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ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) IN HOTEL INDUSTRY: GOVERNMENT INCENTIVES & CUSTOMER DEMAND

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ABSTRACT

The tourism industry in Malaysia has been a significant contributor to pollution, necessitating the implementation of environmental management systems (EMS) to address the negative impact of environmental degradation. The aim of this study was to explore the influence of government incentives and customer demand on the adoption of EMS in Malaysian hotels. The research was based on questionnaires collected from 4- and 5-star hotels in the Central Region of Malaysia, and the data were analyzed using Least Square Partial Structural Equation Modeling. Contrary to expectations, the study found that neither government incentives nor customer demand had an impact on EMS adoption. However, the size of the hotel was found to be a significant factor affecting the adoption of EMS. This study contributes to the literature on motivational factors and EMS adoption in emerging markets like Malaysia and highlights the importance of considering the size of the hotel when designing policies to promote EMS adoption.

Keywords: Environment Management System (EMS), Government Incentives, Customer demand, Motivational Factors, Hotel)

1.0 INTRODUCTION

Environmental concerns have recently become a global issue (Pham et al., 2019; Masri & Jaaron, 2017) due to either internal (business) or external (regulatory) reasons (Psomas et al., 2011). Rising industrial activities are also causing major environmental problems, including global warming, waste degradation, gas emissions, and depletion of the ozone layer (Shukla et al., 2009).

Several industries contribute to environmental pollution in Malaysia, including the agricultural, manufacturing and tourism industries, to name a few. However, pollution from the agricultural sector, particularly natural rubber and palm oil, has decreased in recent years. Domestic wastewater and animal waste are currently the main sources of organic pollution in the water environment (Abdullah, 1995). The pollution caused by the manufacturing industry includes air, land, river, and seawater, where waste flows are usually discharged into rivers and the sea.

Importantly, the tourism industry is dependent on the environment (Mensah, 2006). The hotel sector is closely linked to the tourism and commercial industries since it provides temporary accommodation or lodging for tourists. However, improving the hotel sector is a major contributor to environmental pollution (Hanafiah et al., 2013). This is because the hotel industry uses vasts amounts of water, electricity, and sustainable goods (Robinot & Giannelloni, 2010) and utilizes natural resources as part of the goods and services (Chan & Hsu, 2016). It has been demonstrated that the use of an EMS will successfully reduce, if not mitigate, environmental risks (Ho et al., 2018).

Previous studies and literature on the relationship of EMS with motivational in Malaysian hotels are widely implemented in hotels located in areas, districts, or states known for their environmental care. These include resorts and hotels in Langkawi, Penang, Sabah, and Sarawak, famous for their green and less polluted environment while developing and emerging regions had limited research. Therefore, this study attempts to fill the gap in this area by investigating EMS practices in developing and developed areas, namely the central region of Malaysia.

2.0 LITERATURE REVIEW

EMS is a management strategy for addressing the environmental aspects of a business by regulating the impact of its activities, products, and services on the natural environment (Chan, 2007). Similarly, the British Standards Institute (BSI) defines EMS as an organization's organizational structure, responsibilities, practices, and resources. It is for determining and adopting an environmental policy that can enhance the organizational learning of a hotel organization (Kassim, 2019).. The adoption of EMS by hotel management is to improve waste management, water conservation and energy conservation (Ashraf, 2011). Among the many elements that can improve the environment are reducing tree felling during building, introducing dual-purpose toilets, placing notices to encourage guests to minimize water use, and installing motion sensors in public and community areas (Abdul Khalid et al., 2011). Costanza and Patten (1995) proposed that any system should have a timeframe to achieve its goal, but that the concept of sustainability should be maintained indefinitely because there is no timeframe once it is achieved. According to Solow (1991); Costanza and Patten (1995), sustainability is assumed to be achieved if the system reaches its normal maximum life cycle, implying that resource consumption and waste have been optimized. Mensah (2006) highlighted that tourism is one of the key industries that rely heavily on the environment. This is because the hotel sector is often associated with sources of environmental pollution. Therefore, to increase hotels' environmental efficiency, the introduction of the international environmental management system standard is seen as an effective method in mitigating environmental risks (Ho et al., 2018).

Nevertheless, various factors affect the adoption of EMS in Malaysian hotels (Abdul Khalid et al., 2010; Samdin et al., 2012; Ho et al., 2018; Deraman et al., 2017), that includes company policy, government legislation and incentives, preparation, formalization, top management support, and the expectation of reduced costs (Samdin et al., 2012). Deraman et al. (2017) identified the effect of costs, customers, and employee support in adopting EMS in hotels; consumer support was determined as the most influential factor. The study uses factors government incentives and customer demand as variables. However, the study positions a moderator, size between the factors and the EMS to determine the effect on the relationship. Notable, small or medium-sized hotels may face high environmental management costs because small companies typically do not have a team and knowledge of the EMS. They need to locate experts from outside to provide training and instruction in implementing the EMS, which is expensive. This is also similar for consumer in small and medium hotels.

Yusof and Jamaludin (2014), in their study, which implemented the qualitative method using in-depth interviews, discovered that EMS in Malaysia only faces a few barriers in becoming environmentally friendly. This is because they have good support from their parent company and guests, little uncertainty, and have adequate environmental resources.

According to the quantitative method study conducted by KamarulAriffin et al. (2013), they found that of the five barriers, regulation/government, customer demand, level of competition, greenness at the organizational level, and attitude at the organizational level towards change, only greenness at the organizational level was discovered to have partially supported EMS practices. Samdin et al. (2012) identified that incentives and knowledge significantly influence EMS practices among hotels in Malaysia compared to training, regulation, reduced cost, top management, and formalization. In reference to these prior studies, the findings reveal several motivational factors that influence EMS implementation in hotel management.

In another study, Fuentes-Moraleda et al. (2019) investigated the propensity of consumers to pay a premium to stay in small hotels with an EMS. Economic concerns and the manager's or owner's ethical standards motivate small hotels to implement an EMS, according to the study. Indeed, visitors' and travellers' environmental consciousness can affect their propensity to pay more for environmentally-certified products. Given the cost of certification and the lack of hotelier awareness, the number of hotels with environmental certification remains low. In terms of customer demand, Fuentes-Moraleda et al. (2019) discovered that fifty percent of client hotels would be prepared to pay more to stay in a hotel with an environmental management system.

This study uses the size of the hotel as a moderator variable, which has a strong contingent effect on the independent variable-dependent variable relationship. The presence of the moderating variable modifies the original relationship between the independent and the dependent variables (Sekaran & Bougie, 2009). Although previous studies in Malaysia have considered the relationship between motivational factors with an EMS, it remains limited (Abdul Khalid et al., 2011). Therefore, this study further discusses the relationship between the moderating effect of hotel size on the relationship, motivational factors and EMS among Malaysian hotels. As suggested by Baron and Kenny (1986), a moderator strengthens the relationship between independent and dependent variables since it is a contingent construct (Sekaran, 2003). This study applies classification regarding the size of hotels (medium and large) as a moderator.

3.0 METHODOLOGY

This study is designed using the quantitative method by focusing on motivational factors, namely customer demand and government incentives, effect on the adoption of EMS among Malaysian hotels. Moreover, this study places the size of the hotel as a moderator to examine the effect of the relationship between motivational factors and EMS towards sustainable development goals.

This study is expected to contribute to the entire body of research on the EMS and its relationship with the hotel industry factors. Concurrently, this study is anticipated to contribute to the government and the community at large in guiding hotels operating in the country to contribute towards sustainable development goals that would improve people's lives.

For this study, a self-completion questionnaire was developed and circulated via Google Form to the 86 4-star and 5-star hotels located in Malaysia's central region (Kuala Lumpur, Selangor and Putrajaya). It is more convenient as it gives participants more freedom in terms of space and time while completing research questions. The questions were modified from previous studies by Coban et al. (2017), Yusof and Jamaludin (2014), Kamarul Ariffin et al. (2013), Samdin et al. (2012), Bakori et al. (2012), Abdul Khalid et al. (2011), and Ustad (2010).

The questionnaire developed for this research was divided into five sections. Section A required company profile and it comprised of eleven (11) questions. Section B comprised eleven (12) questions. Section C comprised of ten (10) questions required the respondents to indicate the motivational factors that encourage them to implement environmental management system. Section D comprised of ten (10) questions required the respondents to indicate the barrier factors to implement environmental management system. Section E required the respondents to answer nominal scale 'Yes' ot 'No'. The questions in this study were presented in the form of a five-point Likert Scale.

Partial Least Squares Structural Equation Modelling (PLS-SEM) is used to assess the reliability and validity of the data collected. The two main criteria used to assess the PLS-SEM measurement model are reliability and validity (Hulland, 1999; Ramayah et al., 2011; Hair et al., 2017). In the measurement model, the individual EMS or reliability indicators were assessed. Composite reliability for the collected data was measured to show the consistency of the elements used in the

research design of this study, while data validity was assessed on the basis of two criteria: convergent and discriminatory validity.

4.0 ANALYSIS

The total of 86 online questionnaires were distributed to 4-star and 5-star hotels in the central region of Malaysia where a total of 56 useful responses were recorded (See Table 1). The hotels selected in this study are located in the Central Region (Selangor, Kuala Lumpur, and Putrajaya) where questionnaires were distributed to the respondents via email. The demographic characteristics of the respondents are presented in Table 1. The results show that 78.6% of the respondents are in the business hotel category, while there are 3.6%, 8.9% and 8.9% from resorts, heritage hotels and boutique hotels, respectively. Two-thirds (62.5%) of the sample are medium-sized hotels where 67.9% are mid-range hotels and 30.4% are luxury hotels (57.1% are 4-star hotels and 42.9% are 5-star accommodation).

Table 1: Demographic Profile of the Respondents in the Central Region

Demographic Profile	n	%
Hotel Category		
Resort	2	3.6
Business Hotel	44	78.6
Heritage Hotel	5	8.9
Boutique Hotel	5	8.9
Total	56	
Hotel Classification		
Medium	35	62.5
Large	21	37.5
Total	56	
Hotel Description		
Luxury	17	30.4
Mid-Range	38	67.9
Others	1	1.7
Total	56	
Hotel Rating		
4-Star	32	57.1
5-Star	24	42.9
Total	56	
Hotel Location		
City Centre	41	73.2
Commercial Centre	12	21.4
Tourist Resort	1	1.8
Other	2	3.6
Total	56	
Years in Operation		
5 years or less	5	8.9
6 to 10 years	15	26.8
11 to 15 years	17	30.4
More than 15 years	19	33.9
Total	56	
Number of guestrooms		
101 – 300 rooms	31	55.4
> 300 rooms	25	44.6
Total	56	

As predicted, the size of hotels does moderate the relationship between motivational factors and environmental management system. Based on the original simple value, the moderating effects of motivational factors are positive with values of 0.574.

Thus, the size of hotels does moderate the relationship between motivational factors in the adoption of environmental management system.

Table 2: Hypotheses Results Using Path Coefficient

Hypotheses No	Path	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Result
1	Motivational Factors -> Environmental Management System	0.061	0.102	0.604	0.548	Insignificant
2	Moderating Effect MotivationalFactors -> Environmental Management System	0.574	0.091	6.310	0.000	Significant

DISCUSSION

This study recorded the positive relationship between motivational factors and the environmental management system among Malaysian hotels. Meanwhile, the obtained statistical results showed a positive and insignificant relationship between the two variables, with the significance level amounting to 0.548 (O = 0.061, T statistics = 0.604 < 1.96, P = 0.548 > 0.05). With this result, H1 was not empirically supported, suggesting that some of the factors affecting environmental practices clarified a collective 6 per cent variation in motivation.

The study recorded that government incentives were correlated with the adoption of EMS. An example could be seen in Caracao, where hotels were unable to adopt EMS due to insufficient government incentives. The same case was present in small and medium- sized hotels in the Bahamas (Edwards, 2004). Overall, this result was in line with the research performed by Samdin et al. (2012), who found a significant relationship between incentives and EMS adoptions.

The study results denoted those hotels in Malaysia considered the government regulation a significant factor for adopting EMS. In line with this study was the study conducted by Rivera in Costa Rica in 2002, which found that government regulation was one of the main reasons for hotels to adopt environmental management system. Yusof and Jamaludin (2014) and Abdul Khalid et al. (2010) found that government regulations could motivate hotels to adopt environmental management practices. Another research by Ann et al. (2006) in Malaysia recorded that hotel were encouraged to adopt EMS due to the contrasting government subsidies and incentives being provided. Moreover, the government offered extra resources and support to hotels designed to apply EMS in their operations, making the government regulation one of the key reasons for EMS adoption in the hotel (Chan & Wong, 2006).

The present study hypothesized that hotel size moderates the relationship between motivational factors and the EMS in Malaysian hotels. The results showed a positive and significant moderating effect of hotel size on the relationship between motivational factors and EMS at the level of significance of 0.000 (O = 0.574, T statistics = 6.310 < 1.96, P = 0.000 > 0.05), indicating that H2 was supported.

The recorded positive and significant moderating impact of the size of hotels on the motivational – EMS relationship could be attributed to the fact that the size of the hotel does affect the motivational factors on the adoption of EMS in hotels.

CONCLUSIONS

The tourism and accommodation industry is a major player in the international economy, and a number of its trade institutions have emphasized the industry's role in ensuring the sustainable development goals success. An EMS is a problem-solving tool that should be practiced by the staff during regular activities in an organization. While the hotel

industry is strongly affected by environmental concerns, air pollution and waste disposal by the hotel industry in Malaysia lead to a negative impact on the environment. Therefore, this study was conducted to examine the relationship between motivational factors and the adoption of an EMS among Malaysian hotels. The moderating impacts of the size of hotels on the aforementioned direct relationship were also examined in the context of Malaysia's hotel industry. The study sample comprised hotels located in the Central Region, Selangor, Kuala Lumpur, and Putrajaya. The questionnaires were distributed to the hotels located in all three states. The findings of this study outlined the factors affecting the EMS adoption in Malaysian hotels. Notably, the most affected motivational factors are government incentives followed by customer demand.

The limitation was present from the examination of four and five-star hotels. Although most hotels with the adoption of EMS were medium and large hotels, it was not impossible for small hotels to also practice EMS in their management. Thus, future studies aim to examine small-sized hotels to obtain possible different results and findings. The study findings were expected to contribute to Malaysian hotels, government, agencies, and the people as the findings could be used as guidance by hotels to address all environmental issues for the improvement in the organization and people's lives.

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