

## **Green Manifestation of Eco-Driver for Excellent Performance**

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### **ABSTRACT**

This is an empirical research that investigates and attempts to define dominant drivers of environmental friendly hotels from an operational perspective in Indonesia. This research uses qualitative method and analyses actions, programmes, initiatives and plans of each object to locate the dominant factors. It also describes the environmental performances of each hotel. This research finds that INSPIRA's dominant driver factor is its competitiveness and organisational 'greenness'. For Victoria Hotel, the dominant driver factor is its continuous green attitude by using latest technologies. In Sumaq, Machu Picchu, the dominant driver factors are both regulation and customer requirements of green services. All these actions are green manifestations or eco-drivers for excellent performance in the hotel industry.

*Keywords:* Eco-driver factors, hotel operations, environmental performance

### **INTRODUCTION**

Sustainability and environmental considerations have become critical issues for companies and industries nowadays. Industries influence the environment directly, and have different strategies to deal with the environmental issues. They also create sustainable development programmes simultaneously. The Brundtland Commission (2007) defines sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

One industry which is facing increasing environmental scrutiny is the tourism and hospitality industry, in particular, hotels. The hotel industry is particularly interesting for two fundamental reasons: it has an increasing economic importance and displays a higher environmental concern on the other. The hotel industry is

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ranked among the top industry in terms of energy consumption in the service building business (Bohdanowicz & Martianic, 2007). With 75% of primary energy in Europe, for instance, derived from fossil natural sources, the hotel industry's contribution to global warming and climate change should not be ignored (Bohdanowicz & Martianic, 2007).

Bohdanowicz (2005) finds that annually, a typical hotel produces 160-200 kg of CO<sub>2</sub> per m<sup>2</sup> of room floor – depending on the fuel used to generate electricity, heating and cooling machines. It consumes 39 Twh (terawatt hours) of energy annually, half of which is in the form of electricity, and a hotel also produces an excess of 1kg of waste per guest per day, which results in tonnes of wastage monthly (Bohdanowicz, 2005). This awareness for the environment has led to the implementation of environmental-friendly policies and operations in hotel organisations. According to Sayre (1996) (as cited in Al-Shourah, 2007), environmental management practices focus on developing, implementing, managing, coordinating, and also monitoring environmental practices in the corporate world to actualise two goals: compliance and waste reduction. Hence, the operational system has been designed to facilitate environmental friendly outcomes.

An environmentally friendly hotel implements its operational strategy with the objective of providing long-term environmental benefits and sustainable use of natural resources. Alexander (2002, p. 2) argues that an eco-friendly hotel is a hotel that strives to provide environmentally operational services. Alexander defines

hotels which operate on environmentally-friendly terms as Green Hotels. An environmental-friendly hotel operation minimises negative environmental impacts and maximises the benefits for the hotelier (Faulk, 2000). Environmental performance of a hotel is related to its type, age, layout and size of building, extent of public facilities, and climate (Warnken et al., 2005). Environmental management does not merely mean ensuring hotel surroundings are clean and not soiled. Daily operational activities also provide a drastic cost saving for hotels. Many hotels have acknowledged the negative impacts their business activities have on the environment and have attempted to alleviate them (Alexander, 2002).

In Indonesia, for instance, there are hotels that provide environmental-friendly services and operate on environmental friendly policies and strategies. They awarded the “Green Hotel” recognition by the Tourism and Creative Economy Ministry. Among the hotels that succeeded in getting this award are Borobudur Hotel (Jakarta), Dharmawangsa Hotel (Jakarta), Alila Uluwatu Villa (Bali), Preanger Hotel (Bandung) and other hotels dispersed across tourist destinations in Indonesia (Disbudpar, 2014). The environmental practices of these hotels are recycling of water, , receptacle rain for storage, no smoking rooms, and buildings made from environmental friendly materials (Setiawati, 2014). In Europe, there are hotels which operates on environmental-friendly policies, such as Inspira Santa Marta in Portugal in the form of Green Meeting

Commitments, Victoria Hotel in German in the form of Green Task Force and Hotels Hotel Sumaq Machu Picchu in Peru.

This research discusses the drivers of environmental friendly policies in the hotel sector in Indonesia: (1) Regulation factors refers to provincial government laws governing the hotel industry; Hotels and Restaurants Association imposes rules and has coercive powers pertaining to hotel operations; there are penalties for hotels that do not practice environmentally-friendly operations in addition to incentives given by the government and Association for green hotels; (2) Customer Requirements of Green Services refers to hotels that provide green services as per customer's beliefs and demand for hospitality services; a customer's choice of hotel is determined by the hotel's environmental friendly policies and they support responsible and trustworthy hotels which provide green facilities; (3) Competition Circumstances refers to innovations atmosphere and different strategies among rivals in the hotel industry; hotel managers perceive a greater level of competition so that they improve environmental practices to gain competitive

advantage; green hotels are more expensive compared with the others in addition to promotion wars among rival hotels; (4) Greenness Inside the Organisation refers to awareness and the concern of the hotels to protect environment; attitude of hotels towards sustainability, and hotels brave enough to face tradeoff between costs and discover opportunities for saving and waste reduction; and (5) Continuous Green Attitude refers to Hotels implementing practices and behaviours as well as attitude toward change, rather than just respond to market changes; shareholders are more interested to invest in companies which practise social responsibility in particular hotels that enter the market with new ideas, services and practices.

## METHODOLOGY

This research investigates factors, along with a framework for testing whether factors and hotel "attitude" are indeed drivers and motivators to achieve sound environmental performance. The following is the framework model that describe factors for performance:

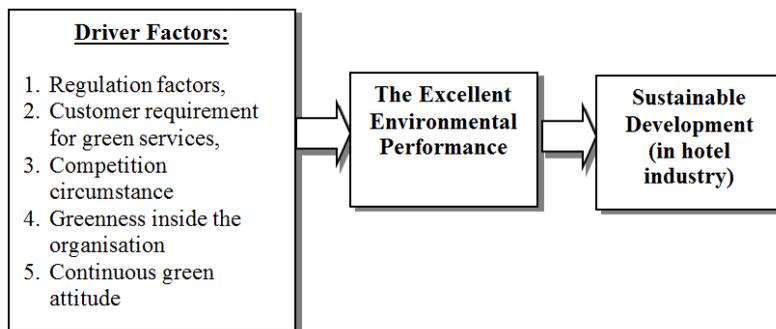


Figure 1. Framework of Thinking  
Source. Arranged by authors.

This research examines 3 (three) certified eco-friendly hotels. These hotels are chosen from a judgmental sampling technique by filtering criteria based on evidence of environmental performance. Their characteristics are described below:

1. Four or five-star hotel. These hotels are do consider the environmental damage or impacts of their operations more carefully compared with one/two/three-star hotels.
2. selected hotel is not just as a member of an International Hotel Chains (IHCs) but also an independent hotel, because fundamentally, the realisation of environmentally-friendly hotel operations is not based on type, size and ownership model of the hotel.
3. Hotels that have good financial performance (financial insight) for at least 5 years. It would also be better if it is supported by a large market share in addition to being a market leader in the hotel industry in its own state. This is a good motivation since a hotel with a good financial performance will attempt to maintain its reputation including its reputation in handling environmental issues and fulfilling regulatory compliance.
4. The hotel has obtained certification, award or achievements relating to

its success story in the application of environmentally-friendly operation in its daily business activities. This refers to awards and certificates received in the last 1-3 years from an accredited institution both nationally and internationally. This is a good motivation since a hotel with a sound performance will attempt to maintain its reputation include its reputation in handling environmental issues and fulfilling regulatory compliance.

Three hotels were selected for this research based on the above criteria: (1) Hotel Inspira Santa Marta (INSPIRA), Portugal; (2) Best Western Premier Hotel Victoria, Germany (Hotel Victoria); and (3) Sumaq Machu Picchu in Peru. This research assesses at customer satisfaction at these hotels and examines their strategies in implementing environmental friendly policies.

## RESULTS AND DISCUSSION

Five driver factors were examined in (1) Hotel Inspira Santa Marta (INSPIRA), Portugal; (2) Best Western Premier Hotel Victoria, Germany (Hotel Victoria); and (3) Sumaq Machu Picchu in Peru, South America: regulation factors, customer requirements of green services, competition circumstances, greenness inside the organisation and continuous green attitude.

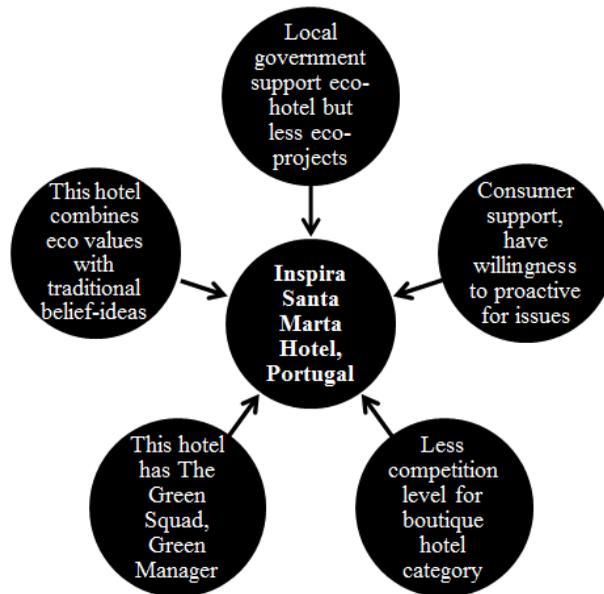


Figure 2. Green Manifestation in INSPIRA  
Source. Authors.

Based on Figure 2 above, we found that **Inspira Santa Marta Hotel (INSPIRA)** is motivated by complex set of of driver factors. Regulation factor drives policy for the hotel provider and requires certification as an environmentally friendly hotel if the hotels want to be promoted officially. Unfortunately, local government and NGOs do not have many environmental projects to support the eco-hotels. It means that the hoteliers must create internal projects to realise their green values. In terms of customer requirements of green services, INSPIRA accommodates their needs in the form of less emission from vehicles, healthy food and recycling initiatives to reduce wastage. In terms of competitiveness, INSPIRA has become a leader in Portugal in the Boutique Hotel category because the competition

atmosphere is below expectation there. However, INSPIRA is facing competition under pressure from big hotels and hence its managers focus on innovation. The environmentally-friendly hotel operations are conducted by The Green Squad and led by Green Managers. The employee motivates themselves to learn about recycling from suppliers. INSPIRA implements practices and behavioural changes by combining its policies with traditional beliefs, rather than learning as the main strategy to respond the market changes in Portugal.

INSPIRA invests in sustainable strategies and develops sustainable infrastructure, services and operations in its hotels; it has excellent environmental performance in conserving energy, water, biodiversity and resources as well

as managing waste through recycling practices. Below are INSPIRA's **environmental** achievements:

- ✓ 12% success in reducing paper consumption,
- ✓ 15% success in decreasing paper impression,
- ✓ 80% success in recycling of total waste production,
- ✓ 21% success in decreasing energy consumption
- ✓ Preference given to biological and local products for customers.

- ✓ Success in providing recycled paper, organic waste recycling, and amenity dispensers that align with suppliers' policy.
- ✓ Success in paperless procedures for instance electronic billing and contracts.
- ✓ Success in designing Building Management System (BMS)
- ✓ Winning ISO 14001, Green Globe, Green Key and Travelife and emerging the Best Hotel Concept for events since 2012.

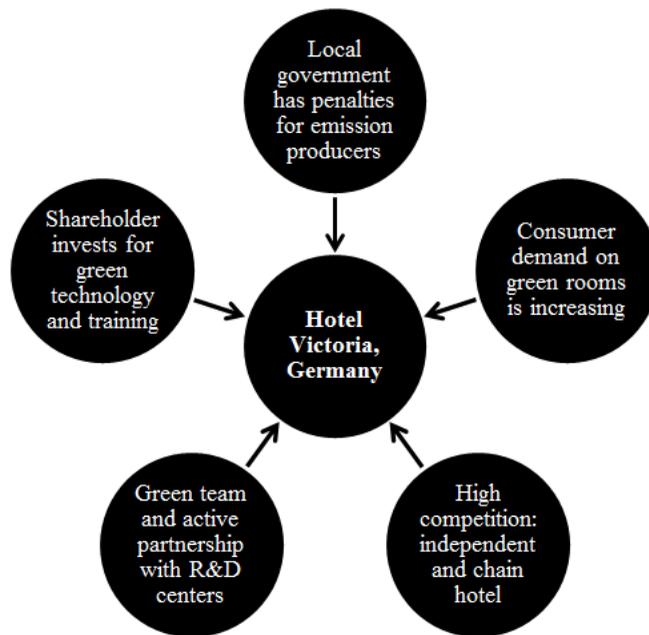


Figure 3. Green Manifestation in Best Western Premier Hotel Victoria  
Source. Authors.

The environmental protection project in Hotel Victoria began in 1985. It means that greening the organisation is driven by the the owner as well as the hotel's shareholders. The mission is to create Eco-Awareness and

respond to consumer demand regarding environmental friendly practices in the hospitality industry. It cannot be denied that customers of Hotel Victoria have a strong impulse to engage in environmental projects.

Innovation and employee awareness are ongoing with a partnership with WWF to oversee the hotel operations as well comply with regulation. Strategic implementation to achieve green goals is paramount for the hotel. In 2002, Hotel Vitoria established frontal movement in environmental operation for machines, transportation, heating system from oil-based to modern wood-pellet heating system with an exhaust-gas cleaning system. Shareholders have enthusiastically supported and encouraged investments in to efficient technologies in particular energy conservation. The forms of technologies are photovoltaics and aeolics (wind).

Hotel Victoria's **environmental** achievements are listed below:

- ✓ 100% success in conducting compliance in regulation, because Hotel Victoria follows European Union (under the EMAS) environment policy.

- ✓ % success in producing zero emission since 2002,
- ✓ 70% success in reaching 82 kWh/m<sup>2</sup> for energy requirement through insulation for low energy needs,
- ✓ 100% success in producing renewable energy for heating by investing in wood-pellet heater combined with a thermal solar collector,
- ✓ Energy produced by the wind turbines is fed into the net which is calculated and given back in the form of electricity bill. This reduces electricity cost and considered efficient use of energy!
- ✓ The thermal-solar energy plant project supports the hot water production.
- ✓ Hotel Victoria has won numerous awards for its commitment to preserving the environment. It has won both regional and international awards.

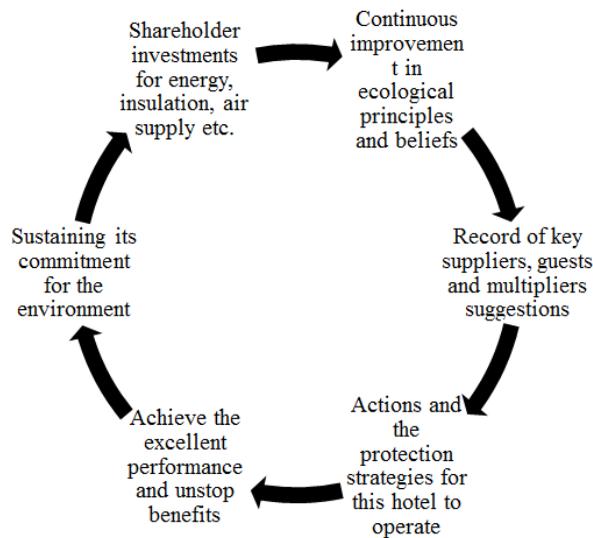


Figure 4. Green Manifestation in Best Western Premier Hotel Victoria  
Source. Authors.

All key suppliers, guests, and multipliers were informed about Hotel Victoria's environmental protection policy and its green environment philosophy. Hotel Victoria directly focuses on pollution prevention, opportunities for energy saving, waste reduction, recycling and lower packaging and transportation cost.

An export monitoring programme was developed jointly with the Energy Agency of Freiburg Region to supervise monthly energy consumption and to ensure accessibility for all interested parties. This driver factor refers to the association's rules and coercive power to maintain, develop and even shut down hotel and enterprises which violate rules. In Germany, there is a formal association that governs the eco-hotel industry, both at national level and also at the local level (regional and capital city). This association has many active members that has emerged as a large community which monitors hotels and restaurant providers. This association also could become a body that establishes the environmental legal compliance and generate laws regarding environmental-friendly operations based on general decision/discussion of members. Hotel Victoria also enlist the active cooperation of its guests in its environmental-friendly approach and welcomes criticism and suggestions.

The driver factor in technology initiative refers to hotel organisations which have greater capacity to innovate and which will be more successful in responding to their environments and develop new capabilities that lead to greater performance. This driver factor indicates that responsiveness to changing market needs often calls for the introduction of new services and fulfilling expectation. There are incentives and recognition awards for hotels which successfully practice environmental-friendly operations. Actually, this strategy has been applied in many countries, as the publicity will have influence on the customer. Incentives could also be given by government bodies and associations, both at the provincial and central level. Incentives are also given in the form of financial support, and recognition at the province level and ministerial level. These incentives improve the hotel's operational activities.

The third object is Sumaq Machu Picchu Hotel Peru, which was built in 1987 and located near the Vilcanota River and in the middle of Machu Pichu Basin. This hotel has kept its ethical and moral commitment to the stakeholders and has welcomed sustainable tourism activities.

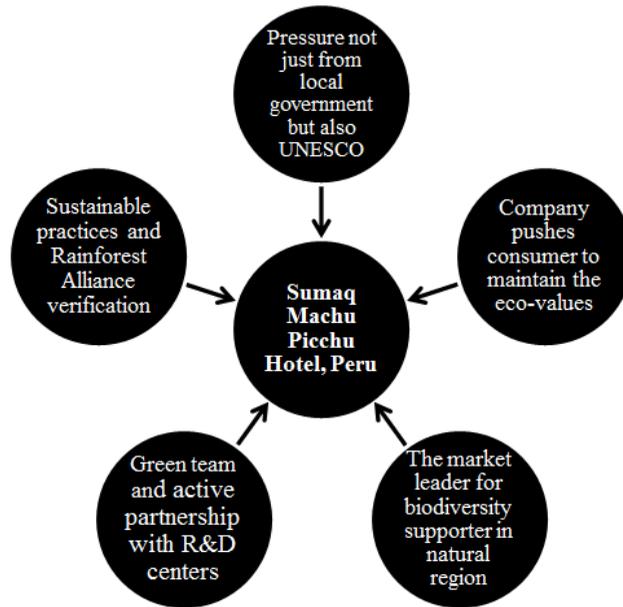


Figure 5. Green Manifestation in Sumaq Machu Picchu Hotel  
Source. Authors.

Sumaq Machu Picchu Hotel has pressure to sustain its natural environment and culture. This Sumaq Machu Picchu Hotel has implemented the rigid sustainable policies and is determined to carry out its environmental missions, based on the existing regulations and laws in force. Provincial and local governments and international institutions want a cleaner environment and thus pressure organisations to pay attention to the possible environmental consequences before making critical decisions. Critical decisions mentioned in this research relate to location, waste procedure, electricity requirements, recycling procedure, green suppliers, transportation facilities and other hotel operations. Tzschentke et al. (2004) states that legal compliance is a primary reason for environmental improvements.

The purpose is also to satisfy the management and shareholders of the company. Because of widespread greenness inside the organisation, this hotel has become the pioneer tourism company to implement a sustainable plan that includes actions, programmes, and procedures. This hotel also provides incentives to employees for its greening activities and offers them benefits as per the law.

Customer's beliefs and needs are important too as organisations are likely to be market oriented, i.e. to attract and respond to evolving customer preferences, looking for breakthrough services as demanded by customers and certain events could change the customer's view about environmental-friendly hotel operation. Potential customers can create

a community to support, respect, and maintain recommendation related to green hotel initiatives. Customers also take part in the green partnership programme organised by Sumaq Machu Picchu in its green manifestations to respect nature and biodiversity.

The hotel incorporates environmental considerations into its strategic planning to show its customers it is acting in a socially and environmentally responsible manner. By fulfilling the customer's green requirements, the hotel establishes green parameters in its operation.

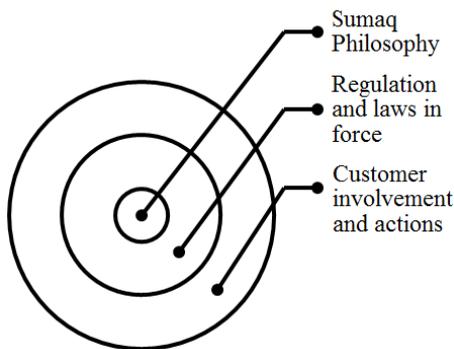


Figure 6. Green Manifestation in Sumaq Machu Picchu Hotel  
Source. Authors

Sumaq Machu Picchu Hotel's **environmental performance** is listed below:

- ✓ Success in decreasing energy consumption from 39,81 kw to 33.14 kw per guest.
- ✓ Success in decreasing solid waste from 1,13 to 0,88 kilogram per guest.

- ✓ Success in decreasing fuel consumption from 0,85 to 0,75 gallons of gasoline per guest.
- ✓ Success in recycling 3.676 containers.
- ✓ Success in acquiring more than 50% of culinary ingredients from suppliers in the department of Cusco.

## CONCLUSION

Driver factors are fundamental for environmental-friendly hotels and which motivate them simultaneously. The green manifestation or eco-driver for excellent performance in hotel operation consists of regulatory factors, customer requirements for green services, competitiveness, organisational greenness, and continuous green attitude.

It can be concluded from this study of the three hotels and their greening initiatives, INSPIRA has a competitive edge due to its organisational greenness orientation. It has become a leader in Portugal in the Boutique Hotel category because competition is below expectation. However, INSPIRA faces competition from other big hotels and in dealing with that, its managers has begun to focus on innovation. The environmentally-friendly hotel operations are conducted by The Green Squad and led by Green Managers. The employees motivate themselves to learn about recycling from suppliers.

In Victoria Hotel, the dominant driver factor is its continuous green attitude; it has established environmental-friendly operation for machines, transportation,

heating system from oil-based to modern wood-pellet heating system with an exhaust-gas cleaning system. Shareholders invests in efficiency technologies. The involvement of shareholders can sustain the environmental-friendly hotel operations.

In Sumaq Machu Picchu, the dominant driver factors are both regulation and customer requirements for green services. This driver factor refers to laws and regulation established by local governments via its decentralisation of governance. Provincial governments and local governments are under pressure to generate a cleaner environment and in turn pressure organisations to pay attention to the possible environmental consequences before making critical decision. Critical decisions mentioned in this research are related to location, waste procedure, electricity requirements, recycling procedure, green suppliers, transportation facilities and other hotel operational issues. Sumaq Machu Picchu states that legal compliance is the most important factor and driver in environmental considerations.

Customer's require services, products and facilities from responsible hotels. Sumaq Machu Picchu Hotel realises it its role to protect the biodiversity and cultural treasures of the nation. All these actions are as green manifestations and serve as an eco-driver for excellent performance in the hotel industry.

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