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PROCEEDING

PROMOTING SOCIAL CHANGE FOR SUSTAINABLE DEVELOPMENT

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Theme:

"Promoting Social Change for Sustainable Development"

Surabaya, October 24, 2017

Universitas Negeri Surabaya

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PREFACE

The first Social Sciences, Humanities, and Economics (SoSHEC) 2017 is one of a series of international conferences held by Universitas Negeri Surabaya (Unesa), Indonesia this year. The conference was held on 24 October 2017 in Wyndham Hotel, Surabaya, Indonesia. Organizing this event shows the commitment and acknowledgement of Unesa to research activities. This event will be a perfect platform for senior and junior researchers in the fields of humanities and social sciences to exchange experiences and ideas and to building network. In addition, this conference will certainly help improve scientific publication of researchers and lecturers.

The theme of the conference this year is "promoting social changes for sustainable development goals (SDGs)". SDGs have been a central issue in the agenda to eradicate poverty in developing countries. A great deal of effort should be devoted to achieve the SDGs, and certainly this requires participations from all parties, especially researchers of social sciences and humanities. The researchers can do their bit with their research findings in promoting social changes in order to create equitable, sustainable economic growth, to reduce inequality and to improve human resources.

This conference has attracted much attention from scientific community. There are 141 review and research-based papers submitted and presented in the conference., with 59 papers being selected to be published in this conference proceeding. The papers have a wide range of topics, namely good corporate governance, accounting, economics and cultural policies, culture of democracy, Asian pop culture, media literacy and digital citizenship, linguistics and literature, as well as creativity in teaching and learning. Hopefully, the scientific papers can give us invaluable insights on those very important topics.

Surabaya, July 2018

Editor

Mediation Effect of Environmental Performance and Accounting Information Systems of Relations with Green Innovation Strategy Business Performance

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***Abstract*- This research considers the relationship between green innovation strategy and business performance through mediation between environmental performance and accounting information management systems. The hypothesis of this research is that green innovation strategy affects the business performance which is mediated by environmental performance and accounting information management systems.. This research is a quantitative research at the explanatory level. The population of this research is food manufacturers in East Java. There are 125 companies. The data was obtained through questionnaires. There are 48 questionnaires or response rate for 38%. The analysis unit is the business unit. The research respondent is the manager of a business unit in Manufacturing Company in East Java. The research result is proved that the environmental performance and accounting information management systems mediate partially the relation between green innovation strategy and business performance.**

Keywords: Green innovation strategy, mediation, business performance, environmental performance, accounting information management systems.

I. INTRODUCTION

The Company is the agent of change that contributes to the advancement of the world that has an impact on the environment, economic and social. Contributing about 70% to GDP and employment globally. The private sector provided a major influence on global politics, national economy besides that the private sector achieved a paradigm shift towards a green economy and a sustainable future for all concerned. In this case, the company must make an ethical business.

Basically, the business has to be run ethically, because of business concerns the interests of all parties in the community. The Company acts as sellers, manufacturers, buyers, intermediaries, and whatever his role, almost all of them connected with the business. It means that all of us, based on our own interests, want the business to manage well. Therefore the business should be run ethically so that no injured party by the other party.

Companies must maximize the welfare of the owners with attention to the environment. Maximizing the wealth of company owners can be determined to maximize the value of the company. Increasing the value of the company can be achieved if a company has a good business performance. Business performance is multidimensional included non-financial performance and financial performance. Performance measurement with a single measurement dimension can no longer be provide a comprehensive understanding [1]. Measurement of performance should integrate diverse measurement [1][2].

Many companies are aware of environmental friendliness that is by trying to bring each other processed food products safe for companies concerned about the image of the company. Image of the company must be found in order to provide the best possible security for consumers who use the processed food products. By providing security to the consumer, then the consumer can influence the selection of food products. Besides being able to affect consumers in terms of product selection, may also affect the marketing of its products. Consumers prefer a product that is responsible and friendly to the environment and are supported by the emergence of Green Consumerism, Green Product, and Green Marketing.

Green consumerism is global consumerism movement that began with the consumer awareness of their rights to obtain adequate product, safe, and environmentally friendly products. Environmentally friendly products are products that are produced through the process and using materials that can reduce the number of environmental damage [3].

Green marketing according to the American Marketing Association is to market a product in an environmentally friendly manner, including modifying the product, change the production process, change the packaging and even make changes to the way of promotion. However, Ottman [4] proposed a slightly different concept, namely, the first regulation on green marketing is focused on consumer benefits. This may be because when consumers see the advantages of the purchase. They will be keen to make a purchase again. With this concept environmental factors become a connector for the purchase. According to the Grant [5] includes intuitive green marketing, integrative, inviting, and informed.

In a green product, the product must have a higher quality, which is more related to the environment than similar products from competing companies. Otherwise the company will be declared a failure in the sale. Companies must provide information that is clear and open to products that will be marketed to consumers. In addition, it should also be monitored competitor to see if they are developing green products that match the same product, with lower prices or lower quality [5]. Green product characteristics according to some researchers:

1) The product does not contain toxic (poison).

2) Products are more durable.

3) Products using raw materials from recycled materials.

4) Products using raw materials in the recycling buffer.

5) The product does not use materials that can damage the environment

6) Using simple packaging and provides refill products.

7) Not harmful to human and animal health.

8) Do not spend a lot of energy and other resources during the processing, use and sale.

9) Does not produce waste that is not useful due to the packaging in a short time frame.

Business performance can be accomplished when the company has a competitive advantage by taking into account environmental factors. Relating to competitive strengths to achieve Business performance, then there is some underlying theory. Depending on the Theory of Industrial Organization (I/O), to achieve the performance of the organization or company must pay attention to factors and external environment. According to Resource Based Theory (RBT), to achieve the organization's performance is established by factors internal environment [6]. In the stakeholder theory states that the company gets another entity that operates for its own sake, but must provide benefits to all stakeholders. The existence of a company is highly influenced by the support of stakeholders in the company.

To achieve the necessary competitive advantage through innovation strategy that fits through innovation strategy that prioritizes the environment, which is then referred to as green innovation strategy. Green Consumerism, Green Product, and Green Marketing is important in green innovation strategy. Environmental performance and accounting information management systems, that will either mediate green innovation strategy with business performance.

Some previous researches, green innovation strategy affected the business performance. However, it should be realized, that the strategy will affect the performance when through several aspects. The aspect was environmental performance as a part of CSR. According to the GRI standards, environmental performance using six indicators disclosures, namely economic aspects, environment, employment, human rights, society and the responsibility for the product.

Improved performance is achieved through an increase in the company's operations, such as an increase in production capacity, cost savings and continuous innovation process. An increase in the company's operations have an impact on the earth's existence, human and economic. This concept is called sustainability. Sustainability is a balance between people, planet, and profit is then known as the Triple Bottom Line. The Company shall be responsible for the positive and negative impact of the increase in operational activities to the economic, social and environmental.

Besides the environmental performance, which needs to be considered accounting information management systems that is reliable. Reliable information system is a system of information broad scope, aggregate, integration, and timelines. Business performance depends on the interaction between management accounting information systems and business strategies. Implementation of the strategy is in desperate need of information. The information provided by the Management Accounting Information System is needed for decision making. Accounting Information Systems Management needs information technology [7].

The focus of the study consisted of test the mediating effect of environmental performance and accounting information systems to the relationship between green innovation strategy with the business performance in the manufacturing companies engaged in food processing in East Java. The motivation of this study were (1) Closing the gap theory and previous empirical studies on the model of the Resource -Based theory, the model I / O and stakeholders theory by incorporating variables as described contingency contingency theory, (2) to test whether the variable environmental performance and accounting information management systems (as a contingency variables) are mediation variables on the relationship between green innovation strategy with business performance, (3) use the concept of green innovation strategy in implementation of strategy.

II. RESEARCH QUESTION

The research questions in this study are:

Is the green innovation strategy affect the business performance?

Is the environmental performance and accounting information system mediates the relationship between green innovation strategy with business performance?

III. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

A. Theory I/O

Theory I/O explains that the external factor (industry) is more important than the internal factor to achieve the competitive advantage. The main consideration of theory I/O is competition. Power structures analysis is needed in the competition it is known as five forces model (Porter, 1985). There are five important things in five forces model. They are : (1) intensity of competitive rivalry, (2) threat of new entrants, (3) threat of substitute products or services, (4) bargaining power of suppliers and (5) bargaining power of customers.

Theory I/O explains that above-ranger return (AAR) for the company is determined by the characteristics outside the company. This theory focuses on the industrial structures or external environment attractiveness which then focuses on the company internal sources. The external factors meant in the Theory I/O are: (1) economic strength, (2) social, cultural, demography, and environmental strength, (3) political, government, and law strength, (4) technological strength.

The previous studied which are related to the I/O model has been conducted by some researchers. The external environment factor plays a role in the business condition because the environmental factors really determine the strategy which will be run [8][9]. Ansoft [10]and Miller and Friesen [9] also stated that the relation between the environment changing and the strategy planning is very strong. It is in the numerous numbers to anticipate the inconsistent changing and condition. Bird [11] stated that the complexity and the changing of the environment in the certain industry may affect the intensity of strategic planning. The research which is conducted by Hopkins and Hopkins [12] concluded that the strategic planning does not affect the financial performance but the financial performance improves the strategic planning. The previous research shows that there are various result related to the performance achievement and Above Average Return which are expected by implementing fit strategy.

B. Resource Based Theory

Resource-Based Theory states that internal factor is more important than external factor in the company to achieve the competitive advantage. Resource-Based Theory is a point of view which focuses on the sources and capability as the fundamental principle which decide the society prosperity. Organizational capital relates to the human capital and physical capital which determine the empowerment process into the company competitiveness and finally can improve the society prosperity. The ability of empowerment actor is determined by the accumulation of various capitals which are related to the resource based theory. According to Teece.., et all [13], the dominant of competitiveness depends on the company's' sources. This idea comes from the strategic management which is related to the Resources Based Theory.

Barney et al [14] states that Resources Based Theory recognize the company as the group of sources and ability which are owned by the company. The difference between company's sources and capability with the competitors will give the competitive advantage for the company. The assumption of Resources Based Theory is how the company can compete with other company to get the competitive advantage in managing the sources they have which is suitable with the company's ability. According to Resources Based Theory, to get the optimal result, the sources must meet these following criteria : (1) valuable, it means that the resources will be valuable if it can give the strategic value for the company, (2) rare, it means that the sources must have a uniqueness or in the other words it is difficult to be found by the competitor and become the company's potency, (3) imperfect imitabililty, it means that the sources can be the continuous competitive advantage only if the company who does not have this sources, company cannot get it or cannot imitate those sources, (4) nonsubstitution, it means that the sources cannot be substituted by the alternative sources.

Knowledge-Based Theory identifies that knowledge which is rare and difficult to transfer and replicate is an importuning resource to achieve the competitive advantage in facing the competition. The company's capacity and affectivity in producing, sharing, and delivering the knowledge and information determine the value which is produced by the company as the basic of continuous company's competitive advantage in long period [15][16][17].

Grant states that according to the Resources Based Theory, above-average return (AAR) for certain company is determined by the characteristics in the company. This theory focuses on the resources development or acquisition and the valuable capability which is difficult or impossible to be imitated by the competitor.

C. Stakeholder Theory

Based on stakeholder theory, organizational management is expected to perform activities that are considered important by stakeholder and report back on these activities on the stakeholder. Stakeholder theory, explaining that the management of the organization is expected to perform activities that are considered important by stakeholder and report back on these activities on the stakeholder.

The term stakeholder stated that the stakeholder are: ".....stakeholder in the company that may affect or be affected by the activities of the company, among other community stakeholder, employees, governments, suppliers, capital markets and others. "the survival of the company depends on the support of stakeholder and the support should be sought so that the activity of the company is to seek such support. The more powerful stakeholder, the greater the company's business to adapt. Social disclosure is considered as part of a dialogue between the company and stakehodernya.

Stakeholder theory states that all stakeholder have the right to be given information about the activities of the company (such as pollution, social movements, business companies for safety). The main purpose of the stakeholder theory is help corporate managers understand their stakeholder environment and to manage more effectively in the presence of relationships in their corporate environment.

The concept of stakeholder theory this helps corporate managers in increasing the value of the impact of their activities and minimize losses for the stakeholder. The focus of stakeholder theory lies in what happens when corporations and stakeholder carry out their relationship.

In a moral perspective, stakeholder theory emphasizes that all stakeholder have the right to be treated fairly by the company and that the issue of the power of stakeholder (stakeholder power) is not directly relevant. This theory sees the company not as a mechanism to improve financial returns stakeholder and as a vehicle for coordinating stakeholder interests and see that management has a fiduciary relationship (lien) not only with some stakeholder but with all stakeholder.

The stakeholder theory normative view, management should provide balanced consideration to the interests of all stakeholder. When stakeholder have different perceptions so that a conflict of interest, then the manager should manage the company properly so as to achieve an optimal balance between them. Managerial perspective view in this stakeholder theory, trying to explain when the management company intends to achieve the expectations of certain stakeholder (in particular having strength), so that it can be said in this view is more likely to organizational perspective. Gray et al (1996 in Deegan, 2004) states that the stakeholder are identified through the company's attention. The company believes that the interplay between managers and stakeholder should be managed in order to achieve the interests of the company that should not be restricted to the conventional assumption that for profit only. For companies increasingly important stakeholder, the more work done to manage the relationship. The company sees a major element of information that can be used to manage or manipulate the stakeholder in order to seek their approval or support and resistance and to divert their disapproval. In this context, the concerned stakeholder to influence the management in the process of exploiting the full potential of the organization. Because only with proper management and the maximum over all this potential organization will be able to create value added and then push the company's financial performance which is the orientation of the stakeholder in the management intervenes

D. Contingency Theory

According to Otley [18] prior thesis of the Contingency Theory is the absence of organizational concept or design which can be applied universally everywhere or in every condition effectively. An organizational design is only appropriate or fit for certain context or condition the use of contingency theory should support the researcher to identify the appropriate condition to design the certain organization and develop the theory which can support it [19]. The Contingency theory identifies the optimal form to control the organization under different operating condition and try to explain the operating procedure of controlling the organization.

Otley [20] argues that Contingency approach can explain why accounting system can be different with certain condition to another condition. Based on its findings, it can be concluded that there are three concepts which affects the affectivity of the accounting system. There are: (1) technology, organizational structures, and (3) environment. Contingency approach in the management accounting is based on the premise that there is none of the accounting system in universal which is always appropriate to be applied in every organization. However, it depends on the condition or situation in that organization. The researchers have applied the contingency approach to analyze and design the control system especially in the management accounting system. Some of the researchers in the management accounting examine it to find the relation between contextual variables such as inconsistency environment, inconsistency task, organizational structures and cultures, inconsistency strategy by using management accounting system design.

E. The Green Innovation Strategy

Innovation is a critical factor for the company to compete effectively in domestic and global markets and is regarded as one of the most important components of an organization's strategy [21][22]. Organizations that have a high degree of innovation is able to develop a competitive advantage and achieve higher levels of performance [23][21][24]. Innovation strategy adopted by the company should pay attention to environmental factors or the so-called green innovation strategy. Startegy includes: Green Consumerism, Green Product, and Green Marketing.

Green marketing is a hot topic at the moment. Everyone believes that green marketing is a good idea and the potential for the future. Green marketing is the process of selling products or services on the basis of the environmental advantages. Such as products or services that are environmentally friendly by way of production or packaging. In the study conducted by Grant [5], green marketing is a new focus in the business, which is a strategic marketing approach that starts to rise and the concern of many parties start late 20th century this condition requires marketers (marketers) to be more careful in decisions involving the environment. Attention to environmental issues is characterized implementation of international standards or better known as ISO-14000. ISO-14000 is an environmental management system that can provide assurance to producers and consumers that with the system apply both waste products produced, the products have been used, or its services has been through a process that takes into account the rules or environmental management efforts [25].

According to the Grant [5] had five first green marketing are:

a. Intuitive – Making better alternative accessible and easy to grasp

b. Intergrative – Combining commerce, technology, social; effects ecology

c. Inviting – A positive choice not a hair shirt

d. Informed – Lack of knowledge is what most, distorts people behaviour

Junaedi [26] defines, Green products (Green products) is a product that is not harmful to humans and the environment, not wasteful of resources, does not produce excessive waste, and does not involve cruelty to animals. Green product must consider environmental aspects in the product life cycle so as to reduce negative impacts on nature. The minimization efforts to encourage all parties to assume a role in technology development towards environmentally friendly products. In the production sector, various ways can be made to produce an environmentally friendly product that is one of them by using the concept of sustainable green product.

The resulting product should have a higher quality, which is more related to the environment and compared to the competition among companies. Otherwise the company would be deemed unsuccessful in sales. Companies must provide information that is clear and open to products that will be sold to consumers. In addition it should also be monitored competitors to see if they are developing green products that match the same product, with lower prices or lower quality [5]. Characteristics of green product, according to some researchers:

1) *The product does not contain toxic (poison).*
2) *Products are more durable.*
3) *Products using raw materials from recycled materials.*
4) *Products using raw materials in the recycling buffer.*
5) *The product does not use materials that can damage the environment .*
6) *Using a simple packaging and provides refill products.*
7) *Not harmful to human and animal health.*
8) *Do not spend a lot of energy and other resources during the processing , use and sale.*
9) *Does not produce waste that is not useful due to the packaging in a short time frame.*

Green Consumerism, as a continuation of global consumerism movement that starts from consumer awareness of their rights to obtain adequate and safe product that demands on environmentally friendly products is getting stronger. While Green Consumers have confidence that there is a real environmental problem, the problem should be taken seriously and addressed in a way that is active, they feel they have enough information in their daily lives, every individual can and should contribute to save the planet from environmental disaster scary [27].

Green Consumerism is defined as "The use of individual consumer preference environtmentally less damaging to promote products and services" [28]. What's interesting about this definition is that the green Consumerism arises from the consciousness of every individual. Furthermore, the desired product is not really "green" but enough that slightly reduced the level of damage that may occur.

F. Environment Performance

Environmental performance is measured results of the environmental management system, which is linked to the control aspects of environmental aspects. According to the company's environmental performance is the company's performance in creating a good environment. The company's environmental performance is measured by PROPER. Measurement of environmental performance has been implemented by the government since 2002. The program is used by the Ministry of Environment to measure the level of compliance of companies based on legislation that berlaku.Program digunakanuntuk also assess the performance of the company in the implementation of various activities related to environmental management activities.

In this study, environmental performance is measured by using the GRI-G3 Guidelines. Corporate environmental disclosure is a disclosure made by the company to the stakeholders in the form of a report environmental activities undertaken by the company. CSR disclosure standards were developed in Indonesia using standards developed by GRI (Global Reporting Initiatives). GRI is a non-profit organization that spearheaded economic performance, environmentally and socially sustainable. This study used the GRI standard for measuring corporate environmental disclosure (CED). GRI provides to all companies with a comprehensive sustainability reporting framework that is used throughout the world (www.globalreporting.org). List of social disclosure by using six indicators GRI standard disclosure, namely:

1) Economic

This theme contains nine items that included company profits were distributed to shareholders bonus, compensation of employees, government, finance activities due to climate change and other economic related activities.

2) Environment

This theme contains 30 items which included the environmental aspects of the production process, which included control of pollution in running business operations, prevention and repair of environmental damage caused by the processing of natural resources and the conversion of natural resources.

3) Employment

This theme contains 14 items which included the impact of the company's activities on the people in the company. The activity included recruitment, training, salaries and demands, transfer and promotion, and other.

4) Human Right

This theme contains nine items that included how much investment -related treaties involving human rights, suppliers and contractors who uphold human rights, incidents involving accidents or crimes against underage employees, and other activities.

5) Social

This theme contains eight items that included social activities, followed by the company, such as activities related to health, education and the arts as well as the disclosure of other community activities.

6) Responsibility for Products

This theme contains nine items involving qualitative aspects of a product or service, among other uses durability, service, customer satisfaction, honesty in advertising, clarity/completeness of the content on the packaging, and others.

G. Accounting Information Management Systems

Information is a very important element in the company's decision-making. Information that is relevant, timely, accurate and complete is needed by every company to achieve performance. Accounting management is a systematic connective tissue in the presentation of useful information and can help company leaders to reach organizational goals previously set. Management accounting produces useful information to help workers, managers, and executives to ensure better decisions.

Traditionally dominated by management accounting information financial information, but now the role of non-financial information is also vital. Chenhall and Morris [29] proved that the characteristics of management accounting information systems use according to the perceptions of managers covering a broad scope, timeliness, aggregation and integration. Accounting information management system required by the entity in policy making and evaluation. The more reliable accounting information generated by the system, the better the decisions taken by the organization.

Characteristics of accounting information systems management that is broad scope refers to the dimension focus, quantification and time horizon [30]. Timeliness (timeliness) information showing the period between a request for information by presenting the desired information and the frequency of reporting information [29]. Information aggregated (aggregation) is a form of information that implement formal policies (such as discounted cash flow, cost-volume-profit analysis) or model of analytical information based on the final results of the functional area (such as marketing, production) or based on the time (eg : monthly and quarterly). Integrated information (integration) reflects the lack of coordination between sub-unit segments with one another. Information integration includes aspects such as the provision targets or activity which are calculated based on the process of interaction between sub-units within the organization [29]. A company or organization is implementing innovation strategies will be exposing the transparent environmental domain. Therefore, in need of large amounts of information.

Accounting information management as one product accounting management system plays a role in helping to predict the possible consequences of various alternative actions that can be made in a variety of activities such as planning, control and decision making. Characteristics of the information available to the organization to take effect when the user can support information or decision-makers. Correspondence between the information needs of decision-making will improve the quality of the decisions to be taken and ultimately can improve the performance of the company [31]. Nazaruddin [32] suggests that the characteristics of management accounting information systems that are reliable can improve managerial performance. Chong and Chong [33] found that the characteristics of the broad scope of information is an important antecedent variable in improving performance. From the description, it can be concluded that the characteristics of the management accounting system is needed to improve performance.

IV. RESEARCH MODEL AND MEASUREMENTS

A. Model

Based on theoretical foundation, a research model is developed and presented in figure 1. The model illustrates that business performance is affected by green innovation strategies mediated by environmental accounting and management accounting information system.

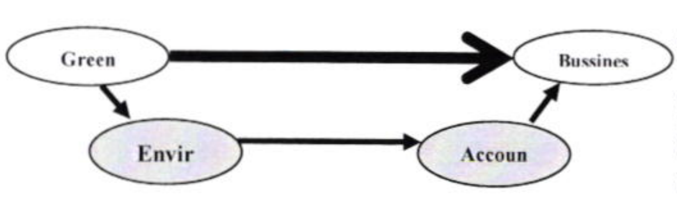


Figure 1: Research model

V. RESEARCH DESIGN

We designed this research as a causal study [34], quantitative research at the explanatory level. The main objective was to show empirically the mediating effect of Environmental Performance and accounting information management systems to the relationship between innovation strategy and financial performance. Data were collected using questionnaires. The unit of analysis was a strategic business unit. Respondents were managers of strategic business units in food manufacturing in the East Java Province.

A. Population and Sample

We derived the sample for this research from 125 manufacturing companies in the East Java Province. Because there were not so many companies in the population, we decided to send faxes and emails to all of these companies. The response rate was 38 percent.

VI. VARIABLE AND ITS MEASUREMENT

The variables in the study were classified as follows: (1) business performance was the dependent variable; (2) green innovation strategy was the independent variable, (3) environmental accounting was mediating variable, (4) accounting information management system was mediating variable.

Business performance was described as the perception of respondents regarding the Business conditions of the SBUs compared to previous years. To measure the Business performance, we used financial indicators developed by Kaplan and Norton (1992), namely: (1) improve cost structure, (2) increase asset utilization, (3) expand revenue opportunities, (4) and enhance customer value. Likert scale from 1 to 7 was used as the measure.

Green Innovation strategy was defined as the perception of respondents regarding their unique ways to achieve sustainable competitive advantage and excellent performance. To measure the innovation strategy, we used three indicators developed by Grant [5], namely: (1) green marketing, (2) green product, (3) green consumerism. Likert scale from 1 to 7 was used as the measure.

Environmental performance is the measurable results of the environmental management system, which is associated with the control aspects of environmental aspects. In this study, environmental performance is measured by using the GRI-G3 Guidelines. Corporate environmental disclosure is a disclosure made by the company to the stakeholder in the form of a report environmental worked on the company. CSR disclosure standards developed in Indonesia using standards developed by GRI (Global Reporting Initiative). This standard covers the economic, environmental, labor, human rights, social and product responsibility. By using a 5-point Likert scale, respondents were questioned about the company's position compared to other companies with these aspects.

Management accounting information systems were defined as the perception of respondents regarding the design of accounting system generating management accounting information needed by management to make better decisions, especially to support innovation strategy formulation and execution. To measure the management accounting information systems we adopted an instrument developed by Chenhall and Morris (1986). It covered four aspects as follows: (1) broad scope, (2) aggregate, (3) integration, and (2) timeliness.

VII. ANALYSIS, RESULTS AND DISCUSSIONS

Analysis

This research focused on the mediating effect of environmental performance and management accounting information systems to green innovation strategy-business performance relationship. The data was analyzed using the structural equation modeling (SEM) and processed using the Partial Least Square (PLS) WARP version 4.0 to test the hypotheses.

These two procedures were conducted to test the hypotheses. First, we tested the direct effect of green innovation strategy to business performance. Second, if the direct effect was significant, we continued with the second test to prove the mediating effect of environmental accouting and management accounting information systems to green innovation strategy-business performance relationship. Testing the mediating effect was carried out using beta coefficient difference approach. The steps were as follows: (a) to examine the magnitude of beta value as a measure of direct effect of independent variable to dependent variable without involving mediating variables. (b) to examine the magnitude of beta value as a measure of direct effect involving mediating variables, (c) to check the effect of independent variables to mediating variables, and (d) examine the effect of mediating variables on the dependent variable

VIII. RESULTS

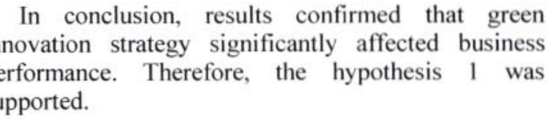
A. Direct Effect Test

This direct effect test was conducted to test hypothesis 1 stating that green innovation strategy significantly affects business performance. Table 1 showed the results of validity, reliability, and fit tests.

Results showed that loading value of green innovation strategy (STR) and business performance (BP) indicators were more than 0.70 with a p-value of less than 5% (significant). This convinced that measurement of the innovation strategy and financial performance constructs had qualified convergent validity. Convergent validity could also be seen from the values of AVE. The AVE value of more than 0.50 means that measurements construct has qualified convergent validity. The values of composite reliability coefficients and Cronbach's alpha coefficients of innovation strategy and financial performance were greater than 0.70. This showed that those variables were reliable.

The value AVE measures colinearity problem. Results showed that the AVE values of innovation strategy and financial performance were less than 3.3. It showed that the model was free from vertical colinearity, lateral and common method bias. Furthermore, the average path coefficient (APC) and the average value of R-Square (ARS) were used to test model fit. Result showed that APC coefficient was 0.658 and significant (less than 5%). The value of R-Square (ARS) was 0.433 and significant (less than 5%). Average value of variance inflation factor (AVIF) was 1 (less than 5). Thus, it was concluded that goodness of fit of the model was fulfilled

Figure 2 showed the direct effect of innovation strategy on financial performance. Innovation significantly affected financial performance with beta value of 0.73 (p-value less than 0.01). This means 1 variance increase in innovation strategy increase 0.73 variance in financial performance. Table 2 showed that the value of r-squared was 0.53 meaning that data variation in innovation strategy explained 53% data variation in financial performance.



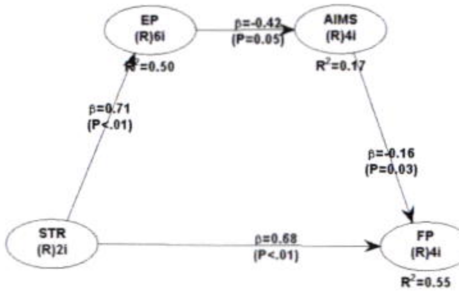
Source: Output of PLS WARP

Figure 2: Direct effect of STR-KK relationship

In conclusion, results confirmed that green innovation strategy significantly affected business performance. Therefore, the hypothesis 1 was supported.

B. Indirect Effect Test

After the goodness of fit model has been fulfilled, then the next calculation of the estimated coefficients in the model lines Indirect Effect. Statistical test results with a full model that can be seen in Figure 3 below:



Source: Output of PLS WARP

Figure 3: Contingency Model of IS-HC-AIMS-IPP-FP

The second hypothesis of this study is the Green Innovation Strategy affects the Business Performance (BP), which mediated the Environmental Performance (EP) and Accounting Information Management systems. Effect of mediation Environmental Performance (EP) and Accounting Information Management Systems (AIMS) to the relationship of innovation strategy (IS) with Business Performance (BP) are statistically at a significance level of 5% can be seen from the following lines (figure 3):

Innovation strategy (IS) effect on Environmental Performance (BP) and statistically significant at the 5% level with coefficient 0.71.

Environmental Performance does not affect the Accounting Information Management Systems (AIMS) are statistically at a significance level of 5% with a coefficient of 0.42.

Accounting Information Management Systems (AIMS) effect on Business Performance (FP) is statistically at a significance level of 5% with a coefficient of 0.16

Of the three pathways, the identification of the Environmental Performance (EP) and Accounting Information Management systems partially mediates the relationship between Green Innovation Strategy affects the Business Performance (BP). This is because there are all significant mediation lines namely Environmental Performance (EP) and Accounting Information Management. Therefore, the second hypothesis in this study proved.

IX. DISCUSSION

Green Innovation strategy is a strategy that focuses on process innovations that promote the sustainable development. According to Grant [5] include green product, green marketing and green Consumerism. Awareness of the impact of the innovation process makes manufacturing company in East Java more attention to its environmental performance. Company manufacturing companies in East Java, especially in the field of processed food in their activities pay more attention to aspects of Economics, Environment, Employment, Human rights, Community, responsible for the product. The sixth aspect according to the GRI environmental performance. Attention to environmental issues is marked by the proliferation of businesses in applying international standards, or better known as ISO-14000. ISO-14000 is an environmental management system that can provide assurance to producers and consumers that with the system apply both waste products produced, the products have been used, or its services has been through a process that takes into account the rules or environmental management efforts [25]. International Organization for Standardization (ISO) has developed a series of international standards for Eco Labelling (ISO-14000). Eco labeling is labeling activities in the form of symbols, attributes or other forms of a product and services. This label will provide assurance to the consumer that the product or service that has been consumed by the process that takes into consideration the principles of environmental management [3].

Strategies in innovating with memorisation environmental performance will have an impact on the information needs. This is the same as the research conducted by Bromwich (1990) argues that the information in Information Systems Management Accounting help companies face the challenges of a competitive market. Information management accounting system as one product management accounting role in helping to predict the possible consequences of various alternative measures, such as planning, control, and decision making as well as environmental organizations.

Characteristics of the information available to the organization to be effective if it can be used by decision makers. Research conducted by Gerloff [31] which concluded that the correspondence between the information needs of decision makers will improve the quality of the decisions to be adopted, and in turn can improve the performance of the company. The strategy adopted is also an impact on the needs of a reliable information system including management accounting information systems. Information reliable accounting system according Chenhall and Morris [29] is a broad scope of information, aggregation, timeliness, and integration. Therefore, innovation in the implementation of strategies to determine the needs of management accounting information systems that are reliable.

Green innovation strategy influence on business performance through the implementation of environmental performance and accounting information management systems. Based on the research results of environmental performance and accounting information management systems partially mediate the relationship between Green innovation strategy with business performance. This suggests there are still other variables (variables contingency) that mediate the relationship between Green innovation strategy with business performance.

X. CONCLUSION

Results of this research can be concluded as follows :

(1) Green Innovation strategy Significantly Affects Business performance ;

(2) Environmental Performance (EP) and Accounting Information Management Systems (AIMS) partially mediate between innovation strategy (IS) with financial performance (FP) .

This research has several limitations. Including: (1) does not take into account the life cycle of a business; (2) study presented only in manufacturing companies in the field of food processing. For their next study should incorporate other mediating variables considering the results of this study indicate a relationship green innovation strategy and business performance partially mediated by environmental performance and accounting information management systems.

XI. REFERENCES

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