

The Effects of Internal and External Environment on SMEs Empowerment-based Environmental Management

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Keywords: Internal Environment, External Environment, Empowerment, Environmental Management, SMEs.

Abstract: This research aims to look at the effects of (1) internal environment on the empowerment of SMEs-based environmental management (2) external environment on the empowerment of SMEs-based environmental management. This research is quantitative descriptive research, and it is explanatory research. Population research is target population, 965 business engaged in the industry of producing waste in the production process in Aceh Tamiang. The number of samples used is 300, randomly selected respondents. Technique of data analysis is Structural Equation Modelling (SEM) with software AMOS. Research results show (1) internal environment effects significantly on the empowerment of SMEs-based environmental management (2) external environment effects significantly on the empowerment of SMEs-based environmental management.

1 INTRODUCTION

Empowerment of SMEs-based environmental management becomes very important in the development of technology as part of the development of globalization perceived by today's society especially in Aceh Tamiang. SMEs in Aceh Tamiang experiences rapid enough growth that is nearly 75,000 business unit, having production of processed foods and souvenirs of Aceh Tamiang.

Its growth ranges from 2012-2015 to reach 15.77% annually (Hariyanto, 2017). Even the number of known perpetrators of SMEs in Aceh Tamiang reach 3,258 units (Disperindag Aceh Tamiang, 2017). Two of the biggest existing SMEs sector in Aceh Tamiang, are industrial and trade sectors. But none of the existing efforts in Aceh Tamiang has environmental permits where there are indications that Aceh Tamiang does not yet have the coaching efforts through empowerment of SMEs-based environmental management and no one business in Aceh Tamiang gets into eco-friendly business. Empowerment-based environmental management has not been implemented consistently; the government does not yet have a special

rules about the empowerment of SMEs-based environmental management.

The growth of SMEs increases while enhancing the activity of the fulfilment of the needs of the public becomes a cause of environmental damage due to the use of natural resources in the process of fulfilling human needs. The efforts of the Government together with the community are not optimal for preventing damage and people feel the impact directly due to the increased activity of SMEs in Aceh Tamiang.

The level of understanding and knowledge is low as the impact of the low level of education of the businessmen and lack of experience, not ready for the change or adaptation of technology leading to great opportunities for the increased environmental damage in Aceh Tamiang. Even the gap between government policy and institutions of the central and regional levels of policy hampers the coaching programs against perpetrators of SMEs.

Bank Indonesia (Bank Indonesia, 2012), mentions that there have been many efforts done to overcome damage to the environment through education to the businessmen about the importance of maintaining environmental sustainability while running a business, by providing information on the positive

impact, running a business by friendly environment, granting incentives (exemption of import duty, tax deductions for the costs of processing the waste, and compost subsidies), and ease of loan funds. But the effort has not been successful because of the awareness and willingness of the businessmen to run business by friendly environment is still low due to internal and external challenges.

Therefore it takes strategy to revamp the SMEs Aceh Tamiang into eco-friendly efforts through policy management of natural resources and the environment, with emphasis on the green economy in Aceh Tamiang. The effort required is the right business model for each group based on the potential economics/natural resources in the area of Aceh Tamiang with attention to the environmental challenges of internal and external environment faced by SMEs in Aceh Tamiang Regency.

2 THEORY

2.1 Internal Environment

The internal environment is where managers work on the culture of the company, production of technology, organizational structure, and physical facilities (Purwanti and Fattah, 2011). (Margaretta, 2012) The internal environment of the company is declaring the forces that exist within the organization itself and have properties that can be controlled by management. Furthermore, Hubeis and Najib (Hubeis and Najib, 2014) also mention that the internal environment is the environmental organizations that are in a normal organization that has direct implications and special in a company. According to the company's own mind-set it is a collection of various kinds of resources, capabilities, and competencies that will be used to establish a market position. Thus, the internal environment analysis include analysis of the resources, capability, and competence owned by the company.

2.2 External Environment

The external environment is instrumental in influencing managerial decision making, processes and organizational structure. The external environment is important to always be monitored and analysed. Analysis of the external environment is difficult because of the extreme complexity and intertwining. (Dewi, 2005). The external environment is the outside force that could

potentially affect the performance of the organization (Astuti, 2011).

The external environment is composed of several elements outside the organization, which cannot be controlled and known by managers. This environment affect the manager when making decisions. There are two types of external environment i.e. micro and macro environments. External micro environment is an environment that has a direct influence on the activities of management of providers, competitors, subscriptions, banking institutions and and others. External macro environment is an environment that has no direct influence, such as economic conditions, changes in technology, politics, and social matters. (Handoko, 2011).

2.3 Empowerment of SMEs-Based Environmental Management

This is a discussion of the empowerment of the individual, group or community in an attempt to take control of their lives by trying to shape the future in accordance with their wishes. Empowerment of directing someone to decide to do in addressing a question in his life is fully realized and controlled to achieve the future.

Conceptually meaningful empowerment of the powers are interpreted as granting authority (Suharto, 2008 in Rinawati, 2010). Empowerment also means an effort to encourage individuals to have responsibility against efforts to improve themselves and the way they are in completing the work and contributing to get the objectives (Makmur, 2008 in Rinawati, 2010).

Environmental management is the activity of planning, organizing, and moving the human resources as well as other resources to achieve the objectives of environmental policy that has been set. Environmental management consists of some aspects of management functions that determine and carry on the implementation of environmental policy (ISO 14001 by Sturm, 1998). Environmental management practices are conducted in a systematic, procedural and repeatedly referred to as environmental management system. Sturm (1998) mentions that the ISO 14001 environmental management system serves as part of the management system, functioning to keep and achieve environmental policy objectives. Environmental management system also has a key element, that is the statement of environmental policy and part of a broader management system in a company.

2.4 Research Objectives

This research aims to:

1. Find out and analyze the effects of internal environment on the empowerment of SMEs-based environmental management.
2. Find out and analyse the effects of external environment on the empowerment of SMEs-based environmental management.

2.5 Hypothesis

The hypotheses of this research are:

1. The internal environmental effects significantly to the empowerment of SMEs-based environmental management.
2. The external environmental effects significantly to the empowerment of SMEs-based environmental management.

3 RESEARCH METHODS

This research is a descriptive and quantitative explanatory research. The population of the research is the target population i.e. 965 SMEs engaged in the industry producing waste in the production process. Sample researches as many as 300 respondents according to the number of samples that are most fit for maximum likelihood analysis in Structural Equation Modelling (SEM) are chosen by random sampling technique.

Data analysis techniques used in this research is descriptive statistics analysis and Structural Equation Modelling (SEM) with software SPSS and AMOS. Data collection techniques used are (1) interview (2) documentation and (3) questionnaire.

4 RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Results of the study show that 60% of business doers in Aceh Tamiang are women entrepreneurs housewives spending their time in the house so they are running a business while taking care of families and households and the remaining 40% are male businessmen. Other data show that 60% are businessmen who are in the age of productive i.e. 35-55 year and the rest of the business doers have already entered a period of pension that is above 55 years of age who are retired as employees. Then 92%

of respondents are entrepreneurs having a high school education while the remaining 8% are businessmen having a bachelor and diploma degree, so they have lower level of knowledge and understanding about business management correctly especially the management effort-based environmental management.

This indicates that the majority of the perpetrators of the SMEC have little knowledge about the environmental management system to manage or develop businesses. Their knowledge is only limited on the method of processing resources or raw materials to be refined or produced to be sold, while knowledge about managing businesses is also done on the financial management in a simple way and not knowing about managing business to be an environmental and friendly business.

Other criteria show there are 78% of household industry trade and the remaining 5% of business is manufacturing. Other data show that the industry is run in household businesses. It also indicates that the food business is indeed becoming a mainstream business according to the waste industry in Aceh Tamiang Regency. The food business is also considered the most easy and quick to run and does not require business or production process too long. But businessmen often forget to maintain environmental sustainability around the effort because food processing residual waste disposal are not well managed.

There are 88% businessmen with a small asset under 50 million and the remaining 12% represents the business of the middle class to the top. Almost all of the respondents i.e. 94% have never followed the construction of the SMEs-based environmental management. Then there is the 33% stating not doing business with environmental management system as they find out that managing businesses with environmental management system is too difficult.

4.2 Result of Data Analysis

Full Model Analysis shows that:

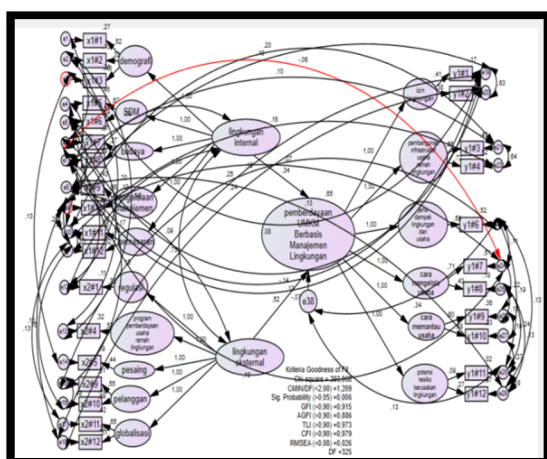


Figure 1: Full Model Analysis.

After it is tested in line with the criteria of the Goodness model of Fit with the following:

Table 1: The goodness of Fit Index Model.

| No | Goodness of Fit Index | Cut-off Value | Results Analysis | Evaluation Model |
|----|-----------------------|----------------------------------|------------------|------------------|
| 1 | χ^2 - Chi-square | Expected to be small | 393,068 | Good fit |
| 2 | probability | ≥ 0.05 or not equal to zero | 0,006 | Marginal fit |
| 3 | CMIN / DF | <2,00 | 1,209 | Good Fit |
| 4 | RMSEA | ≤ 0.08 | 0,026 | Good Fit |
| 5 | GFI | ≥ 0.90 | 0,915 | Good Fit |
| 6 | AGFI | ≥ 0.90 | 0,886 | Good Fit |
| 7 | TLI | ≥ 0.90 | 0,973 | Good Fit |
| 8 | CFI | ≥ 0.90 | 0,979 | Good Fit |

The data in Table 1 show that this research has fit model or good models. Further analysis of the data are reproduced to answer the research hypothesis, they are:

Table 2: Output Regression Weight.

| Relationship between Variables | | Est | P | Results |
|--------------------------------|--|-------|-------|-------------|
| Internal environment | → Empowerment of SMEs-based environmental management | 0,525 | 0,006 | Significant |

| | | | | | |
|----------------------|---|--|-------|-------|-------------|
| External environment | → | Empowerment of SMEs-based environmental management | 0,336 | 0,001 | Significant |
|----------------------|---|--|-------|-------|-------------|

The data in Table 2 can be used to answer this research hypothesis:

- H1: Internal environment influencing positively and significantly to the empowerment of SMEs-based environmental management → Hypothesis is accepted.
- H2: External environment influencing positively and significantly to the empowerment of SMEs-based environmental management → Hypothesis is accepted.

Results of the study prove that internal environmental effect is significant with p value (0.006) and value estimation (0.522); while the external environment also has significant value for p (0.001) with the value estimation (0.336). Internal environment is proved to be able to deliver a strong impact in the real and capability of supporting the empowerment of SMEs-based environmental management. The internal environment is the most powerful factor in giving effect on the success of the empowerment of SMEs-based environmental management in Aceh Tamiang.

Internal environment consisting of demographics (i.e., age, education and income), human resources (consist of business owners and employees), culture, management of business/management, and marketing is a factor entirely derived from the environment internal, able to support the success of empowerment of SMEs-based environmental management in Aceh Tamiang.

The existence of lower educational and income need the attention of the Government of Aceh Tamiang by giving guidance of the empowerment of SMEs-based environmental management. It requires a good understanding and implementation of the business owners and the employees in order to manage the business with good business management system that is environmentally friendly in accordance with ISO 14001.

Environmental management requires full engagement of the business so that the Government must actively provide training and guidance also mentoring entrepreneurs in managing their business well appropriately with environmental management in friendly efforts.

The research is supported by the Sutrisno and Lestari (Sutrisno and Lestari, 2006) and Afifah (Afifah, 2012) that explains that one of the biggest challenges of SMEs is the human resources having limitations in knowledge and skills, making them difficult to work professionally. Therefore the SMEs empowerment-based environmental management continues to provide mentoring to entrepreneurs to successfully become an environmentally friendly business. The Government even has begun to invigorate the ISO 14001 thus requiring intelligent human resources and skill for the sake of continuity of effort into a business-friendly environment.

Hillary (Hillary, 2000) and Purwanto (Purwanto, 2002) mention that in practice companies that practice environmentally friendly businesses according to ISO 14001 as well, get a positive response from employees, an increase in the motivation of work due to safety and security work, and trusted employees towards the company or its management efforts are increased, then the image of the business is for the betterment of the community and employees.

The external environment is also proved giving strong influence and success in the real empowerment of SMEs-based environmental management in Aceh Tamiang. The external environment has a big role in running a program of empowering SMEs-based environmental management although not as big as the role of the internal environment.

The external environment consists of government regulation, eco-friendly empowerment program, competitors, customers, and the factor of globalization gaining positive feedback from the community of businessmen in Aceh Tamiang as they state they would support the government of Aceh Tamiang to manage environmentally friendly businesses. Globalization is an external environmental factor having a role to help the empowerment of SMEs based environmental management. Globalization is closely related with the changes and progress brought about by technology. Times make human beings especially the businessmen forget to keep the surrounding environment particularly concerning waste treatment well as the focus only goes on the process of producing a product that fits the needs and demands of consumers but neglecting the safeguarding of the environment in order to keep the sustainability of nature and man in the future.

Results of the survey show that the respondents agree to continue and meet the standards, design and quality of the product in order to be accepted to the

world market with the utilization of technology and environment i.e. selecting materials and good energy appropriately as part of empowerment of SMEs based environmental management in Aceh Tamiang. The perpetrators of the SMEs hope the program of empowering is implemented continuously to the perpetrators in the attempt to manage the business of environmental management friendly so that this helps to minimize the risk of the business in the form of waste and environmental destruction which threatens the sustainability of businesses and future generations.

Competitors are essential to support the success of the eco-friendly business; it is competition in innovation and the application of a mutual attempt to absorb the technology for processing natural resources without damaging the environment to obtain industry-based ecology.

The research is supported by the Williams and Schaefer Anja (Williams and Schaefer Anja, 2012) stating that environmental and social issues become one of the constraints that impede development of business so we need the involvement of all parties especially the perpetrators' attempt to implement policies to develop the business. But another obstacle is the huge cost of empowerment and a skilled workforce. So businessmen should focus on personal values and directly get involved in environmental protection so that the business will survive and support sustainable development for the community.

5 CONCLUSION

The conclusions obtained in this research are the internal environment and external environment are equally able to affect significantly on the success of empowerment-based environmental management in Aceh Tamiang. The internal environment is the most powerful factor in affecting the empowerment-based environmental management in Aceh Tamiang, i.e. the human resources must be able to run the business with an environmental management system. Human resources are capable of changing the usual business into eco-friendly business or business-based ecology by running ISO 14001 in business management.

ACKNOWLEDGEMENTS

The research is carried out using my own costs for the completion of doctoral studies in the course of

enforcement of environmental resources at Universitas Sumatera Utara. I say many thanks to my supervisor that provide many directions and guidance in the completion of this research until becoming a good research output. The research is my own opinion and I am grateful for any constructive criticism.

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