

Environmental Management Accounting Practices on Environmental Performance among Students and Lecturers

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Abstract

The purpose of the study was to investigate the perception of environmental management accounting practices on environmental performance among students and lecturers in Faculty of Management. This research was conducted using a quantitative approach. 120 questionnaires were used to collect data from students and lecturers in the Faculty of Management. The results show that monetary EMA and physical EMA have a positive impact on environmental performance. Thus, Faculty of Management should consider adopting environmental management accounting practices and using the information developed by environmental management accounting practices to achieve the greatest benefit, especially cost savings.

Keywords: Environmental Management Accounting, Environmental Performance, Accounting, Lecturers

Introduction

Various environmental management practices include technical and operational activities such as environmental management accounting (EMA), which can provide an organization with the information that needs to reduce its impact on the environment, improve its economic and environmental performance, and achieve sustainability. EMA, accounting development has increased dramatically over the past two decades. Nevertheless, it is reported that energy conservation is one of the most important environmental issues that universities must deal. Identifying energy consumption can be cost-effective, especially for universities. Although some attention has been paid to energy and water use in universities, there is a lack of information on how much waste is generated or how much paper is

consumed. This is because few universities collect data due to lack of documentation, so many opportunities for costs have been overlooked.

The development of EMA in the accounting field has increased dramatically over the past two decades (Burrirt et al., 2023). There are several environmental managements such as environmental management accounting (EMA), that can provide organizations with the information they need to reduce their impact on the environment, improve their economic and environmental performance, and achieve sustainability.

According to Fuzi et al (2019), environmental management accounting practices (EMAP) is one of the practices that organizations can use to contribute to environmental issues. To develop EMAP, environmental awareness is used to improve the environmental management of the organization. In addition, EMAP was introduced in the organization to overcome the limitations of traditional management accounting in recording environmental management information. Chang (2013) supported the implementation of EMAP to manage activities such as cost savings, improving environmental practices, and strengthening the environment. Therefore, the study should address the issue of managing major environmental costs from an accounting perspective.

For this study, the costs of energy, water, paper consumption, and waste generation were identified as the most significant environmental costs for universities. The use and application of EMA in organizations to reduce environmental impacts and minimize environmental costs, manage costs, and improve environmental performance such as energy, water, and paper consumption were identified as the most important environmental costs for universities. As universities have direct and indirect impacts on the environment, they can contribute to sustainable development by improving the services and management of their facilities.

This article is organized as follows. The literature review provides an overview of environmental management accounting practices and environmental performance, while the proposed conceptual framework is described in the methodology. Finally, the conclusions based on this study.

Literature Review

Environmental Management Accounting Practices (EMAP)

Deb et al (2023) stated that EMAP is designed to enable organizations to pursue the best strategies and address environmental issues. This study highlights that EMAP will help the organization address environmental issues. EMA has proven to be an important tool that incorporates effective information technology, management and accounting skills, and capabilities to meet organizational and environmental goals. Aspects of EMA are useful for environmental management by providing internal and external data to strengthen environmental and organizational decision-making (Christine et al., 2019). Aside from this, EMAP refers to the method of assessing resource use, energy, and environmental impacts as part of the decision-making process for environmental sustainability. EMAP provides for the development of practices and strategies to reduce pollution, materials, costs, and recycling. Therefore, EMAP can provide information to meet all the requirements for decision making in the future.

Dimensions of EMAP

Monetary Environmental Management Accounting (MEMA)

Jamil and Mohamed (2017) noted that the term Monetary Environmental Management Accounting (MEMA) is used to cover all internal environmental accounting tools and procedures of organizations that measure financial and economic impacts on the environment in monetary units. MEMA systems can be viewed as expanding the scope for further development or refinement of conventional accounting monetary units because they are based on the methods of conventional accounting systems (Qian et al., 2018). Thus, expenditures, savings, and profits in monetary information relate to activities or flows that have an impact on the environment.

Physical Environmental Management Accounting (PEMA)

Physical Environmental Management Accounting (PEMA) encompasses all existing corporate environmental accounting methods and processes that discuss environmental impacts across organizational structures. PEMA systems represent the environmental impacts of organization-related activities planned to meet the increasing demands of various internal and external stakeholders for details about the environmental performance (Jamil & Mohamed, 2017). In contrast to previous research, traditional accounting primarily uses monetary indicators and attaches less importance to non-monetary information. Aspects of environmental performance that include physical information may be completely overlooked in EMA, including practical processes for material and energy consumption, flows, and disposal.

Environmental Performance

According to Le et al (2019), conventional accounting methods have several cognitive deficiencies that are relevant to environmental efficiency, although the environmental climate is becoming increasingly important in many countries (Zandi & Lee, 2019). The standard accounting framework does not have a comprehensive view of environmental impacts and associated costs, but rather relies on financial efficiency. This change reflects a significant development in the last two decades. Nonetheless, the EMA has focused attention on the management of environmental activities.

Research Methodology

The population is a collection of elements to be investigated in the study. In this study, the population consists of 246 accounting students and 111 lecturers of Faculty of Management, Universiti Teknologi Malaysia. The appropriate amount of sample was required to have valid and accurate data. The respondents of this research will include only from Year 3 and Year 4 of

Accounting students and accounting lecturers, in which the total is 159. Krejcie and Morgan (1970) stated that for determining size of sample from a given population, if the size of the population is 129, 97 samples of respondents should be involved in this study. In this study, the researchers use the questionnaire for data collection. The questionnaire is distributed to 3rd and 4th year accounting students and lecturers listed in the Faculty of Management database.

A Proposed Conceptual Framework

Figure 1 shows the conceptual framework of research on EMAP towards EP.

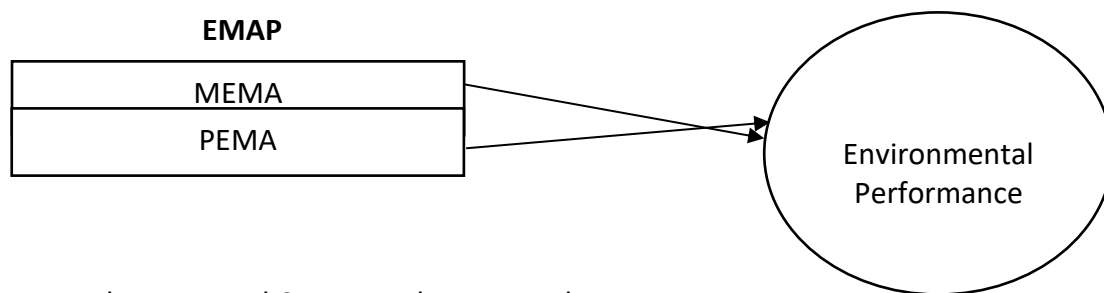


Figure 1. The Proposed Conceptual Framework

Notes: MEMA = Monetary Environmental Management Accounting; PEMA = Physical Environmental Management Accounting

The MEMA integrates the monetary impact of the environment on the organization. It is the primary information base for most internal management decisions and describes the monitoring, analysis, and allocation of environmental costs and benefits to environmental performance in higher education (Chang & Deegan, 2010). Thus, MEMA is particularly useful in higher education because it helps to identify, monitor, and estimate the costs of environment-related activities.

PEMA presents the environmental impacts of organizational activities to meet the increasing needs of the numerous internal and external stakeholders for information on environmental performance (Jamil & Mohamed, 2017). PEMA is particularly beneficial in higher education as it helps assess the likelihood and impact of environmental risks, including environmental indicators, as part of routine performance monitoring. It can also serve as a benchmarking activity against best environmental practices.

Based on the above discussion, the following hypotheses are developed

H₁: There is a positive influence between monetary environmental management accounting and environmental performance.

H₂: There is a positive influence between physical environmental management accounting and environmental performance.

Conclusions

Universities proactively address user concerns to be aware of the environmental impact of their operations or activities. This study indicates that information on environmental costs in higher education is needed by practices of MEMA and PEMA because the practices are important to achieve high environmental performance. Indirectly, everyone is aware of controlling management. Therefore, the Faculty of Management should consider adopting EMAP and making sense of the information developed through EMAP to achieve the greatest benefit, especially cost savings. Moving to the next level also means that management will take further initiatives to address the environmental impacts of faculty activities.

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