

Environmental Management System (EMS) and Green Marketing Mix (7Ps) for Hotel Sustainable Industrial Performance: A Conceptual Model

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Abstract

Research that has evolved and focused on themes that connect the environmental management system (EMS) with the Green Marketing Mix in the field of hospitality has encouraged the writing of this research. In connection with the increasingly frequent occurrence of environmental impacts due to the effects of tourism development, academics and practitioners pay attention to sustainable hotel industry performance by adopting an environmental management system (EMS) and utilizing the Green Marketing Mix. All of that is one of the efforts of the hotel to create sustainable business conditions. The integration between these practices is expected to help the hospitality industry in particular and the tourism sector in general in achieving sustainable business performance. Furthermore, this study aims to propose a scientific conceptual model to clarify the relationship between the four variables in the context of the hotel sector in East Java Province, Indonesia. The research results will be very important for the hospitality industry and the world of tourism with the aim of ensuring the sustainability of their business.

Keywords: *Environmental Management Systems (EMS), Green Marketing Mix (7Ps), Sustainable industry performance*

1. Introduction

The tourism industry is one of the largest economic sectors in the world. Tourism sector growth data from year to year shows an increase that exceeds the predictions (UNWTO World Tourism Barometer, 2019). The tourism sector will also encourage an increase in the number of hotel accommodations to support tourism. To some extent, the growth of tourism has exceeded the carrying capacity of the environment for the area around tourism objects. The growth of the tourism sector provides a change in environmental conditions, one of which is affected is the climate (Boley, 2014).

Regulation of the Minister of Tourism of the Republic of Indonesia Number 29 of 2015 concerning the Strategic Plan of the Ministry of Tourism, there are several main problems that have become obstacles to the growth of the tourism industry, namely: (1) Synergy between the tourism industry has not been optimal. The development of tourism has not supported economic equality with the communities around the tourist sites; (2) Low

tourist competitiveness, tourism facilities and tourism accessibility. Increasing the competitiveness of tourism products which include tourism attractions, tourism facilities, and accessibility have the potential to increase the competitiveness of Indonesia's tourism industry and business; (3) Development of environmental responsibility is still not optimal and the synergy between tourism, social environment, nature and culture.

2. Literature Review

2.1. Environmental Management System (EMS)

Assessment standards developed for EMS in order to evaluate the environmental impacts caused by industry change over time. Voluntary EMS measurements are of two (2) globally recognized standards, namely EMAS and ISO14001. (Gorgemans & Murillo-Luna, 2016). The Environmental Management System (EMS) of the International Organization for Standardization (ISO) 14001 provides procedures for an organization for sustainable development in order to ensure a sustainable environment. (Salim et al., 2018).

Environmental management certification standards in European countries for industries that will implement EMS are in regulation number 1836 of 1993 concerning the EU Environmental-Management and Audit Scheme, or commonly called the EMAS Regulation.

However, in the latest developments, the standardization of EMAS also does not rule out the possibility of doing it for industries outside the European region (Gorgemans & Murillo-Luna, 2016). The Environmental Management System (EMS) that is applied according to ISO14001 standard is one that is often discussed by several authors, especially environmental analysis to find out the impact caused by a company (Daddi et al, 2015).

The EMS approach to conducting environmental impact analysis in Indonesia is known as the Environmental Impact Analysis (AMDAL). AMDAL has the main objective to predict the impact that will arise on the environment of a particular activity or business, for example establishing a hotel or factory.

AMDAL is considered as a document to meet the requirements in managing a permit for an activity that will have an impact on the environment. A good and quality AMDAL document is the initial capital to prepare for the implementation of the EMS system. Both the AMDAL and EMS methods are similar. The similarity is that the contents of the AMDAL document directly are the main part required in the EMS (Kamil, I.M., 2001). The equation of the two methods can be selected in the Figure below.

The relationship between EMS and sustainable performance has been investigated by Ikram et al. (2019); Gorgemans et al. (2016); Testa et al. (2016); Martin-de Castro et al. (2015); Tung, Baird & Schoch (2014). Ikram et al. (2019) conducted research on the use of an environmental management system (EMS) as part of a management system to improve the sustainability of manufacturing companies in Pakistan. Gorgemans et al. (2016) examined the implementation of EMS in tourist attractions with 2 general approaches, namely ISO1401 and the EU Environmental-Management and Audit Scheme (EMAS). Research Gorgemans et al. (2016) have in common with research conducted by Testa et al. (2016), for using EMS adoption with ISO1401 and the European Union's Eco-Management and Audit Scheme (EMAS). Other studies conducted by Martin-de Castro et al. (2015) conducted a study of the relationship between EMS and company performance with the ISO14001 and EMAS approaches with mediating the role of green company image.

From this literature study, the hypotheses for each variable of the Research Relationship between EMS on sustainable industrial performance are as follows:

H1a: The Environmental Management System (EMS) directly has a positive effect on economic performance. This hypothesis is supported by previous studies from Ikram et al. (2019); Gorgemans et al. (2016); Testa et al. (2016); Martin-de Castro et al. (2015).

H1b: The Environmental Management System (EMS) directly has a positive effect on environmental performance. Ikram et al. (2019); Gorgemans & Murillo-Luna. (2016); Tung, Baird & Schoch (2014);

H1c: The Environmental Management System (EMS) directly has a positive effect on social performance. This hypothesis is supported by previous studies from Ikram et al. (2019); Gorgemans et al. (2016); Martin-de Castro et al. (2015).

2.2. Green Marketing Mix (7Ps)

Green Product

Kirgiz (2016) states that environmentally friendly products take into account classifications that use basic materials from recycling, a production that produces less approved and hazardous waste, biological support, minimum energy consumption, high fuel, waste energy savings. According to Osman et al (2016), some things that need to be excluded in green products made must be: (1) Ozone friendly, (2) No need for animals, (3) Can be used on biological, (4) Used natural extracts use, (5) recycled materials, (6) packaging can be reused, and (7) refill packaging.

Green Price

Research by Pedroeo, R & Biu Kung'u (2019) states that there is a desire by some tourists to pay for restoration and conservation activities. This indicates that tourists do not mind the additional costs that will support the environmental sustainability of the tourist attraction. Osman et al. (2016) state that the price of green products is generally higher than the price of ordinary products whose production processes use chemicals. This is because green prices include costs to improve environmental conditions.

Green Place

There are two factors that become parameters in Green Place measurement, namely (1) locations that emphasize environmentally friendly and provide a relaxed atmosphere, and (2) the use of products designed to minimize negative impacts on the environment (Osman et al., 2016).

Green Promotion

The concept of green marketing that is environmentally friendly for promotion consists of 3, namely: (1) Promoted products are environmentally friendly products, (2) Companies are willing to invest in campaigns about being environmentally conscious and promoting environmentally friendly products, and (3) Companies use recycled paper for flyers and promotional brochures (Osman et al., 2016). Green marketing messages carried out by the hotel (such as the use of green building materials, water-saving taps, energy-saving lamps, not changing sheets and towels every day for guests who stay several nights, recycle, and even encourage guests to bring their own toiletries). Some well-known hotels announce the achievement of environmentally friendly programs to the public at large by conveying what percentage of savings made in a certain period of time (Chang, K.-C., et al, 2019).

Green People

Research conducted by Peng, X & Lee, S (2019) in Taiwan and by Luu (2019) in Vietnam about green people participation is not only aimed at consumers, but the behavior of pro-environment tourism workers also needs to implement green marketing, Luu (2019) also assessed the important role of organizations in the surrounding community in creating green crafts. Green people or also called green consumers in relation to sustainability have also been studied by Kumar, P & Polonsky, M.J. (2017).

Green Process

Xie et al. (2019) found that green processes have a positive impact on green products, they can improve the company's financial performance. Thus, green product innovation also mediates the relationship between green processes and financial performance. Green technology innovations have received constant attention from the business sector in recent years. Several studies have examined the internal mechanisms and sustainable conditions that connect green technology innovation with the company's financial performance. Singh, A., et al (2018) explain that the manufacturing process converts various inputs into products that meet needs. Sustainable manufacturing aims to produce the same output with fewer inputs so as to reduce overall consumption and environmental impact and reduce waste.

Green Physical Evidence

Green buildings are one example of green physical evidence. Ahn, Y.H., et al (2016) said that green building is becoming a trend in the construction industry today. In a green building, all stakeholders, including architects, contractors, engineers, and other parties need to work together to build green design and construction. Green physical evidence between aesthetic environmental conditions and tourist arrivals at natural attractions has been examined by Le, D., et al (2019). Green buildings quickly have strong momentum in the construction industry after it was recognized that there were negative issues related to the environment and social and economic potential.

2.3. Sustainable Industry Performance (SIP)

Measuring the performance of an organization is one of the basic keys to managerial control processes in the business. Several indicators are used to start measuring organizational performance in order to know the function and orientation of business sustainability. According to the triple bottom line approach (Hourneaux, Gabriel, & Gallardo-vazquez, 2018), a sustainable industry can be identified from three (3) indicators, namely: economic, social and environmental. Another study conducted by Henri (2009) describes the variables that make up sustainable performance for the industry consisting of finance, internal processes, innovation and learning, and consumers.

The World Tourism Organization (WTO) defines sustainable tourism as "tourism that takes full account of current, future economic, social and environmental impacts, addressing the needs of visitors, industry, the environment and the community of the places visited". UNWTO outlines policies on developing sustainable tourism in three (3) fields, namely natural, social and cultural, and economic sustainability. This concept clearly states that tourism development must not result in the destruction of nature, the environment, and land, especially agricultural land (UNWTO, 2019). The conceptual definition of UNWTO (2019) about sustainable tourism when explained in more detail must:

(i) Make optimal use of environmental resources because it is a key element in tourism development, maintaining the ecological environment and its processes and preserving biodiversity and natural heritage.

(ii) Respecting the socio-cultural authenticity of the local community, contributing to intercultural understanding and tolerance as well as helping to preserve cultural heritage and traditional values.

(iii) Providing economically viable in the long run, providing socio-economic benefits to all stakeholders with equitable distribution, including providing stable employment opportunities and opportunities to earn income and social services to accommodate the community, especially contributing to poverty alleviation.

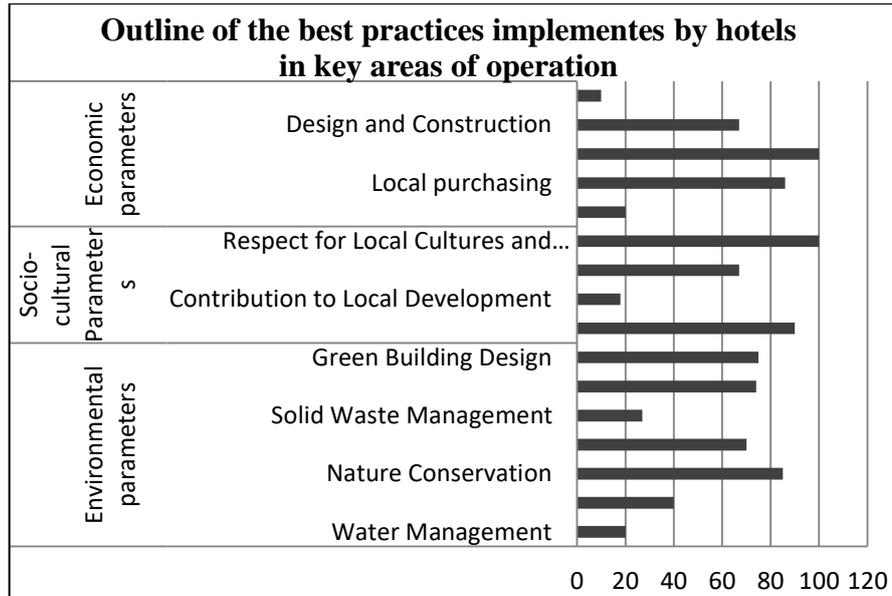


Figure 1. Outline Of The Best Practices Implements By Hotels 46 In Keys Areas Of Operation (Source: Chandran & Bhattacharya, 2019)

2.4. Partial Least Square

PLS algorithm is one of the tools to predict which is accompanied by some practical instructions on how to use it. PLS analysis is an alternative in accordance with the method of multiple regression analysis and principal component regression, this method is considered to be stronger than the previous measurement method. Strong means that the parameters of the model do not change much when new samples are taken from the total population. The Partial Least-Square (PLS) regression method is increasingly important for research in various fields, such as chemistry; analytic, physical, clinical chemistry and industrial process control (Geladi and Kowalski, 1986).

The least-square structural equation model (PLS-SEM) has become a method that is often used to estimate the path model (complex) with latent variables and their relationships. PLS -SEM is used to build an introduction to the basics of measurement, structural theory and estimating path models. The PLS-SEM method makes it easy for users to create a description of how to evaluate the results of the analysis and offers an overview of complementary analysis techniques (Sarstedt, M., Ringle, C.M., Harir, J. 2017).

3.3. Proposed Conceptual Model

Proposed Conceptual Model Based on analysis from the literature, a conceptual framework was developed to analyze the relationship between the Green Marketing Mix and Sustainable Performance in the hotel industry (see Figure 2). Green Marketing focusing on shaping environmental sustainability needs to be created by providing opportunities for consumers to participate. Perception of HPT consumers about green marketing is the management of environmentally friendly hotels (Chan, 2014). The tourism business that prioritizes natural beauty and tourist destinations is one of the biggest contributors to the existence of hotel consumers. So that environmental sustainability really needs to be managed. Hotel management must understand that the benefits of environmental sustainability will provide a direct contribution to the hotel business it manages. Even the environmental sustainability can be the main attraction for marketing to the public. By adopting the concept of green marketing, it is expected to provide a different perspective (differentiation) compared to other hotels (Chandran & Bhattacharya, 2019).

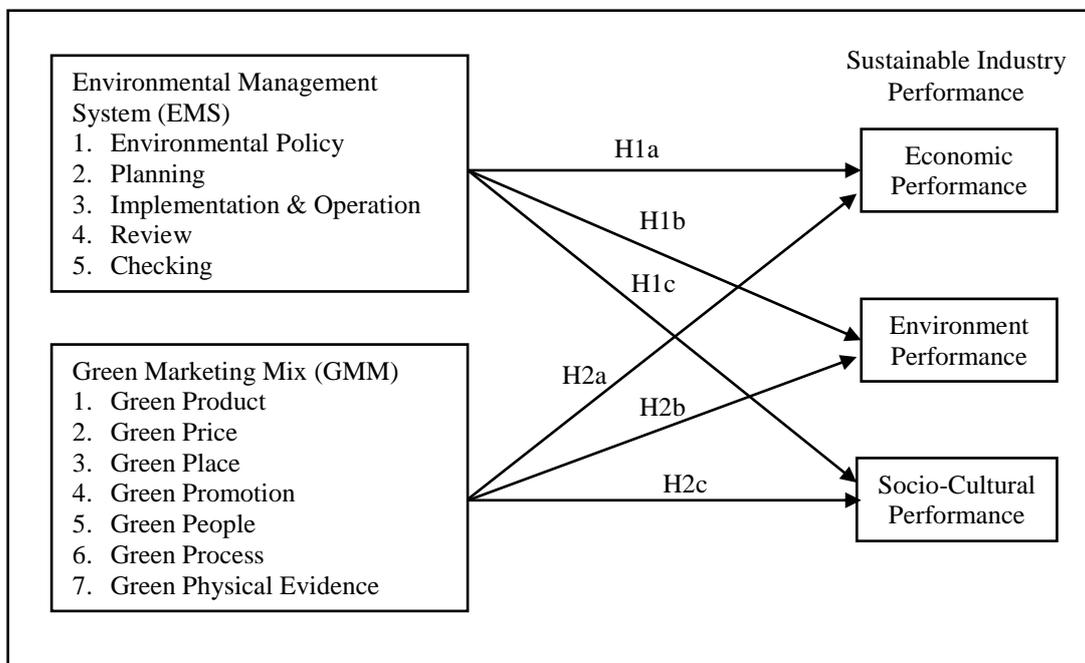


Figure 2. Proposed conceptual model

4.4. Hypotheses Development

The conceptual framework developed in this study with the theoretical basis of the results of the research in the literature review investigates the two main proportions shown in figure 2. The first proportion is to explore the direct relationship between EMS and the components of sustainable industrial performance. The second proportion is to look for the relationship of the Green Marketing Mix with sustainable industry performance.

According to Pereira-Moliner et al (2015) that environmental management is related to competitive advantage and business performance. The environmental management system was developed in a higher category, affiliated with larger chains and hotels. Studies

conducted by Gorgemans, S., & Murillo-Luna, JL (2016) and Martin-de Castro, G., Amores-Salvado, J., & Navas-Lopez, JE (2015) show the relationship between implementing environmental management systems and sustainable performance in an organization.

Some literature states that there is a relationship between Green Marketing Mix and sustainable performance hotels. As follows:

H2a: Green Marketing Mix directly has a positive effect on economic sustainability. This hypothesis is supported by previous research from Lee Lam, J.S., & Li, K.X. (2019); Pomeroy, A. (2017); Hasan, Z. , & Ali, N.A. (2017)

H2b: Green Marketing Mix directly has a positive effect on environmental sustainability. This hypothesis is supported by previous research from D'Souza et al., (2015); Lee Lam, J.S., & Li, K.X. (2019); Pomeroy, A. (2017); Hasan, Z. , & Ali, N.A. (2017)

H2c: Green Marketing Mix directly has a positive effect on social sustainability. This hypothesis is supported by previous research from Lee Lam, J.S., & Li, K.X. (2019); Pomeroy, A. (2017); Hasan, Z. , & Ali, N.A. (2017)

H1a : EMS positively affects economic performance

H1b : EMS positively affects environment performance

H1c : EMS positively affects socio-cultural performance

H2a : GMM positively affects economic performance

H2b : GMM positively affects environment performance

H2c : GMM positively affects socio-cultural performance

5. Sample, Data Collection and Measurements

The population for this study is managers or general managers who are responsible for hotels in East Java Province, Indonesia. They are considered to have a good understanding of the variables that are asked and tested. This study will examine 360 companies that are members of the Indonesian Hotels and Restaurants Association (PHRI) representing the tourism sector, particularly hospitality services. Criteria for participating hotels are starred and non-starred hotels. The sample size of 360 is considered adequate for conducting data analysis using SEM-Partial Least Squares (PLS). The survey questionnaire was designed to measure Environmental Management Systems (Environmental policy, planning, implementation operations, checking and corrective actions, management reviews), and Green Marketing Mix (7Ps: Product, Price, Place, Promotion, People, Process, Physical evidence) for three dimensions of sustainable industry performance (economic, environmental and social). PLS-SEM will be used to test H1a, H1b, H1c, H2a, H2b, and H2c. This is a second-generation multivariate analytic tool to identify new theories about EMS, GMM, and SIP in the Indonesian context). SEM-PLS can determine hypotheses and statistical properties of conceptual frameworks, simultaneously Hair et al (2017). This is clearly used in various management studies Peng, D. X., & Lai, F. (2012).

6. 6. Discussion and Conclusion

According to the literature review, the Environmental Management System (EMS) and Green Marketing Mix (GMM) have a relationship with Sustainable Industry Performance (SIP). Although there are quite a number of studies that report a significant relationship between these three variables, the application of EMS and GMM practices in sustainability performance for the hotel industry has not been widely applied in East Java,

Indonesia. There is no similar research on the effect of EMS and GMM practices on the performance of the sustainable hotel industry. Responding to this problem, this study highlights the implementation of EMS and GMM in hotels in East Java Province, Indonesia, and their impact on the performance of the sustainable hotel industry. This model will be modified so that it can be properly adopted by the hotel industry in East Java, Indonesia. Last but not least, EMS and GMM practices have significant value in the development and sustainability of the hotel industry. This requires the involvement of many parties to support sustainable tourism.

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