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Name:

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**Introduction**

EMA is a process where the management identifies, collects and analyses data, with the aim of providing insights in how the corporation is affecting the environment and impact of the environmental factors on cooperate activities. The liabilities of these activity can be classified into; prevention costs, appraisal costs, internal failure costs and external failure costs (IFAC 2015). The benefits are; improvement of sales, reduction of costs, minimizing the cost of failure, and creating a better image of the organization. The process however has challenges as it is difficult to determine environmental impact on an organization and vice versa. This paper looks at these challenges and a model of an EMA, hence showing why it’s worth doing it.

**Challenges of Environmental management accounting**

**Poor coordination between accounting and other departments**

The staff in the environmental department in an organization usually possess a deep seated knowledge on the current and potential environmental issues. The process and manufacturing department also have a heavier understanding of the corporation’s life cycle, these include the flow of raw materials, energy, water and waste materials in and out of the system. These two department most of the time have no idea the role played by the information they possess in accounting (Martin & Pall 2015). Similarly the accounting department deals with cash flow in and out of the organization and have shallow information on environmental or function process of the organization. They therefore end up passing on information from each other which may be very insightful. The poor condition may also be due to the varying objectives of departments and the fact that information systems between these departments are inconsistent.

**Environmental information being recorded in overhead accounts**

In a typical organization setting the environment related costs are recorded in overhead costs instead of being recorded in the processes or products from which they resulted. This means a manager who might find this information useful might miss it. To a manager the overhead costs are fixed costs which encompass licensing, legal and training costs. A manager without a keen eye would therefore miss environmental related costs recorded in these accounts and would therefore not take any control measures to mitigate the problem. Another issues occurs when overhead costs are allocated to cost centers (Tobias 2016). Some of environmental related costs should not be incurred as part of the production process. This implies that these costs will be used in the pricing of goods and general decision making in the firm.

**Material use and flow is inadequately tracked**

The accounting departments in an organizations usually come up with a turn of records, journal entries, statements and reports documenting cash inflow and outflow in the organization. However these information is insufficient with regards to environmental decision making. In statements the purchases made are often collectively recorded in purchase account. The only way to track them is usually through stock management (Herath 2015), from which an aggregation of the cost of goods cannot be easily made. The manager in the manufacturing department can therefore not quantify the materials lost during production.

**Environmental management is not usually considered when making investment decisions**

Insufficient environment information usually limits the decision made during project investment, purchase of raw materials, pricing of final commodities, and product mix. Lack of comprehensive environment-related costs leads to uncertainties in future investment, the stakeholders are usually unable to determine the future costs they’ll incur(Pall 2015), their expected income and they usually end up relying on opinions from accounting.

**Life cycle assessment**

Life cycle assessment tool is used in determination of the expected impact to and from the environment through the life cycle of the corporation. Unlike the earlier ages we have discovered that there are various impacts of the processes of a cooperation to the environment and vice versa. The scope of these impacts have broadened from the mere impact of the process alone to the whole production stages. These stages included, acquisition, manufacturing or process, assembly and packaging, consumption and finally the mode of disposal (Georgkellos 2012). The LCA tool is used in evaluating use of resources, environmental burdens, and the impact on human health associated with the production stages. The LCA tool provides insights on the environmental focal points. These insights are used in control and prevention procedures while ensuring that there is no shifting of the problem.

The production process is composed of four stages. First is the acquisition of the required of raw materials, followed by the manufacturing process, then consumption and finally the recycling or disposal of the final waste products. The LCA method follows the ISO standards of an environmental management system. This technique composes creation of the inventory of all resources obtained from the environment and then the output back to the earth after the life of the product. These data is used to obtain impacts indicators- potential impact score calculated from life cycle inventory using impact models (Tobias 2016). The objective of these tool are cover all production bases, determine the impacts on the environment, analysis of the environmental theme and the long term impact.

LCA requires huge amounts of data which are retrieved from LCA database. The ISO 14040 has set the standard framework for an LCA (Teresa 2010). These framework is made up of four phases, these include ; stating the objective of the study, compilation of the life cycle inventory, determining environmental impact from acquisition to disposal and finally the decision making process based on the interpretation on the information.

**Conclusion**

The EMA process is labor intensive. The processes’ analysis stage requires a lot of data which is not always readily available, acquisition of these data requires a lot of time and resources in order to end up quality interpretation. Typically environmental related information is not considered in decision making. However as illustrated above the challenges of poor coordination, insufficient accounting, and poor tracking of production process can have adverse effects on the decisions made by the management that may certainly be costly in the future. Not being able to determine the environmental impact could turn out to be more fatal and even lead to more costs. LCA is among the tools an organization can use to fully incorporate EMA in decision making. The corporation can actually save on costs and improve in production to make it environmental friendly. Clearly EMA is a vital component in management accounting.

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