# EFFECT OF DRIVERS PRESSURES ON GREEN SUPPLY CHAIN MANAGEMENT PERFORMANCE WITHIN THE HOTEL INDUSTRY

### Kerdpitak C.\*

**Abstract:** The study is aimed to examine the effects of driver's pressures such as owner mangers attitude, green consumers, and government regulations on green supply chain management performance while mediating by green practices of hotel industry. However, for fulfilling above mentioned purpose, collect the data from medium and small scale hotels enterprises in Thailand. 250 questionnaires were distributed among employees out of whom 215 were received from the respondents. The simple random sampling technique was used for data collection. Therefore, in this way it is easier to understand that how mangers of the organization, internal and external consumers and government regulations of the enterprises affect the green supply chain management performance, how green practices affect the relationship. The data of this study collected through self-administrated questionnaires. Data were analyzed by using Smart PLS. The results of the study elaborated that all hypothesis is accepted and shows the positive influence on green supply chain management performance. Further at the end of study, the limitation and future direction for further studies is also expounded.

**Keywords:** green supply chain management performance, driver's pressures, owner mangers attitude, green consumers, regulation, green practices, hotel industry

DOI: 10.17512/pjms.2019.20.2.24

Article history:

Received September 4, 2019; Revised November 14, 2019; Accepted November 23, 2019

#### Introduction

In Thailand the tourism industry gain intensive focus because of their large number of the travel places, temples and beaches. Tourism industry is imperative and pillar for Thai economy, hotels and accommodations for tourist is one of the important leading sectors of Thailand. Thailand tourism industry is one of the important sector as it is expected to grow and growing since 2015 at rapid pace. Due to the increasing trend in hotel industry there is problem of heavy use of natural resources causes a damage in society. Therefore, the climate changes and the global warming create problem in economy. In today's world, the ethical business point of view described that the ethical firms must considered the social, economic and environmental factor in their performance. Ecotourism is must be prevail in society to prevent the natural resources , so government of Thailand and policy makers also consider the environmental issues There is essential for organization to create sustainable environment and save the natural resources for creating sustainability

Corresponding Author: chayanan.ke@ssru.ac.th



<sup>&</sup>lt;sup>\*</sup> Chayanan Kerdpitak, Graduate School, Suan Sunandha Rajabhat University, Bangkok, Thailand

for longer time period in economy for future generation (Satchapappichit, Hashim, Hussin, & Inmuong, 2016).

Therefore, the green supply chain management supply chain means that managing the relationship with suppliers and customers in business to provide the product that give more value to the customers and less cost. Although, in hotel industry supply chain management is essential for reducing the waste, cost and creating value for organization that enhance the performance of the green supply chain management. Similarly this study considered the green practices as mediator, in current study green practices conceptualized as the use of the environmental practices and technical activities of the organization for reducing the waste, decreasing the energy resource and getting the raw material from green suppliers, developing a product that is environmental friendly, and the deliver the product to ultimate consumers that consider the importance of green activities and their selfconfidence is enhance by using this product that is environmental friendly.

Study is aimed to explore the effect of driver's pressures such as owners' mangers relations, green consumers, and government regulation on green supply chain management organization. In addition, the green practices effect the green supply chain management as mediator in present study. For fulfilling the purpose of the organization following are the research objectives of the study.

- To determine the influence of owners manager's relationship with green supply chain management performance.
- To examine the green consumers effects on the green supply chain management performance.
- To elaborated the influence of government regulation effect on green supply chain management performance.
- To examine the effect of green practices on green supply chain management performance.
- To determine the effect of drivers pressures namely: owner's manager's attitude, green consumers, and government regulations effect on green supply chain management performance while mediating by green practices.

## Literature Review

Supply chain management is essential in any organization either it is related with manufacturing sector or the service sector (Luekveerawattana, 2018). The ethical business must consider the social, economic, and environmental factors in their performance. Moreover, for greening the corporation there is needed to accelerate the supply chain management and environmental friendly initiatives that is required by ultimate consumers (Kot, 2018). The supply chain management process can defined by the (Christopher, 2011) "as the management of the relationship between upstream and downstream business areas, or the relationship between suppliers and customers to deliver more value to customers at less cost". Further, supply chain management constructs competitive advantage in organization for decreasing the

cost. In the business world green supply chain management is extensively focused in businesses that stimulated the organizations to implementing the ideas of protecting the natural resource and enlightening the eco-friendly images of organizations (Lin, 2013). Similarly, most of the organization limits all the resources that create impact on the environment, use better suppliers for raw material that practicing the environmental friendly initiatives that enhance the confidence of the end user on the product (Tseng, 2010).

The consumers are the ultimate user of the product. It is also one of the important drivers that boost the sustainability in organizations (Wróblewski, Dziadzia & Dacko-Pikiewicz, 2018). The consumers of the hotel industry if consider the importance of sustainability then they prefer those organizations that are using the environmental friendly practices. The customers trust on those products that are eco-friendly. It also creates competitive edge for organization. The green consumer's forces the organization to make their system that is crucial for creating sustainability by making the organizational operations greener. In the search for new resolutions and cooperation the customers consider the sustainability programs and also look at their suppliers of the products network (Hanim Mohamad Zailani, Eltayeb, Hsu, & Choon Tan, 2012; Lee & Klassen, 2008; Walker, Di Sisto, & McBain, 2008). Similarly, the employees are the internal customers of any organizations it is one the focal driver for creating sustainability. The employees are closely related with the process of the organization so they can proceed and initiate new ideas that make the process more environmental friendly (Gattiker & Carter, 2010). Further, they know how to entrench the environmental friendly initiatives in daily activities (Wolf, 2013). Additionally, the green consumers drivers can exerted the force on the operational activities that ultimate lead the sustainability improvements.

A noteworthy body of examination stipulates that government regulation and legislation is a chief driver for companies' environmental efforts. Additionally, the government regulation is a driver that embedded a strong effect on sustainability (Zhu, Sarkis, & Geng, 2005). The government and politics are included as drivers that motivate the enterprises for move the operation of the organization normal system to the green management system(Gopalakrishnan, Yusuf, Musa, Abubakar, & Ambursa, 2012; Vu & Ngo, 2019). Similarly, the government regulation related to environmental initiatives create sustainable environment (Ajaz Khan et al., 2019; Lakner et al., 2018). Moreover, In the modern era, the nonprofit making organization, such as NGOs gaining much importance and have power to generates the political change have positive influence on the decision making for creating the sustainability (Hassini, Surti, & Searcy, 2012; Kudłak & Low, 2015). Thus, the government regulation is important driver that force the organization to use the green practices in organization that expands the green supply chain management performance. Based on the above mentioned literature following are the hypothesis of the study.

H1. Owner manger attitude and green supply chain management performance are significantly associated.

H2. Green consumers have significant and positive relationship with green supply chain management performance.

H3. There is significant and positive relationship with regulation and green supply chain management performance.

H4. Green practices have significant and positive effect on green supply chain management performance.

H5. There is significant and positive relationship with driver pressures such as owner manager attitude, green consumers, and regulation on green supply chain management performance while conciliating by green practices.

#### **Research Methodology**

The unit of analysis of the study is individual where data is collected from employees of the hotels only. The sector of the study is small and medium size hotels and collects the date from employees of the hotels about the drivers such as owner manager attitude, green consumers, and the government regulations on green practices, and green supply chain management performance. The nature of study is descriptive that describe all the variables of the study. The nature of the study is cross section as compare to the longitudinal data were collected only one point of time. The population of the study is the large number of the population like hotels of Thailand which cannot be covered under one study. The sample of the study is selected that represent the whole population. Moreover, the data were collected to individuals through administrated questionnaires. The questionnaire could be distributed verse post mail, electronic mail, and face to face distribution. The questionnaire consisted on two sections, the section A related with demographics and section B related with all variables questions.

### Results

The data in table 1 presents the values of CR for the variables namely; green consumers, green practices, government regulations, green supply management practices and owners managers attitude 0.894, 0.905, 0.893, 0.989, and 0.873 respectively. The values for CR must be greater than 0.8. As per the table all the values are within acceptable range. Furthermore it is also showing the values of AVE for variables namely; green consumers, green practices, government regulations, green supply management practices and owners managers attitude 0.679, 0.578, 0.676, 0.688, and 0.634 respectively. The values for AVE must be greater than 0.5. It is obvious from the table that all the values are greater than 0.5. Thus it established the discriminant validity.

2019 Vol.20 No.2

### POLISH JOURNAL OF MANAGEMENT STUDIES Kerdpitak C.

Constructs	Items	Loadings	Alpha	CR	AVE
Green Consumers	GC1	0.734	0.841	0.894	0.679
	GC2	0.832			
	GC3	0.84			
	GC4	0.884			
Green Practices	GP1	0.669	0.876	0.905	0.578
	GP2	0.808			
	GP3	0.812			
	GP4	0.84			
	GP5	0.806			
	GP6	0.733			
	GP7	0.63			
Government Regulations	GR1	0.795	0.84	0.893	0.676
	GR2	0.836			
	GR3	0.838			
	GR4	0.819			
Green Supply Management Practices	GSMP1	0.802	0.849	0.898	0.688
	GSMP2	0.84			
	GSMP3	0.846			
	GSMP4	0.83			
Owners Managers Attitude	OMA1	0.866	0.808	0.873	0.634
	OMA2	0.784			
	OMA3	0.713			
	OMA4	0.814			

#### Table 1 Confirmatory Factor Analysis

Table 2 is showing the values for the Fornell & Larckers Criterion values for the discriminant validity. As per this technique the square root of AVE of a variable must be greater than its correlation with other variables. Square root of AVE for GC is more than its correlation with other variables. Similar case is with the other variables as well. Thus it establishes the discriminant validity.

Table 2 Fornell & Larckers Criterion					
	GC	GP	GR	GSMP	OMA
GC	0.824				
GP	0.554	0.760			
GR	0.540	0.758	0.822		
GSMP	0.556	0.673	0.623	0.830	
OMA	0.442	0.631	0.570	0.573	0.796

HTMT is the latest technique according to which the values should be less than 0.85. All the values in the table are less than 0.85 which affirms the discriminant validity.

Table 5 Heterotran-Monotran Correlation Ratio					
	GC	GP	GR	GSMP	OMA
GC					
GP	0.643				
GR	0.639	0.879			
GSMP	0.657	0.775	0.737		
OMA	0.538	0.735	0.686	0.686	

**Table 3 Heterotrait-Monotrait Correlation Ratio** 

Table 4 is showing the direct relationships' results for the variables under study. As per the table 4 GC, GR, and OMA are significantly associated with GP and valued at 0.156, 0.523 and 0.264 respectively. Similarly the results also showed that GC, GR and OMA are significantly associated with GSMP, the relationships are valued at 0.210, 0.166 and 0.189. All the relationships are significant and supported the hypothesis.

Table 4 Path Analysis					
Relationships	Beta	SD	t value	p value	
$GC \rightarrow GP$	0.156	0.026	5.873	p<0.05	
GC -> GSMP	0.210	0.036	5.896	p<0.05	
GP -> GSMP	0.312	0.047	6.706	p<0.05	
$GR \rightarrow GP$	0.523	0.028	18.829	p<0.05	
GR -> GSMP	0.166	0.042	3.899	p<0.05	
OMA -> GP	0.264	0.027	9.878	p<0.05	
OMA -> GSMP	0.189	0.039	4.826	p<0.05	

Table 5 is showing the results for the mediation analysis for the study. As per the table GP is significant mediator between the relationships of the independent variables namely; GC, GR and OMA and dependent variable GSMP. All the relationships are positive and significant thus supported all the hypothesis.

Table 5 Specific Indirect Effects					
Relationships	Beta	SD	t value	p value	
GC -> GP -> GSMP	0.049	0.011	4.493	p<0.05	
GR -> GP -> GSMP	0.163	0.026	6.285	p<0.05	
OMA -> GP -> GSMP	0.082	0.016	5.301	p<0.05	

#### Discussion

In Today world economy, sustainability is imperative in business sector due to global business environment. The ethical business must consider the social, economic and environmental factors while considering the performance. Additionally, sustainability practices now have more and more importance, because the business partners, suppliers are better aware about the greening concept in the organizations. The study explored driving forces namely: owner manager attitude, green consumers and government regulation and their influence on GSCM while mediating by green practices. The entire hypothesis is accepted, the hypotheses H1 is shows that owners managers attitude has significant and positive relationship with green supply chain management performance. The hypothesis H2 is shows that green consumers has positive and significant results. Similarly, the hypothesis H3 is also accepted and shows that government regulation has significant and positive relationship with green supply chain management performance (Gopalakrishnan et al., 2012; Hassini et al., 2012; Ramanathan, Bentley, & Pang, 2014). Moreover, the hypothesis H4 accepted shows that green practices has significant and positive relationship with green supply chain management performance (Eltayeb & Zailani, 2011; Li, 2011; Ninlawan, Seksan, Tossapol, & Pilada, 2010). The hypothesis H5 is also accepted, shows that driver forces such as owner manager's attitude, green consumers, and government regulations have positive and significant relationship with green supply chain management performance (Arimura, Darnall, & Katayama, 2011; Chiou, Chan, Lettice, & Chung, 2011; Li, 2011). This study suggested to the regulators that they must focus on the GSCM that enhance the firm performance. In addition, they should make the policies that enhance the GSCM effects on the performance of the organization.

The quantitative method is used under this study for data collection the researcher can used the mix methods for future studies. The face to face interview provides more insight about the green supply chain management performance. Moreover, under this study the cross sectional data is used, data were collected from hotel employees in one point of time further the longitudinal study will be used. The unit of analysis of the study is individual in future researcher can collect the data from dyadic unit of analysis from employees and the top management and CEO of the companies. Similarly, this study is done on the Thailand because of its recreational places, further studies can be performed other recreational developing countries for develop the tourisms sector and gain revenue from the tourists and hospitality industry. The economies like Malaysia, Bangladesh, Pakistan, China, and India facing the deficit of energy in their economy. There is need to do the studies in Asian economies to increase the productivity and performance of the country. The data will be collected from service sector, further research can be consider the green supply chain management system into other sectors such as manufacturing, IT and pharmaceutical sector.

#### References

- Ajaz Khan, K., Çera, G., Nétek, V. (2019). Perception of the Selected Business Environment Aspects by Service Firms. *Journal of Tourism and Services*, 10(19), 111-127.
- Arimura, T. H., Darnall, N., & Katayama, H. (2011). Is ISO 14001 a gateway to more advanced voluntary action? The case of green supply chain management. *Journal of environmental economics and management*, 61(2), 170-182.
- Chiou, T.-Y., Chan, H. K., Lettice, F., & Chung, S. H. (2011). The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. *Transportation Research Part E: Logistics and Transportation Review*, 47(6), 822-836.
- Christopher, M. (2011). Logistics and supply chain management: creating value-adding networks: Pearson education limited.
- Eltayeb, T. K., & Zailani, S. H. M. (2011). Drivers on the reverse logistics: Evidence from Malaysian certified companies. *International Journal of Logistics Systems and Management*, 10(4), 375-397.
- Gattiker, T. F., & Carter, C. R. (2010). Understanding project champions' ability to gain intra-organizational commitment for environmental projects. *Journal of operations* management, 28(1), 72-85.
- Gopalakrishnan, K., Yusuf, Y. Y., Musa, A., Abubakar, T., & Ambursa, H. M. (2012). Sustainable supply chain management: A case study of British Aerospace (BAe) Systems. *International Journal of Production Economics*, 140(1), 193-203.
- Hanim Mohamad Zailani, S., Eltayeb, T. K., Hsu, C.-C., & Choon Tan, K. (2012). The impact of external institutional drivers and internal strategy on environmental performance. *International journal of operations & production management*, 32(6), 721-745.
- Hassini, E., Surti, C., & Searcy, C. (2012). A literature review and a case study of sustainable supply chains with a focus on metrics. *International Journal of Production Economics*, 140(1), 69-82.
- Kot, S. (2018). Sustainable supply chain management in small and medium enterprises. *Sustainability*, *10*(4), art.no. 1143.
- Kudłak, R., & Low, K. Y. (2015). Special issues dedicated to CSR and corporate sustainability: A review and commentary. *Long Range Planning*, 48(3), 215-227.
- Lakner, Z., Kiss, A., Merlet, I., Oláh, J., Máté, D., Grabara, J., & Popp, J. (2018). Building Coalitions for a Diversified and Sustainable Tourism: Two Case Studies from Hungary. *Sustainability*, 10(4), art. no. 1090.
- Lee, S. Y., & Klassen, R. D. (2008). Drivers and enablers that foster environmental management capabilities in small-and medium-sized suppliers in supply chains. *Production and Operations management*, 17(6), 573-586.
- Li, Y. (2011). Research on the performance measurement of green supply chain management in China. *Journal of Sustainable Development*, 4(3), 101-107.
- Lin, R.-J. (2013). Using fuzzy DEMATEL to evaluate the green supply chain management practices. *Journal of Cleaner Production*, 40, 32-39.
- Luekveerawattana, R. (2018). Key factors affecting of tourists' decisions to stay at environmental friendly hotels. *Polish Journal of Management Studies*, 17(2) 148-157.
- Ninlawan, C., Seksan, P., Tossapol, K., & Pilada, W. (2010). The implementation of green supply chain management practices in electronics industry. Paper presented at the

World Congress on Engineering 2012. July 4-6, 2012. London, UK. Vol. 2182, pp. 1563-1568)

Ramanathan, U., Bentley, Y., & Pang, G. (2014). The role of collaboration in the UK green supply chains: an exploratory study of the perspectives of suppliers, logistics and retailers. *Journal of Cleaner Production*, 70, 231-241.

2019

Vol.20 No.2

- Satchapappichit, S., Hashim, N. A., Hussin, Z., & Inmuong, Y. (2016). Institutional forces and the adoption of green practices among small and medium sized hotel in Southern, Thailand. 3(5), 107-116.
- Tseng, M.-L. (2010). Using linguistic preferences and grey relational analysis to evaluate the environmental knowledge management capacity. *Expert systems with applications*, 37(1), 70-81.
- Vu, H.M, Ngo, V.M. (2019). Strategy Development from Triangulated Viewpoints for a Fast Growing Destination Toward Sustainable Tourism Development – A Case Of Phu Quoc Islands in Vietnam, *Journal of Tourism and Services*, 10(18), 117-140.
- Walker, H., Di Sisto, L., & McBain, D. (2008). Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of purchasing and supply management*, 14(1), 69-85.
- Wolf, J. (2013). Improving the sustainable development of firms: the role of employees. *Business Strategy and the Environment*, 22(2), 92-108.
- Wróblewski, Ł., Dziadzia, B. & Dacko-Pikiewicz, Z. (2018). Sustainable Management of the Offer of Cultural Institutions in the Cross-Border Market for Cultural Services— Barriers and Conditions. *Sustainability*, 10, art. no. 3253.
- Zhu, Q., Sarkis, J., & Geng, Y. (2005). Green supply chain management in China: pressures, practices and performance. *International Journal of Operations & Production Management*, 25(5), 449-468.

## WPŁYW NACISKU CZYNNIKÓW NA DZIAŁANIE ZIELONEGO ZARZĄDZANIA ŁAŃCUCHEM DOSTAW W RAMACH BRANŻY HOTELOWEJ

**Streszczenie:** Przedstawiony artykuł dotyczy zbadanie wpływu nacisków czynników, takich jak właściciele menedżerowie, ekologiczni konsumenci oraz regulacji rządowych na wydajność zarządzania zielonym łańcuchem dostaw, przy jednoczesnym pośrednictwie zielonych praktyk branży hotelarskiej. Aby jednak zrealizować powyższy cel, zebrano dane od średnich i małych przedsiębiorstw hotelowych w Tajlandii. Rozdano 250 kwestionariuszy wśród pracowników, z czego 215 otrzymano od respondentów. Do gromadzenia danych zastosowano prostą technikę losowego próbkowania. Dlatego w ten sposób łatwiej zrozumieć, w jaki sposób menedżerowie organizacji, konsumenci wewnętrzni i zewnętrzni oraz regulacje rządowe przedsiębiorstw wpływają na zarządzanie zielonym łańcuchem dostaw, jak zielone praktyki wpływają na relacje. Dane z tego badania zebrane za pomocą kwestionariuszy. Dane analizowano przy użyciu Smart PLS. Wyniki badania wykazały, że wszystkie hipotezy są akceptowane i pokazują pozytywny wpływ na wydajność zarządzania zielonym łańcuchem dostaw. Na końcu artykułu wyjaśniono również ograniczenia i przyszłe kierunki dalszych badań.

Slowa kluczowe: efektywność zarządzania zielonym łańcuchem dostaw, presja czynników, nastawienie właścicieli, ekologiczni konsumenci, regulacje, ekologiczne praktyki, przemysł hotelarski

#### 司机压力对酒店业绿色供应链管理绩效的影响

**摘要**:该研究旨在考察驾驶员压力,例如店主经营者的态度,绿色消费者和政府法规对 绿色供应链管理绩效的影响,同时以酒店业的绿色实践为中介。但是,为了实现上述 目的,请从泰国的中小型酒店企业中收集数据。向员工分发了250份问卷,其中从受访 者那里收到215份。简单的随机采样技术用于数据收集。因此,以这种方式更容易理解 组织的管理者,内部和外部消费者以及企业的政府法规如何影响绿色供应链管理绩效 ,绿色实践如何影响关系。本研究的数据通过自我管理的问卷收集。使用SmartPLS分 析数据。研究结果阐明了所有假设都被接受,并显示了对绿色供应链管理绩效的积极 影响。此外,在研究结束时,还阐述了进一步研究的局限性和未来的方向。

关键字:绿色供应链管理绩效,驾驶员压力,所有者管理态度,绿色消费者,法规,绿色 实践,酒店业