Competence of small medium enterprise employees to Implement ISO 14001:2015 (case study: laundry machine industry SME in Bantul Yogyakarta)

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Competence of small medium enterprise employees to Implement ISO 14001:2015 (case study: laundry machine industry SME in Bantul Yogyakarta)

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Abstract. Small Medium Enterprises employees are the main executors in the implementation of standard in SME included the standard of environmental management system ISO 14001:2015. The success of this standard ISO 14001:2015 implementation is extremely determined by the competence of SME employees in understanding and implementing ISO 14001:2015 until the purpose of implementation can be achieved such as reaching environmental targets, improving environmental performance, and fulfilling arrangement obligation. This research aims to see the competence of SME employees in the implementation of ISO 14001:2015 until the purpose of this standard ISO 14001:2015 implementation can be achieved. The method used in this research was quantitative research method. For this purpose, the research instruments were in the form of questionnaires designed and tested on SME employees. Data were processed statistically. The research results show that the competence of SME employees in the implementation of ISO 14001 is sufficient and above average. SME employees know the environmental target and environmental instruments in the implementation of ISO 14001:2015. Besides that, SME employees also understand environmental regulations and the management of waste produced by SME.

1. Introduction

International Standard Organization (ISO) 14001 is the world’s second most popular ISO standard after ISO 9001 (ISO Survey, 2016). In 2016 as many as 346,189 companies have implemented ISO 14001. In Indonesia there are 2,001 companies that have implemented ISO 14001 or 0.58% of the total companies globally (ISO Survey, 2016). From all companies in Indonesia that implement ISO 14001 most are large companies with large resources and technologies and for small companies like SMEs are still rare. This is because large companies have hold many large resources such as finance, human resources, environmental management systems and also technology. In short, there is a growing body of literature which discusses the expected results from the application of environmental management systems such as Environmental can be reduced and controlled by ISO 14001 certification [1]. ISO 14001 standard is not only an environmentally supportive strategy, it also offers numerous benefits to the entire organization [2], this ISO contributes to the promotion and adoption of environmental management principles at the company level, contributing to improving the environmental footprint of industrial areas, and reducing the negative effects on nearby communities [3].
The implementation of SML is one of the ways to ensure the product comes from a responsible process. The responsible ways are done not only by big business owners or industry but also expected to be conducted the business owner of small-medium enterprises (SME). The number of SMEs in Indonesia keeps increasing each year. SME has a very important role in moving the economy of Indonesia.

The implementation of SML ISO 14001 at SME becomes a particular challenge for SME especially ISO 14001: 2015. The success of SML implementation in SME depends on a couple of things; one of them is employees’ competence. SME must be able to ensure the personnel implementing the job under the control of organization towards environmental policy, environmental aspect, and impact of related environment, contribution towards the effectiveness of environmental management system, the implication if there is discrepancy towards the requirements of environmental management system. Economic reasons and the special structures of an organization is the most important incentive for stimulating the employees and management team to adopt environmental management system at SME [4]

In SML implementation at SME, the employees’ competence factor in environmental management becomes pivotal for the success of environmental management itself. Ahinfu, et al. [5] states that the pressure from the management and employees has a positive and significant impact on SML implementation at SME. It might occurs because they expect that the problem can be handled by SME. However, Bluff states that SME tends to focus on the competence needed in finding the way to develop knowledge and skill, affecting the attitude, obtaining the action wanted or achieving certain goal [6]. Beside that, SME give various level of attention towards environmental problem and sustainable process [7]. This research aims to see the competence of SME employees in implementing ISO 14001 Environmental Management System at SME.

2. Method
The method used in this research was a quantitative method in which using questionnaires as the measurement tool to measure employees’ competence. This questionnaire contains questions about critical matters in the application of ISO 14001. Then the data were analyzed statistically.

3. Result and discussion

3.1. Profiles of SME employees
SME employees in this research were 43 people spread at the production department, marketing department, finance, and purchasing department, RnD, store, electricity operator, and included SME’s Director. In general, the profiles of SME are described in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Profiles of SME Employees.</th>
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<td>Variable</td>
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<td>Years of Service</td>
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3.2. Competence
Competence has the main element in the form of knowledge and expertise as the basics needed by the organization to achieve the organization’s purpose. Competence also has positive impact on the organization because competence is related to the characteristics of someone in which those characteristics will affect his/her work performance. Competence is an important factor for the company. This is as mentioned by Lendzion [8], who states that 84% of companies treat their employees not only
as human resources but also as the intellectual capital of the company, which is the main investment if the company wants to develop. Besides that, to increase the competence-based on SNI ISO 14001: 2015, it is mentioned that in the case of organization competence then must:

a) determine the competence needed for the personnel implementing the job under control of organization which can influence the performance of organization environment and the ability to fulfill the obligation of organization management;

b) ensure that the personnel do the job under the control of organization competence based on education, training, or relevant experience;

c) determine the need for training related to environmental aspect and environmental management system of the organization;

d) if it can be applied, conduct action to obtain needed competence, and evaluate the effectiveness of taken action.

3.3. The competence of SME employees in implementing ISO 14001

By the existence of good competence in implementing ISO 14001, it is expected that the performance of SME also increases. This in line with the statement of [9] who states that innovation ability and competence are factors that have positive effect on SME. The increase individual’s intervention in ISO 14001 implementation can be seen from the motivation and competence of the employees [10]. Training and human resources development for improving competence becomes the main purpose of the companies [11].

Employee competence in implementing ISO 14001 is already good enough with the average score of questionnaires is above 3 (scale 1-5). Some things that have scored good enough are their knowledge about organization environment privacy, environmental target, and types of waste produced by the organization. While the questions that have less score are about how is waste management and also about the environmental rules which are under the condition of organization environment. The employees who are in the office have more knowledge than the production employees which in the average graduated from Senior High School or at the same level as that.

4. Conclusion

Based on the research, it obtains the result that the competence of SME Employees in implementing ISO 14001 is good enough and above average. SME Employees know the policy and targets of the company environment. They also know the rules about the environment, types of waste, and how to handle waste. Further research can be conducted to see further the competence of SME Employees in implementing ISO 14001, especially for knowledge and specific competence such as life cycle assessment and the measurement of environmental work using environmental performance indicators.

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