

# **Green Employee Empowerment and Green Physical Evidence: The Green Service Strategy to Enhance Firm Performance**

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## **Abstract**

The bright side of emerging industries is that they help to increase incomes across the nation, yet, they contribute to environmental degradation. Moreover, when more people are concerned about the environmental impact, this reduces the firm's competitiveness. Thus, what strategy does the firm need to consider in order to improve the environment, which in the meantime, may also secure financial performance, and what causal effect does this strategy have on their competitive advantage? To address these questions, this study seeks to explore the relationship between green service strategies and the firm's performance from the aspects of employee empowerment and physical evidence. This study further examines the mediating effect of differentiation advantage. Data were collected from 110 green hotels in Malaysia, and the PLS-SEM technique was applied to assess the research model. Analysis of the direct relationship shows that the green physical evidence has a significant effect on the differentiation advantage and is directly significant to the relationship between the differentiations of two performance constructs. The results also demonstrate that the green physical evidence has a significant influence on the financial and environmental performance while mediated by the differentiation advantage. This study is essential for future researchers and practitioners as it provides new literature and new insight into green marketing strategies.

**Keywords:** *Green Employee Empowerment; Green Physical Evidence; Differentiation Advantage; Financial Performance; Environmental Performance; Green Service Strategy*

## **Introduction**

Recognising that the developing Asian countries make up one of the regions contributing the most of the global environmental crisis, the constant degradation of global air quality (Environment Performance Index 2016) and unsafe water (GBD 2013 Risk Factors Collaborators 2015) have called the attention of practitioners. In addition, there are many other environmental impacts from inefficient wastewater management, deforestation, fisheries, and agricultural nitrogen; the economic development that put Asian countries into a very challenging position (Environment Performance Index 2016). Typically, financial benefits for the nation are always the bright side of any economic development. In fact, industrialisation has dramatically degraded the environment. This has led to the problems like smog, acid rain, flash flooding, and eventually to irreversible damage like climate change and ozone depletion.

Previous research warranted the attention of the service sector as it makes a silent impact upon the environment (Carmona-Moreno, Lorento-Cespedes and Martinez-del-Rio 2004). Unlike in the manufacturing industry, servicing firms do not release visible pollutants directly into the air or water. In fact, the pollutants contributed by the servicing firms are based on collective basis. The unceasing operations of hotels resulted in unceasing energy consumption, which in turn provides the means for unceasing emissions. The hotel industry in the United Kingdom, for example, produces approximately 2.87 million tonnes of waste per annum, comparable to twice the amount of transportation emissions produced by the United States (WRAP 2014). The situation is getting worse when the non-green hotel building itself is the greenhouse gas emission sector (Pout, Mackenzie and Bettel 2002).

Fortunately, there is a rising number of firms that are aware of environmental problems and they have started to go green. Other than attempting to reduce their adverse impacts on the environment, however, most of the firms view it as either an opportunity to gain competitive advantage (Polonsky 1994) or as a way to win monetary benefits (Bansal and Roth 2000). Numerous previous studies have made the remarkable finding that green practice foster firms' high performance in environmental preservation (Gholami, Sulaiman, Ramayah and Molla 2013). Nonetheless, it has been an argument that environmental implications are irrelevant to financial performance (Filbeck and Goman 2004), although it has significantly improved the environmental performance (Stanwick and Stanwick 1998). Indeed, the financial and environmental performance should grow in parallel. The growth of a firm's revenue, market shares, and opportunity to new market penetration are always consequences of a positive environment performance (Rao and Holt 2005).

From the perspective of the customer, the employee behaviour is vital in the delivery of services as it defines the quality of the service (Goyal 2014). Employees serve as the face of the brand (McDonald, Chernatony and Harris 2001), whereby physical evidence is the space in which the services are assembled and where the firm and customer interact (Sreenivas, Srinivasarao and Srinivasa 2013). Both elements are equally vital in an organisation, as it needs the involvement of both the customer and service provider to make the service possible. However, there is a gap in the research. Service strategy is a popular topic, yet there is a lack of academic rigour on the green services factor (Abdullah, Chew and Hamid 2017). To fill in this gap, this study

specifically argues for the needs of green employee empowerment together with green physical evidence as a green services strategy to differentiate the firm in the intense market rivalry. This study further examines the effect of green service strategy towards the firm's performance regarding financial and environmental through differentiation advantage.

Research has identified that the initial investment required to go green is the reason that firms regret to do so (Graci 2002). It has also been an obstacle for the country to achieve higher environmental index scores for gross domestic products. However, green peoples and the physical environment factors as the key points for environment preservation, which in the meantime could benefit from the firm's financial and environmental performance are evident (Molina-Azorin, Tari, Pereira-Moliner, Lopez-Gamero and Petusa-Ortega 2015; Leonidou, Leonidou, Fotiadis and Zeriti 2013). Thus, questions emerged for consideration in the present setting of the study.

To address the questions, objectives are drawn for six main reasons: firstly, to determine the significant relationship between green employee empowerment and the differentiation advantage; secondly, to determine the significant relationship between green physical evidence and the differentiation advantage; thirdly, to determine the significant relationship between the differentiation advantage and financial performance; fourthly, to determine the significant relationship between the differentiation advantage and environmental performance, fifthly, to determine the mediating role of differentiation between the relationship of green employee empowerment and the financial performance; and sixthly, to determine the mediating role of differentiation between the relationship of green physical evidence and the environmental performance.

## **Literature Review**

This study suggests green employee empowerment and green physical evidence as the green service strategy in the context of hotel and resort firms. The present findings suggest green employee empowerment and green physical evidence as the green service strategy to enhance firms' performance.

### **Green Employee Empowerment**

In general, employee empowerment stresses on the delegation, participation management and encouragement aims to improve performance (Meyerson and Dewettinck 2012). Predominantly, employer entrusts the autonomy, responsibility, extra information, and flexibility of creativity, to the empowered employee. In return, it urges employee to perform better and to bring up the team performance (Yang and Choi 2009). Employee empowerment issue as part of the green management has been widely discussed since past decades. It involves greening every part of the organisational functions including human resources (Renwick, Redman and Maguire 2013; Ali and Ahmad 2009). However, the term green empowerment was not familiar in the previous research. Tariq, Jan and Ahmad (2016) in their recent study discussed the overlooked of this issue in the past research. Accordingly, they introduced the term green employee empowerment. The same study concluded that when a firm implies green employee empowerment, the employee feels more motivated to perform the green task which pays to be green.

## **Green Physical Evidence**

In general, physical evidence is conceived as not limited to the tangible elements (Ivy 2008) but it also involves the intangible aspects of the service offered (Goyal 2014). The evidence itself is the physical object that customer uses to assess and anticipate service provider's performance (Rao 2009). However, the opposite of the physical object - intangible service, is also a significant element contributing to customer's experience (Goyal 2014). In the literature of marketing, physical evidence was proposed as the additional element to the seven Ps marketing mix which also known as service marketing mix (Booms and Bitner 1981). In the context of green, it should be ensured that the green physical evidence is covering the efficacy of greenness in every part of the system instead of a particular area (Eneizan, Wahad, Zaino and Obaid 2016). To be more specific, it should cover the system from the operations, production to the product sold (Larashati, Hudrasyah and Chandra 2012).

## **Differentiation Advantage**

"Go green" is about to save or to reduce the resources as much as possible. However, differentiation is the cost to the organisation as it requires the acquisition of resources to make a distinction (Porter 1985). In another perspective, go green is viewed as an approach to achieve differentiation advantage, particularly in creating value for the brand by brand differentiation (Gupta, Czinkota and Melewar 2013). In general, the firm which pursues the differentiation advantage is offering products or services that are unique and different from the market rivals (Schermerhom 2011; Porter 1985). These particular products or services are tailored to the desires of the consumers. Thus, it creates customer satisfaction (Hills and Jones 2013). A study in the context of hospitality had found similar outcomes by revealing the significant association between differentiation advantage and service quality (Al-Debi and Mustafa 2014). It further leads to a higher customer satisfaction (Karakoc and Yilmaz 2009).

Moreover, human capital that provides excellent services (Karakoc and Yilmaz 2009) and the impression built from the physical setting of the firm (Lovelock, Patterson and Wirtz 2015) have been highlighted as the keys that drive service quality. Therefore, this study proposes a green employee empowerment and green physical evidence as the factors in gaining a differentiation advantage.

## **Financial Performance**

It gains consensus among the academicians and practitioners that financial performance is highly associated with the environmental approach, inserted to the organisational function (Sen, Roy and Pal 2015; Friede, Busch and Bassen 2015; Albertini 2013). The previous study proposes sales ratio or cash flow, sales growth, and return on equity to measure the financial performance (Chen, Feldmann and Tang 2015). Other studies referred financial performance to productivity, market share and profits (Hay 2001). Moreover, the study in the context of the hotel measures financial performance based on average revenue, average daily rate and average occupancy rate in a certain period of given time (Xie, So and Wang 2017). There is a lack of research which attempts to argue on the determinant for the financial performance measurement. Typically, researchers and practitioners adopt the most relevant measurement according to the setting of their research or industry.

## Environmental Performance

Other than the environmental value created, firm's market value was found to grow in line with firm's environmental performance (Konar and Cohen 2001). Later research added that one of the significant outcomes of the firm's improved environmental performance was the positive financial performance (Sen, Roy and Pal 2015) and it is evident in the hotel setting (Tan, Muzafar, Tan and Choon 2017). Most of the previous studies measure environmental performance based on the pollution emission (Gholami, Sulaiman, Ramayah, and Molla 2013; Hart and Ahuja 1996) and waste or resources reduction (Tan et al. 2017; Gholami et al. 2013). Another study claimed that environmental human resources that include environmental training and environmental empowerment can be used to determine environmental performance. (Daily, Bishop and Massoud 2010).

## Hypothesis Development

From the green perspective, firms that practice green are different - at least they are exercising something dissimilar with their counterparts (Gupta, Czinkota and Melewar 2013). Previous empirical findings found a strong association between environmental human resources and differentiation advantage (Carmona-Moreno, Cespedes-Lorento, and Martinez-del-Rio 2012). This significant relation has led to the interest on green employee empowerment, especially when Karakoc and Yilmaz (2009) found the pivotal role of employee empowerment as the human resources capabilities that gained a differentiation in overcoming intense market competition. Other than that, the physical environment was also found to affect both the job performance and the job satisfaction significantly (Vischer 2007) in which it potentially leads to a higher service quality, due to higher job satisfaction that produced high service quality (Priyathanalai and Meunjohn 2012). The value created had granted to service differentiation which increased the firm's performance (Gabauer, Gustafsson and Witell 2011).

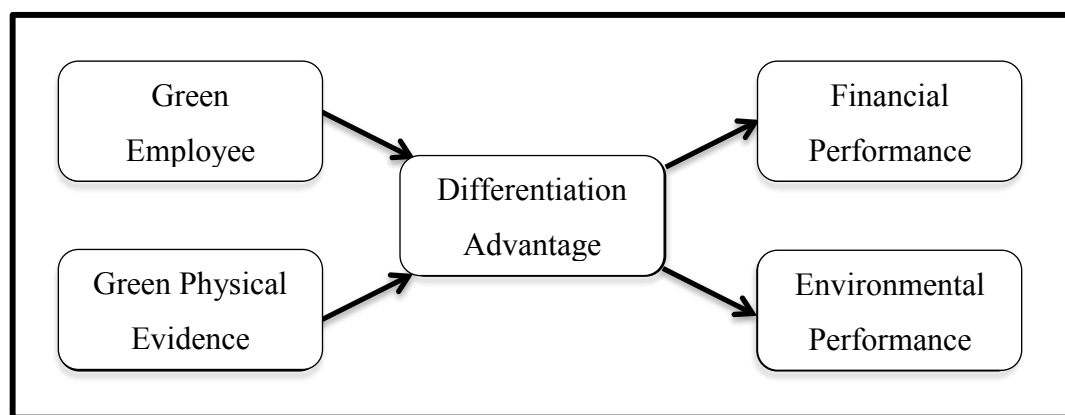
However, other researchers regard differentiation as the strategy that leads firms to sustainable financial performance instead of the competitive advantage (Banker, Mahruwala and Tripathy 2014). Although differentiation is sometimes costly, yet, it permits a firm to charge higher prices (Hil and Jones 2013). This phenomenon fits the explanation that differentiation advantage leads to a better financial performance even without looking at other external factors. Furthermore, previous study also revealed a significant association between differentiation advantage and environmental performance (Van der Vooren, Alkemade and Hekkert 2013). Differentiation advantage with no additional factor, however, has no strength over environmental performance. It requires extra effort that has not been implemented by most of the market players on reducing the adverse impact to the environment.

Accordingly, we hypothesise that:

- H1: Green employee empowerment has a positive relationship with differentiation advantage*
- H2: Green physical evidence has a positive relationship with differentiation advantage*

- H3: Differentiation advantage has a positive relationship with financial performance*
- H4: Differentiation advantage has a positive relationship with environmental performance*
- H5: Differentiation advantage mediates the relationship between green employee empowerment and financial performance*
- H6: Differentiation advantage mediates the association between green employee empowerment and environmental performance*
- H7: Differentiation advantage mediates the association between green physical evidence and financial performance*
- H8: Differentiation advantage mediates the association between green physical evidence and environmental performance*

### Conceptual Framework



**Figure 1. Conceptual Framework**

### Research Method

#### Sampling and Data Collection

In this study, we employed the quantitative method to collect data. We selected the samples in a non-random manner from each region in Malaysia. As a result, only three-to-five star green hotels or resorts were eligible for the survey due to the required criteria for the green assessment (Ministry of Tourism and Cultural Malaysia 2016). In accordance with the objectives of this study, we aimed to examine the green service strategy, implemented in go-green hotel. The unit of the analysis of this study is the organisation, mainly the owner or upper management. For the pre-test, we concentrated on the four and five-star awarded green hotels and resorts in Kota Kinabalu, Miri, and Kuala Lumpur.

Due to the suitability of non-probability sample, the homogeneous purposive sampling method was adopted based on two main criteria as the standard guideline (Bernard 2002). First, the star rates of the hotels and resorts (three to five stars). Second, only the hotels which were considered either (i) green awarded or certified; or (ii) not green awarded or certified but extensively going green. Questionnaires were distributed through both online and offline mode. For the online survey, a Uniform Resource Locator (URL) link to the Google e-questionnaire was emailed to

the directors or managers. At the same time, we also visited the hotels and resorts personally for the offline mode.

## Measurement

We have adopted the measurement items from several relevant marketing literatures and made necessary modification to the green hotel context. To be more specific, the measurement items of green employee empowerment were mainly adopted from the study of Leonidou et al. (2013) and Akroush (2011). Likewise, we have adopted the measurement items for green physical evidence, all from the study of Akroush (2011). Furthermore, we adopted the measurement of differentiation advantage from the study of Molina-Azorin et al. (2015) and Espino-Rodriguez et al. (2014); the financial performance from the study of Akroush (2011) and Hay (2001); and environmental performance from the study of Gholami et al. (2013). The questions were amended after the pre-test was carried out.

The final survey form consisted of five main sections. The first section included a series of screening questions related to hotel and resort details such as the hotel green category or certification and the percentage of green effort made. The second section comprised the questions on the newly proposed green service strategy to the green hotel marketing. The third section contained questions about the differentiation advantage after practising go-green. The fourth section consisted of questions relating to the firm financial and environmental performances. The last section included the questions about demographic details of the respondents such as year(s) of working in the organisation, age, gender and educational levels.

All the constructs were evaluated by multiple items using the 5-point Likert scale. For the questions relating to green service strategy and differentiation advantage, we evaluated them based on the scales ranged from 1 to 5 indicated “strongly disagree” to “strongly agree”. We used a different indicator for questions apropos to firm performance the scales ranged from 1 to 5 indicated “strongly dissatisfied” to “strongly satisfied”

## Data Analyses

This study consisted of eight main hypotheses, hypothesising the causal relationship between independent variables and the dependent variables, and also the mediation role of a mediator. Typically, PLS-SEM and Covariance Based-Structural Equation Modelling (CB-SEM) are two common types of SEM techniques. However, PLS-SEM is more appropriate to be applied in this study as it permits *the simultaneous estimation of multiple causal relationships between one or more independent variables and one or more dependent variables* (Kostopoulos, Papalexandris, Papachroni and Ioannou 2011, p. 1339). In addition to the smaller sample size, which consisted of 110 respondents, PLS-SEM through SMARTPLS 3.0 software package (Ringle, Wende and Will 2005) has a higher level of statistical power, compared to CB-SEM (Henseler 2010).

Furthermore, the independent variables of this study were measured by two constructs - financial performance and environmental performance, developed as formative variables. As compared to CB-SEM, PLS-SEM was found to be more appropriate to

test the formative model as CB-SEM has the identification problems in analysing formative model (Jarvis, Mackenzie, Podsakoff and Bearden 2003).

## **Findings**

By referring to the suggestion of Anderson and Gerbing (1988), we adopted the two-stage approach in evaluating PLS path model. The first stage evaluation of path model focuses on developing and assessing the measurement model, whereas for the second stage assessment of path model concentrates on determining the structural model (Anderson and Gerbing 1988). We have discussed the two-stage approaches in the following sections.

### **Assessment of the Measurement Model**

As the data were collected via a single method (questionnaire survey), we tested the common method variance through Harman Single Factor Test (Harman 1960). The results explain a variance of 31%. Thus, we conclude there is no issue from a common method bias and measurement error in this study. Next, to confirm the linear relationship between the latent construct and the observed variable, we computed the outer loadings. All constructs of the reflective model have the outer loadings, load above 0.7 (Hair, Hult, Ringle and Sarstedt 2016). The results further confirmed the linear relationship between the latent construct and the observed variables. Subsequently, we evaluated the Average Variance Extracted (AVE) to assess the convergent validity. The analysis shows AVE values ranging from 0.630 to 0.699 and differentiation advantage have the lowest AVE value, as compared to the other variables. However, the AVE value exceeded 0.5 provided means of satisfactory. Thus, the convergent validity is accepted (Hair et al. 2016). Thus, no items were deleted.

Furthermore, we also checked the cross-loading, and there is no difference between the latent variables that are greater than 0.1. Hence, we retained all the measurement items as no cross loading existed (Chin 1998). Table 2 presents the square root of the AVE. Based on the Fornell and Larcker Criterion (1981) shown in Table 2, the discriminant validity of this study is evidenced. All the AVE and square roots of the AVE are greater than the correlation between indicators. Despite that, we also estimated the composite reliability. All the composite reliability values are recorded above 0.89, indicating a satisfactory and reliable measurement of the construct to the structural model (Bagozzi and Yi 1988).

Next, we utilised the outer weights to analyse the observed indicators of the formative model. The results show that most of the outer weights load below the absolute threshold value of 0.5 (Hair et al. 2016). However, we did not remove the insignificant outer weights. Reasons being, these latent construct have driven the conceptualisation of the theory. Thus, these indicators should not be omitted from the formative model (Ramayah, Jacky, Francis, Hiram and Memon 2016). Next, we assessed the outer Variance Inflation Factor (VIF) to explain the multi-collinearity of the formative model. Multi-collinearity is the measurement error. The VIF values of the formative construct are ranging between 1.7 to 3.4, which are lower than the rules of thumbs of 5.0 (Hair et al. 2016). Hence, multicollinearity does not exist.



Table 1 below illustrates the result of the reflective and formative measurement model of this study. Meanwhile, Table 2 presents the result of the Fornell and Larcker's Criterion.

**Table 1. Result of the Measurement Model**

REFLECTIVE MODEL					
Constructs	Indicators	Loadings	AVE	S.R AVE	CR
Green Employee Empowerment	GEE1	0.884	0.663	0.814	0.907
	GEE2	0.799			
	GEE3	0.770			
	GEE4	0.793			
	GEE5	0.820			
Green Physical Evidence	GPE1	0.837	0.699	0.836	0.921
	GPE2	0.870			
	GPE3	0.828			
	GPE4	0.862			
	GPE5	0.781			
Differentiation Advantage	DA1	0.852	0.630	0.794	0.895
	DA2	0.815			
	DA3	0.764			
	DA4	0.802			
	DA5	0.731			
FORMATIVE MODEL					
Constructs	Indicators	Weights		Outer VIF	
Financial Performance	FP1	-0.178		2.256	
	FP2	0.566		2.280	
	FP3	0.662		2.036	
	FP4	0.137		2.304	
	FP5	-0.142		1.779	
Environmental Performance	EP1	0.255		3.467	
	EP2	0.312		1.718	
	EP3	0.085		2.688	
	EP4	0.217		2.849	
	EP5	0.351		1.730	

Note: AVE: Average Variance Extracted; S.R AVE: Square root of AVE; CR: Composite Reliability; VIF: Variance Inflation Factor

**Table 2. Fornell and Larcker's Criterion**

Construct	1	2	3	4	5	6
1 Differentiation Advantage	<b>0.794</b>					
2 Environmental Performance	0.466					
3 Financial Performance	0.387	0.312				
4 Green Employee Empowerment	0.305	0.286	0.295	<b>0.814</b>		
5 Green Physical Evidence	0.515	0.414	0.207	0.351	<b>0.836</b>	

Note: The Diagonal in bold represent the square root of the AVE

### Assessment of the Structural Model

The satisfactory measurement model permits the assessment of structural model. This step is vital as it determines whether the data collected support the hypotheses inferred (Urbach and Ahlemann 2010). As the mediation role takes part in this study, the structural model was divided into (i) the assessment of direct relationship and (ii) the assessment of indirect relationship. With the absence of mediation role, differentiation advantage is served as the endogenous variable to the direct relationship with green service strategies (green employee empowerment and green physical evidence). However, it changes its role to the exogenous variable while examining its direct relationship to the firms' performances (financial and environmental performance). To estimate the path coefficient for both effects, t-values were derived through the bootstrapping of 1000 subsamples (Preacher and Hayes 2008).

#### Direct Relationship

As illustrated in Table 3, green employee empowerment as the dimensions of green service strategy was found insignificantly associated with differentiation advantage at the standard beta ( $\beta$ ) of 0.142, t-value 1.632 ( $p > 0.05$ ) and a small effect size of 0.008. This insignificant coefficient suggests Hypothesis 1 to be rejected. In contrary, green physical evidence which also built as the green service strategy dimension was found to have t-value exceeding the threshold value leading to the significant association with differentiation advantage (t-value=3.128;  $p > 0.01$ ;  $\beta = 0.466$ ). Thus, hypothesis 2 is supported. However, the small effect size of 0.002 explains a small magnitude of the direct effect, indicates low practical importance. For the direct relationship between differentiation advantage and firms' performance, differentiation advantage was found significantly associated with financial performance at t-value of 4.899 ( $\beta = 0.387$ ;  $p > 0.01$ ; moderate effect size at  $f^2 = 0.267$ ); and significantly associated with environmental performance at t-value of 5.121 ( $\beta = 0.466$ ;  $p > 0.01$ ; moderate effect size at  $f^2 = 0.197$ ). Hence, Hypothesis 3 and 4 are supported.

Nonetheless, we also assessed the coefficient of determination ( $R^2$ ) to evaluate the predictive strength of the research model. In this study, the differentiation advantage, financial and environmental performances are the three main interests of the study. Thus, a substantial amount of variance in these (endogenous) variables is needed for the evaluation of the model strength. The results of the analysis show that the  $R^2$  of differentiation advantage, financial performance and environmental performance are respectively, 0.586; 0.280 and 0.329. More specifically, it explains 58.6% of the variability in differentiation advantage by the difference in hotel's green service strategy. On the other hand, the  $R^2$  for firm performance explains 28% and 32.9% of

the variability in financial and environmental performance by the difference in the competitive advantage. Table 3 shows the direct relationship between the exogenous and endogenous variables of this study. In the meantime, it also reveals the dual role of competitive advantage.

Furthermore, to ensure the prediction accuracy of the indicators data of the endogenous construct, we measured predictive relevance ( $Q^2$ ) using blindfolding construct cross-validated redundancy. According to Chin (1998), the results of the analysis with the value larger than zero describe good predictive relevance. The results of the data analysis show all the  $Q^2$  for the endogenous variable of this study exceeded zero. It indicates a good predictive relevance. Table 4 presents the results of path determination and predictive relevance.

**Table 3. Direct Relationship between Exogenous and Endogenous Variable**

Hypothesis	Path	STD. Beta	STD. Error	t-value	Effect Size, $f^2$	Decision
H1	GEE→DA	0.142	0.087	1.632	0.008	Insignificant
H2	GPE→DA	0.466	0.149	3.128**	0.001	Significant
H3	DA→FP	0.387	0.079	4.899**	0.267	Significant
H4	DA→EP	0.466	0.091	5.121**	0.197	Significant

Note: STD. Beta: Standard Beta; Std Error: Standard Error; \*\* denoted t-value>2.58 significance at  $p>0.01$

**Table 4. The Result of Path Determination and Predictive Relevance**

Endogenous Variables	$R^2$	$Q^2$
Differentiation Advantage	0.586	0.34
Financial Performance	0.280	0.08
Environmental Performance	0.329	0.17

Note:  $R^2$ : path of determination;  $Q^2$ : predictive relevance

### *Indirect Relationship*

There are few criteria to be fulfilled in determining the mediating effect. First, the indirect effect of each path was obtained by multiplying Path A and Path B without considering the mediator in the first place. Next, the standard deviation was calculated. Lower limit interval (Indirect effect - (1.96xStandard Deviation)) and upper limit interval (Indirect effect + (1.96xStandard Deviation)) were considered, and the significant indirect relationship should not have zero in between the lower limit and upper limit intervals. As shown in Table 4, there are zeros in between the lower limit and upper limit intervals of the relationship between green employee empowerment and financial performance (t-value=1.307); and the relationship between green employee empowerment and environmental performance (t-value=1.572). The results indicate no mediation effect of differentiation advantage. Thus, Hypothesis 5 and 6 are rejected.

In contrary, the mediating effect of differentiation advantage to the relationship between green physical evidence and financial performance was confirmed at t-value=2.343 ( $p>0.05$ ). Also, the mediating effect of differentiation advantage was found between the relationship of green physical evidence and environmental performance (t-value=2.171;  $p>0.05$ ). Each of both indirect relationships was

significant with no zero in the intervals of the lower limit and upper limit. Hence, the Hypothesis 7 and 8 are supported.

Table 5 illustrates the result of the indirect relationship between exogenous and endogenous variables.

**Table 5. Indirect Relationship between Exogenous and Endogenous Variable**

H	Path	Indirect Effect	SD	t-value	5% LL	95% UL	Result
H5	GEE→DA→FP	0.055	0.042	1.307	-0.027	0.137	Insignificant
H6	GEE→DA→EP	0.066	0.042	1.572	-0.016	0.149	Insignificant
H7	GPE→DA→FP	0.180	0.077	2.343*	0.029	0.331	Significant
H8	GPE→DA→EP	0.217	0.100	2.171*	0.021	0.413	Significant

Note: H: Hypothesis; SD: Standard Deviation; \* denoted t-value>1.95 significance at p>0.05

## Discussions

The analysis of the direct relationship between green employee empowerment and the differentiation advantage is insignificant. Notwithstanding, we also found an insignificant mediating effect of the differentiation advantage between the relationship of green employee empowerment and the firm's performance (financial and environmental). The results of the data analysis imply that green employee empowerment is neither an effective green service strategy uses to improve the firm's differentiation advantage nor an effective strategy uses to enhance firm's performance. The current result is in contrast with the previous findings in particularly to the hospitality context (Nzuve and Bakari 2012). It is well proven that employee capabilities, skills, and talents are the drivers of organisational excellence (Mohan and Gomathi 2014). However, this does not mean that employees' capabilities can fit into every function of the organisation. In other words, empowerment is not suitable for all matters or all employees (Rafiq and Ahmed 1998). The employer should consider the workload, knowledge, and practical experience of the empowered employee. Apart from that, employees also need extensive training to improve their individual and technical efficiency (Mohan and Gomathi 2014).

On the other hand, the direct relationship between green physical evidence and the differentiation advantage; and the indirect relationship between green physical evidence and the firm's performance (financial and environmental) is significant. The results show that green physical evidence is an effective green service strategy that can easily differentiate firms from their competitors, which further helps the firm to achieve both high financial and environmental performances. It is remarkable that physical setting in the workplace influences employee behaviour in numerous ways (Davis 1984). The green physical evidence reminds the employees not only the organisation's green goal, but it also provides a platform to influence the employee behaviour and to nurture green behaviour. Likewise, the green physical evidence is influential to the customer who is receiving or intended to receive the service in the green physical environment. However, it is notable that the current green physical evidence was found to have a small practical importance. This may due to the firm's understanding of the physical environment that they tend to view it as the hotel or resort's decoration. In fact, the physical environment is beyond the decoration

(Weaver 2009). It includes the whole systems and functions (Eneizan et al. 2016; Larashati et al. 2012) that distinguish one hotel or resort from the others.

Furthermore, the results of the analysis also show the significant relationship between the differentiation advantage and the firm's performance (financial and environmental). The result is consistent with mainstream findings (Banker, Mahruwala and Tripathy 2014; Van der Vooren, Alkemade and Hekkert 2013). However, we interpret the significant association between differentiation and financial performance as the result of marketing involvement. The firm makes their green practice one of their selling points as an approach to differentiate themselves with competitors, attracting the customers' attention. Therefore, the consumer who draws this differentiation and who pays for the services contributes to the firm's financial performance. The significant association between differentiation advantage and environmental performance is caused by the extra approach as an additional effort from the daily routine that has significantly reduced the wastage, resources and emissions.

### **Theoretical Implications**

Our results provide three main implications. First, the results confirmed the strength of green that added to the hotel and resort's physical evidence. Additionally, we highlight the significance of green physical evidence as an important element to form a green service strategy. Physical evidence has been widely tested as the key element of a service-marketing mix. However, limited attention has been paid to green physical evidence, and there is a lack of empirical findings to examine its green competitiveness and performance. The results of the analysis show that green physical evidence is significant to bring service excellent. In other words, the physical evidence is a strong indicator of the service marketing. The current significant results of green physical evidence contribute to the literature of green service marketing.

Secondly, there is a lack of early empirical study examining service marketing mix in the green setting (Mohammed et al. 2014). Although later research has shown the environmental issues in marketing, little is done on embedded green in relation to seven Ps marketing mix (Warink 2015; Kumar and Rohtak 2014). Thus, it leads to the limited determinant of "green" physical evidence. Another study refers green physical evidence as "green atmosphere" (Leonidou et al. 2013). Different understanding on green physical evidence has led to the various determinant and measurement of green physical evidence. For this, we have contributed more relevant measures for future research. We have redesigned and revised the measurement items that were adopted from the previous studies to fit into the setting of green service through expert judgement.

Thirdly, our findings also contribute to employee empowerment literature by highlighting the insignificant effect of green employee empowerment on differentiation advantage and performance in servicing industry. The current result supports the finding of Rafiq and Ahmed (1998) in which employee empowerment is not suitable for servicing industry. In addition, we emphasise that by embedding green into the employee empowerment process does not produce any mechanism in the service industry. Moreover, we also found various effects of green employee empowerment on competitive advantage and performance according to the context of

the study. Employee empowerment is viewed as essential in the other industries but it does not necessarily contribute to the service industry (Tariq, Jan and Ahmad 2014). Besides, we also identified the reasons for employee empowerment inefficiency on the green-related task for the service industry. We suggest a tendency that servicing employees will view empowerment as an extra burden; this will lead to dissatisfaction and work pressures that reduce service quality.

### **Managerial Implications**

The significant and insignificant results provide two main managerial implications. First, *Green Physical Evidence as the most important green service strategy for hotels and resorts*. We suggest an extra attention to the hotels' and resorts' internal and external physical environment improvements. For the internal green physical evidence, managers should be focusing more on the positive environment created in the workplace. The employer should evaluate employees' green image and provide training from time to time to enhance their individual and technical efficiencies (Mohan and Gomathi 2014). Other than that, managers should also adopt greener systems to encourage all members of the organisation to practice green. The employees who attached to the green characteristic or personality are important because they are representing the green physical evidence while interacting with the customers. For the external green physical evidence, managers should redesign the environment to attach to the feeling or vision of environmental friendly. These are the direct ways to get customers to engage with organisation's green culture in the attempt to create a different experience for them.

The second implication is *empowering the right person without adding extra workload*. We assume the insignificant results might be due to the capabilities of the employees; either their knowledge and expertise are not fit into the new task or they cannot cope with the extra workload. Hence, managers should choose the candidates to be empowered wisely. We suggest managers to partially empower the employees by probationary and entrust more responsibility to the empowered task periodically if the empowered employee's ability and capability are well proven. Besides, we also assume that green employee empowerment might be the extra burden for the employees as not everyone enjoyed to be empowered. Hence, the manager should bear in mind that empowering employees on particular task or job does not mean that they are holding two positions. The manager should delegate the job fairly and re-define the meaning of empowerment to increase the acceptance of empowerment among employee.

### **Limitations and Future Research**

We identified two main limitations, and we made two recommendations to the limitations. Firstly, we collected data from a single informant in each firm, and we invited only top management or the owner to participate in the survey. Although a single key informant can provide accurate information for the study, we have neglected the significance of sales and marketing, public relations, and front office personnel as the people who deal with customers. Therefore, the multi-informant designs that include the perspective of employees would be useful in this study. We suggest that future researchers design two sets of questionnaires. If possible, we

recommend that the data collection is based on a superior's and a subordinate's perspectives in examining the green service strategy.

Second, the settings of this study were three-to-five stars green hotels and resorts throughout Malaysia. The hospitality industry is only a part of the service industry, and the market segment is different, compared to the other sectors in the service industry. Thus, bias may exist. We suggest the future researcher to change the context of the study to either other sectors of service industry or make it general (random) to cover the service industry as a whole.

## Conclusion

The green physical evidence is highly relevant to the service firm. They serve as a unique space for the firm to interact with its customers. Hence, the green physical evidence is vital as a green strategy that enhances the uniqueness of the firm which leads to an increase in both the financial and environmental performance. To build a more impressive green physical evidence, firms should commit more to creating a comfortable environment with carefully chosen furnishings and colours; designing the facilities to suit the green image objectives; nurturing employees' green images; updating the green unit; or even providing a friendly environment alternative to the location. Green practice drives firms to a differentiation advantage, but choosing the right green approach is the key. Therefore it is essential to strategise the green services' practice in enhancing the firm's sustainability.

## Acknowledgement

This paper was presented at the International Symposium on Applied Structural Equation Modelling (SASEM2017) which was held at Hilton Kuching, Malaysia on 10-14 August 2017. Hence, we specially thank SASEM 2017 for the peer-review and the anonymous referees for their useful suggestions. Also, we are also grateful to the Centre for Research and Innovation of Universiti Malaysia Sabah for the continuous support. We also thank the hoteliers for their time and cooperation for participating in our questionnaire survey and their sharing of the hotels' efforts in the aspect of green.

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