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Willingness to Apply the Green Supply Chain Management in Hotel Industry

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Abstract

Vietnam is one of the most popular tourist destinations in the Asia-Pacific region, and its tourism industry has been growing unprecedentedly over the past few years. However the Vietnamese hotel industry is concerned as a considerably weak competitiveness factor in the tourism industry in Vietnam. This study aims to analyze the willingness to engage in green supply chain management (GSCM) of Vietnam hotel industry (VHI) as the way to improve the national competiveness. This study examines the practices of internal environment management (IEM), external environment (EE), and environmental regulation (ER) as possible drivers in VHI. This study finds that if the hotels in VHI have pressures of EE and ER, the hotel will be more willing to engage in GSCM. The higher ranking the hotel is, the higher willingness of participating GSCM they will be. While 1 or 2 star hotels do not concern about the GSCM, 3-4 star hotels have been considering the GSCM in VHI. The results also indicate a significant difference between 3 or 4-star hotels and 5-star hotels in concerning the factor of EE, and commitment to customers (CC) is more considered by 3 or 4-star hotels, instead of 5-star hotels.

Keywords: Green supply chain management, Hotel industry, Vietnam hotel industry.

1. INTRODUCTION

As report of Vietnam National Administration of Tourism (VNAT) , Vietnam's tourism sector achieved impressive progress in 2013, receiving 35 million domestic visitors and 7.5 million foreigners, an increase of over 10% over the 2012, and earning total revenue of VND 195 trillion (US$9.17 billion). In 2012, Vietnam was ranked the second of 151 nations in the 'Happy Planet' index calculated by the New Economics Foundation, UK (Jo Lane, 2013). Vietnam's advantages include its political stability, no terrorism threat or absence of active religious and ethnic conflicts, and its image as a "new" destination in the world. However, the travel and leisure industry is consistently ranked as a poor-performer industry with regard to the sustainability in Vietnam. Nguyen(2010) concludes that in reality, many Vietnam

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hotels find it hard to evaluate their own competitiveness, resulting in their inability to seek effective solutions to enhance it. In order to help solve this problem, especially in the context that the inflow of foreign visitors to Vietnam is increasing, taking root from some scientific works on competitiveness evaluation of goods trading enterprises can build up some principles to evaluate the competitiveness by proposing some evaluation criteria for the competitiveness of VHI under GSCM approach.

The field of supply chain management has more recently directed its attention to the role of the supply chain in both (a) impacts to the natural environment and (b) the generation of environmental performance change. Since most of the goods and services included in a holiday package are provided by a supply chain of subcontracted companies, organizations and agents, hotel managers are not always in direct control of the environmental and social impacts of those products. Consumers increasingly expect the companies that they purchase goods to ensure not only the quality and value-for-money, but also the safeguard environmental and social sustainability. Environmentally sustainable green supply chain management (GSCM) has emerged as an important organizational philosophy to achieve corporate profit and market share objectives by reducing environmental risks and impacts while improving competitive advantage (Zhu et al, 2008). Tseng et al., (2009a) suggests that some of these organizations are enhancing their competitiveness through improvements in their environmental performance to comply with mounting environmental regulations, to address the environmental concerns of their customers, and to mitigate the environmental impact of their production and service activities. Thus, this study is timely and necessary to better aid VHI in the GSCM principles.

As Do and Kumar (2003) state that the hotel industry of Vietnam is expanding rapidly with increasing international arrivals and domestic tourists. At the same time, mounting costs of resources and impacts of waste could affect the income, environmental performance and public image of the hotel sector. The hotel industry's resource management (energy and water) would contribute to the long-term sustainability of the tourism sector. It has been estimated that 75% of all environmental impacts created by the hotel industry can be attributed to the excessive consumption of local and imported non-durable goods, energy and water, followed by the emissions released to air, water and soil (APAT, 2002). To analyze the willingness to engage in GSCM of VHI, this study bases on the investigation and practice in GSCM, appropriate measurement scales of Zhu et al, (2008), Zhu and Sarkis (2006)and Tseng et al., (2009b).to find the influential variables for GSCM practices and to provide an analytical model for future practical study of the GSCM process in VHI.

This study examines the practices of internal environment management (IEM), external environment (EE), and environmental regulation (ER) as possible drivers in VHI. The research framework and hypotheses were examined by a mail survey conducted in Hanoi, Vietnam in 2012. The empirical analysis adapted data from 121 hotel managers. Validity and reliability of the scales for the construct of interest were assessed through a factor analysis and Cronbach-alpha test. To test the hypotheses for the drivers of hotel's willingness to participate in GSCM initiatives, stepwise regression was adopted, and this survey uses discriminant analyses comparison of willingness to engage in GSCM among hotels and finds the influence factors on GSCM.

2. LITERATURE REVIEW

Sarkis(2012, p.202) in the research of perspective of green supply chain management concludes that "Greening supply chains has become a necessity as environmental concerns have remained at the forefront of the debate of global and local social interests".GSCM's definition has ranged from green purchasing to integrated supply chains flowing from supplier, manufacturer, customer and reverse logistics, which closes the loop of supply chain as defined in the literature of Zhu and Sarkis (2004), Zhu et al, (2008a), Zhu and Sarkis (2006) Tseng et al., (2009b) and Diabatand Govindan(2011). Linking supply chain activities and environmental issues has been a topic of interest over the last decade. Practices that foster green project partnership include direct involvement of the suppliers or customers in the implementation of a new production process or in product modifications (Bowen et al, 2001, Rao, 2004). Several studies, particularly in strategic management, have linked supply chain management to operational performance using the

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resource-based view (RBV) of firms as a theoretical lens(Linton et al., 2007; Vachon and Klassen, 2008; Sarmiento, 2010).Increasing tourists' concerns on environmental issuesalso force companies to adopt green supply chain management(GSCM) strategies (Sigala, 2008). In hotel industry, effectively integrating sustainability into its supply chain will require the establishment of a coherent hotel policy and accompanying management system that set out clear targets and actions on economic, environmental and social performances. Building this system on already existed internal processes will help cut down the costs of implementation and promote the integration within a hotel's overall operations. Chen et al. (2011) explore the green purchasing to determine key factors of affecting a purchasing firm's selection of suppliers and key barriers and obstacles of green purchasing initiatives. Walton et al. (1998) examine the integration of suppliers into environmental management processes and observe two evolving trends. They firstly suggest that environmental issues are becoming an intrinsic part of strategic planning in organizations due to stricter regulations and the demands of environmental accountability.

Bowen et al. (2001) state that organizations will adopt GSCM practices if the adoption of GSCMcan result in specific financial and operational benefits. Thus, there is a research need to establish the potential link between GSCM initiatives and increased competitiveness and enhanced economic performanceto provide an impetus for organizations to green their supply chains. Given that there is a multidimensional expansion of the literature in the area of hotel industry, this study focuses on three GSCM practices (IEM, EE, and ER). These three areas represent some of the main internal and external activities and functions within organizational supply chain management (Zhu and Sarkis, 2006). It is well known that senior managers' support is necessary and, often, a key driver for successful adoption and implementation of most innovations, technology, programs and activities. To ensure complete environmental excellence, top management must be totally committed (Hamel and Prahalad, 1989). Carter et al. (1998) conclude that the support from middle managers is also a key to successful implementation of GSCM practices. Bowen et al. (2001) use middle managers to find positive relationships between middle managers' perceptions of corporate environmental proactivity and environmental management. Communication between business managers and environmental professionals is also important in the successful business and environmental relationship.Chien and Shih (2007) address that it is important to evaluate the performance of GSCM in the internal organization. Environmental performance is commonly measured through operative performance indicators and management performance indicators. Moreover, for hotels that pay special attention to performance of GSCM,Internal environmental management (IEM) is more influential in stressing GSCM. Thus, we come up with our first hypothesis:

H1: Internal environmental management (IEM) has the significant impact on GSCM practice of VHI

Lin (2011, p.2) states that "due to customer demands for green products which are manufacturedusing environmental friendly raw materials and greenproduction processes, firms have to integrate its environmental goals with long-term strategic management". The consumer pressure certainly stimulates the environmental performance of other industries, notably high-street hotel industry. While the growth in boutique eco-hotels suggests a growing clientele for such services, organizations must take responsibility for ensuring the sustainability of all the inputs that go into their productsin the hotel industry (Sigala, 2008).Despite the first time guests usually decide their stay at hotels based on locations, amenities and services, returning customers may base this decision on the level of environmental commitment (Graci 2002). According to a survey conducted in 2007 by an Atlanta based market research company, 75% of survey respondents indicated that the environmental practices are the key factors for choosing hotels. This survey stated that Americans have become more environmentally aware and have changed their behaviors and the expectations of businesses they support (Green Lodging News 2008). Kamal and Vinnie (2007) in the research of consumer attitude and behavior towards green practices in the lodging industry in India find that the consumers using hotel services are conscious about environmentally friendly practices. They patronize the hotels that have adapted green practices though not compromising on service quality. The consumers would prefer to use lodging that follows these practices but are not willing to pay extra budgets for these services. Indian hotels have the competitive advantage over similar products if they follow green practices.

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Literature shows that all tourism suppliers need to co-agree and break down the sustainable policy and metrics in certain actionable sustainable goals, whose current and future performance levels-metrics achieved by all tourism suppliers need to be traced and monitored (Gunasekaran, Patel and McGaughey, 2004; Brewer, Speh, 2001). Sundarakani et al (2010) argues that technology and innovation, transparency and suppliers' relationship enhancement are key factors when managing green supply chains, though there are a great number of factors should be considered when managing green supply chain management. According to those theories that mentioned above, relationship with supplier is most important factor for GSCM. Further, Shalishali et al, (2009) also indicate that, building the good relationship with supplier can benefit both parts in that firms can work together to improve product design and product efficiency, which can lead to improved overall waste reduction. Zhu et al,(2008) conclude that the success of eco-design requires internal cross-functional cooperation within the company and the external cooperation with other partners throughout the supply chain. According to Vachon and Klassen (2007) It is better for corporations to establish long-term relationship with suppliers, which includes setting up requirements on product quality, maintaining environmental regulations at the manufacturing level, having green packaging and distribution strategies in order to keep their collaboration and deliver high quality product to customer. From above discussion leads to the second hypothesis:

H2: External environmental has the significant impact on GSCM practice of VHI

H2a: Green purchasing (GP) has the significant impact on GSCM practice of VHI

H2b: Commitment to customers (CC) has the significant impact on GSCM practice of VHI

The role of regulation environment in GSCM has been receiving many attentions over the past decade. The catalyst ofthe widespread recognition of environmental responsibility by hotelier suppliers is thought to come from supply chain pressure or regulations (Friedman and Miles, 2002). Considering why firms apply green supply chains, a series of literatures argue that compliance with regulation is one major driver contributes to implementation of green supply chains and impel to conduct green supply chains into practice at the same time (An et al, 2008). Zhu and Sarkis (2006) address the regulation environment with three levels: Regional environmental regulations, Central governmental environmental regulations, and International environmental regulation agreement. In order to balance the rapid economic growth, the speed of improving hotel service quality and minimizing environment impacts, Vietnam government must introduce certain policies and regulations to facilitate development of sustainability. According to the study of Cater and Rogers (2008), sustainability involves three components: environmental, social and economic performance. Although government pursues to perform well in all perspectives, it pays much attention to regulate environmental issues. In order to slow down the aggravation of environment, sustainability is advocated, which means the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"[1]. Considering this issue, developed countries took several measures, such as publishing certain laws and standards to control environmental impacts. However, in developing countries as Vietnam, sustainability is still a new topic. Policies and approaches that related with sustainability development are incomplete and development of sustainability is in a primary stage.

H3: Environmental regulation has the significant impact on GSCM practice of VHI

3. METHOD

This study reviews scholars' literature based on the investigation and practice in GSCM, appropriate measurement scales of Zhu et al (2008),Chen et al. (2011), and Diabat and Govindan(2011)and information gathered from expert interviews. Since in the study of Zhu et al (2008) includes 5 categories applied for manufacturing industries. However, related to hotel industry, authors thus select and constructs the categories of willingness engaging in GSCM in VHI: "Internal environmental management" and "external environment". For variable of "environmental regulations"

[1]World Commission on Environment and Development, 1987, p.8

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this study uses measurement scales of Zhu and Sarkis (2006). This study also investigates the variables affecting willingness to engage in GSCM in VHI for these three categories. Figure 1 show the research framework and Table 1 shows the main factor and sub-factor impact on GSCM in VHI.

TableA1 List of variable and item for GSCM practices implementation in VHI

Variable	Measurement items
Internal environmental management (IEM)	1.Commitment of GSCM from senior managers (IEM1)
	2. Support for GSCM from mid-level managers (IEM2)
	3. Cross-functional cooperation for environmental improvements (IEM3)
	4 Total quality environmental management (IEM4)
	5 Environmental compliance and auditing programs (IEM5)
	6 ISO 14001 certification (IEM6)
	7 Environmental Management Systems exist (IEM7)
External environment Co-ordinate with supplier	1. Eco labeling of products (CS1)
	2. Cooperation with suppliers for environmental objectives (CS2)
	3. Environmental audit for suppliers' internal management (CS3)
	4. Suppliers' ISO14000 certification (CS4)
	5.Second-tier supplier environmentally friendly practice evaluation (CS5)
Cooperation with customers (CC)	6. Commitment to customers for eco design (CC1)
	7. Commitment to customers for cleaner production (CC2)
	8. Commitment to customers for green packaging (CC3)
Environmental regulations	1. Regional environmental regulations
	2. Central governmental environmental regulations
	3. International environmental regulation agreement
Willingness to apply GSCM	1. Aware of the GSCM initiatives.
	2. Willing to participate in the GSCM initiatives.
	3. managers who have interest in the GSCM initiatives
	4. Expects environmental and economic benefits from the GSC initiatives.

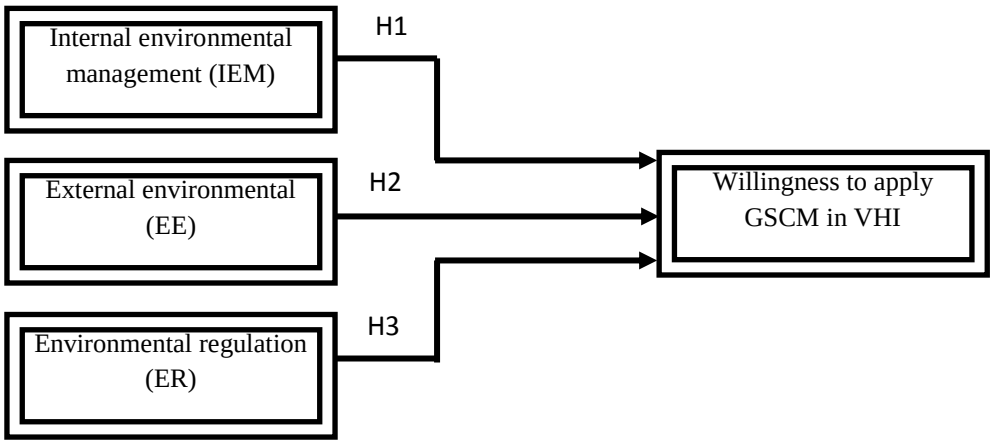

Figure1. Research Framework

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This study uses a survey questionnaire to elicit responses from the hotel managers in Vietnam about their perceptions/opinions relate to GSCM. The survey instrument includes questions seeking demographic information. The questionnaires use the Spreadsheets tool of Google to mail to hotel managers who are working in Vietnam. The analytical software used in this study is SPSS 16.0 to analysis and verify the data gathered from the questionnaires.

4. RESULT ANALYSIS

4.1. Descriptive analysis

This study included the distribution of 220 questionnaires by mail and e-mail and 132 responses to the questionnaire, which constitutes a 60% response rate. Out of the 132 questionnaires returned, 121 were valid. Among the 121 valid respondents, 27 questionnaires came from 5 star hotels, 47 from 1-2 star hotels and 47 from 3-4 star hotels. Table 2 expresses the respondent details in this study.

Table 2: Respondent profife

Gender	Frequency	Percent
Male	67	55
Female	54	45
Total	121	100
Year of working	Frequency	Percent
3-5 years	18	14.9
5-9 years	83	68.6
> 10 years	20	16.5
Total	121	100.0
Position	Frequency	Percent
Top-manager	30	24.8
Mid- manager	46	38
Function manager	45	37.2
Total	121	100.0
Rank of hotel	Frequency	Percent
1-2 star	47	38.8
3-4 star	47	38.8
5 star	27	22.4
Total	121	100.0

4.2 Reliability analysis

In this study, principle component method is used for explorative factor analysis. Fivemain factors with 22 itemsare loaded into the system. The 7 Internal environmental management items were factor analyzed. After and the result indicates that the Kaiser-Meyer-Olkin value was .885, and the Bartlett's Test of Sphericity was statistically significant at .000 level. The factor eigenvalues greater than or equal to 1.0 and internal environmental management with factor loadings greater than .5 was reported. . No items of the loading factor are less than 0.5. The result of factor analysis revealedinternal environmental management, which accounted for 70.135% of the total variance. To test the reliability and internal consistency of each factor, the Cronbach's alpha of each was determined. The results showed that the alpha coefficients of .926 in Internal environmental management. (Table 4.2).

Regarding the External environment factor the result indicates that 82.901 % of variance of two factors has explained with an eigenvalue which is greater than 1.0 and the Kaiser-Meyer-Olkin value was .859, and the Bartlett's Test of Sphericity was statistically significant at .000 level. No items of the loading factor are less than 0.5. The varimax-rotated factorial pattern implies that the first factor concerns "Cooperation with suppliers" (5 items: 48.342% of variance and

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Cronbach's α= .932); the second factor relates to "Commitment to customer" (3 items: 34.559% variance and Cronbach'sα=.791). The arithmetic means of the four multi-item factors were used to build the construct. (Table 4.2)

For the Environmental regulations factors, the result indicates that 76.434% of variance explained with an eigenvalue which is greater than 1.0 and the Kaiser-Meyer-Olkin value was .724, and the Bartlett's Test of Sphericity was statistically significant at .000 level. No items of the loading factor are less than 0.5. To test the reliability and internal consistency of factor, the Cronbach's alpha was determined at .842. (Table 4.2).

Relating to Environmental regulations factors, the result indicates that 76.581% of variance explained with an eigenvalue which is greater than 1.0 and the Kaiser-Meyer-Olkin value was .806, and the Bartlett's Test of Sphericity was statistically significant at .000 level. No items of the loading factor are less than 0.5. To test the reliability and internal consistency of factor, the Cronbach's alpha was determined at .895. (Table 4.2).

Table 3 Factor Analysis

Factor /item	Factor loading	Eigenvalue	Variance explained (%)	Cronbach's α
Internal environmental management (IEM)		4.909	70.135	.926
IEM1	.874			
IEM2	.899			
IEM3	.753			
IEM4	.890			
IEM5	.826			
IEM6	.862		KMO= .885, p = .000	
IEM7	.743			
External environment				
Cooperation with suppliers (CS)		3.867	48.342	.932
CS1	.777			
CS2	.786			
CS3	.759			
CS4	.849			
CS5	.797			
Commitment to customer (CC)		2.765	34.559	.791
CC1	.893		Total variance explained=82.901	
CC2	.738		KMO= .859, p = .000	
CC3	.885			
Environmental regulations (ER)		2.293	76.434	.842
ER1	.887			
ER2	.884		KMO= .724, p = .000	
ER3	.851			
Willingness to apply GSCM		3.063	76.581	.895
GSCM1	.929			
GSCM2	.795			
GSCM3	.895		KMO= .806, p = .000	
GSCM4	.876			

The purpose of correlation analysis is to describe the linear relationship between two or more continuous variables. The most common type of correlation analysis is the Pearson correlation coefficient, which is sensitive mainly to the linear relationship between two variables. This study adapts the SPSS software to obtain the Pearson correlation coefficients of

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all variables and to understand the correlation structure of the GSCM variables within anVHI. From Table 4, it is obvious that the correlation coefficients of the six variables all fall within the .5–.9 range, which demonstrates that the degree of multicollinearity existing in the variables is acceptable and will not affect the following regression analysis

Table 4: Correlation matrix (N=121).

Variable	Mean	Std. Deviation	IEM	CS	CC	EE	ER	GSCMP
IEM	2.8253	.81410	1					
CS	2.8926	.82383	.846**	1				
CC	2.8843	.81162	.674**	.916**	1			
EE	2.8895	.80642	.807**	.758**	.433**	1		
ER	2.7906	.88729	.821**	.853**	.837**	.557**	1	
GSCMP	2.8554	.87306	.878**	.871**	.786**	.679**	.917**	1

**. Correlation is significant at the 0.01 level (2-tailed).

4.3. Regression analysis

Regression analysis includes techniques for modeling and analyzing variables with a focus on the relationships between one or more independent variables. The multiple stepwise regression analysis. in this study verifies the relationship between variables (the six variables, “internal environment management”, “external environment ”, “co-operate with supplier”, “cooperation with customer”, “environmental regulation”, andwillingness to engage in GSCMPinVHI.For the “External environment” category, two variables, “co-operate with supplier” and “cooperation with customer” are discussed, and the predicted relationship between these two variables and willingness to engage in TT in GSCMP is explored. (Table 5)

In Table 5, both ““co-operate with supplier”, (β=.606) and ““cooperation with customer”” (β=.416) satisfy the significance test for standard regression coefficients (P <.01), and therefore it demonstrates that if the hotels have cooperation with supplier and customer in practicing the green supply chain or if the hotel have been pressured by supplier and customer, these hotels will be more willing to engage in GSCMP. So the hypothesis H2a and H2b are strong supported.

Table 5 Multiple stepwise regressions for external environment (H2a, H2b)

Model	Standardized Coefficients β	R	R^2	ΔR^2
1	.606**	.786[a]	.618	.615
2	.416**	.871[b]	.759	.755

a. Predictors: (Constant), CS

b. Predictors: (Constant), CS, CC

**P<.01

Table 6 shows that the regression coefficients for internal environment management”, (β=.525), “external environment” (β=.313), and “environmental regulation” (β=.155) all satisfy the significance test for standard regression coefficients (P<.01 and P<.05). This indicates that the higher the participation motivations of both internal environment and external environment in conjunction with regulation regional environmental regulations, central governmental environmental regulations and international environmental regulation agreement, the more positive will be the influence on the willingness to participate in GSCMP in VHI. It can conclude that hypothesis: H1, H2 and H3 are supported strongly.

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Table 6 Multiple stepwise regressions procedure (willingness to apply GSCMP of VHI).

Model	Standardized Coefficients β	R	R^2	ΔR^2
1	.525**	.917[a]	.841	.839
2	.313**	.943[b]	.889	.887
3	.155*	.946[c]	.894	.891

a. Predictors: (Constant), EE
b. Predictors: (Constant), EE, ER
c. Predictors: (Constant), EE, ER, IEM
**P<.01, *P<.05

. 4.4 Comparison of willingness to engage in GSCM

This study investigates three categories of GSCM participants. 1-2 star hotel accounted for 38.8% of the total survey samples, 3-4 star hotel for 38.8%, and 5 star hotel 22.4%. Those responding to the questionnaires included top-manager, mid-level manager, function manager in hotel respectively. This survey use discriminant analyses to test the means and standard deviations for each variable for each group and compares the mean values for each group for each variable to see if there are significant unvaried differences among means. Wilks' Lambda is the ratio of within-groups sums of squares to the total sums of squares. This is the proportion of the total variance in the discriminant scores not explained by differences among groups. A lambda of 1.00 occurs when observed group means are equal (all the variance is explained by factors other than difference between those means), while a small lambda occurs when within-groups variability is small compared to the total variability. A small lambda indicates that group means appear to differ. The associated significance value indicates whether the difference is significant.Table 7 depicts the comparison of willingness to engage in GSCM among hotels.

Table 7 Comparison of willingness to engage in GSCM among three class of hotel

Variable	Hotel	No.	Mean	Std. Deviation	Std. Error Mean	Wilks' Lambda
IEM	1-2 star	47	2.4833	.53498	.07804	.611*
	3-4 star	47	2.9787	.40294	.05877	
	5 star	27	3.4497	.45814	.08817	
EE	1-2 star	47	2.4548	.39736	.05796	.477*
	3-4 star	47	2.9840	.42877	.06254	
	5 star	27	3.5417	.35014	.06738	
CS	1-2 star	47	2.4383	.39483	.05759	.368*
	3-4 star	47	2.7830	.46030	.06714	
	5 star	27	3.8222	.32026	.06163	
CC	1-2 star	47	2.4823	.50028	.07297	.694*
	3-4 star	47	3.3191	.53368	.07785	
	5 star	27	3.0741	.73574	.14159	
ER	1-2 star	47	2.4539	.63484	.09260	.514*
	3-4 star	47	2.8440	.55102	.08038	
	5 star	27	3.8272	.28300	.05446	

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GSCMP	1-2 star	47	2.5585	.69394	.10122	.645*
	3-4 star	47	2.9096	.46458	.06777	
	5 star	27	3.6389	.41216	.07932	

*P<.01

Table 7 indicates that there is a significant different in IEM of 1-2 star hotel 3-4 star hotel and 5 star hoteland 5 star hotel have more concern in IEM than other lower rank of hotel (Wilks' Lambda = .611, P <.01). EE, ER and GSCMP also get the same result while 5 star hotel is getting higher consideration (EE: Wilks' Lambda= .477, P<.01, ER Wilks' Lambda = 514, P<.01 and GSCMP: Wilks' Lambda = 645, P<.01). From the results can be concluded that the higher ranking hotel in VHI is higher willingness in participating GSCM.

For further analysis of the willingness to applied GSCM among hotels, this study also uses ranking method to find what is most important factor that hotel manager consider in participating GSCM. Table 8 depicts the average scores and order of importance for the three type of hotel from 1-2 star hotel to 5 star hotel.

Table 8 Order of importance of GSCM participants among three class of hotel

Hotel	Variable	Mean	Std. Deviation	Order
1-2 star	IEM	2.4833	.53498	1
	EE	2.4548	.39736	4
	CS	2.4383	.39483	6
	CC	2.4823	.50028	2
	ER	2.4539	.63484	5
	GSCMP	2.5585	.69394	3
3-4 star	IEM	2.9787	.40294	3
	EE	2.9840	.42877	2
	CS	2.7830	.46030	6
	CC	3.3191	.53368	1
	ER	2.8440	.55102	5
	GSCMP	2.9096	.46458	4
5 star	IEM	3.4497	.45814	5
	EE	3.5417	.35014	4
	CS	3.8222	.32026	2
	CC	3.0741	.73574	6
	ER	3.8272	.28300	1
	GSCMP	3.6389	.41216	3

From table 8, the result indicates that with the 1-2 star hotels, there are not many significant differences among factors (rank 1-6) while mean different (MD) of the most important factor for willingness to engage in GSCM (IEM, mean = 2.4833) and the less important factor (CS, mean = 2.4383) is MD= 0.045. It concludes that 1-2 star hotels in VHI still not concern about applying the GSCM. In 3-4 star hotels, the mean value among factors have the significant differences. Comparing mean value of the first ranking factor CC (mean = 3.3191), the second EE (2.9840) and the less CS (2.7830) show that 3-4 star hotels have a good relationship with customer in GSCM but it is not similar situation to CS (MD = 0.5361) while both factor is sub-factor of EE. Referring to IEM (2.9787), ER (2.8440) and GSCMP (2.9096) the result

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address that 3-4 star hotel has the beginning of consideration of GSCM and the level of important among three factor is not so difference.

In the 5 star hotel, the result indicates that there is strong significant of concerning with GSCM . While ER is most important factor but the mean value (3.8272) is not so difference with the second CS (3.8222). The result also indicates the strange difference between 3-4 star hotel and 5 star hotel in concerning the EE. While 3-4 star hotel consider CC is most important factor but less concerned by 5 star hotel (rank No. 6). It can be concluded that 5star hotel want to respect regulations from the government and have the good coordinating with supplier in GSCM to firstly. With the concerning the green quality of service, 5 star hotel also consider IEM (3.4497) and GSCMP (3.6389) as important method for serving customer from internal practice.

5. CONCLUSION

Consumers are using accommodationservices to search for hotels that offer a cleaner and healthier overnight experience, while the growth in boutique eco-hotels suggests a growing clientele for such services.In the hotel industry, organizations must take responsibility for ensuring the sustainability of all the inputs that go into their products.Increasing awareness and demands in sustainable tourism require firms to implement GSCM). Hotelier can significantly influence and promote sustainable tourism development due to their distribution role and capability to direct tourists to destinations and suppliers. Despite the emerging role of SCM and sustainability, the applicability of GSCM practices in tourism is not studied yet (Sigala, 2008).According to the results in this study, the willingness of VHI to participate in GSCM initiatives heavily rested on two influential factors: internal environment management and external environment (with two sub-factor buyer and supplier). Also, environmental regulation in the initiatives influences the participation of VHI. VHI, supplier, customer as well as governments are intended to improve the environmental performance throughout the supply chain can obtain implications from this study.

First,consistent with our expectations, the hotels have cooperation with supplier and customer in practicing the green supply chain or if the hotel has been pressured by supplier and customer, these hotels will be more willingness to engage in GSCMP. The VHI who are under more environmental pressures and who are provided with environmental support from their buyers are likely to be involved in these initiatives. This implies that the hotel managers who intend to reduce the environmental risk engendered by their supply chains should enhance environmental procurement and support to their suppliers and customer. Second, this study finds that the higher the participation motivations of both internal environment and external environment in conjunction with regulation regional environmental regulations, centralgovernmental environmental regulations andinternational environmental regulation agreement, the more positive the managers will be influenced by the willingness to participate in GSCMP. And the third finding in this study is that, the higher ranking hotel in VHI performs a higher willingness in participating GSCM. It can be concluded that 1-2 star hotels in VHI usually do not concern about applying the GSCM while 3-4 star hotels have the beginning of consideration of GSCM and the level of important among factors are difference. On the other hand, 5 star hotels respect regulations from the government and have the good coordinating with supplier in GSCM firstly. With the concerning the green quality of service, 5 star hotels also consider IEM and GSCMP as important methods for serving customer not only by "word of mouth" but practice.

Although the implementation level of GSCM is positively associated with level of performance improvement, the strength of the association may be subject to how long and how well the respective Hotel sectors have implemented this GSCM practice ((Zhu et al, 2007). For the 5 star and 4 star hotel, it is easier for applying the GSCM due to the pressure of customer and the level of internationalization ranking. But in the lower hotel ranking, it is not easy since customer is usually domestic, the requirement and awareness about environment and sustainable is not so concern. In this perspective, government regulation is important for improving the implement of GSCM in that kind of Hotel. From that, the results of this study can prove promising for a number of reasons: 1) Future research can learnt from this research result as a literature specially the researcher from Vietnam since there is limited research in VHI. 2) Policymakers can use this information to determine whereweaknesses occur in the implementation of GSCM andperformance and help

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those VHI. 3) Hoteliercan use this result to determine what and how they can improve their GSCM practice and also this result help the foreign investor in considering the partner in VHI.

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