



The Awareness of Green Supply Chain Management Practices In Hotels

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Abstract. The COVID-19 pandemic has made a new era in the world & Still we figure out the consequences in different aspects of our lifestyle. The food supply chain and the food industry don't comprise an exception. This research paper focuses on Green supply chain management practices such as Green purchasing, Green awareness and Green implementation among employees at Hotels. The respondents are 25 hotel employees selected from Food & Beverage, purchasing, receiving and inventory departments. Respondents are determined by the characteristics of their knowledge and availability of the supply chain management activities that are interrelated with departments in hotels. The findings show that respondents have a positive attitude towards the supply chain management practices in hotels. The study has identified the difficulties of adopting green practices across the hotel also. Results also provide insight and direction for adopting green practices across the supply chains of hotels worldwide.

Keywords and phrases: Supply Chain Management, Green Purchasing, Green Awareness, Green Implementation

1 Introduction

The hospitality industry is known to be a tertiary Industry, but it affects the environment, the tourism industry has been accepted as the most important emitter of green house gases, particularly carbon dioxide. It is essential to take action to reduce the related environmental impact on the environment

in the hospitality industry. Therefore, with their share in rising environmental awareness, many firms have successively confirmed their environmental and social responsibility. Otherwise, firms should give focus towards their awareness and ability to respond due to the environmental impact in the food and beverage industry. Firms play an integral role to prevent environmental impact, for example they are responsible for environmental degradation caused by the manufacturing process. Hence, many NGOs have the information they require companies to publish the impact of the environment, and customers have begun to look for environmentally friendly products to purchase, and began to demand that the company has a green system.

The firms should be “green” as a competitive ability, representatives active strategy, and that the firms will receive if improved environmental performance better competitiveness. Earlier studies have exposed that supply chain management can improve organizational performance. Supply chains and organizations can gain a competitive advantage by being the first to adopt environmental sustainability and implement GSCM practices.

Definitions of the Constructs Incorporated in the Model

Generally, GSCM practices are the focal constructs in the theorized model with internal environmental management and green information systems as antecedents and green capability, economic performance and environmental performance, as consequences.

| Construct | Definition |
|------------------------------|--|
| Corporate environment policy | Hotels waste properly handled, using local produce and saving food miles concept. Achieving sustainable food, furniture and environmentally friendly products and the acquisition of the green mark, environmentally friendly. |
| Packaging waste | The management of packaging waste encourages continuous improvement in products and services; serves as a strategic tool for cutting costs; the decrease in processed and packaged foods; improves your public image; and promotes sustainable development |
| Product recycling | Recycling all resources that can be recycled |
| Green capability | Green capability relates to the manufacturing plant’s capabilities to more efficiently produce. |

2. Literature Review

Supply chain management refers to management and coordination of a complicated network of activities including providing final goods to the customers (Abbasi et al. [2016](#)). Thus, effective supply chain management results in better customer satisfaction which is one of the main objectives

of each industrial system (Khorasani [2014](#); Al-Tit [2015](#)). Moreover, increasing variety among customers' needs forces organizations to operate in an uncertain environment. Thus, they attempt to apply supply chain models which can control uncertain variables (Rao et al. [2013](#)). For achieving an effective supply chain management some requirements should be met such as technology, agility of system, decision making ability, and inventory levels (Khorasani et al. [2015](#)). Green supply chain management is also defined as green procurement, green manufacturing, green distribution channels and reverse logistics (Pishvae and Razmi [2012](#))

The objective of green supply chain management is to eliminate or minimize waste (energy, hazardous greenhouse gas/chemical emissions, and solid waste). Under customer instructions agreed upon by the European Union and Japan, environmental problems have become a major concern of manufacturers. Green supply chain management helps organizations to develop strategies which lead to a higher level of profitability by reducing environmental risks and increasing environmental efficiency (Abbasi et al. [2016](#)). Due to high contribution of steel industry to contamination of the environment, green supply chain implementation is particularly essential in this industry. Clemens ([2001](#)) declares that the steel industry is the biggest manufacturing source of environmental contamination in the US Therefore, application of green supply chain model results in lower contamination and costs related to environmental aspects of supply chain management. Moreover, a lack of implementation of green supply chain models in developing countries with large steel industry was studied by Zhu and Sarkis ([2004](#)) and Kumar and Shekhar ([2015](#)). Zhu and Sarkis ([2004](#)) revealed that just 4.8% of steel companies in China are applying green supply chain management.

In case of uncertainties in the model, fuzzy multiple objectives can be applied in supply chain networks (Sherafati and Bashiri [2016](#); Rezaee et al. [2016](#)). Specifically, Li et al. ([2008](#)) suggested a dual-objective mathematical programming approach (for maximizing profits and minimizing pollution) for supply chain. The objective of their model is optimization of distribution centers by considering the transportation cost and carbon pollutants caused by manufacturing and transportation. They also examined the effect of changes in crude oil prices on location decisions.

Ioannis et al. ([2012](#)) examined the effect of green supply chain on network design and its cost. They developed strategic and tactical decisions to help managers evaluating the effect of environmental issues. In this case, they considered different types of vehicles. Consequently, they studied the decisions on the utilization of common vehicles and warehouses. Their model was implemented in a region of Eastern Europe. In most cases, the use of common warehouses and vehicles improved environmental and cost performance of companies. Pishvae and Razmi ([2012](#)) developed a dual-objective model for green supply chain network with uncertainty condition. They used life cycle

assessment (LCA)-based technique for a green design. Furthermore, a fuzzy method was presented to improve green supply chain network.

3. Methodology

The method used in this research is structured research method and specific research questions. The study was conducted in selected hotels in the Madurai (Tamilnadu). This research was conducted at five 5-star hotel in Madurai. The respondents are 25 hotel employees determined from Food & Beverage department, purchasing, receiving and inventory. Respondents were determined by the characteristics of their knowledge and understanding of the supply chain management activities that are interrelated with departments in hotels. The procurement needs of goods at the hotel are related to the Food & Beverage department, the purchasing department compiles the needs of each department and determines the price. The receiving section deals with receiving and checking the suitability, quality and quality of the goods received, while the inventory section will arrange the storage and release of goods as needed. Primary data obtained through observation, questionnaires, and interviews.

Objectives of the Study

- ❖ To know the respondents awareness on implementing green innovation strategies
- ❖ To know the respondents awareness on environmentally friendly business practices
- ❖ To know the Respondents' perceptions and responses to the adoption of an environmentally friendly innovation strategy

4. Data Analysis and Findings

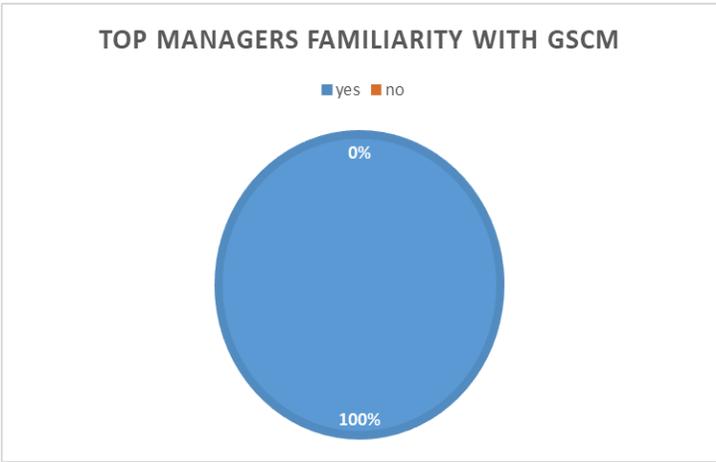


Chart 1

Its inferred that 100 % of top management employees are familiar with GSCM.

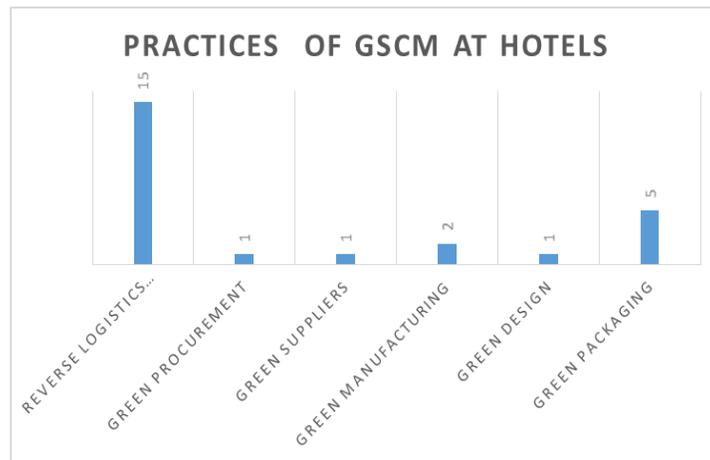


Chart II

Chart II shows the 60% of responses are agree about practising Reverse Logistics (reuse of products and materials), 4% of responses are agree about practising Green procurement, 4% of employees are agree about practising Green suppliers, 8% of responses are agree about practising Green manufacturing, 4% of responses are agree about practising Green design & 20% of response are agree about practising Green packaging at hotels.

Table I. Employees Awareness Towards GSCM at Hotels.

| Category | Strongly Agree (%) | Agree (%) | Neutral (%) |
|--|--------------------|-----------|-------------|
| Environmentally harmful products are avoided. | 80 | 12 | 8 |
| Significant Improvement in its image in the eyes of our customers. | 100 | - | - |
| Significant improvement in product (goods/services) image. | 60 | 28 | 12 |
| The employees' satisfaction has increased. | 80 | 20 | - |
| Health and safety performance has improved. | 100 | - | - |

Table I shows the responses awareness about GSCM practices at Hotels.

5. Discussion

Green Hospitality Business Practices at The Hotels' Policy Level

Indicators in the implementation of green at the policy level are a reference umbrella for achieving joint results including 9 indicators:

1) environmental & social sustainability. This indicator relates to regulating the environment, taking into account positive or negative effects that may arise, not only concerning waste and air pollution, but also with regard to society with its culture which in essence does not harm the environment. The implementation is revealed in the Standard Operational Procedure (SOP) which regulates one of them regarding the percentage of the participation of human resources (HR) from the local population, commitment to use local products, sustainability in environmental preservation; 2) social & environment issues; 3) commits to continually improve the environment, committed to protecting the environment of all stakeholders including government and society; 4) annual benchmarking, by conducting internal audits on an ongoing. It aims to maintain continuous quality standards; 5) environmental management system (EMS), relating to the management of waste, energy, and water management; 6) other relevant legislations & regulations, relevant regulations issued by the local government of Bali in particular and Indonesia in general; 7) best practice, do not rule out the possibility of looking for best practice carried out by other companies (hotels), which later support the established program; 8) special consideration for local employing and empowering, how to consider the percentage of local human resources and 9) environmental & social sustainability champion, by forming a Green Champion.

Related to green certificates, the sample hotel adopts environmentally friendly business practices from local wisdom values. In addition to adopting the values of local wisdom, there are also global values that are used as a reference for the implementation of environmentally friendly business . Adopting local values and global values is one of the green activities in supporting environmentally friendly and saving energy with Earth Hour. The certificate is used as a platform to position the hotel as having practiced green hospitality business practices. The hotel also took the initiative to collect and maintain rare plants.

The Adoption of a Green Innovation Strategy

Respondents' perceptions and responses to the adoption of an environmentally friendly innovation strategy as in Table I.

Table II. Responses On Implementing Green Innovation Strategies

| Category | The response | | |
|---|---------------------|------------------|---------------------------|
| | Neutral (%) | Agree (%) | Strongly agree (%) |
| Management is committed to implement green | 3.2 | 52.4 | 44.4 |
| Innovate by negotiating competitive contracts | 6.3 | 55.6 | 38.1 |
| Build a team in an effort to support the transformation of the green platform Organization | 3.2 | 58.7 | 38.1 |
| Select senior leaders who are committed to teamwork and supported with adequate communication facilities. | 6.3 | 61.9 | 31.7 |

Table II shows the response to the adoption of an environmentally friendly innovation strategy, 96.8% states that management is committed to implement green, innovating by negotiating competitive contracts, building teams in an effort to support the transformation of the green platform organization. The activity is a management commitment in selecting senior leaders who value teamwork and are supported by adequate communication facilities.

Management also has support in promoting team activities with members who have green commitments and experts in their fields. However, 79% said they had implemented an environmentally friendly innovation strategy by holding regular meetings between hotel owners and management and environmentally friendly suppliers. This is done as an effort to maintain the sustainability of logistical activities and grow suppliers' commitment to understand hotel needs. The results of this study support the results of research which states that businesses can improve environmental performance, business impacts can enhance brand image as a business that cares about the environment and as a strategic marketing tool to enhance its unique competitiveness .

Green Product and Natural Environment

Green products are products with low environmental impacts. Green products present as one of the solutions for environment sustainability issue. The increase of consumer awareness about health and environmental issues has improved the consumption on green products and organic food these last few years . The research of Yadav and Pathak showed that the intention to use green products is not limited to only adult consumers, but also to the young ones. Consumers are demanded to be willing to pay premium price in order to consume green products. In response to the consumer's change of preference towards green products and services, the hotel industry is adopting sustainable practices and advertising towards potential customers as research samples explores product innovation by utilizing local products and local expertise as an environmentally friendly business opportunity. Initiatives to make tourism more inclusive can be seen as attempts to improve the quality of human interaction, and to ensure that tourism delivers benefits to those who have in the past been excluded from, or marginalized by, its production and consumption. Respondents' responses to the evaluation of green implementation at the operational level as in Table III.

Integration of Green Supply Chains and Green Hotels

The integration of environmentally friendly business practices promotes mutually beneficial solutions and minimizes the chance of environmental damage. Towards the development of sustainable tourism also needs to be supported by a beautiful environment that is sustainable. Business activities should be based on awareness to pay attention to the fulfilment of the welfare of the

community (people) and contribute actively in protecting the environment (planet). The benefit from the integration of green supply chain and green hotel in terms of environmentally friendly business practices presented in Table III.

TABLE III. Responses on Environmentally Friendly Business Practices

| Category | The response | | | | |
|---|-----------------------|--------------|-------------|-----------|--------------------|
| | Strongly disagree (%) | Disagree (%) | Neutral (%) | Agree (%) | Strongly agree (%) |
| Low operational costs | 1.6 | 3.2 | 22.2 | 39.7 | 33.3 |
| Relationships last for a long time (long contract period) | 0 | 7.9 | 12.7 | 50.8 | 28.6 |
| The company is sensitive to changes in consumer demand | 0 | 5 | 19.0 | 54.0 | 22.2 |
| Supplier understands hotel Needs | 0 | 0 | 6.3 | 39.7 | 54.0 |
| The supplier is committed to the Hotel | 0 | 0 | 6.3 | 42.9 | 50.8 |

Table III shows the response on environmentally friendly business practices, more than 70% stated that the company perceived benefits at low operational costs. More than 90% of respondents said that suppliers understand hotel needs so as to generate trust that results in commitment to long-term business relationships. The results of this study confirm the findings of Brebbia who claim that financial savings are one of the most significant factors that influence the implementation on environmental initiatives in a hotel.

6. Conclusion

Promises of business owners, management and operational staff are stated in the hotels' policy statement and implemented fully at the operational level of the business. Green commitment is manifested in the starting an environmental committee (green team) and supported by green champion from top management for green team's success. The management is committed to implement green, innovating by negotiating competitive contracts, building teams in an effort to support the transformation of the green platform organization. Green hospitality business practices are able to increase environmental performance, business impact can enhance brand image as a business that cares the environment and as a strategic marketing tool to enhance its unique competitiveness.

References

- [1] A. A. G. R. Dalem, Achievements and challenges of implementation of “Tri Hita Karana” for creating sustainable tourism in Bali-Indonesia: A case study in hotel sectors. (Unpublished manuscript). 5–12. 2010.
- [2] F. Rahmafritria, “Eco-Resort dan Green Hotel di Indonesia”. *Jurnal Manajemen Resort & Leisure*, 11(2), pp. 1–22. 2014.
- [3] N. V. Kuminoff, C. Zhang, and J. Rudi, “Are travelers willing to pay a premium to stay at a “green” hotel? Evidence from an internal metaanalysis of hedonic price premia”. *Agricultural and Resource Economics Review*, 39(3), pp 468–484. 2010.
- [4] J. S. Lee, D. Breiter, and Y. Choi, “Quality of a Green Destination as Perceived by Convention Attendees: The Relationship between Greening and Competitiveness”. *Graduate Student Research Conference in Hospitality and Tourism*, (1995). 2011.
- [5] N. A. Barber, “Profiling the Potential “Green” Hotel Guest: Who Are They and What Do They Want?” *Journal of Hospitality and Tourism Research*, 38(3), pp. 361–387. 2014.
- [6] P. Martínez, G. D. Leaniz, Á. H. Crespo, and R. Gómez, “Customer responses to environmentally certified hotels : the moderating effect of environmental consciousness on the formation of behavioral intentions”. 9582(July), pp.
- [7] G. J. Dalton, D. A. Lockington, and T. E. Baldock, “A survey of tourist attitudes to renewable energy supply in Australian hotel accommodation”. *Renewable Energy*, 33(10), pp. 2174–2185. 2008.
- [8] R. Palevich, “The Lean Sustainable Supply Chain: How to Create a Green Infrastructure with Lean Technologies”. 2012.
- [9] P. Maniatis, “Investigating factors influencing consumer decisionmaking while choosing green products”. *Journal of Cleaner Production*, 1(14). 2015.