

Environmental Management System to Improve Competitiveness for SMEs

Yuliani
STKIP PGRI TULUNGAGUNG

Budi Eko Soetjipto
Faculty of Economics, Universitas Negeri Malang

Abstract

Nowadays, there are many SMEs economic activities which could cause damage for the environment. The occurring damage will cause negative effects for the sustainability of the environment and human life. Therefore, SMEs must undertake anticipatory measures in their economic activities. One of the ways can be achieved by implementing an environmental management system / EMS. SMEs applies EMS is not as a result of feareness of disobeying law, but it is more as an effort to build culture and life. It is an awareness that a company needs environment management and let the learning organization runs smoothly. The application of knowledge management is considered as an organization model that able to anticipate the future needs. The application of this EMS will provide benefits for the company, both in terms of economy (profitability) and in terms of the environment (the creation of a sustainable environment). At last, when there is achievement of the SMEs' performance from both economic and non-economic, the competitiveness will also be increased. Competitiveness will encourage SMEs to continue to innovate and efficiency.

Keywords: Environmental Management System, Competitiveness, SMEs

Introduction

The human life and their environment are like two mutually relationship that should be maintained. There should be a reciprocal relationship that is harmonious for humans and the environment that may continue to occur in a mutual relationship. (Gary, et al, 1995 in Stefanus, 2014) Human for the production, distribution and consumption can not be separated from the presence of humans in all respects. The human activity including economic activities should be based on the creation of a healthy, balanced, and harmonious. At the recent time, environmental issues have become an important part of business activities. The related environmental issues continue to shift from time to time. In 1960, there was a phenomenal issues related to waste and pollution in urban industrial areas, the context of environmental issues that are narrow / local. In 1970, this issue is dealing with global environmental issues warning, acid rain, and ozone depletion. In the range of the 1980s, environmental issues related to the further degradation of the global environment which then makes countries in the world agree on the importance of sustainable economic concepts. As with the globalization of trade that occurs at this time, there is a consensus among countries that the competition that there may not cause environmental damage (<https://petrasawacana.wordpress.com/2010/01/28/pengelolaan-limbah-dan-polusi>)

One of the businesses that participated in the globalization of trade is the Micro, Small and medium enterprises (SMEs). The existence of SMEs is crucial in terms of labor absorption and its contribution to the national income. In Indonesia, SMEs has reached 55.2 million units, or 99, 98 percent of the total Indonesian business units. Sector of micro small and medium enterprises in Indonesia is very potential to be developed. Therefore, this sector proved contributed 57.12 percent to the Gross Domestic Product (GDP). In fact, this sector has absorbed 101.72 million workers or 97.3 percent of the total workforce Indonesia.

However, the business activities of the Micro, Small and Medium Enterprises (SMEs) are also very influential on the environment. This involvement of small businesses in environmental management practices is essential (Leutkenhorst, 2004; Naffziger, Almed & Montagno, 2003). The contribution is up to 70% of the global pollution (Stokes, Chen & Revell; Hillary, 2000). Yet, many small businesses are not involved (Branford & Fraser, 2008; Gadenne, Kennedy & McKeiver, 2008) in Janice and Elizabeth W, 2009).

In Indonesia, the existence of SMEs as businesses could produce various necessities of life, unwittingly it becomes one of the contributors for the cause of environmental damage. The negative impact caused by the case of SMEs ranging from efforts to obtain raw materials, production processes, and waste generated both during production and thereafter.

This condition can occur due to several factors such as: (1) lack of knowledge of the importance of environmental preservation of the business, (2) a part of management that are not concerned with environmental issues, (3) the technical equipment used by the organization tends to damage the environment.

The implementation of an environmental management system will provide guidance to companies about the importance of preserving the environment for all companies without disturbing the goal that is economic / profitability. Thus, the implementation of an environmental management system, both environmental goals and

economic goals will be achieved.

Environmental Management System (Environment Management System / EMS)

The development of machine, technology, robotics and nuclear has helped humans in life. For companies, this development will bring tremendous impact for organizational life because the company can operate in an efficient manner. Unfortunately, the development of these technologies does not give a good impact for environmental. Pollution, environmental destruction, floods, landslides, drought is one of the environmental implications of activities of a company. The destruction is a long-term effect of the company's activities.

In general, there are several factors that cause environmental damage such as: (1) the perception of most people that nature is a gift of God that does not need to be maintained and preserved, (2) the use of technology that is not appropriate, (3) lack of education about the importance of environmental conservation in formal schools, (4) exploitation without being followed by efforts to conserve the environment, and (5) a large population growth, especially in developing countries.

The natural resources that exist in the world have a threshold in its use. Human must use it wisely, rationally and efficiently. A wise action, rational and efficient will give future generations the opportunity to share in the natural resources that is available. There are several behaviors that can be done by the company to help in preserving the environment, for example by saving the consumption of raw materials, use of environmentally friendly technologies, producing products that can be recycled, the waste from the industry process are easily recycled by natural processes, and so forth. Over time, many large companies have taken steps to reduce pollution and hazardous work and environmental activities. Hence, small businesses realize the impact of their business on the environment or the need to address environmental issues (Melton & Tinsley, 1999), Williamson and Lynch-Wood (2001) showed that some small businesses consider themselves to have awareness of environmental issues.

Christopher J. Newell & Walter B. Moore (2010) said that small companies face obstacles to be "green" due to lack of skill, resources, necessity, and commitment which can be found in a big company. Supposedly, this economy kind of constraints does not need to avoid companies to participate in a "Green" and report its corporate social responsibility.

However, the research of Peter & Turner (2004); Redmond, Walker & Wang (2008) in Janice and Elizabeth (2009) showed that many small businesses make the environment as "peripheral" than the problem of the core business and that they do not feel that they have a significant impact on the environment. This is a serious problem because it shows that small businesses have not been involved in the environmental problems. Walker, Redmond & Goeft (2007) said that in line with a small business view in a recent research cause the environment to be a "peripheral" rather than from the core business itself and they think that they do not have significant effect on the environment. Therefore, it becomes a serious issue because small business has not been the part of environmental issue in this sector.

Jenkins (2004 cited in Roberts Lawson & Nicholas (2006) observed that small businesses are often seen as a problem because they failed to engage in corporate social responsibility activities, due to the failure of governments to be actively involved in the small business. It shows that small businesses do not understand their role in the environmental problems. Abdul Majid and Muhammad Yasir (2012) stated that most entrepreneurs in Pakistan are not concerned with the environmental problem. There is a shortage of policies to deal with the complexity of the environment or proactive analysis of the business environment variable.

Literature around the world show that considerable efforts have been made to determine how best to involve small businesses in environmental management (Condon, 2004; Revell & Rutherford 2003 in Janice and Elizabeth (2009). One of the ways which can be taken by small businesses is to implement an environmental management system in the organization.

Environmental management system is a way to combine the harmony of the environment with the goal of economic organization. Netherwood (1996) showed that every business is unique as each business will develop its own environmental management system. This is because each organization has its own management structure, products or services, processes and financial and political priority. System adopted a plan should continue to measure, improve and revise the organization's strategy to achieve business and environmental excellence.

In its application, the environmental management system is an integral part of the company's management in general. The existing management structure consists of the organizational structure and human resources, tasks and responsibilities, procedures established by the company. Through the environmental management system, the negative impact of the company's production activities will be minimized and will result in the creation of a sustainable environment. Increasingly strict government regulation and pressure from stakeholders is another reason of the application of the environmental management system.

James & Bennett (1994) stated that the environmental management system is a cyclic process consisting of a number of methods that should be used to achieve effective assessment of environmental performance. The cycle of the environmental management system is as follows:

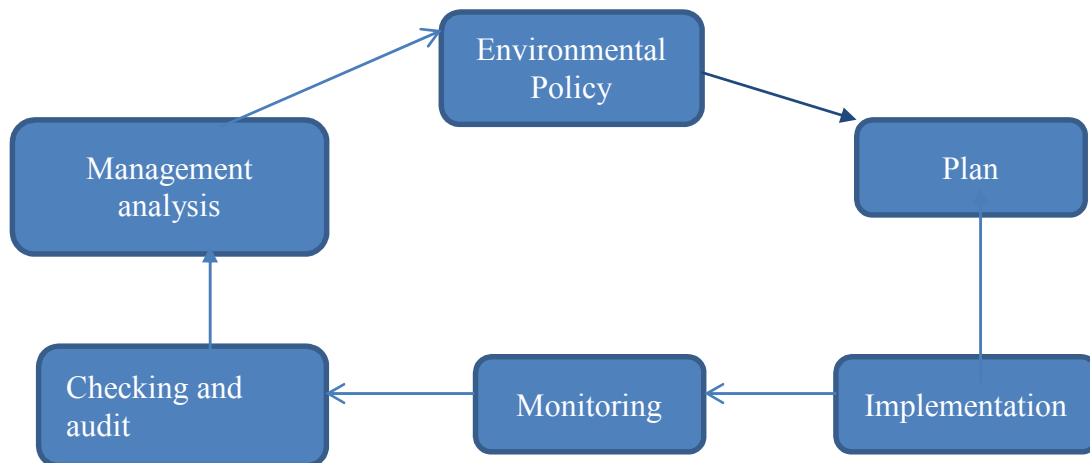


Figure 1: The image EMS stages according to James & Bennet (1994)

The environmental management system will be the incentive for companies to take responsibility for the environment. Environmental conservation strategies must be internalized at every line of the company's management. All lower, middle, and top management lines have to adjust each organizational management activities with the goal of preserving the environment, so that it will achieve profitability goals and environmental objectives of the organization.

Environmental management system (EMS) is defined as part of the management system as a whole which includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy (ISO 14001: 2004). All organizations, large or small organizations should unite the environmental issues with all operational activities of the company. Normatively, EMS has been said to enable organizations to improve economic performance and environmental performance (Goh, Suhaiza and Nabsiah 2006; Fortunski, 2008).

According to ISO 140001, there are three procedures for implementing the environmental management system. The procedure is as follows:

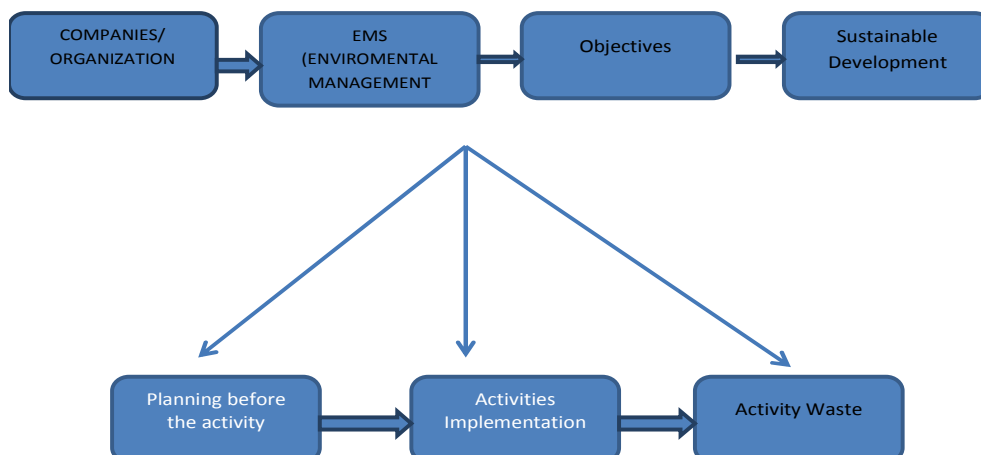


Figure 2: The Procedure of Implementing the EMS

There are several reasons why a company should manage the environment such as (1) professional ethics, (2) the rules of national and international law, (3) economic profitability, and (4) pragmatism.

The benefits that can be gained from implantation of environmental management system is: (1) consumers and stakeholders are increasingly demand the products and services that are environmentally friendly; (2) environmental legislation that has increasingly stringent; (3) an environmental management system that has been certified (EMS) or ISO 14001 not only monitor and optimize the environmental aspects of the company's business activities, but also proves that the company cares about the environment; (3) ISO 14001 is an environmental management system standard that has been accepted globally. By meeting certification requirements, companies can demonstrate their commitment to the environment and the advantages of standards on environmental management more effective; (4) Reducing the risk of incidents on the environment; (5) Improved relationships with customers, government agencies and the general public; (6) Better use of energy and resources; (7) cost savings, for example through effective waste management; (8) Compliance with environmental rules and

regulations; and (9) Improve health and safety.

Competitiveness of SMEs

The era of free markets has been agreed by the countries in the world which have consequences on the increasingly high demands on the quality of products sold in the market. The variety of goods sold more varied, both in terms of quantity, quality, price, and other. In order that a product will be more superior to its competitors, the product must be competitive.

However, most SMEs in Indonesia have difficulties to penetrate the global market. According to Syarif Hasan (2011) there are several factors barrier for SMEs to export such as: (1) the financing access issue; (2) the limitations of international relationship which is expected to have more attachment with other countries; (3) difficulty in the required understanding the terms, rules and technical; (4) the need for environmental transparency and business; (5) the inadequacy of regulation framework that supports international trade through e-commerce; (6) inability of intellectual rights protection; (7) the pricey transportation costs; (8) delays on taxes include difficulty in understanding the customs requirements and its complexity; (9) difficulties in using ease tariff and various agreements in the field of trade.

The role of government to make SMEs can penetrate global markets is required. There are some efforts that could be made such as: (1) provide easiness for SMEs to gain access to both financial and non bank banking institutions; (2) improve product quality based on international standards; (3) improving the quality of human resources for both owners and employees; (4) increased innovation and creativity of SMEs through the transfer of knowledge and technology; (5) the provision of facilities for SMEs to participate in trade fairs outside the country. Through the participation of the government, it is expected that the competitiveness of SMEs will increase.

According to McKelvie and Davidson, 2009, a company which has a good competitiveness must be innovative, oriented on providing services and products that have high added value and able to export. In addition, the company's competitiveness is a company that is able to adapt to the effects of environment and different time. However, according to Man et al, (2002) empirical studies gave no specific answer why the companies are more competitive than others.

In the long term, highly competitive products will have advantages compared with other similar products. These advantages will enable the company to survive in the competitive arena. Porter (1980) stated that "The competition is the core of the success or failure of firms. There are at least two aspects of the competition. The first is the aspect of success that will continue to motivate the company to continue to achieve success in the market through innovative products and the best service to its customers. The converse is the failure aspect that will happen to companies that do not like change, passive to changes in the business environment.

Competitiveness is influenced by several factors. The first factor is price. Price is the value of goods or services measured by the number of money. For the sake of obtaining a good or service that a consumer wants, they should be willing to pay a number of money. For the sensitive customers, low price is normally an important source of satisfaction because they will get value for money that is high (Basu & Irawan, 2008). Both are goods' quality. A product will have a high quality, if there is conformity with the market. Third is location. The strategic location will attract buyers to make transactions because it will provide convenience for visitors. The fourth is service. Excellent service will form a loyal customer for the company. The fifth is the promotion. Promotion is one of the ways used by the company to introduce new products or to inform long products of the company in order to gain new customers and retain old customers. Other factors is the level of growth in sales and profits achieved, product innovation, the efficiency achieved by the company, expertise and skills of employees, technology used, and others.

In an effort to gain a competitive advantage, according to Kotler (2005) it can build customer relationships that are based on: (1) the value of the customer. Value for customers is the difference between the total value for the customer and the customer total cost of the marketing offer ('profit' for the customer); (2) customer satisfaction. Customer satisfaction is the extent to which the performance given by a buyer's product expectations commensurate with the product's performance is less than expected, then the purchaser is not satisfied. Customers' satisfaction on the purchase depends on the real performance of a product, relative to the expectations of the buyer.

Implications of EMS Implementation on the Competitiveness of Small and Medium Enterprises

Some studies suggest a link between environmental management systems with the performance of organization. Hanna and Anton, 2002 said that the management system environments are often used more widely because of changes in business conditions which emphasize the company's performance. Sharma & Patterson, 2000; Gil, Jimenez & Lorene, 2001; Benito Gonzalez & Oscar 2004 in the US Abdullah AL-Shourah (2014) found that EMS has a positive and significant relationship with the company's performance. Studies of the King & Lenox, 2001 showed that the EMS to make the company more efficient and innovative.

Some organizations decided to adopt EMS because of external pressures such as government regulations, public participation and market demand (Bozena, Jens and Eklund, US 2003 dalam Abdullah AL-Shourah (2014)).

According Rondinelli and Vastag (1995) the response of industry to environmental stress has led to the practice affecting profitability.

A transition to a green economy has pushed the company to use the new tools that promote internal entrepreneurial companies, improve competitiveness and achieve sustained results (Cassiano Moro Piekarski, Leila Mendes da Luz, Lidiana Zocche, Antonio Carlos de Francisco, 2013).

While Cirstea Ștefan Dragoș (2013) said that the concept of environmental management embodies the concept of sustainable development through a variety of mechanisms that incorporate the technology, sustainability and economic growth in the production of goods and services. Cirstea considers that environmental management system if applied correctly in any organization management contribution system is to improve competitiveness with a significant reduction of environmental impact. Among the benefits that the management of a competitive environment can bring organization to: reduce costs, improve the image of public and social organizations, conservation of natural assets that are not renewable, attract new customers, easier penetration in some markets, improving environmental performance to improve relations with the public authorities both central and local.

Conclusion

The existence of SME has greatly contributed to the economy of a country. It is able increase the national income and the employment. Yet, SMEs have also contributed to the damage to the environment. Some research show that the sector does not fully care for the deteriorating environment from their economic activity.

Environmental management system / EMS is one of the ways that can be used by SMEs in reducing adverse environmental impacts. EMS is a part of management that seeks to improve the performance of the environment. EMS can also be the balance between general corporate purposes (profit and growth) and the environment. Therefore, the implementation of EMS will be creating competitiveness for SMEs. The higher the achieved competitiveness of SMEs, it would also affect the development of SMEs in a country.

Future Research

Environmental innovation is not only related to new technologies, but also with regard to new management systems that may be underestimated by environmental managers with traditional perspective. Environmental innovation is now starting to show the direction in the design of new products, the manufacturing process, a new approach to accounting (eco-accounting), the marketing of products in a new way (marketing green and clean), and the initiative of the new management (Sammalisto, 2001)

REFERENCES

- Abdul Majid & Muhammad Yasir. *Enhancing Managerial Capabilities For Environmental Analysis: Framework For Entrepreneurial Development In Pakistan*. Interdisciplinary Journal of Contemporary Research In Business. Vol 4, No 6
- Abdullah A.S. AL-Shourah. 2014. *Stakeholders' Pressure Effect Of Environmental Management System: The Case: Of Jordan University Hospital*. Interdisciplinary Journal of Contemporary Research In Business. Vol 5, No 11
- Anton, W.R.Q., Deltas, G., & Khanna, M., 2004. *Incentives for environmental self regulation and implications for environmental performance*. (JEEM) 48 (1), 632-654.
- Basu Swastha & Irawan. 2008. *Manajemen Pemasaran Modern. Edisi 8*. Jakarta. Pustaka Belajar.
- Christopher J. Newell & Walter B. Moore. 2010. *Creating Small Business Sustainability Awareness*. International Journal of Business and Management. Vol 5 no 9.
- Cirstea Ștefan Dragoș. 2013. *Ethical Aspects of Environmental Management, vol issue 1, pp 1443-1451*.
- Fortunski, B. (2008). *Does The Environmental Management Standard ISO 14001 Stimulate Sustainable Development? An Example From The Energy Sector In Poland*. Management of Environmental Quality: An International Journal, 19(2): 204-212.
- Goh, E.A., Suhaiza, Z. & Nabsiah, A. W. (2006). *A Study On The Impact Of Environmental Management System (EMS) Certification Towards Firms' Performance In Malaysia*. Management of Environmental Quality: An International Journal, 17(1): 73-93.
- <http://www.rakyatmerdekaonline.com/news.php?id=28252>
- ISO 14001.(2004). *Environmental Management Systems- Specification with guidance for use*. International Organization for Standardization (ISO), Geneva.
- James, P. and Bennett, M. (1994) "Environmental-Related Performance Measurement in Business: From Emissions to Profit and Sustainability?," Ashridge Management Research Group, Berkhamsted.
- Janice Redmond & Elizabeth Walker. 2009. *Environmental education in small business: the owner manager's perspective*. Australian journal of environmental education vol 25.
- King, A. A., M. J. Lenox, & A. Terlaak. (2001). *Forthcoming "The Strategic Use Of Decentralized Institutions:*

- Exploring ISO 14001 Management Standard*". Academy of Management Journal.
- Man, T., Lau, T., & Chan, K. (2002). *The Competitiveness Of Small And Medium Enterprises. A Conceptualization With Focus On Entrepreneurial Competencies*. Journal of Business Venturing, 17, 123–142.
- McKelvie, A., & Davidson, P. (2009). *From Resource Base To Dynamic Capabilities: An Investigation Of New Firms*. British Journal of Management, 20, S63–S80.
- Melton, K & Tinsley, S. 1999. *Outlook For Greener Marketing: Unsettled And Cyclonic*. *Eco Management And Auditing*. 6 (2) 86-97.
- Michael, Porter. 1980. *Competitive Strategy: Techniques For Analyzing Industries And Competitor*. New York. The Free Press
- Netherwood, A. (1996) "Environmental Management Systems", In Welford, R. (Ed.), *Corporate Environmental Management – Systems and Strategies*, London: Earthscan Publications, pp. 35-58.
- Philip, Kotler. 2005. *Manajemen Pemasaran Jilid 1 dan 2*. Jakarta: PT. Indeks Kelompok Gramedia
- Roberts, S Lawson, R & Nicholis, K. 2006. *Generating Regional Scale Improvements In SME Corporate Responsibility Performance: Lessons From Responsibility Northwest*. Journal of business ethics, vol 67.
- Rondinelli, D. & Vastag, G. (1995). *International Environmental Standards and Corporate Policies: An Integrative Framework*. California Management Review. 39 (1), 106-122.
- Stefanus, 2014 in www.profauna.net/id/content/menggagas-bisnis-dan-aktivitas-ekonomi-yang-bertanggung-jawab-pada-bumi#VjG9Zm42GKE
- Williamson, D & Lynch Wood, G. 2001. *A New Paradigm For SME Environmental Practice*. The TQM magazine. 13 (6)
- www.petrasawacana.wordpress.com/2010/01/28/pengelolaan-limbah-dan-polusi