all actions and performance of its members Ivankovic and Jerman (2010).

5. METHODOLOGY

Quantitative methods were used this study. Collection data using questionnaires. The sampling is based on a simple random sampling technique on Functional Units in Indonesia SOE’s Indonesia. The data were measured using Likert scale five-point. Structural equation modeling based on component or variance (PLS-SEM) is used for analysis tool. Evaluation of PLS-SEM model includes measurement model evaluation (outer model) and structural model (inner model). In this study, exogenous and endogenous variables are latent variables. The latent variable measurement model in this research includes: (1) The first order is the dimension measurement model. In measuring reliability in SEM, a composite reliability measure (measure of composite reliability) and variance extracted measure will be used (size of extract variant). The construct reliability is calculated as follows:

$$CR = \frac{(\Sigma \text{std. loading})^2}{(\Sigma \text{std. loading})^2 + \Sigma e_j}$$

Where std. loading (standardized loadings) can be obtained directly from the L1SREL-8.7 and ej program output is a measurement error for each indicator or variable observed. Extract variants reflect the total number of variants in the indicators (observed variables) explained by latent variables. The size of the extract variant (extracted variant) can be calculated as follows:

$$\text{Variance Extracted} = \frac{\Sigma \text{std. loading}^2}{\Sigma \text{std. loading}^2 + \Sigma e_j}$$

Hypothesis 1: Corporate strategy influences the environmental management system.

| Statistical hypothesis | Description                                                                                     | t-value | P-value |
|------------------------|--------------------------------------------------------------------------------------------------|---------|---------|
| $H_0: \gamma_{11} \geq 0$ | There is no influence. The company’s strategy influences the environmental management system     |         |         |
| $H_1: \gamma_{11} < 0$  | There is a company strategy that influences the environmental management system. The test statistics used are |         |         |

Hypothesis 2: Environmental management systems influence decision making.

| Statistical hypothesis | Description                                                                                     | t-value | P-value |
|------------------------|--------------------------------------------------------------------------------------------------|---------|---------|
| $H_0: \gamma_{11} \geq 0$ | There is no effect of the environmental management system on decision making                   |         |         |
| $H_1: \gamma_{11} < 0$  | There is an environmental management system that influences the decision-making test statistics used are |         |         |

$$t = \frac{\hat{\gamma}_{21}}{SE(\hat{\gamma}_{21})}$$

6. MEASUREMENT MODEL

Hair et al. (2014) based on the framework developed in this study, for the purpose of testing the hypothesis is made the structure of the analysis of the overall research variable which is a combination of the measurement model and structural model that describes the causality relationship between exogenous variables and endogenous variables. States that to build an indicator precisely the formative combination of indicators. If it is reflective and if a combination. Indicators represent consequences that reflect or cause constructs. if there are consequences and if formative causes. If the assessment of changes in nature, all items will change in the same way (assuming they are both coded), if it is reflective and if not formative.

6.1. Results of Evaluation of Indicator Validity

According to Bollen and Patrick (2006) the validity of each reflective indicator is seen from the significance of the company’s strategy on environmental management systems that have validity in the significance of dimensions and reflective indicators variable. Furthermore, environmental management system variables influence decision making. According to Diamantopoulos and Sigauw (2000) to determine the significance of the testing of each loading, it is done by comparing the P-values with a significance level. Refuse $H_0$ if the P-value is smaller than 0.05. The company’s strategy is measured using two dimensions, namely prospector and defender. The prospector dimension is measured using six indicators, while the defender dimension uses five indicators. Next to find out the company’s strategy factors in manufacturing companies in Bekasi and Karawang Regencies, it will be explained from the distribution of respondents’ responses in each question item (Table 1).

| Indicator | n  | Min | Max  | Average | Standard deviation |
|-----------|----|-----|------|---------|--------------------|
| Dynamic search for new market opportunities | 61 | 1.00| 5.00 | 3.87    | 1.58               |
| The level of product innovation sold | 61 | 1.00| 5.00 | 3.81    | 1.53               |
| Cost many consumer segments are served | 61 | 1.00| 5.00 | 3.66    | 1.49               |
| Cost many consumer segments are served | 61 | 1.00| 5.00 | 3.18    | 1.48               |
| Cost many new product innovations | 61 | 1.00| 5.00 | 2.94    | 1.07               |
| The level of quality of products produced | 61 | 1.00| 5.00 | 3.52    | 1.38               |

Table 1: Descriptive analysis of prospector strategy

Source: Data processed, 2019
The company regularly seeks new market opportunities by innovating products, services or businesses to consumers almost every year. This is indicated by the grand mean of 3.87 which indicates that the company is aggressive enough to look for new market opportunities. To support this innovation, the company offers a variety of products of around six to eight products. The grand mean of 3.81 indicates that most companies offer more than one product. The company is very innovative if measured by the number of variations on new products and or business processes, this can be seen from the level of diversity of products offered by the company. The average respondent answered with a grand mean of 3.66 (sufficient), meaning that the company has up to nine product variations.

The company segmented the market with the aim of increasing marketing effectiveness. This can be seen from the grand mean of 3.18 (enough), which indicates that the average company has four business segments intended for marketing a product. The company realizes the importance of innovating products to ensure the sustainability of the company in the future. Grand mean of 2.94 (less) indicates that not many companies innovate their products, referring to respondents’ answers, some forms of product innovation carried out by companies in the form of market development, services, business processes and new products in the form of forecasting changes trends in the market, designing products according to market demand, making environmentally friendly technological innovations, synergizing the use of resources and business processes with the environment as well as the efficiency and effectiveness of energy use (electricity, water and fuel). The results of the respondents’ answers found that the products offered to consumers were of good quality, this was indicated by the grand mean value of 3.52 (sufficient), indicating that the quality of the product was quite good (Table 2).

Grand mean of 2.82 (less) indicates that few companies consistently make improvements to the level of service and quality of products produced, in the form of the ability to make products needed by customers, easy to find, understand customer needs and have the skills customers need to be able give service. The grand mean value of 3.00 (sufficient) indicates that most companies allocate 20% to 30% of the company’s funds for marketing activities. The company seeks large amounts of funding to support long-term investment activities that come from own funds, bank loans and issue shares. This can be seen from the value of the grand mean of 4.21 (good) indicating that the company has good ability in finding resources to finance its business activities. The grand mean value of 3.76 (sufficient) indicates that most companies have very large supply of materials or raw materials from various suppliers (vendors). The grand mean value of 3.98 (sufficient) indicates that the company invests most of its funds in machinery, factory facilities and equipment that can support the company’s business activities. Implementation of an environmental management system is measured by 16 indicators. Next to find out the factors of the implementation of the environmental management system in manufacturing companies in all communities affected by Landslides as a result of environmental damage in Nganjuk Regency (Table 3).
As many as 67.74% of respondents or 42 companies have their own environmental division, generally in the environmental, health and safety (EHS) division and the remaining 20 companies or around 32.26% do not have an EHS department or include it in the production or quality division. control. Some considerations underlying the absence of a special division that handles waste and environmental issues, among others, because the scale of company waste is still considered below the tolerance threshold or the waste problem domain is the responsibility of industrial estate managers because companies have paid their responsibilities related to waste management.

The company is obliged to describe environmental indicators, 83.87% of companies report environmental indicators because they are required in the UKL UPL to the Environment Agency (BLH) in Bekasi and Karawang Regencies, while 16.13% do not have clear environmental indicators or do not make reports environment. Companies that have not reported their environmental activities are reasoned because the waste is small (below the tolerance threshold) or the waste is not dangerous, for example catering companies that serve more than 40 industrial companies in Karawang Regency, where almost the average number of employees per company is around 2000 up to 5000 employees.

Companies assume that the waste generated from the process of food waste is not as dangerous as the waste produced by factory activities. Waste food scraps are disposed of in the trash without further processing. Based on these considerations, the company sees no need for environmental treatment. Companies are required to make UKL and UPL reports to the Environment Agency at least twice a year. This obligation makes companies define their environmental policies clearly and in detail as much as 77.42% or 44 companies and the remaining 22.58% (14 companies) do not have detailed environmental policies. Along with the high CSR activities carried out by the company, 70.97% or 44 companies communicated their environmental policies to employees, environmental NGOs and the communities around the company operated. As many as 79.03% of companies define and describe each plan or environmental action that will be carried out clearly, while 20.97% does not clearly describe the actions on the environment.

Companies that regularly carry out elaboration (describing or explaining) about the company’s environmental information as much as 74.19%, while the remaining 25.81% does not explain the company’s environmental information. The company must have ISO 14001 regarding Environmental Management System (SML), this is indicated by the number of companies that have ISO 14001 certification of 80.65% and the remaining 24.19% do not have ISO 14001 certification. The company discloses environmental information as much as 75.81% and the remaining 24.19% do not disclose environmental information. Companies that regularly conduct a diagnosis (diagnosis) of 72.58% and the rest do not conduct a regular environmental review of 27.42%. The company detailed the environmental report and/or sustainability report in the form of UKL UPL as much as 74.19%, while 25.81% did not describe in detail the environmental report.

| Table 4: Descriptive statistics |
|-------------------------------|
| Variable                      | n   | Min. | Max. | Mean  | Standard deviation |
| Environmental Management System| 62  | 0,06 | 1,00 | 0,6996| 0,28334            |

Companies that develop documentation to support environmental management are 87.10% (54 companies) and the remaining 12.90% (8 companies) do not have adequate environmental management documentation. 74.19% of companies disclose environmental reports and/or sustainability reports, while the remaining 25.81 (16 companies) do not disclose environmental reports. Companies that regularly provide training to employees regarding environmental protection as much as 64.52%, while the remaining 22 companies or 35.48% do not provide regular training. The small number of companies that are the research sample are Korean, Japanese and European companies, so the company has disclosed environmental information to be disclosed through media, brochures and the internet by 41.94%, while the remaining 58.06% does not provide environmental information through media or the internet.

Companies that develop environmental control mechanisms are 74.19%, while the remaining 25.81% (16 companies) do not develop environmental control mechanisms. Most companies (79.03 or 49 companies) do not disclose environmental information from the general scope through the media, web-page organizations, brochures, and others. Table 4 companies that conduct (exist) environmental management.

Based on Table 4, it can be seen that out of 62 companies studied, on average each company carries out an environmental managementsystem of 59.9% with the lowest percentage value of 6% and 100% highest.

### 7. CONCLUSION AND SUGGESTION

The company’s strategy influences the environmental management system. Information provided by EMA is more accurate and more comprehensive in supporting the company’s strategy to be better able to compete in the industry. The implementation of the Environmental Management System influences decision making. Companies are required to make reports on their production activities and their impact on the environment. Not to mention the investors and destination countries of the company’s products require an ISO 14001 certification test.

### REFERENCES

Bollen, K.A., Patrick, J.C. (2006), Latent Curve Models Structural Equation Perspective. Canada: Jhon Willey and Sons.
Chenhall, R., Morris, D. (1986), The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems. The Accounting Review, 61(1), 16-35.
Diamantopoulos, A., Siguaw, J.A. (2000), Introducing LISREL: A Guide
for the Uninitiated. London. Sage Publication.

Doorasamy, M., Garbharran, H.L. (2015), Assessing the use of environmental management accounting as a tool to calculate environmental costs and their impact on a company’s environmental performance. International Journal of Management Research and Business Strategy, 4(1), 35-52.

Edward, A.J. (2003), ISO 14001 Environmental Certification Step by Step. 1st ed. United Kingdom: Butterworth-Heinemann.

Environmental Protection Agency. (2004), Achieving Environmental Excellence: An Environmental Management System Handbook for Wastewater Utilities. USA: U.S EPA.

Ferreira, A., Moulang, C., Hendro, B. (2009), Environmental management accounting and innovation: An exploratory analysis. Accounting, Auditing and Accountability Journal, 23(7), 920-948.

Frak-Andres, E., Martinez-Salinas, E., Matute-Vallejo, J.E. (2009), Factors affecting corporate environmental strategy in Spanish industrial firms. Business Strategy and the Environment, 18, 500-514.

Freeman, R.E. (1984), Strategic Management: A Stakeholder Approach. Boston: Pitman.

Frost, G., dan Seamer, M. (2002), Adoption of environmental reporting and management practices: An analysis of New South Wales public sector entities. Financial Accountability Management, 18(2), 103-127.

Frost, G., dan Toh, D. (1998), A study of environmental accounting within the new South Wales public sector. Accounting Research Journal, 11(2), 400-410.

Gosselin, M. (2007), A review of activity-based costing: Technique, implementation, and consequences. In: Chapman, C.S., Hopwood, A.G., Shields, M.D., editors. Handbook of Management Accounting Research. Oxford UK: Elsevier Ltd., 2007. p641-674.

Gray, R., Owen, D., Adams, C. (1996), Accounting and Accountability: Changes and Challenges in Corporate Social and Environmental Reporting. London: Prentice-Hall.

Green, K.W. Jr., Zelbst, P.J., Bhaduria, V.S., Meacham, J. (2012), Do environmental systems. Systems, 112(2), 186-205.

Gu, F.A., Chia, Y.M. (1994), The effects of management accounting systems, perceived environmental uncertainty and decentralization on managerial performance: A test of three-way interaction. Accounting, Organization and Society, 19(4/5), 413-426.

Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M. (2014), A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). USA: Sage Publications, Inc.

Han, H., Hsu, L.T., Lee, J.S. (2009), Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers’ eco-friendly decision-making process. International Journal of Hospitality Management, 28(4), 519-528.

Hansen, D.R., Mowen, M.M., Fitriasari, D., Kwary, D.A. (2007), Akuntansi Manajemen. Singapore, Jakarta: Thomson, Penerbit Salemba Empat.

Hansen, R., Mowen, M.M. (2006), Management Accounting. 8th ed. United States: Thomson Learning, Inc.

Henriques, I., Sadorsky, P. (2005), Environmental Management Systems and Practices: An International Perspective. OECD Conference on Public Environmental Policy and the Private Firm Washington DC, 2005.

Hertati, L., Sumantri, R. (2016), Just in time, value chain, total quality management, part of technical strategic management accounting. International Journal of Scientific and Technology Research, 5(4), 180-191.

Hertati, L. (2015), Impact of uncertainty of environment and organizational cultural accounting on information management systems and implications for managerial performance proposing a conceptual framework. International Journal of Economics, Commerce and Management United Kingdom 3(12), 455-465.

Hertati, L. (2015), Internal control and ethics of quality management system accounting information and implications on the quality of accounting information management: proposing a research framework. International Journal of Economics, Commerce and Management United Kingdom, 3(6), 902-910.

Hertati, L. (2015), Total quality management as technics on strategic management accounting. International Journal of Recent Advances in Multidisciplinary Research 2(11), 942-949.

Hertati, L. (2016), Just in time, value chain, total quality management, part of technical strategic management accounting. International Journal of Scientific and Technology Research 5(4), 180-191.

Hertati, L., Zarkasyi, I. (2015), Competence of human resources, the benefits of information Technology on value of financial reporting in Indonesia. Research Journal of Finance and Accounting, 6(8), 12-18.

Ikhsan, A. (2009), Akuntansi Manajemen Lingkungan, Edisi Pertama. Yogyakarta: Graha Ilmu.

International Federation of Accountants (IFAC). (2005), Environmental Management Accounting. Available from: http://www.ifac.org/news/lastestreleases.tmpl?nid=1124902574170148. [Last accessed on 2012 Apr 20].

ISO 26000 Guidance Standard on Social Responsibility.

Ivanovcic, G., Jerman, M. (2010), The use of decision making information: a comparative exploratory study of Slovene hotels. Managing Global Transitions Journal, 8(3), 307-324.

Jamal, C.Z.M. Mohamed, R., Muhammad, F., Ali, A. (2005), Environmental management accounting practise in small medium manufacturing firms. Procedia Social and Behavioral Sciences 172(2015), 619-626.

Jackson, S., Jenkin, G. (2009), Managerial Accounting, a Focus on Ethical Decision Making. 5th ed. Mason, OH: Cengage Learning.

Klassen, R.D., McLaughlin, C.P. (1996), The impact of environmental management on firm performance. Management Science, 42(8), 1199-1214.

Laudon, K.C., Jane, P.L. (2008), Management Information Systems Managing the Digital Firm. 13th ed. America: Pearson Prentice Hall.

Lemkin, J. (2011), How Environmental Awareness Builds Business. Available from: http://www.environmentalleader.com/2011/11/22/how-environmental-awareness-builds-business/.

Leonard, A.J., Singh D.D. (2015), Environmental Rankings and Financial Performance: An Analysis of Firms in the US Food and Beverage Supply Chain. Amsterdam: Elsevier.

Leung, L.C., Yau, O.H.M., Tse, A.C.B., Sin, L., Chow, R. (2005), Stakeholders orientation and bussiness performance: The case of service companies in China. Journal of International Marketing, 13(1), 89-110.

Lynch, R. (2006), Corporate Strategy. 4th ed. Harlow: Prentice Hall.

McLeod, R., Schell, G.P. (2007), Management Information System. 10th ed. Upper Saddle River New Jersey: Pearson/Prentice Hall.

Ministry of Environment. (2014), Law Enforcement of Cases of Agricultural Land Pollution in Rancaekek District, Bandung Regency. Available from: http://www.menhk.go.id/enforcement-law-against-case-pollution-agriculture-land-in-sub-district-rancaekek-regency-bandung/ [Last accessed on 2014 May 14].

Porter, M.E., van der Linde, C. (1995), Toward a new conception of the environment competitiveness relationship. The Journal of Economic Perspectives, 9(4), 97-118.

Porter, S. (2016), Dapatkah Kebakaran Hutan di Indonesia Diakhiri? Available from: http://www.bbc.com/indonesia/berita_indonesia/2016/03/160314_indonesia_kebakaran_hutan_2016. [Last accessed on 2016 Mar 15].

Radonjić, G, Tominc, P. (2007), The role of environmental management system on introduction of new technologies in the metal and chemical/paper/plastics industries. Journal of Cleaner Production,
Syafarudin, P., Mulyana, M. (2019). Formulation strategy of PT. Bandara internasional jawa barat Bandung Indonesia, Kertajati in business Aerocity (Aerotropolis). International Review of Management and Marketing, 9(3), 1-6.

Syafarudin, P., Sudiarditha, I.K.R. (2018). Competency analysis of human resource strategies in creative industry entrepreneurs. Journal Ecodemica, 2(2), 263-274.

Syafarudin, P. (2016). Strategy of leadership and innovation in improving company performance against competitive advantage a case study of Pt. Pegadaian (lst) Indonesia. International Journal of Economics, Commerce and Management, 4(6), 471-482.

Taicu, M. (2009). Ethic in management accounting. Scientific Bulletin-Economic Science, 9, 93-98.

Teale, M., Vincen, D., David, C., John, F. (2003). Management Decision Making, Towards an Integrative Approach. London: Prentice Hall.

Widianto, E. (2014). Two Leather Factories in Malang Pollute the Environment. Available form: https://www.m.tempo.co/read/news/2014/02/24/206557131/two-factory-leather-poor-polluting-environment. [Last accessed on 2015 Jul 12].

Zhu, Q., Sarkis, J. (2008). Confirmation of a measurement model for green supply chain management practices implementation. International Journal of Production Economics, 111(2), 261-273.