

Environmental Management Accounting Practices and Environmental Performance in Malaysian Manufacturing Industry

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Abstract

Purpose: This paper aims to identify the relationship between environmental management accounting practices (EMAP) and environmental performance for the Malaysian manufacturing industry.

Design/methodology/approach: Statistical Package Social Science Software (SPSS) will be employed to test the proposed model of the study.

Findings:

Research limitations/implications:

Practical implications: The antecedents and outcomes of environmental performance will benefit the manufacturer through practicing EMAP.

Originality/value: This study contributes to the knowledge existing body by identifying the relationship between EMAP and environmental performance for the Malaysian manufacturing industry. Thus, it is expected that the results of this study have given valuable insight into the relationship between EMAP and environmental performance for the manufacturing industry in Malaysia.

Keywords: Environmental management accounting practices, Performance, Manufacturing

Introduction

Nowadays, one of the increasing issues that had getting attention around the world is environmental issues. Ibn Khaldun (2015) said that natural environment is an obstruction and help in the same time, which means environment can be advantages to the people but will affect to the earth at the same time. So, one of the methods to endeavour the environmental issues is by spreading environmental awareness. Environmental awareness is being aware of nature environment that include air, land and water and making choices that advantage the earth. Fuzi et al., (2019d) stated that accountants and the accounting profession attempt to play an important role to solve environmental problems since 1980s. In order to overcome the limitation of conventional management accounting which lack in providing information that related to management of environment, environmental management accounting practices (EMAP) were implemented (Fuzi, Habidin, Janudin, & Ong, 2019b, 2019d; Martens, 2018). Therefore, EMAP is one of the practices that able to align corporate activities regarding to environment.

Abu Sa'id Al-Khudri reported the Prophet Muhammad PBUH said: The world is sweet and green, and Allah actually is going to install you as vicegerent in it in order to see how you act (The Hadith, n.d.). The sweet and green in the hadith means the allure and enjoyment of the pleasant world to the people (Ujang & Yusoff, 2020). But to live and govern the world, there must be a rule that guided by the Creator and the Prophet. Ibn Khaldun (2015) wrote regarding city planning criteria that one should see that the air where the town is situated whether it is good or not, in connection with the protection of the towns against harm that might arise from atmospheric phenomena in order to be safe from illness.

Besides, most managers did not recognize the advantages of reducing environmental impacts and improving environmental performance (International Federation of Accountants., 2005; Jamil et al., 2015). Besides, if the managers decide to implement EMAP, high level of costs needed to be incurred which can increase the environmental cost (Olaoye, 2018). This will impact to the financial efficiency and profitability which can measure the organizational performance. But, by creating the innovations of the organization, the firm will maintain the growth and stability for the long term which will help provide additional value of basic employment (Akmal et al., 2017).

In relation to that, this study also focused on firm performance. Firm performance is one of the crucial components and must have measurable objectives for managers to achieve their targets beside to foster the employees' commitment and engagement toward the organization (Abubakar et al., 2019; Navimipour et al., 2018). An organization plays an important role and responsible for the economic development of the country while poor strategic planning will lead to the poor firm performance (Alosani & Yusoff, 2020). However, manufacturers and suppliers face the problem in improving the performance in the manufacturing industry (Fuji et al., 2019b, 2019d). Furthermore, due to competitive arena, the organizations cannot survive with the same approach of innovation and they should find new opportunities to create new unique methods and ideas in order to achieve effective performance (Navimipour et al., 2018). The organizations can improve product energy consumption, material usage or recycling to increase the operation of the company, which can improve the organizational performance of the manufacturing industry (Fuji et al, 2019b, 2019c, 2019d). Therefore, manufacturing industries need to improve their organizational performance in order to survive in the competitive arena.

Malaysia highlighted provides 32% of tin supplies the world, 37% of palm oil, 39% of woods and 41% of rubber. Although Malaysia is a rich environment country, it is facing numerous problems, such as biodiversity degradation, climate change, hazardous waste management, increased scarcity, unwise use of natural resources, a growing rate of urbanization, instable and defective foreign policy, short-term policy and weak enforcement, weak environmental governance, lack of technicalities, lack of good governance and lack of environmental accounting. Environmental accounting is an effort to broaden the accounting frameworks scope that used to assess economic performance to take elements stock which are not recorded in private or public accounting books (Weber, 2018). The lack of environmental accounting shows that Malaysia is at infancy stage (Ong et al., 2018). Besides, Fuji et al. (2019b) reported that EMAP had a positive and direct significant relationship on environmental performance. However, the EMAP implementation is still lack on the environmental impact and environmental awareness, especially in developing countries like Malaysia. While Ong et al. (2018) stated that EMAP need to be further explore. This is because there are too many environmental regulations that need to be comply in order to measure environmental performance. However, measuring environmental performance is not compulsory to the companies. So, the companies need to apply their own targets. After that, the companies need to apply environmental strategies in order to measure environmental performance. EMAP is

one of the important strategic management accounting to improve the performance in the manufacturing industry. Thus, this study intent to identify the relationship between environmental strategy and environmental performance. Besides, this study wants to identify the relationship between environmental uncertainty and environmental performance.

Next, Malaysia is one of the fastest-growing economies in ASEAN region at present and it is an environmentally rich country. However, Malaysia still facing numerous environmental problems, such as exploitation of natural resources, water and air pollution (San et al., 2018). Therefore, every people must responsible with the environmental governance although Malaysia Government has passed some important environmental laws. The laws are important in order to improve the functioning of firm, enhance growth, promote secure property rights, and deliver justice in society (World Bank Group, 2017). So, this research wants to determine whether there is relationship between environmental regulation and environmental performance.

So, this study is aims to examine the relationship between EMAP and environmental performance in Malaysian manufacturing industry while the general objectives are to:

1. To identify the relationship between environmental strategy and environmental performance.
2. To identify the relationship between environmental uncertainty and environmental performance.
3. To identify the relationship between environmental regulation and environmental performance.

Literature Review

Environmental management accounting (EMA) is a tool and data from simple to comprehensive methods for corporate environmental management that can help to improve environmental performance of organizations and reduce environmental impacts (Le et al., 2020; Olaoye, 2018). While EMAP is the process of decision making can be practices by determining the use of energy, materials and environmental cost to protect the environment (Fuzi et al., 2019b). So, the function of environmental awareness can improve EMAP in improving organization's environmental management.

There are few researches about environmental management accounting practices and environmental performance in Malaysia. Fuzi et al. (2019c) also reported there is still difficult to find literature for Malaysian manufacturing industry on EMAP and environmental performance. Christine et al. (2019) reported that environmental strategy has a positive relationship to drive environmental performance of the firm, while Le et al. (2019) reported that environmental strategy has a positive relationship with EMAP.

Theoretical Framework and Hypothesis Development

Environmental strategy

Environmental strategy is an initiative set that can decrease the operations impact on the natural environment through processes, products and corporate policies like reducing energy waste and consumption by using green sustainable resources and implementation of environmental management system (Latan et al., 2018). Environmental strategies can be characterized as a various of activities that can reduce the effect of tasks on the ecological atmosphere through goods, firms' procedures and policies, such as curtailing energy dependence and pollution, implementing ecological management processes and utilizing renewable sources of energy (Christine et al., 2019). Environmental strategies can be classified into two types, which is positive and negative. Organizations which choose clean technology voluntarily to redesign their processes of production with the intent to prepare for future compliance or reduce the impacts of environmental is called positive environmental strategies. While organizations

which invest in waste treatment technology to reduce pressures from stakeholders or deal with environmental regulations is called negative environmental strategies (Le et al., 2019). Environmental strategic in a firm will focus regard environmentalism as a new concept of product and respond with actions towards go green with its products, as well as with environmentally improved system such as EMAP (San et al., 2018). When the firm chooses a positive and active environmental strategy, it is certain that the organization will change its management accounting system and adopt better practices. The different in environmental strategies will differently changes in management accounting practices to provide more accurate environmental information (Le et al., 2019). So, the more positive the environmental strategy, the higher the development of environmental accounting practices and will give more accurate the environmental information.

Hypothesis 1 (H1): Environmental strategy has a positive relationship with environmental performance.

Environmental uncertainty

Environmental uncertainty is a situation that cannot be estimated and expected like natural disasters or climate change, or the change rate in the market like challenges competitors, customer desires and change of technology that can lead the company to respond either currently or in the future (Latan et al., 2018). EMAP plays a very important role in providing environmental information if the environment becomes an uncertain resource. The decision makers tend to handle more relevant information to address uncertainty issues as the organization's environmental factors become more unpredictable (Le et al., 2019). Besides, San et al. (2018) reported environment-related issues are becoming important for stakeholders, and firms nowadays are trying to mitigate environmental uncertainty by adopting more advanced management control techniques. This is also evident in Malaysia's companies which implement EMA to mitigate the effect of current environmental issues such as industrial waste or water pollution and sustain their current businesses. As a conclusion, the higher the level of environmental uncertainty, the more the difficult for the firms to minimize the environmental effects.

Hypothesis 2 (H2): Environmental uncertainty has a positive relationship with environmental performance.

Environmental regulation

Environmental regulation is how the companies comply with the regulations and environmental procedures, besides how the companies improves and monitors the environmental regulation (Fuji et al, 2019b). Compliance with the regulation can make the companies survive. Besides, Le et al. (2019) stated that the strict environmental regulation will be innovative approach which can promote the competitiveness of enterprises. Companies can develop environmental programs in order to minimize environmental costs, minimize environmental impacts beside achieve environmental goals by implementing environmental regulation (Fuji et al., 2019a). As a conclusion, environmental regulation will significantly affect the environmental performance.

Hypothesis 3 (H3): Environmental regulation has a positive relationship with environmental performance.

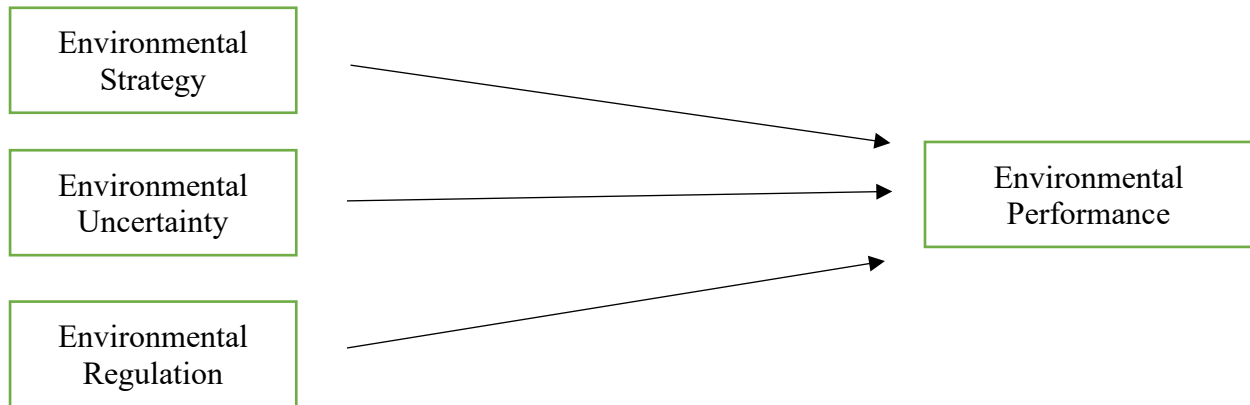


Figure 1: Conceptual Framework

Method

This study is to test the model and research hypothesis by using a quantitative approach, which is the questionnaires will be distributed to the respondents. Population is manufacturing industry in Malaysia. Manufacturing firms were chosen because environment is more effected by the manufacturing firms' pollutants. The population of Malaysian manufacturing industries comprised 3,365 manufacturing companies (Federation of Malaysian Manufacturers Directory, 2020). Sampling is any method based on measurements of a population portion to determine conclusions. Based on Krejcie, R.V. and Morgan, D.W. (1970) sampling table, a sample size required must be ranging in 341-346 which targeted to top managers of the companies. While the data of study will be collected through questionnaires to the respondents as a quantitative study, which will be distributed on April 2021 until July 2021.

The data collection will be analyse using Statistical Package Social Science Software (SPSS). Analysis of descriptive statistics will be used to determine the percentage and frequency distribution in order to analyse the sample data for SPSS Statistics. Specifically, frequency distribution was used to summarize the respondents' profile.

Discussion and Conclusion

This paper identified the relationship between EMAP and environmental performance. However, this study has two limitations that need to be addressed in future research. First, this research only uses survey and second survey, the survey respondent's population and sample are only targeted in the Malaysian manufacturing industry. However, the researchers consider a greater scope for investigation of the relationship between EMAP and environmental performance for Malaysia's manufacturing industry.

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