

# HOW TO ALIGN COMPANY ENVIRONMENTAL STRATEGY, ENVIRONMENTAL MANAGEMENT SYSTEM ON ENVIRONMENTAL MANAGEMENT ACCOUNTING AND ENVIRONMENTAL PRODUCT INNOVATION

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## Abstract

Environmental Management is the economic performance of an organization through the development of accounting systems and practices that are appropriate for corporate purposes, environmental management accounting has the main principle of utilizing wastes that are wasted from dangerous environments but can generate money quality of goods and services provided to customers, emphasis on environmental costs and raw materials derived from wasted waste that can improve environmental and organizational performance. Environmental costs arise because companies produce elements that can damage the environment but can be controlled by the company so it does not pollute the environment. The company environment works with information technology tools used to transform activities that pollute the environment into a source of corporate finance as a basis for information for decision making related to evaluating the company's environmental performance. Environmental management accounting can help the company environment to report environmental information to stakeholders. Furthermore, this research investigates the company environment. The reality states that environmental management accounting has various problems including problems of recognition, measurement, presentation, disclosure of changing conditions and the ability to produce environmental management accounting information as needed. The purpose of this study is to disclose environmental information, environmental management accounting and the company financial environmental performance. Testing of this study uses descriptive and verification methods, namely SEM statistical test. After all the data is processed to produce output that the company environmental strategy, environmental management systems on environmental management accounting and environmental product innovation.

**Keywords:** Corporate Environmental Strategy, Environmental Management System, Application of Environmental Management Accounting, product innovation.

## INTRODUCTION

Human resources are tools used in managing planning and providing information sourced from environmental management accounting. The company's social activities in managing its economic business, relate directly to the community, such as changes in lifestyle, social patterns, the environment and the remaining unused items that pollute the environment. Several cases related to the environment noted that the company paid less attention to the environment (Ministry of Environment), 2014).

Environmental management accounting records transactions that are not reciprocal, such as pollution, environmental damage or negative things from the company's activities. These limitations will be felt if the management accounting system is associated with business operations related to environmental management. Generally related to the environment is waste management, waste disposal, toxic vacations, etc. then the company manages these raw materials to be managed into new products that are of interest to buyers and are sold at low prices (Ikhsan, 2008).

Companies are required to which discipline whose activities are aimed at providing information to management on environmental management at production costs. Environmental management accounting is expected to be one of a series of systems aimed at measuring a company's performance. So that a balanced performance measurement model is achieved between financial profit measures and environmental management performance. The main emphasis of ISO 26000 is to balance and integrate the three main dimensions, economic, ecological, and social. Based on the ISO 26000 concept, the application of Corporate Social Responsibility focuses on seven main issues, namely: (European Commission, 2000; Helbling 2001 : Prokofieva et al., Choi, 2009).

Throughout the organization's activities both through products and services. Activities that have caused environmental damage have occurred in the past, if new regulations require it to be addressed, then the entity must incur costs for restoring environmental damage. Most companies in modern social are fully aware that environmental and social issues are also an important part of the company (stating that the issue of environmental conservation is the task of individuals, governments and companies. Increased awareness of the environment causes many companies in the world that are now beginning to implement environmental accounting ( Pfleiger, et al., 2005: Ferreira (2010).

The application of environmental accounting has actually begun to be realized by companies that will produce many benefits, such as reducing environmental costs, reducing waste, increasing long-term profits, prestige in the eyes of consumers, improving financial and stock performance and increasing environmental and economic performance (Lemkin, 2011; Perron, Raymond and John, 2006; Buritt, 2002; Graff et al., 1998; Klassen and McLaughlin, 1996; Leal et al., 2003; Sulaiman and Nik Achmad, 2006; EPA Australia 2003).

The high pressure of the company caused many companies to realize. Stakeholders and customers increasingly have a high awareness and concern for the environment and require companies to show concern in their business activities. Environmental accounting is widely used as part of an important decision-making tool in most companies. The application of environmental accounting can help companies to identify the environmental and economic benefits of a company's business activities and divide environmental accounting into environmental financial accounting which is focused on reporting environmental obligations for the benefit of external corporate stakeholders and environmental management accounting is focused on gathering information on material and social flows. Reporting environmental costs in financial accounting generally only focus on things that can be separated and identified as equipment

(Lemkin, 2011: De Beer and Friend, 2006: Burritt et al., 2002: Xiaomei, 2004: Burritt et al., 2002: Bosshard, 2003: Gray & Bebbington, 2001).

Management accounting is created to provide information to related users and how to solve the problems needed for the future. Conventional management accounting cannot optimally link the environmental costs of a company's operational activities. Limited allocation of environmental costs for accounting overhead, for example allocation of poor communication costs between accounting managers and the environmental management function.

Research result Hertati, Zarkasyi, Suharman, Umar (2019) stated focus on the concept of recycled products modified with new ideas by utilizing information that can provide support for decision making in organizations is part of environmental management accounting. Environmental management records all activities in accounting that can be used as a tool to mix cheaper raw materials sourced from environmental waste improve environmental and economic performance. Research result Hertati, and Sumantri (2016) stated the efforts to meet the needs of consumers with a fairly tight price competition so that the product process from environmental holidays becomes a business that is quite attractive to consumers of similar products at low prices is called the environmental strategy. Companies can take advantage of the goods and services they offer to the market and environmental strategies to make products with environmentally friendly business processes so as not to damage the environment (Deegan, 2003; Epstein, 1996; Gens, 2013; Deegan, 2003; Epstein, 1996; UNDS, 2001; Christ and Burritt, 2013; Schaltegger et al., 2012; Doorasamy & Garbharran, 2013; Gens, 2013; Ozturk, I, 2014)).

Research result Hertati., et, all (2020) stated the environmental strategy is to make products through business processes sourced from environmental waste developed in the long term, the benefit is to deal with environmental wastes such as wasted waste that pollutes the environment, prevention of environmental air pollution, creating a clean and safe environment with regulations, good management of waste management can reduce costs so company profits will tend to increase. Implementing a green business is part of a sustainable business strategy that can provide social protection and financial success. The benefits of an environmental strategy are the company's efforts to create profits for the company and not harm the environment and cheaper sources of raw materials. An environmental management system is a guidelines that provide information about the roles and responsibilities of companies in managing company waste that is complemented by the time of implementation, benefits and stages of waste management.

ISO EMAS and ISO 14001 international standards are applied in environmental management systems by companies to increase the interest of researchers in line with the promotion of information technology. Application EMS can increase a company's competitive advantage, more efficient business processes and new market opportunities. The application of EMS affects the disclosure of the company's environment, disclosure of environmental performance requires relevant information including the environmental management accounting system. The EMS framework can improve efforts for continuous improvement in environmental performance (Banerjee,

2002b; Elkington, 1994: Environmental Protection Agency, 2004: Testa et al., 2008: Porter & Linde, 1995: Chor Foon Tang, Ozturk.I, 2017).

Competitive advantage is part of innovation which is an important aspect and must be carried out by a company. Product innovation is a process innovation that will produce innovation in new products and vice versa innovation in new products will result in new process innovations. New product development stages of the production process to increase sales and reduce resources that have the potential to damage the environment are wasted holidays. The application of environmental accounting will encourage corporate innovation such as reducing operating costs by streamlining the exploitation of natural resources by reducing the amount of waste formed, maximizing social conservation, recycling and extending the cycle of raw materials used and creating competitive advantage and maintaining customer loyalty, because can meet customer desires for products and packaging that are environmentally friendly (Porter, 1985: Ferreira et al., 2010).

System changes in all parts include the use of natural resources, product design, packaging, production, transportation and waste treatment. Solving environmental problems by conducting technological innovations and scientific research on product planning, packaging and production processes. Innovation has become essential for the survival of companies and weapons that can be used to preserve competitive advantage. Innovation can enable companies to improve their market position, affirm their brand reputation, win competition, make inroads, and attract more customers.

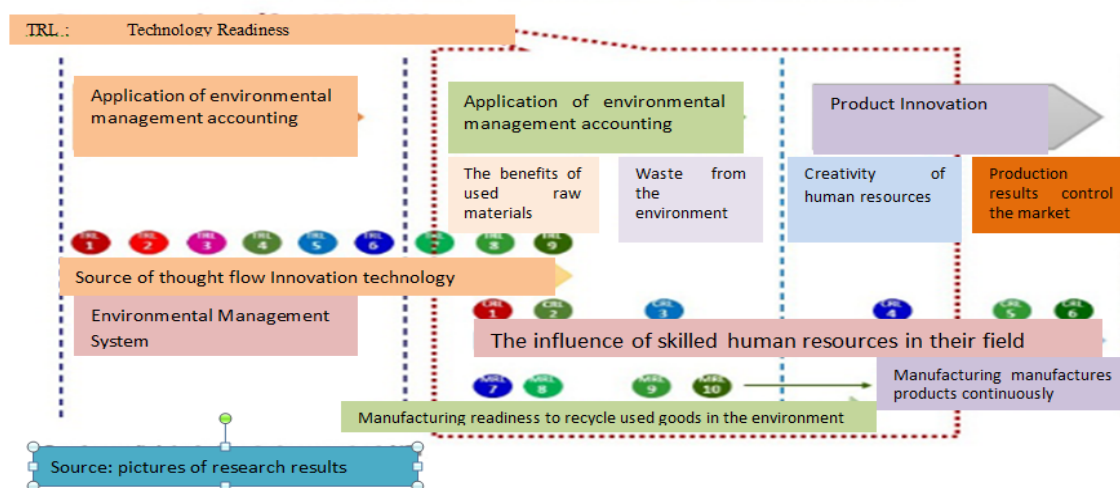
Public attention to environmental issues forces companies to develop business processes that produce more environmentally friendly products with the aim of meeting stringent environmental regulations and consumers can understand the product's use. Product innovation by utilizing waste materials from the environment can help companies reduce the cost of raw materials in order to increase productivity, increase company profits, develop new markets and can enhance superior competitive advantage (Chiou et al., 2011: Mu et al., 2009: Lin et al., 2013; Pujari, , 2006: Chen et al., 2006 & Mu et al., 2009: Abdulkadir A. Rafindadi, Ozturk.I, 2017).

The results show that product innovation can help companies minimize the waste of creating new products on the market as well as new business opportunities that generate profits. Many companies have begun implementing product innovations with the aim of differentiating themselves from competitors and improving environmental performance. Companies that carry out product innovation activities aim to make environmentally friendly products that can minimize environmental damage. The product innovation process refers to efforts to make changes to systems and manufacturing processes (Zhu et al. (2012: Lambertini & Mantovani, 2009: Reinhardt, 1998; Chou and Hsiao, 2005: Meeus and Edquist (2006: Kammerer, 2009).

## **2.Theoretical Foundation And Hypothesis Development**

Organizations are in an environment that is a group of people or groups who have certain goals and strive to realize these goals through cooperation. Organizational environment is a field of study that investigates the influence of individuals, groups and

structures on behavior in an organizational environment, which aims to apply this kind of knowledge to improve the effectiveness of an organization's company environmental strategy, environmental management systems on environmental management accounting and environmental product innovation aspects of human behavior in the context of management accounting in organizations. The behavior will affect how the management information system moves in order to achieve various organizational goals that have been set.



## 2.1. Corporate Environmental Strategy.

Human resource competence in achieving competitive advantage is a strategy that states about the problem and perspective on the problem - there is no doctrine so that it can accommodate all the needs of users so that it becomes safe and comfortable. (Richard Lynch, 2006: David, Fred R, 2007).

The Corporate Environment Strategy is a process to determine the direction and objectives of the organization in the long run to systematically develop new trends (Hubbard and Beamish, 2011: Susanto, 2014). The corporate environment strategy is the process by which the company manages, formulates and implements new strategies and ideas and then the strategic environment of the company namely the arts and sciences. The benefits of company strategy are (Pearce and Robinson, 2013: 243-254): (1) Evaluate the opportunity for cost advantage. A company's success in managing a business is based on the company's ability to recognize cost advantages that can make products or services more competitive than competitors. To be effective, companies must make a cost advantage that runs on an ongoing basis. For this reason, a strategy is needed to master the cost advantages starting from the initial line of the company's business to the final stages of the product or service in the hands of consumers. The company is able to reconfigure all of its business value chains to achieve cost advantages. (2) Evaluating differentiation opportunities Companies can

present business excellence by offering services or products of unique value to buyers. A good strategy can make buyers feel they are buying products with a premium value so they don't mind the high costs incurred. Competition will tend to decrease when a business is able to make itself appear different. (3) Evaluating speed as a competitive advantage. Business strategies based on capabilities will tend to make companies have the ability to serve buyers quickly. The company can respond to customer demands by moving quickly, so the company is able to develop and perfect new products and business processes. (4) Social markets are a way to gain competitive advantage. The use of the right strategy, makes the company able to operate in a narrower market than a broad market, such as product segments, customers and geography. The social market strategy is believed to be able to make the company business grow.

The business environment is full of pressures and challenges, companies must implement environmental strategies to manage costs to reduce costs that do not add value in the long run. The company's environmental strategy in producing can apply product innovation technology that comes from environmental waste as part of the business strategy. Business practices by combining business environment strategies create competitive advantage that leads to an increase in spider. Companies that adjust to the company's environmental strategy and wish to create new customers and other stakeholders associated with broader corporate responsibilities to the community can survive longer and can dominate market competition compared to its competitors. Demand for products and services that are sustainable and environmentally friendly comes from the end consumer. The company's environmental strategy that adopts environmental management accounting practices is driven by social pressures and consumer demand so that it develops itself better. Companies that adopt a strong environmental management strategy in an effort to support environmental sustainability, make environmentally friendly products, have a competitive advantage in the market compared to companies that do not implement ((Wilburn et al., 2015: Lafferty and Hult, 2001: Han et al., 2009).

Strategies in implementing environmental management accounting are the key to an organization's success in determining environmental requirements related to management activities as well as benefiting users. Thus the use of EMA can be said to be very large in organizations that run environmental management strategies because it can help innovative organizations. Research shows that environmental management strategies in adopting EMA. Where manufacturing companies that implement environmental management strategies in implementing EMA as part of the company's strategy to achieve environmental management accounting (AML) are more effective in designing company goals, such as cost efficiency, prestige, and increasing company profits in the long run (Ferreira et al. 2009: Goselin, 1997: Rustika & Prastiwi (2011: Ramadhani et, all, 2011)

### **Hypothesis 1:**

How does Corporate Environmental Strategy on environmental management accounting

## 2.2.Environmental Management System

A cycle that continuously plans and designs new products utilizing wasted environmental wastes is the goal of the environmental management system, implementation and review as well as efforts to improve the company's business processes related to its obligations to the environment. SML provides a comprehensive framework for companies to improve environmental performance. SML offers companies an integrated and systemic method of building and achieving pollution prevention goals so as to enable companies to achieve flexibility, effective long-term planning and increase efficiency (Division of Environmental and Financial Assistance). (Environmental Protection Agency, 2004: Environmental Protection Agency, 2004). El - Gayar, Omar and Fritz, Brian D. 2006: Radonjic & Tominc, 2007: Bennett )

The environmental management system (EMS) allows companies to realize programs to prevent, maintain and enhance corporate environmental activities so as to reduce losses that do not need to be caused by the company. environmental management systems are tools to regularly control the company's environment in improving environmental performance and analyze processes that focus on environmental management best practices to identify environmental management systems at a cost advantage, namely (United Nations Division for Sustainable Development, 2001). (1) The use of technology that is able to prevent pollution. Information systems that are able to prevent crime have the potential to increase production efficiency through reducing input costs, replacing cheaper inputs. (2) Ownership of pollution prevention technology innovations Internal pollution prevention technology innovations contribute to the company's cost advantage in many ways, including managers realizing inefficiencies in the production process of pollution prevention technology innovations have great potential for changes in cost savings in the production process. (3) Starting time regulations are made by the government, then minimizing disruptions from the production process so that it is possible to obtain cost benefits so that the company's costs are far more competitive than those of competitors.

Companies can increase competitive advantage and improve production processes by implementing the use of raw material technology so as to produce low or no waste at all. The company focuses on efforts to prevent fraud by playing games in a systematic environmental management accounting system processes, practices, achieve company goals. Environmental management systems attract interest and attention because they have an important role as a system capable of reducing the environmental impacts arising from company activities. A good and structured environmental management accounting system is carried out to support disclosure, fraud in companies where (Radonjic and Tominc, 2007: Jamil et al., 2015: (Craig and Dibrell, 2006; Huang et al, 2009; Marcus and Fremeth, 2009: Ribeiro and Gusman, 2010: Prasojo & Purwanto, 2013: Ribeiro and Gusman, 2010). **Hypothesis 2:**How the environmental management systems on the application of management accounting.

### 2.3. Application Of Environmental Management Accounting

Management is ready to manage and perform control functions because environmental activities are eye-opening about hidden costs that are not visible to the public, small changes to the product design can cause savings in product manufacturing costs. Management of waste processed in the company's business activities by collecting, analyzing and monitoring activities related to the environment, then placing all of that information into the company's balance sheet so that it can be as basic business information in order to help reduce environmental wastes that bad but bring benefits to the user. (Steele and Powell, 2002: Van, 2012: United Nations Division for Sustainable Development, 2001: Bennett and James, 1998: Tusiad, 2005: Boyd, 1998).

Environmental management accounting mechanism designed to improve company efficiency in increasing profit activities carried out by environmental management accounting eye scrutiny of hidden costs undertaken by environmental management and through the development of appropriate and environmentally related environments he company's environmental life cycle, the benefits of environmental waste and value chains that are interrelated to each other are the company's strategic objectives in managing environmental waste so that it can benefit the user.

EMA focuses on gathering information relating to environmental costs (Xiaomei, 2004). Environmental costs consist of all costs arising from the use of inputs (official, water, materials) and disposal of non-product products (waste and emissions) plus other costs associated with efforts to protect the environment with the following characteristics: (1) Initial Raw Material Costs, which consists of the cost of purchasing materials to be converted into final products. This cost data can provide information to companies related to effective and efficient environmental cost management related to the use of materials. (2) Other material costs, consists of the cost of purchasing materials that are converted into waste and emissions such as fuel, water and ocial. The use of company resources always leads to waste and emissions that are difficult to reduce, but the emphasis is on using less water and food to be environmentally friendly. (3) Waste and Emission Control Costs, consisting of for repairing social losses due to environmental damage; and all costs associated with compliance with environmental regulations. (4) Other Environmental Management Costs, planning costs and environmental measurement system costs, environmental communication costs, and other costs. (5) Development Costs, costs for hazardous substances or product compounds; economical product development costs; new equipment design test costs that can save resource use.

(4) Intangible costs,. consists of intangible internal and external costs that have potential value but are difficult or cannot be tracked in the company's cost structure, such as liabilities (OIC consideration costs for environmental damage, regulatory costs, productivity costs such as pollution that causes workers unable to move, image formation costs and relations with stakeholders, and the costs of externalities, i.e. external influences on society).



## 2.4. Environmental Product Innovation

Environmental product innovation is carried out if the company faces high business demands, in order to win the competition the company innovates. Environmental product innovation is implementing social new company. Innovation is a must as business changes more quickly. Environmental product innovation is divided into several parts, namely: input innovation and input innovation. Input innovation is to find new product designs by utilizing environmental wastes while output innovation is to produce new products from different environmental wastes so that consumers are very interested in the market. New products or innovations, continue to enter the market. His research, measuring the environmental product innovation by the product (product innovation). Where product innovation is divided into two dimensions, namely product innovation from a company perspective and product innovation from a consumer perspective (Han, 1998: Kotler & Keller, 2009: Kemp et al., 2003: Rogers 1995: Daneels & Kleinschmidt, 2001) Environmental product innovation is designing new goods by utilizing wasted environmental wastes so that new products are created that are very useful for users. Environmental product innovation can be created because human resources who have expertise and understanding and have knowledge about new technologies, the results are very beneficial for users. The company focuses a lot on additional information that can enable companies to enter new markets by improving existing products in order to satisfy customer expectations, lead the market and create short-term problem solutions for all industry problems. Environmental product innovation is a set of systematic and structured and measurable activities that are designed to produce the latest output that is expected to provide additional value for certain customers or markets. Environmental product innovation is a complex thing that involves many activities carried out sequentially and or together (Adams, Bessant & Phelps 2006: Kotler & Keller, 2009: Davenport, 1996)

Structured process environmental product innovation has several dimensions, both in terms of time and costs incurred related to the implementation of these activities. Outputs and inputs can be assessed in terms of usability, consistency, diversity (variability), free from defects (defects). This measure becomes the basis for companies to assess the effectiveness and benefits of continuous process innovation and the challenges of developing product innovation with the following characteristics: (Davenport, 1996: Tiwari et al., 2007: Kotler & Keller, 2009: (1) Scarcity of ideas is important in certain areas. In some segments or products, it is relatively difficult to develop due to the scarcity of ideas. (2) Fragmented markets. Companies must start socially about their new products in smaller market segments, and this will have an impact on the low sales and profits of each product. (3) Social and government restrictions. Along with the increasing consumer awareness, companies must have products that are safe, comfortable and friendly to the environment. (4) Development costs. Business ideas produced by the company and have added value require a lot of time and costs associated with research and development, manufacturing costs and marketing costs. (5) Scarcity of capital. Capital is a major problem that is often faced by companies, where companies have limitations in raising funds to research, develop and launch good ideas that are potentially liked by consumers. (6) Shorter development time needed. Companies are faced with the challenge of quickly learning the development

cycle using new techniques, strategic business partners, concept testing and good marketing planning.

Environmental product innovation is very important to change the good name of the company concerned with the environment and social. Innovation is a change in product design and design in corporate organizations with the aim of increasing company profits. Environmental product innovations have higher growth associated with increased product turnover. Increased growth is achieved through product innovation and innovation in corporate organizations. Innovation is very important for the survival of companies and weapons that can be used to maintain competitive advantage. Corporate innovation to improve market position in order to compete and make breakthroughs, attract more customers. The aim of environmental innovation is so that the company's production can dominate the market.

Application of environmental product innovations can help companies to increase productivity, enhance company reputation, develop new markets and can increase competitive advantage. The application of innovation is one in supply chain management that aims to reduce costs that do not add value in increasing profits and reducing waste and pollution (Jain & Sharma, 2014; Chiou et al. 2011, Lin et al., 2013; Pujari, 2006; Huang and Wu, 2010; Souto 2012: Souto and Rodriguez, 2015: Mu et al., 2009: Chen et al., 2006).

Application of pollution prevention in the form of reducing environmental energy waste while increasing company performance through cost reduction. (Porter & Van der Linde, 1995: Green et al., 2012; Tseng et al., 2013: Ramadhani, et, all, 2011: Ferreira et al. 2010 ).**Hypothesis 3:**How is the application of environmental management accounting for environmental product innovation.

### 3. Methodology

The unit of analysis of this research is small and medium enterprises in Indonesia. The population is a whole group of people, occurring from 315 related small and medium business cases in Indonesia, which collected 215 samples of investigative researchers (Sekaran and Bougie, 2010: 121). The population in this study is small and medium enterprises in Indonesia. This study uses primary data is first-hand data (information) obtained by researchers of the variables of concern to the objectives of a particular study (Sekaran, 2010: 18). In the context of this study, researchers used field research through survey methods that were collected by researchers through a list of questions from the questionnaire addressed to respondents with the aim of obtaining facts. Survey method as a study of (Sekaran & Bougie (2013: 116) are found.

The questionnaire is a set of written questions that are formulated in advance to record the answers of respondents (Now, 2010: 197). The preparation of instrument items uses clear language so that respondents understand what is meant in this study. The instrument items are described in the form of statements / questions that will be answered by the intended parties. The measurement of this study consists of four variables in scientific research findings, namely CS, EMS, EMA, EPI. (Dul et al., 2011)

The measurement model is a model that connects constructs and indicators. The construct is divided into two, namely exogenous and endogenous constructs. Exogenous constructs are construct causes that are constructs that are not influenced by other constructs. Exogenous constructs in endogenous constructs. While the measurement model is a model that connects constructs with other structures Dillman (1978). The theory-based model is structural Equation modeling based on relationships, where changes that occur in one variable are thought to be changes in other variables. At this stage the theoretical model is developed in accordance with the model that will be observed, which is already reflected in the framework of thought that has been described Hair, et, all (2014)

#### 4.Data Analysis

Validity test used is descriptive statistical analysis to explain the characteristics of the variables studied to support problem solving to obtain operational recommendations. Verification analysis aims to determine the relationship between variables through hypothesis testing using structural equation modeling (Structural Equation Model-SEM). Data analysis was performed using covariance-based structural equation modeling methods. According to Hair et. al, (2014: 546) structural equation modeling is a multivariate technique that combines factor analysis with regression analysis that can be tested simultaneously. Consideration of using this model, because of its ability to measure constructs through its indicators and analyze manifest variables, latent variables, and measurement errors (Cooper & Schindler, 2006).

**Table 1 Relevance of Corporate Environmental StrategyIndicators**

Dimension	Indicator	standard estimate	Estimate	Raw error	value-z	Value-p	Sig
Evaluate cost advantage opportunities	CS 1	0,44	0,018	41,07	0,0000	sig.	Valid
	CS 2	0,37	0,020	34,32	0,0000	sig.	Valid
Evaluate differentiation opportunities	CS 3	0,42	0,035	46,67	0,0000	sig.	Valid
	CS 4	0,49	0,016	43,13	0,0000	sig.	Valid
Evaluate speed as a competitive advantage	CS 5	0,31	0,013	30,65	0,0000	sig.	Valid
	CS 6	0,50	0,023	30,57	0,0000	sig.	Valid
Social markets are a way to gain competitive advantage	CS 7	0,49	0,015	33,13	0,0000	sig.	Valid
	CS 8	0,49	0,016	43,13	0,0000	sig.	Valid

Source: Lisrell software output 8.5

The results of the data that have been processed can be seen in Table 1 which shows that the P-value is significant because it is below 0.5, the results of the indicator test and the dimensions of the Standard Stimite value below 0.5 can be seen from the loading factor value-z which is 0.000 that is valid ( Bollen (1989: 197).

**Table 2 Relevance of Environmental Management Systems Indicators**

Dimension	Indicator	Standard estimate	Estimate	Raw error	value-z	Value-p	Sig
The use of capable technology prevent pollution	EMS 1	0,44	0,018	41,07	0,0000	sig.	Valid
	EMS 2	0,47	0,020	34,32	0,0000	sig.	Valid
Ownership of innovation pollution prevention technology	EMS 3	0,42	0,015	46,67	0,0000	sig.	Valid
	EMS 4	0,49	0,016	43,13	0,0000	sig.	Valid
Starting time	EMS 5	0,31	0,023	30,65	0,0000	sig.	Valid
	EMS 6	0,46	0,023	30,57	0,0000	sig.	Valid

Source: Lisrell software output 8.5

The results of the data that have been processed can be seen in Table 2 which shows that the P-value is significant because it is below 0.5, the results of the indicator test and the dimensions of the Standard Stimite value below 0.5 can be seen from the loading factor value-z which is 0.000 that is valid ( Bollen (1989: 197).

**Table 3 Evaluation Results Environmental Management Accounting Relevance**

Latent	Initial Raw Material Costs,	Weight	Raw error	value-z	Value-p	Sig	Relevant
Application Of Environmental Management Accounting	Initial Raw Material Costs,	0,44	0,013	33,94	0,000	Sig	Relevant
	Other material costs	0,46	0,014	33,86	0,000	Sig	Relevant
	Waste and Emission Control Costs	0,45	0,013	34,25	0,000	Sig	Relevant
	Other Environmental Management Costs	0,43	0,013	33,44	0,000	Sig	Relevant
	. Development Costs,	0,36	0,015	31,86	0,000	Sig	Relevant
	Intangible costs,	0,56	0,011	23,86	0,000	Sig	Relevant

Source: Lisrell software output 8.5

The results of the data that have been processed can be seen in Table 3 which shows that the P-value is significant because it is below 0.5, the results of the indicator test and the dimensions of the Standard Stimat value below 0.5 can be seen from the loading factor value-z which is 0.000 that is valid ( Bollen (1989: 197).

**Table 4. Summary Of Results Of The Validity**

Dimension	Indicator	standard estimate	estimate	raw error	value-z	Value - p	Sig	Relevans
Scarcity of ideas is important in certain areas	PI 1	0,940	1,03	0,083	12,39	0,000	sig	Valid
	PI 2	0841	0,77	0,074	10,36	0,000	sig	Valid
Fragmented market	PI 3	0,930	0,93	0,055	12,28	0,000	sig	Valid
	PI 4	0,935	0,86	0,069	12,28	0,000	sig	Valid
Social and government restrictions	PI 5	0,918	0,89	0,064	11,99	0,000	sig	Valid
	PI 6	0,859	0,82	0,076	10,76	0,000	sig	Valid
Development costs	PI 7	0,820	0,81	0,081	19,96	0,000	sig	Valid
	PI 8	0,926	0,83	0,039	12,04	0,000	sig	Valid
Scarcity of capital	PI 9	0841	0,77	0,064	15,36	0,000	sig	Valid
	PI 10	0841	0,57	0,014	10,46	0,000	sig	Valid
Shorter development time required	PI 11	0841	0,47	0,012	13,36	0,000	sig	Valid
	PI 12	0841	0,67	0,024	10,26	0,000	sig	Valid

Source: Lisrell software output 8.5

The results of the data that have been processed can be seen in Table 4 which shows that the P-value is significant because it is below 0.5, the results of the indicator test and the dimensions of the Standard Stimat value below 0.5 can be seen from the loading factor value-z which is 0.000 that is valid ( Bollen (1989: 197).

**Table 5 Summary Of DimentionComposite Reliability**

Dimension	Indicator	standard estimate	1-standard estimate	R2	CR	VE
Material Costs of Product Output	EMA 1	0,940	1,03	0,883	0,685312	0,794728
	EMA 2	0,841	0,77	0,707		
Material Costs from Non-Product Outputs	EMA 3	0,930	0,93	0,865	0,730231	0,869564
	EMA 4	0,935	0,86	0,875		

Waste and Emission Control Costs	EMA 5	0,918	0,89	0,843	0,930231	0,869564
	EMA 6	0,859	0,82	0,738		
Prevention Costs and Other environmental Management Costs	EMA 7	0,820	0,81	0,673	0,860231	0,869564
	EMA 8	0,820	0,81	0,673		
Research and Development Costs,	EMA 9	0,926	0,82	0,857	0,830231	0,889564
	EMA 10	0,926	0,83	0,857		
Intangible Costs	EMA 11	0,926	0,73	0,857	0,630231	0,769564
	EMA12	0,926	0,83	0,857		

Source: Lisrell software output 8.5

The composite reliability test results of table 5 show all the variables with the model, Dimensions, Indicators, standard estimate, 1- standard estimate R2 above 0, 5 meaning significant. The construct value (CR) is greater than 0.6 and the Extract variance (VE) is greater than 0.5 then all the variables with the measurement model in this study are stated to be consistent with the measuring instrument.

**Table 6 Structural Model Parameters**

Consequence	Mediator	Cause	Standard estimate	Estimate	Default error	Value-z	Value-p	Information
EMA	-	CES	0,38	0,526	0,13	3,11	0,000	Sig
	-	EMS	0,52	0,326	0,11	4,13	0,000	Sig
	-	EIP	0,48	0,426	0,15	4,00	0,000	Sig

Source: Lisrell software output 8.5

The results of data processing are obtained from table 6, namely the evaluation of structural equation models, standard estimates of standard estimates, estimated default errors, Value-z Value-p, all models have been tested and in accordance with the data, the next step is to test the hypothesis: The results of testing the validity and reliability of the Corporate Environmental Strategy variable, the Environmental Management System variable, the Application of Environmental Management Accounting variable, the product innovation variable are declared significant because the standard estimation

standard estimates, the standard Error Estimation, the z-value of p-value, has a result of numbers > 0, 30, it can be concluded that the test equipment is a valid questionnaire. The reliability test results are variable. Corporate Environmental Strategy variable, Environmental Management System variable, Application of Environmental Management Accounting variable, product innovation variable. Showing that the calculated r value is greater than 0.7, it is concluded the answers from the questionnaire in this study can be received significantly with information.

## 5. Discussion

Research shows that innovation can help companies increase production and profits and can dominate markets and new business opportunities. The company implements product innovation with the aim of differentiating itself from competitors and improving environmental management accounting performance. Companies that carry out product innovation activities aim to make environmentally friendly products that can minimize environmental damage. The product innovation process refers to efforts to make changes to the environmental management accounting system in manufacturing companies (Zhu et al. 2012; Lin et al. (2014); Meeus and Edquist, 2006; Kammerer, 2009; Lambertini and Mantovani, 2009; Chen et al. 2006)

Companies that implement innovation get better profits by demanding lower prices, which are environmentally friendly products, improve the company's image in the eyes of consumers and can expand access to new markets. Innovating companies show that the goal is to strengthen their competitiveness because of the changing trends in environmental technology and the relatively short product life cycle. The company pays attention to measures developed to achieve sustainable business processes by improving environmentally sound policies, programs and performance; develop products that are safe for the environment, efficient and can be recycled; minimize waste generated and plan waste disposal, implement chemical management for hazardous and hazardous waste, comply with all regulations relating to environmental aspects and routinely make it to the government to increase investment in environmentally friendly products for future market dominance (Peattie, 2001; Chen et al., 2006; Tseng et al. (2013; Chiou et al., 2011; Lin et al., 2013); Shrivastava, 1995).

## 6. Conclusion

Corporate environmental management accounting still focuses on the view that corporate responsibility is focused on efforts to generate economic benefits. This view confirms that the achievement of profit maximization and cost minimization as a benchmark for company performance. The company environmental strategy on Environmental product innovation. The company's environmental strategy that focuses on efforts to meet customer desires, tends to create an innovative environment to improve the quality of products and services offered to achieve competitive advantage. Integrated environmental management strategy which includes: development of the company's environmental structure, wasted environmental wastes, the use of environmentally friendly raw materials, the use of production technology that utilizes

lower environmental waste and is wasted in the hands of the creative economy from reliable human resources that can create cycle products unique remuneration that is ready to compete in the market with a price value that is quite expensive and attractive to consumers and gets long-term profits for the company from the results of environmental innovation by utilizing wasted goods.

## 7.Acknowledgment

This research was carried out for university service. Thank you to the relevant parties who were willing to fill in and be interviewed in this study especially the small and medium sized businesses from Indonesia to fill out the questionnaire and provide broad and useful insights and greatly assist this research, as well as addressing all related issues. in this research to be interpreted and conclusions from this research.

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