ENVIRONMENTAL ORIENTATION IN THE HOTEL SECTOR IN SRI LANKA

The tourism industry in Sri Lanka has begun to witness a significant revival following the end of the conflict in May 2009. In order to reap the benefits of the tourism industry boom, the government has set targets to attract 2.5 million tourists by 2016. Several initiatives are in place to cater to the increasing demand for hotel accommodation to the targeted number of tourist arrivals by means of new investments and expansions of existing accommodation facilities. Accordingly, the number of hotels rooms is expected to increase to 50, 000 by 2016. As at 2013, the total number of rooms in both hotels and supplementary accommodation units was 23, 596 and the hotel rooms accounted for nearly 69 per cent of the total number of rooms. However, beyond the numerical targets for tourism industry, it is not clear whether enough emphasis has been paid to ensure sustainability aspects of the industry.

Accommodation sector is highly reliant on the two natural resources; namely of water and energy for its all operations and generates waste. With the increasing number of tourist arrivals, there is a tendency to use enormous amounts of energy and water and generate high amounts of waste. Considering both economic and environmental factors, it is important that the hotel sector undertakes investments on energy and water efficient management practices and effective waste management approaches.

The research is of highly opportune as the Sri Lankan government is in the process of expanding the industry and the accommodation sector with an increased enthusiasm of the private sector. The study intends to assess environmental management in hotels in Sri Lanka and factors affecting the adoption of environmental management practices.

Study Area

The study is based on the hotels registered with the Sri Lanka Tourism Development Authority (SLTDA) in the Western Province of Sri Lanka. Western Province shows the highest number of tourist hotels at provincial level in Sri Lanka. The districts in the Western Province, namely Colombo, Gampaha and Kalutara have around 110 hotels altogether.

Data

Primary data for the study was collected through a survey, using structured questionnaire. The questionnaire was pretested and fine-tuned based on the interviews with the key experts in the tourism, energy, waste and water sectors of Sri Lanka. According to the list of registered hotels obtained from the SLTDA, the number of hotels is 110. However, while undertaking the survey it was revealed that 16 hotels have to be removed from the sample as they were identified as not functioning during the survey period. Therefore, out of the 94 hotels available for the survey, only 78 per cent hotels participated in the survey, recording a response rate of 83 per cent. This seems to be a satisfactory response

50,000

2016 - Hotel Rooms

23,596

2013 - Hotel Rooms

rate compared to the rates of the previous studies.

The survey included several steps. In the first round hotels were contacted to identify the officer who is responsible for environmental management and collect his contact details. In the second round, the identified officers were contacted and the purpose of the survey was explained and formal request letters were sent. Based on the appointments, the trained enumerators visited the hotels to conduct face-to-face

interviews. For most of the hotels, the same hotel had to be visited more than one time, as the respondents could not give their records on energy, water, waste and performance indicators during the first visit. Also, a several round of telephone calls had to be made in getting the appointments and following up to collect missing data.

The characteristics of the participating and non-participating hotels were analyzed to see if there is any biasness in responding positively to the survey. There was no biasness for participating in the survey.

Sample Characteristics

Sample represents around 40 per cent of the small hotels, of which the number of rooms is less than 50. The average number of rooms of the hotels in the sample is 83. Around 68 per cent of the hotels have a star rating. Of the star rated hotels, the percentages of hotels under one, two, three, four and five star ratings are respectively 15, 13, 21, 28 and 22 per cent

Methods

A multi-approach to measure environmental management. Three approaches were used, since a single approach was not sufficient to explain environmental management due to their definitional nature and data limitations on certain aspects.

1. Assessment of environmental management using proxy variables
2. Analysis of environmental management practices under energy, water and waste management
3. Assessment of consumption data

Assessment of environmental management using proxy variables
Direct measurement of the above factors may be limited or not possible due to data unavailability. This lead to identify proxy variables to measure the environmental management of the hotels. The proxies
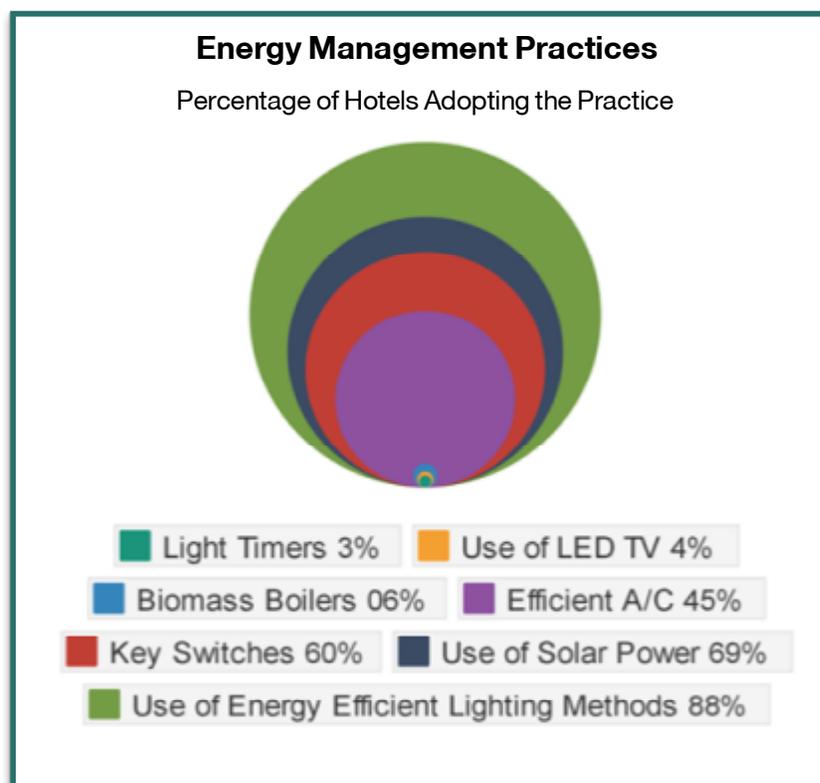
used in the study are,
→ Maintenance of monthly records in relation to environmental management
→ Presence of an environment policy
→ Presence of EMS
→ Receipts of relevant environmental awards/certifications
→ Involvement in relevant projects/ programmes

Proxy Variable	Percentage of Hotels
Environmental Records	37
Presence of environment policy	40
Presence of EMS	28
Awards and certificates	19
Involvement in relevant project	38

Determinants for Proxy Variables

Records	Environment Policy	EMS	Project	Awards/ Certifications
Size category Luxury level Classified hotel	Size category Luxury level Classified hotel Chain affiliation	Luxury level	Size category Classified hotel	Luxury level Chain affiliation

Measuring the Level of Adoption of Environmental Management Practices
Level of adoption of environmental management practices is analyzed using adoption of specific practices in relation to energy, water and waste management.

Energy Management Practices
Percentage of Hotels Adopting the Practice

Light Timers 3%   Use of LED TV 4%
Biomass Boilers 06%   Efficient A/C 45%
Key Switches 60%   Use of Solar Power 69%
Use of Energy Efficient Lighting Methods 88%

Water Management Practices
Percentage of Hotels Adopting the Practice

Dual flush toilets
79%

Linen and towel reuse
56%

Low flow shower and taps
50%

Use of treated waste water for watering the garden
50%

Rain water harvesting
02%

Sensors in toilets
02%

Solid Waste Management Practices

Percentage of Hotels Adopting the Practice	
Collected by the Municipal Council	65
Composting	22
Recycling	22
Solid waste segregation	18
Dumping at a site	17
Collected by private collectors	14
3 3R system (Reduce, Reuse, Recycle)	13
Animal feed (piggery)	8

Waste Water Management Practices

Adopting the Practice	Percentage of Hotels
Sewerage treatment plants	42
Septic tanks	36
Biogas production	08
Municipal drainage system	08

However, since hotels are adopting a number of management practices, it is difficult to find out the determinants for each practice. Therefore, the number of management practices adopted under energy, water and waste are taken as dependent variables. Also, the determinants of total number of management practices are also analyzed.

The highest number of practices can be seen under energy management. The average number of energy management practices is 3.78. This may be due to the fact that savings due to adoption of energy management practices are significant in overall operational cost of the hotels. Average numbers of practices for water and waste management are 2.62 and 1.82 respectively. Econometric models show that size category, purpose of customers, number of employees per room and location (city hotels and other) are significant determinants of total number of environmental management practices.

Enviornmental Management Aspect
Average Number of Environmental Management Practices

- Energy management practices 3.74 (6%)
- Water management practices 2.62 (32%)
- Solid waste management practices 0.92 (48%)
- Waste water management practices 0.54 (1%)
- Total environmental management practices 7.82 (13%)

Assessment based on Consumption data

Consumption data were collected for a period of 5 years (2009-2013). However, not all hotels provided the consumption data for the five years. Only 50 hotels out of 78 have provided consumption and occupancy data for at least one year.

The electricity consumption levels were analyzed for the hotels registered with the Greening Sri Lanka Hotels Project and non-registered hotels. It is shown that the consumption levels are significantly lower among the hotels registered with the project.

Policy Recommendations

According to the proxy variable assessment, larger hotels seem to be more environmentally oriented. Therefore, enough attention has to be paid in order to understand the constraints and issues faced by the small hotels in making their business more environmentally oriented, so that they can have better market advantage.

Also, other hotel characteristics such as location, luxury level, classification, chain affiliation have become significant determinants of environmental management. In terms of the location, city hotels seem to be more likely to perform better than other hotels. Similarly, classified and chain affiliated hotels are more environmentally oriented according to the results. This calls for the need for creating proper awareness among beach hotels, independent hotels and unclassified hotels.

Also, it is important to note that customer profile also playing a significant role. The hotels who are receiving more of customers for recreational purposes tend to perform better, according to the indicators used in the current study.

The consumption data assessment reveals electricity consumption levels are significantly lower among the hotels registered with the Greening Sri Lanka Hotels Project. This implies the importance awareness creation and capacity building on improving environmental management in the hotel industry.

This policy brief is based on the findings from a study carried out by IPS researcher Kanchana Wickremasinghe.....

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