

Environmental management system in small and medium enterprises in Malaysia: a review

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Abstract

The ways used to limit the environmental liabilities resulting from the utilization of the resources of the environment for wealth creation is through improving the environmental performance of corporations. Therefore, ISO 14001 Environmental Management Systems (EMS) provides a framework for achieving this goal and would help firms integrate environmental values into their business operations and reduce liabilities. Sceptics think that, overall, EMS will not improve the world's environmental situation because it does not set environmental performance or technology criteria and only give little benefit to the company. This paper addressed the ISO 14001 and Environmental Management Systems in small and medium enterprises as well as other related issues of EMS.

Keywords; EMS, ISO1401, SMEs

INTRODUCTION

ISO 14001, which is directly connected to the European Eco-Management and Audit Scheme (EMAS), is considered as the most expansively practiced standard when it comes to environmental risk management (H. H. Low 2015). This signalled the start of Environmental Management (EM) in the industries. EM means managing human societies' interaction and impact on the environment. However, this may be misleading since EM does not simply refer to the management of the environment. As a tool in the observation and preservation of the environment, Environmental Management is gaining ground as an imperative. Globally, EM is utilised by industries in identifying, monitoring and regulating effects that could possibly happen to the environment. At present, some sectors of industry actually regard EM as an approach and a requisite in business. By implementing EM policies, companies are provided with a competent guide towards the concurrent establishment, development, and assessment of their business practices as their organisations strive to achieve both business and environmental objectives.

ENVIRONMENTAL MANAGEMENT REGULATIONS

Environmental management (EM) is "a traditional set of approaches and practices which allows an organisation to reduce its environmental impacts and raise its operational efficiency" (Yusoff 2008). Signifying the overall management structure, EM addresses both the immediate and long-term effects of its products, services, and processes in relation to the environment. When the British Standard 7750 (BS7750) was established by the United Kingdom, EM became fragmented, later developed the Eco-management and Audit System or EMAS (H. H. Low 2015). In 1991, the International Standard of Organisation (ISO) established the Strategic Advisory Group on the Environment (SAGE) in order to recommend a global environmental standard. As a result, the ISO 14000 series were introduced in 1993 towards helping the industries achieve the dual qualities of sustainability and environmental friendliness.

ISO 14000 series : ISO 14001 lays down the steps that an organisation must take towards effective EM implementation. To date, the ISO 14000 series is employed by most of the organisations, regardless of their industry association and size, for benchmarking their environmental management performances. More than 100 countries have endorsed ISO 14001 as an international standard; about 50 countries have also written the standard by consensus (Perumal Puvanasvaran 2012). The ISO 14000 series' standards can be categorised into two major groups: organisation-based and product-based standards. The organisation-based standards are not only concerned with other environmental systems and functions that are organisation-wide in scope, they also deliver sufficient supervision towards the establishment, preservation and assessment of an EMS. On the other hand, product-based standards are useful with environmental declarations and labels, as well as for the determination of environmental impacts which could be caused by the products and services over their life cycles (Bentlage 2007).



Figure 1: Environmental Management System Model

Some of the essential elements that an efficient Environmental Management System constitutes of include; Environmental policy – It is necessary to develop a statement that declares the organisation’s commitments about the environment. Environmental aspects – to identify the environmental aspects related to products, services, and activities. Legal requirements – to identify and allow access to appropriate laws and regulations, and other policies that the organisation adheres to. Objectives and targets – to establish the environmental goals of the organisation in agreement with the environmental policy, its effects, along with the other factors. Environmental management programs – to achieve the objectives and goals of the organisation. Structure and responsibility – to establish the appropriate roles and responsibilities for environmental management, along with necessary resources. Training, awareness and competence – Extensive training of all the employees is required so that the employees are sufficiently skilled to execute their environmental responsibilities. Communication – to identify and set up effectual channels and processes of communications for internal and external. EMS documentation – to control and maintain the information related to the EMS, along with the associated documents. Operational control – to identify, plan and manage the operations and activities accurately in agreement with the environmental policy, goals and objectives. Monitoring and measurement – The organisation’s main operations, activities and track performance have to be monitored in addition to performing periodic assessments and evaluations to ensure compliance with legal requirements and regulations.

BENEFITS OF ENVIRONMENTAL MANAGEMENT

There has been much research in the past that has analysed the advantages of environmental management. The purpose to have the ISO 14001 certification has its roots in the antecedents that persuaded the decision makers to practice EMS certification. The advantages are linked with the competences that are enhanced by the certification. The advantages may also include performance enhancements achieved due to those capabilities (Siti Norhafizan Hibadullah 2013). Table 1 presents a summary of advantages of environmental management based on the past research.

Table 1: Summary of advantages of environmental management

Benefits of EM	Reference
Improved production management, quality, and customer satisfaction	(O. Boiral 2012)
Improved compliance assurance and operational efficiency, greater cost savings.	(Homens 2011)
Communication with interest groups, very strong internal motivation.	(H.J.D. Vries 2012)
Adaptation of environmental legislations, enhancement of public image of the organisation.	(G. Rodriguez 2011)
Improved operational efficiency, cost savings, positive external relations, reduced risk, improved communication, better public image, better public relations.	(Yusoff 2008)
Improved productivity and competitiveness, enhanced business profitability, and better green image	(P. Gonzalez 2008)

BARRIERS TO ENVIRONMENTAL MANAGEMENT IN SMES

To ensure that an environmental policy or system is efficiently promoted in small and medium scale businesses and organisations, it is critical to recognise the barriers and potential drivers for executing the environmental policy or system. As explained in several past research works, the absence of capability and financial resources together with the dearth of familiarity are often regarded as the key barriers to the adoption of environmental management in small and medium scale businesses and organisations. As stated by (The National Environmental Education & Training Foundation 2001), the following are a few of the key barriers towards implementing environmental management, classified under different categories:-

Motivation: Motivation is the key to implement EMS, however the motivation is not there due to; Lack or absence of customer requirements for setting up an environmental management. Belief that environmental management is not crucial. Delusions that environmental issues are not the company's priority. Not much pressure on the part of public and NGOs to espouse EMS;

Resource concerns: Issues pertaining to the cost and time required to set up an EMS, to the operational costs after execution of EMS; and delusions that an EMS is intricate and unattainable.

Execution concerns: Fear of non-compliance with protocols or permits; and Fear of prospective internal issues within the organisation, such as process issues, personnel issues, and organisational policies.

SUCCESS FACTORS FOR IMPLEMENTATION OF ENVIRONMENTAL MANAGEMENT

The senior management should essentially have a clear outlook regarding the vital success factors in the deployment of EMS. A study (Ambika Zutshia 2004) highlighted that the most generic vital success factors in employing EMS ISO 14001 are leadership and backing of the management, learning and training, internal analysis, and sustainability. However, according to another research (Nalini 2004), worker empowerment, managerial commitment, feedback and rewards, and review were termed as the major aspects in employing environmental management.

Another study has emphasised that the top management should consistently strive for EMS documentation, ecological aspects, audits, training, operational control, goals and targets, environmental management initiatives, and document control (Khalid 2002). Furthermore, it should determine the vital success factors which complement their company based on the size of operations and distinctive influence on the environment.

DISCUSSION

Since enterprises considers environmental degradation as a serious concern, the past two decades have seen the increasing adaptation of environmental management policies in many companies sector. Depending on the size of operation and its particular impact to the environment, different strategies to address environmental issues may have been adopted by individual manufacturing companies. EM implementation may give both tangible and intangible benefits to the performance of each manufacturing company in economic and environmental terms. But awareness about the importance of EM has not reached all the companies, especially those small- and medium-range with less manpower and with lower financial capabilities. Thus, studying the characteristics of small- and medium-scale manufacturing is a must. This should include topics such as environmental awareness in the manufacturing sector, current behaviours concerning environmental management, EM benefits, and EMS implementation impact.

CONCLUSION

ISO 14001 Environmental Management Systems (EMS) provides a framework for achieving this goal and would help firms integrate environmental values into their business operations and reduce liabilities. Sceptics think that, overall, EMS will not improve the world's environmental situation because it does not set environmental performance or technology criteria and only give little benefit to the company. This paper addressed the ISO 14001 and Environmental Management Systems in small and medium enterprises as well as other related issues of EMS

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