DOES TOP MANAGEMENT ATTENTIVENESS AFFECT GREEN PERFORMANCE THROUGH GREEN PURCHASING AND SUPPLIER COLLABORATION?

Zeplin Jiwa Husada Tarigan, Petra Christian University
Novia Chandra Tanuwijaya, Petra Christian University
Hotlan Siagian, Petra Christian University

ABSTRACT

Hotel support the growth of the tourism industry. At the same time, the tourism industry contributes to the country's gross domestic product, particularly Indonesia. Besides, the hotel operation is obliged to play a role in preserving the environment sustainability, called green hotel. The implementation of green hotels requires the attention of top management to involve all the company's functions. This study examines the impact of the top management attentiveness on the green performance through implementation of green purchasing and supplier relationships. The research has surveyed 59 3-star hotels that have implemented green purchasing practices. Data collection used a questionnaire and then analyzed with descriptive statistics, while hypothesis testing used the PLS technique. The results indicate that top management attentiveness improved the implementation of green purchasing and supplier collaboration. Supplier collaboration improved the green purchasing. Top management attentiveness, green purchasing, and supplier collaboration can increase green performance since the operations become more efficient while minimizing waste. This research paves the way for hotel management to be more concerned about adopting the green hotel approach in improving firm performance. This study also contributes to the on-going research in supply chain management.

Keywords: Top Management Attentiveness, Green Purchasing, Supplier Collaboration, and Green Performance.

INTRODUCTION

The tourism sector has provided economic and cultural growth in a tourism destination area. This sector supported rapid economic growth and contributes to improving the community income living around tourism destination. Besides, the tourism sector has made a significant contribution to the country's GDP. Currently, Indonesia is ranked 135th out of 140 countries in providing tourism competitiveness in terms of environmental sustainability, health, hygiene, as well as tourist services (Akbar, 2019). However, tourism requires direct supports in the form of hotel availability and excellent infrastructure to facilitate tourist satisfaction.

The government report indicated a 7% growth of new hotels in East Java during the year of 2018 compared to the previous year and will continue to grow (Wijayanto, 2019). Surabaya, as a city center for business and tourism, also has experienced the growth in hotel occupancy and continues to increase every year. A report from the local government also indicated that annual growth in the number of 3-star hotels had reached 20-30%. This growth has the highest growth rate compared to other star hotels. This growth has improved the economic growth but, at the
same time, has contributed to the growth in environmental problems related to the waste generated in providing services to its customers (Teng et al., 2018). The waste generated by hotels has an impact on environmental sustainability, especially in producing liquid and solid waste. The Government of Indonesia, through the ministry of environment and forestry, has established the regulation No.P.75/MENLHK/SETJEN/KUM.1/10/2019. This regulation provides the road map of the waste generated by the organization, including hotels. The main concern is to oblige the producer of the waste to perform three activities, i.e., reducing waste generation, recycling, and reusing the waste. The entire 3-star hotel is believed to produce liquid and solid waste since the hotel serves the customer need, such as food, beverage, soap, and shampoo.

Meehan & Bryde (2011) state that pressure from customers forced hotel managers to take care of the environment through the implementation of green purchasing practices. Green purchasing can reduce waste generation, encourage recycling, and reusing the waste, which in turn improve the company's reputation (Wang et al., 2019). The purchasing department has a role in maintaining sustainability and increase profits directly through material procurement (Lee & Shin, 2010). The hotel needs to collaborate with suppliers to enable the implementation of green purchasing (Eltayeb et al., 2011; Tarigan et al., 2020). Supplier relationship management is a comprehensive approach that enhances cooperation, coordination, and communication between companies to improve the quality, safety, and innovation (Mettler & Rohner, 2009). The activities are planning, operating, implementing, and joint business decisions in the pursuit of better performance, sustainability achievement (Gualandris & Kalchschmidt, 2014).

Commitment and support from management is a necessary factor for innovation in especially for environmental concern through employee empowerment and involvement (Jayashree et al., 2015). There are internal barriers in the form of cost and lack of knowledge required to use the information provided by suppliers in adopting green purchasing practices and may not see them as an essential in the procurement process (Appolloni et al., 2014). External barriers can include laws and regulations and weak commitment from suppliers. Internal and external barriers can also occur in 3-star hotels. Green purchasing can increase the efficiency of resource utilization and operation, which, in turn, will improve the company's financial performance (Caroline et al., 2016) and its impact on controlling pollution (Song et al., 2017).

Green purchasing is a process of selecting, acquiring products and services that most effectively to minimize negative impacts on the environment during their life cycle in manufacturing, transportation, use, and recycling or disposal (Vazifehdoust et al., 2013). Green purchasing can also be said to be a purchasing decision based on environmental principles and applying environmental criteria into the selection of products or services (Saghiri & Hill, 2014). Green purchasing refers to making decisions environmentally conscious throughout the buying process, starting with product design, process, and product disposal (Yook et al., 2018). Initiatives to minimize environmental impacts in the supply chain include purchasing environmentally friendly products, adopting environmental criteria into environmental supplier assessment systems, and collaboration with suppliers (Colicchia et al., 2011).

The attentiveness of management appears in terms of commitment, emotions, beliefs, intentions, or a strong stance to pursue the goal (Williams et al., 2014). The attentiveness of management can also be a form of support to care about the environment pedestrian as its responsibility in providing the resources needed (Rureri et al., 2017). In implementing green purchasing, hotels need to work with suppliers to provide their customers with environmentally
friendly products, such as soap, bath gel with an environmentally friendly label, eco-friendly cleaning products, and other products that are easy to recycle and reuse.

The above discussion indicated that there were many kinds of research dealing with the relationship between two consecutive constructs. However, to the best of the authors' knowledge, no research which deals with the relationship of those constructs simultaneously. This study examines the influence of top management attentiveness on green performance through green purchasing and supplier collaboration simultaneously.

RELATIONSHIPS BETWEEN CONCEPTS

Green purchasing is an integration of environmental issues into policies, programs, and actions (Large & Thomsen, 2011). Top management attentiveness has a vital role in the company's green supply chain management practices. The environment that is built by management in the form of attentiveness is a strategic driver in promoting green practices on the supplier side (Menguc et al., 2010; Awasthi et al., 2010). The management's attentiveness in building relationships with suppliers has a positive relationship with green purchasing practices related to the environmental aspect (Shaharudin et al., 2018). Top management attentiveness was found as motivation in implementing green purchasing so that it can contribute to the company (Blome et al., 2014). The internal motivation that influences the adoption of green purchasing, such as attentiveness of management, establishes partnerships with suppliers and external motives, including regulation requirement and customer pressure (Yen & Yen, 2012). Based on the above discussion the first hypothesis s postulated

$$H_1 \quad \text{Top management attentiveness affects green purchasing}.$$  

Supplier relationship management (SRM) is part of the business process of how relationships with suppliers are developed and maintained (Lambert & Schwieterman, 2012; Akamp & Müller, 2013). Trust, commitment, communication, and shared goals are noted as vital elements that result in effective supplier relationships (Kosgei & Gitau, 2016). However, the identification of possible barriers to supplier relationship management is one of the central themes (Oghazi et al., 2016). Flynn et al. (2010) conclude that significant benefits can be obtained through good relationships with suppliers, and the integration of operations with the supplier improve firm performance. Besides, top management attentiveness, in the form of a strong commitment, has a positive impact on process integration between the company and suppliers as a form of collaboration (Goyal, Samalia & Verma, 2018; Tarigan et al., 2020). Knowledge management capabilities improve supplier relationship management (Tseng, 2014). Another study also states that top management attentiveness has a significant impact on the success of the collaboration with suppliers, particularly in adopting green purchasing practices (Yen & Yen, 2012). Based on the above argument the following hypothesis is proposed

$$H_2 \quad \text{Top management attentiveness affects supplier collaboration}.$$  

An examination of the relevant literature also reveals that the availability of training, empowerment, and rewards in the workplace indicated that attentiveness of management facilitated in producing high-quality performance (Karatepe et al., 2010). Top management attentiveness in terms of a strong commitment to the mission statement modulates the impact of the mission on firm performance through communication, the involvement of the entire company, setting targets, and timely revisions (Williams et al., 2014). The management
attentiveness, in the form of commitment, was also found to have a significant relationship with new product performance (Mokhtar & Yusof, 2010). The attentiveness of top management has a good impact on improving company performance (Caroline et al., 2016). Hence, the fourth hypothesis is defined as follow:

\[ H_3 \quad \text{Top management attentiveness affects green performance.} \]

Supplier relationship management is a comprehensive approach to managing company interactions with organizations. Green purchasing practices help companies make decisions in selecting the suppliers which supply materials, equipment, parts, and services to achieve environmental goals (Shaharudin et al., 2018). A study concerning the green purchasing adopted by the company is the most effective product and service acquisition in minimizing negative environmental impacts (Dubey et al., 2013). Also, technology, innovation, transparency, and enhancing good relationships with suppliers are vital factors when managing a green supply chain, although there are a large number of factors that must be considered when managing a green supply chain (Sundarakani et al., 2010). The green purchasing practices only purchase materials complying with green characteristics. Supplier relationship management can improve the environmentally friendly performance of the company and all other suppliers and supply chain participants. Green purchasing emphasizes reducing waste, replacing materials through environmental sources of raw materials, and minimizing hazardous waste.

Supplier relationship management supports collaboration with suppliers to produce an environmentally friendly output that prevents or reduces the production of hazardous products. Supplier relationship management is essential for the successful application of green purchasing practices, which enables the organization to produce environmentally friendly products without hazardous substances and toxic chemicals (Nawrocka, 2008). Furthermore, the supplier relationship management is the basis for effective methods of monitoring and controlling environmental practices by suppliers (Karatepe et al., 2016). Based on this argument, the fourth hypothesis is formulated as follows:

\[ H_4 \quad \text{Supplier Collaboration affects green purchasing} \]

Green purchasing involves the procurement function through various supply chain activities, such as LCA (life cycle analysis) and the typical 3R reduction, reuse, and recycling, which are part of the product and part of the design process (Tidy et al., 2016). The implementation of the green purchasing program is one of the methods used to produce a product that is environmentally friendly but provides an increase in company performance (Siagian et al., 2019). Green supply chain management is a strategic capability that companies use to increase firm performance (Fahimnia et al., 2015). Research conducted by Sarkis (2012) shows that the green supply chain has a direct impact on improving performance. Based on this argument, the fifth hypothesis is formulated:

\[ H_5 \quad \text{Green purchasing affects green performance.} \]

Supplier collaboration in the form of supplier relationship management (SRM) refers to the practices and procedures for interacting with suppliers in managing suppliers to provide the company needs in terms of material or services (Amoako-Gyampah et al., 2019). The involvement of suppliers in green innovation activities provides benefits for environmental performance and competitive advantages (Chiou et al., 2011). Good relationships with suppliers
can provide increased performance (Flynn et al., 2010). The collaboration shares the information to encourage effective supplier relationships between sellers and buyers together and have an impact on firm performance (Aleri & Monari, 2018). The positive relationship between supplier relationship management in increasing supplier collaboration has an impact on firm performance (Kosgei & Gitau, 2016). Supplier collaboration argues that supplier relationship management has a significant impact on capability and firm performance (Tseng, 2014). Corporate collaboration can provide a mechanism for companies to reduce risks associated with supply uncertainty or gain access to resources, enable them to achieve production and service goals, and ultimately improve firm performance. The sixth hypothesis is proposed as follows:

\[ H_6 \quad \text{Supplier collaboration influence green performance.} \]

**RESEARCH METHOD**

This study used the population of 70 of 3-star hotels domiciled in the city of Surabaya, Indonesia. The research used a non-probability sampling technique that does not provide equal opportunities to all units in a research population. The samples were those hotels that have implemented a green purchasing approach, and the respondents were purchasing staff of the hotels. The number of samples was 59 staff from the purchasing department representing 59 3-star hotels. The questionnaire was designed using a five-point Likert scale. The step of data analysis is grouping data based on respondents, tabulating data, presenting data, and performing analysis. Data analysis uses the Partial least square (PLS) technique with smart PLS software to assess the measurement model and to examine the hypothesis. The hypothesis testing uses statistical values for a significant level of 5% or the t-statistic value of 1.96. The hypothesis is supported when the t-statistic is >1.96 or p-value <0.05.

**ANALYSIS AND DISCUSSION**

The respondent from the purchasing division is considered appropriate as it deals directly with suppliers and understands the supplier relationship and the standards operating procedure. The respondents have work experience varies from 1 up to 6 years, which means the respondent understands the processes and procedures applied by the hotel. The majority of hotels have been practicing green purchasing for less than six years, with 58 respondents (98.30%). The hotels are aware of the green purchasing issue. Besides, Table 1 demonstrated the score of responses. Top management attentiveness with four indicators has a range of 4.0339-4.3220, with an average value of 4.1525. The hotel has practiced top management attentiveness well. Supplier collaboration with four items has a range of 4.1186-4.3390, with an average of 4.2754, which means the hotel and supplier have built collaboration very well.

Further, the green purchasing with three items has the ranges between 4.2881-4.4237, with an average value of 4.3446. The hotels have implemented green purchasing very well. Lastly, the green performance assessed using four items ranges between 3.7458-4.3390, with an average score of 4.1568, which means the green hotel performance has achieved a sound performance as planned.

The subsequent analysis is associated with the measurement model assessment. A validity test is used to assess the validity of each indicator using the factor loading with the cut off value of 0.500 (Hair et al., 2012). Table 1 demonstrated the all indicators are considered valid since the value of factor loading is more significant than 0.500. The minimum factor loading is
0.582 associated with the indicator of top management attentiveness, i.e., communicate the strategic planning effectively. The maximum value factor loading is 0.848 associated with the indicator of green purchasing, i.e., our hotels can provide services efficiently. Besides the validity test, a reliability test is performed to ascertain that all indicators are consistent in measuring the value of the response. As shown in Table 1, the reliability for each variable is 0.835, 0.854, 0.854, and 0.797 for top management attentiveness, supplier collaboration, green purchasing, and firm green performance, respectively. Since the reliability value are all >0.70, the minimum acceptable reliability (Hair et al., 2012), then all indicators are considered reliable.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>THE RESPONSES SCORE AND FACTOR LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement of Measurement</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>AM1</td>
<td>Top management establishes clear policies</td>
</tr>
<tr>
<td>AM2</td>
<td>Communicate the strategic planning effectively</td>
</tr>
<tr>
<td>AM3</td>
<td>Paying attention to resource availability</td>
</tr>
<tr>
<td>AM4</td>
<td>Involves the role of suppliers in executing hotel strategy</td>
</tr>
<tr>
<td>AM5</td>
<td>Employee abilities by providing adequate training</td>
</tr>
<tr>
<td><strong>Top Management attentiveness (Reliability = 0.835)</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>SC1</td>
<td>Sharing solutions with suppliers to the problems faced</td>
</tr>
<tr>
<td>SC2</td>
<td>Hotel share new ideas with suppliers</td>
</tr>
<tr>
<td>SC3</td>
<td>Our hotel and suppliers face the risk together</td>
</tr>
<tr>
<td>SC4</td>
<td>Cooperation with suppliers is excellent</td>
</tr>
<tr>
<td><strong>Supplier Collaboration (Reliability = 0.854)</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>GPU1</td>
<td>Purchase of products that can be recycled</td>
</tr>
<tr>
<td>GPU2</td>
<td>Hotel procure product complying with environment regulations</td>
</tr>
<tr>
<td>GPU3</td>
<td>Our hotel purchase products labeled eco-label</td>
</tr>
<tr>
<td><strong>Green Purchasing (Reliability = 0.854)</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>GFP1</td>
<td>Our Hotels can minimize waste</td>
</tr>
<tr>
<td>GFP2</td>
<td>Our hotels can reduce energy consumption</td>
</tr>
<tr>
<td>GFP3</td>
<td>Our hotels have implemented green hotels</td>
</tr>
<tr>
<td>GFP4</td>
<td>Our hotels can provide services efficiently</td>
</tr>
<tr>
<td><strong>Green Performance (Reliability = 0.797)</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>GFP1</td>
<td>Our Hotels can minimize waste</td>
</tr>
<tr>
<td>GFP2</td>
<td>Our hotels can reduce energy consumption</td>
</tr>
<tr>
<td>GFP3</td>
<td>Our hotels have implemented green hotels</td>
</tr>
<tr>
<td>GFP4</td>
<td>Our hotels can provide services efficiently</td>
</tr>
</tbody>
</table>

**ANALYSIS AND DISCUSSION**

Table 2 and Figure 1 demonstrated the result that data supported all six hypotheses. Top management attentiveness affects supplier collaboration (H2) with a t value of 3.782>1.96. Better attention of top management will enhance the collaboration with the supplier.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>RESULT OF HYPOTHESIS TESTING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis</strong></td>
<td><strong>Path Coefficient</strong></td>
</tr>
<tr>
<td>Top Management Attentiveness -&gt; Green Purchasing(H1)</td>
<td>0.415</td>
</tr>
<tr>
<td>Top Management attentiveness -&gt; Supplier Collaboration (H2)</td>
<td>0.491</td>
</tr>
<tr>
<td>Top Management Attentiveness -&gt; Green Performance (H3)</td>
<td>0.260</td>
</tr>
<tr>
<td>Supplier Collaboration -&gt; Green Purchasing (H4)</td>
<td>0.355</td>
</tr>
<tr>
<td>Green Purchasing -&gt; Green Firm Performance (H5)</td>
<td>0.277</td>
</tr>
<tr>
<td>Supplier Collaboration -&gt; Green Firm Performance (H6)</td>
<td>0.677</td>
</tr>
</tbody>
</table>
The top management attentiveness through the involvement of the supplier to implement the hotel strategy, will improve the supplier collaboration by sharing a new idea with the supplier. This finding shows that the involvement of suppliers in carrying out the hotel strategy allows the sharing of a new idea with the supplier.

![Diagram](image)

**FIGURE 1**
MODEL AND ANALYSIS RESULTS

Subsequently, the result indicated that top management attentiveness affects green purchasing (H1) with the t value of 2.613>1.96. Top management attentiveness can improve the green purchasing practices by involving suppliers to implement the strategies. Similarly, top management attentiveness also improves green performance (H3) in the form of providing efficient service to customers. Furthermore, supplier collaboration influences green purchasing (H4) with a t value of 2.217>1.96. When the hotel shares new ideas with suppliers, the supplier will face the risk together. Better relationships between hotels and suppliers by sharing new ideas can improve the green purchasing practices, such as procuring environmentally friendly products complying with the regulations.

Besides, green purchasing also influences green performance (H5) with a t value of 2.213. The green purchasing affects green performance. The procurement of environmentally friendly materials can provide reasonable efficiency for the company operations. The procurement of product that complies with environmental regulations improves green performance in terms of providing services efficiently. The collaboration with suppliers is also able to provide better green performance (H6), the t value is 5.133>1.96, through efficiency in processes and services to consumers. The procurement that complies with environmental regulations means that the product does not contain hazardous materials, is easily recycled, and has a minimal negative impact on the environment. If this is applied, the hotel can provide services efficiently because it requires minimal resources; for example, when the hotel can minimize the negative impacts generated, such as waste, the hotel will be able to reduce expenses such as costs for waste disposal arrangements.
CONCLUSION

The main aim of the present study is to investigate the influence of top management's attentiveness on green performance through green purchasing and supplier collaboration simultaneously. The results of this investigation show that top management's attentiveness improves green performance. Besides, top management's attentiveness engages the suppliers to play an active role in executing the hotel strategy which helps companies to execute the ideas quickly, and suppliers can adjust the company’s needs. Top management's attentiveness has an impact on increasing supplier collaboration and green purchasing. Top management's attentiveness can increase green firm performance in producing efficient processes and services for hotels. Collaboration between companies and their suppliers have an impact on the application of green purchasing by procuring environmentally friendly products that do not violate environmental regulations. Supplier collaboration can provide an increase in green firm performance. The implementation of green purchasing companies through an environmentally friendly raw material procurement strategy provides excellent efficiency for the company as a form of green firm performance. Management's ability to continuously provide attention towards green purchasing and collaborate with suppliers can increase green firm performance. This research implies that complying with government regulations in respect of environmental preservation will not put the hotel in a difficult position. On the contrary, the implementation of government regulation through a green hotel practice will benefit the hotel. The customer and the local citizen will highly appreciate the hotel's behavior adopting the concept of the green hotel, which at the end will improve the hotel performance. Hence, this study paves the way for hotel management to be more concerned about adopting the green hotel approach in improving firm performance.

ACKNOWLEDGEMENT

Authors would like to thank DRPM and Higher Education Indonesia for providing the postgraduate grant in funding this research number 006/SP2H/LT-MONO/LPPM-UKP/III/2020

REFERENCES


Wijayanto (2019). The growth of new hotels in east java is predicted to decrease 3-4 percent. Retrieved February 8, 2019, from https://radarsurabaya.jawapos.com/read/2019/02/08/118460/pertumbuhan-hotel-baru-di-jatim-diprediksi-turun-3-4-persen

