

CHALLENGES IN MAINTAINING THE GREEN CERTIFICATION IN SRI LANKAN HOTEL SECTOR

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ABSTRACT

Green Certification towards the sustainable concept has become a remarkable area in the hotel industry. Sustainable concept is no more new for the hoteliers and sightseers seek greener of the accommodation prior to arrival. Green Certification is contributing towards creating an environment friendly hotel by integrating the sustainability concept. Most of the hoteliers perceive that the Green Certification is a marketing tool which increases the customer demand as well as profit. Also, it is kind of aggressive tools which can contribute to competitiveness in a successful manner. Some people are saying that the Green Certification is one of the energy saving mechanisms because it directly focuses towards energy saving aspects. Even though Green Certification is more important for the hotel sector, there may be some challenges when maintaining the Green certification. Therefore, investigating those challenges is an essential requirement for entire hotel sector towards the continuation of the Green certification. Hence, the aim of this study has been initiated to investigate the challenges in maintaining Green Certification in the hotel sector in Sri Lanka. A qualitative research approach was followed to investigate the challenges in maintaining Green Certification in Sri Lankan hotel sector and twelve individuals were interviewed from three cases to obtain data for the research. Semi-structured interviews were carried out as data collection method and the collected data were subjected to cross case analysis to investigate challenges. Eventually, the outcomes of this study demonstrated that there are several challenges in maintaining Green Certification and it was explored under five categories, namely technical, managerial, political and legal, environmental and biological, social and cultural.

Keywords: Challenges; Green Certification; Hotel Industry.

1. INTRODUCTION

The concept of “sustainable travel and tourism” is no longer new, it is now the norm and the adjacent few decades will challenge companies to differentiate themselves by looking elsewhere traditional environmental strategies in order to appeal to the rapidly growing market of socially and environmentally-conscious tourists (Miththapala *et al.*, 2013). Chan (2013) stated that nowadays hotels have begun to implement a variety of environmental programs and they are considering about protection of environment, cost saving and environmentally friendly image. Author further highlighted that “Trip Advisor” conducted a survey in 2012 and revealed that 71% of the 700 American respondents would make eco-friendly travel choices in year ahead. It means most of the travellers in the world prefer green hotels. Gou (2016) stated that the people who are interested for green concept can apply for different standards and rating systems such as LEED (Leadership in Energy and Environmental Design), Hong Kong Building Environmental Assessment Method (previously

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known for BEAM, now BEAM Plus) for Interiors, Singapore Green Mark for Interiors, Australia Green Star for Interiors and so on.

Miththapala *et al.* (2013) stated that Sri Lankan tourism industry suffered seriously for 26 years because of war. Further according to the author, on the post war period since 2009, Sri Lanka tourism has rebounded strongly showing tremendous growth with arrivals exceeding the one million mark in 2012 and during the war tourists were not interested to visit Sri Lanka because of risk. The authors highlighted that due to the increased demand for hotel sector, they have to provide better tourism products and services to their guests' and better tourism products include natural beauty, diversity, traditions and culture. Around 177 four star hotels are located in Sri Lanka (Expedia Travel, 2016). Out of them, there are around 32 green hotels (Sri Lanka hotel, 2016). Currently, most of the hotels in Sri Lanka are using Green Globe Certification and there are more than 12 Green Globe certified higher star rated hotels in Sri Lanka (Green Globe, 2016). Maintaining of Green Certification is real challenge for hoteliers. Empirical study on investigation of challenges in maintaining of Green Certification in hotel sector, however is still lacking and mostly concentrated on challenges associated with implementation of green certification. Therefore, this research aimed to investigate the challenges in maintaining the Green Certification in hotel sector in Sri Lanka.

2. LITERATURE REVIEW

2.1. IMPORTANCE OF GREEN BUILDING CERTIFICATION FOR HOTEL INDUSTRY

According to Mensah (2006), hotels can be considered as the heart of the tourism industry and it is a major sector of economy in which maintaining, landscaping, cooking and disposal of waste, use of water and energy tend to affect the environment. According to Buultjens *et al.* (2016) most of the accommodation establishments in developed and developing countries follow national and international eco-certifications and standards because it is a proof that they are protecting environment. Inappropriate development of tourism industry degrades habitats and landscape, depletes natural resources, disturbs to the economic system and generates waste and pollution (Dowling, 2007). If tourism industry needs to be sustained and make profits in future, they have to mitigate negative environmental impacts (Clarke, 2010).

Green Building Certification program contributes to increase the demand of tourism industry and ultimately it will increase income to country because tourism industry has a huge contribution to the economy of a country (Plumb and Zamfir, 2009). Most of the certifications have developed around the world and these certifications act as tools for improving tourism practices and minimising the negative impact on environment, cultures and societies (Mehta, 2007). When further considering about benefits of Green Certification for the tourism organisations, it enhances attraction of more clients toward the hotel sector and provides better reputation and more popular because having of a Green Certification provides good choices for the consumers and increase public awareness and better quality service offer and also enhancing industry standards and lower regulations cost of environmental protection and ultimately it helps address to critical issues of world such as climate change and natural resource conservation (Winkler, 2011). Green certified hotel can guarantee that level of quality has been achieved and quality has linked with environmental and social management (Jhamb and Singh, 2016). The next section discuss about the applicability of green concept in Sri Lankan hotel industry.

2.2. GREEN CONCEPT IN SRI LANKAN HOTEL INDUSTRY

Hotel industry contributes to Sri Lankan economy with more income and after the 30-year war, hotel industry is rapidly developing and foreigners coming to visit Sri Lanka with increasing rates day by day (Ramgade and Walvekar, 2016). According to Ramgade and Walvekar (2016), majority of tourists are from Europe who arrive on package trips to visit beach areas and Sri Lankan hoteliers expect to offer ecotourism to attract more visitors and increase the number of visitors up to 1 million per year and to achieve this goal, most establishments are trying to use their own unique attractions that are available in Sri Lanka. The authors further emphasised their most recent campaign slogan is "Beyond the beach: nature, culture and adventure". According to Kristanti and Jokom (2016), most of hoteliers would like for 15-20% of their visitors to be environmentally interested in ecotourism because it gains higher revenue for the country. Furthermore, Kandalama and Tree of Life are two large luxury hotels that have Green Certification which meet environmental standards.

Sri Lankan hotel industry widely uses Green Globe and LEED certifications (Arachchi, Yajid and Khatibi, 2015). Further to them, LEED certification is not renewable and Green globe certification should be renewed every year. Since this study is aimed to investigate challenges in maintaining the Green Certification in Sri Lankan hotel sector, only the green globe certified hotels were selected as it is renewed yearly. The next section discusses the research methods adopted in this study.

3. RESEARCH METHODOLOGY

The study was carried out through qualitative research approach. Identification of ‘Unit of analysis’ is very important to any research design and it is linked with the way the research problem is created (Swanborn, 2010). In this research, case study boundary is Green certified hotels in Sri Lanka and unit of analysis was Green Globe Certified hotels in Sri Lanka. When the study area is too broad in a qualitative research, ideal number of cases is one or two and utmost four (Taylor, 2000). Therefore, this research was limited to three cases where the empirical study focused on four to five star Green Globe Certified hotels. Table 1 gives a brief description about the selected three cases. The researcher selected semi-structured interviews as data collection techniques for the selected case studies. Cross case analysis was selected as analysing technique and NVivo 11 as qualitative data analysis package.

Table 1: Case Study Description

	Case A	Case B	Case C
Recognition	5 Star	4 Star	4 Star
No of Rooms	200	346	150
Green Awards Received	LEED, ISO 14001	Energy saving certification, Greening awards 2014 from the hotels association of Sri Lanka	ISO 14001
Green Globe Certified Year	2015	2014	2013
Selected Interviewees	Chief Engineer Assistant Engineer Garden Supervisor Maintenance Supervisor	Chief Engineer Assistant Engineer Garden Supervisor Maintenance Supervisor	Maintenance Engineer Assistant Engineer Garden Supervisor Maintenance Supervisor

4. RESEARCH FINDINGS AND ANALYSIS

The cross-case analysis is based on the challenges in maintaining the Green Certification in green certified hotels. Challenges were identified in depth under five main categories namely, such as Technical, Managerial, Political and legal, Environment and biological, Social and cultural (refer Figure 1). Those will be the basis for following discussion.



Figure 1: Coding Structure for Challenges in Maintaining the Green Certification

4.1. TECHNICAL RELATED CHALLENGES

All challenges related to technical category are discussed under this Section. Design means how building structure and its elements have built up initially. When maintaining the building after the construction, it can create various difficulties due to a design error. There can be difficulties with design errors and it is leading to high maintenance cost. As an example, Chief Engineer of Case B held that *“direct sunlight gets into the room through windows and it should be double glazing. If not sunlight comes into the room and heat the room which leads to increase the energy cost of the building”*. Similarly, Assistant Engineer of Case B stated *“there are few design errors in the building. Because of those errors, some of the rooms have been exposed to direct sunlight in many times throughout the day. Therefore, heating load of the building is increasing rapidly and it causes to increase energy consumption of the hotel badly”*. Building orientation is very important when considering energy savings in the building. Because of some of the area in the building can expose to direct sunlight due to a design error. Then the building is heated and it requires more air conditioning and ventilation to the building which will ultimately, increase energy cost.

Most of the beach side hotels require regular painting due to sea wind. As an example, Chief Engineer of Case A mentioned that since building facade is discoloured due to sea wind, regular painting is required which leads to high maintenance cost of the building. Another thing is regular painting will lead to environmental pollution as most of paints contains chemicals which may have harmful emissions. According to Maintenance Supervisor of Case C, it is better to find initiatives for building painting because some paints are not environmental friendly and it can harm to the environment when doing regular painting. This challenge was reported by several individuals. Most of the Green Certifications are generally prohibit the use of harmful substances such as paints, pesticides, and swimming pool disinfectants. However, use of environmental friendly paints is very expensive as per the expertise. Hence, this has become a significant challenge for most of the hoteliers, especially in beach side located hotels in Sri Lanka, due to regular painting.

4.2. MANAGERIAL RELATED CHALLENGES

There were several managerial defects and those challenges gathered under this category and it was divided into four parts, namely Project management, Maintenance management, Resources management and Economical and Financial.

- **Project management**

Most of the hotels have been involved in several kinds of projects such as modifications, replacement, re-building, gardening projects etc. Many difficulties may arise when handling those projects. Research findings revealed three main challenges under this category such as difficulty in selecting environment friendly raw material (1); difficulty in selecting the right material for projects (2); difficulty in selecting appropriate suppliers (3).

Green certified hotels should more concern about environmental friendly practices when they are handling projects within the premises. Delivering of any harmful material within the premises is restricted as per the requirements mentioned under the Green Certification (1). However, use of 100% of environment friendly material is not practical as per the interviewees due to high cost and availability issues of the same. For an example, Chief engineer of Case A stated *“Normally we do concern about environmental friendly raw materials. As an example, we do not use asbestos for any kind of project. But, going for environmentally friendly raw materials are very expensive and not much practical all the time. Sometimes we may have to import from other countries which would be more expensive and we do not have enough budget”*. Generally yearly budget is defined at the beginning of the year. Consequently they have to manage all projects within the budget limit and they cannot exceed the budget going for expensive environment friendly material. Accordingly, experts viewed this as challenge for hoteliers where they confront difficulty in finding environmentally friendly material in every time because of availability problem as well as high cost.

There are so many local products in the market with low quality and hoteliers have been facing difficulties when selecting right material for projects. Since there are so many alternative materials in the market, selection of the right material among that is a little bit difficult due to fraud suppliers as per the experts (2). As an example, some of the LED bulbs are not reducing energy cost because of low quality. Chief Engineer of Case B quoted *“We should check whether we are getting the right product or not. Sometimes a salesman doesn't know exactly about the products. After installation, it might be failed due to wrong products”*. Respondent

further stated that there are no any standards for local market and there are so many products with low quality. When using improper material, the entire project will be failed within small period. Therefore, selection of right product from the local market is difficult when implement the projects. The third most common challenge under the category of Project Management is difficulty in selecting appropriate suppliers (3). According to the interviewees, currently there is no proper procedure to select right material suppliers. Research findings further revealed that many of material suppliers are not registered under legal body in Sri Lanka.

- **Resource management**

There are several resources in a hotel such as assets, human resources, water and electricity etc. The difficulty in minimising of high water consumption, especially during dry season and high turnover of human resources were identified as the most common challenges in the category of 'Resource Management'.

Sri Lanka is a tropical country which is having a dry season in several months throughout the year. Therefore, high water consumption in the dry season is one of the challenges faced by Sri Lankan Hotel sector. The reason for that is there are a few months in the year which is getting high sunlight and environment become dry. During that period, water consumption is high because they have to maintain the garden and plants as in other months and if not plants can be dying due to a dry environment. Also, most of the Green Certified hotels concern about water efficiency and they are trying to apply several kinds of mechanism to reduce the water consumption. Assistant Engineer of Case C stated that water flow rates of taps in guest room are high. Therefore, they were supposed to apply sensor tap for the guest room. However, sensor taps were could not install for rooms because hot water and cool water cannot be mixed through sensors. As a result of that guest complaint will arise. Customers are expecting luxury services from hotel management and some of them do not care about water saving or efficiency. Only thing is they need their requirement as they wish. Therefore, hoteliers currently face difficulty in going for saving while balancing customer satisfaction.

As mentioned in above high turnover of human resources is another is another challenge identified during the study. Most of the people who are working in the hotels are in busy schedule because of high workload. Sometimes they have to work until midnight. Mostly turnover of human resource is happened due to dissatisfaction of employees. Maintenance Supervisor of Case A highlighted that their guest is changing day by day and there are only few regular guests. Therefore, workload of workers is high which could be a reason for them to leave the job. Chief Engineer of Case B explained that and they have to recruit new employees frequently due to prevailing situation and most of them are non-experiencing workers with regard to sustainability. Hence, conducting of same training programmes continuously for newcomers is costly.

- **Economic and Financial**

The budget is very important and cost is the highest concern factor in any organisation. Implementation of sustainable projects is costly and payback period is also comparatively high. As an example, Assistant Engineer of Case A stated that "*Engineering department has suggested many projects such as solar systems and garden lighting system. The challenge is to get approval from top management. Since the capital cost of the projects and payback period is high, approval can be delayed or rejected*". Most of the organisations concern about the cost and they do not like to go for mega projects even it has more payback. Chief Engineer of Case B respondent stated "*Top management is not saying to do a project with high cost. They are always saying reduce the cost. Most of the green project is very expensive and payback periodic is high. They do expect maximum payback period is one or two years*". He further stated that if ROI (Return on Investment) of the project is exceeds the two years, management of the hotel is do not like to give approval for the particular project. Accordingly, some of sustainability related projects are challenging to the hoteliers as per the experts.

4.3. POLITICAL AND LEGAL RELATED CHALLENGES

Various policies or standards which are implemented by government can cause some difficulties when maintaining the green certification. Interviewees mentioned that most of the Green Certified hotels should maintain test reports in proper way, such as generator emissions report, boiler emissions report, kitchen emissions report and all other discharging parameters and those reports should be submitted to the regulated body namely Central Environment Authority (CEA), Municipal Council in periodically. Since some of these tests are taken place in daily, allocation of separate person for respective job is required. However, allocating a separate person to do test daily is costly and difficulty with the limited staff available. Further, Chief Engineer of Case B stated "*If the boiler is not maintained properly, harmful emissions will discharge to the environment.*"

It will discharge carbon monoxide to the environment. We have to control this situation. Therefore, we should maintain properly and emissions should test once in year. It is called flow gas analysis. We should submit all test reports to the CEA". According to Assistant Engineer of Case B, liquid waste and solid waste are generally handover to municipal council and liquid waste parameters should be tested daily. Further to him, internal auditors are very strict on this and they do check all testing detail properly as most of the Green Certified hotels cannot discharge liquid waste without any treatment. Further, Maintenance Supervisor of Case B held *"Generator emits some kind of gases and we should test those gases and discharge"*. Maintenance Engineer of Case C also said that generator emits harmful gas, but they cannot discharge to the environment as it is. It is therefore testing needs to be done to reduce the impact of that gas by using some chemicals. Accordingly, a proper program to maintain all test reports is required which sometimes costly and time consuming. Since this challenge reported by many individuals, it can be considered as a common challenge for the entire hotel sector in Sri Lanka.

The water consumption report should be submitted in periodically. When there is an increment of regular water consumption by month, the reason for increment should be presented to auditors. Even though the guest is not concerning water saving, hotelier should control water consumption. Maintenance Engineer of Case C held that they should prepare a monthly sustainability report which includes ground water consumption and city water consumption. Further, he explained that city water and ground water should be reduced according to the global requirement when going sustainability concept. Because people are taking ground water from several sources and with the time being the entire ground water level of the earth will be reduced.

4.4. ENVIRONMENTAL AND BIOLOGICAL RELATED CHALLENGES

Challenges identified under this category are discussed under two headings; namely, Environmental and Biological. Environmental climate has been changed due to environmental pollution and it creates many challenges when maintaining the green certification. Condensation is one of the challenges which was highlighted by Assistant Engineer of Case A. He emphasised that *"When guests open balcony door or some amount of air conditioning will reduce and fresh air comes into the room. Then the wall is wet and emits a bad smell. And also due to condensation floor will be slippery and guest may get injured"*. This situation leads to create an energy loss as per the experts. With this context, installation of dehumidifiers is required in all guest rooms to mitigate the consequences. It is an additional cost to their organisation. Garden Supervisor and Maintenance Supervisor of Case A also expressed similar ideas as mentioned by the Chief Engineer of Case A. Another thing is customer satisfaction is decreasing due to the cold surface inside of the room. Garden Supervisor of Case B indicated that *"Guest rooms are getting wet due to humidity and it's a design error"*. According to above respondent's opinions, it is realised that this is a common challenge for most of the hotels in industry when maintaining the green certification.

During the study, it was noted that plywood furniture have been used in most of the hotels which are located in coastal area with the purpose of enhancing aesthetic appearance to the hotel and it was a decision, taken at the design stage. However, interviewees mentioned that such furniture emits a bad smell due to sea wind. Assistant Engineer of Case A stated that since case A is a beach side hotel, always they are getting sea wind and it is effect to the indoor furniture of the hotel. They have used plywood furniture in some area which emits bad smell due to wetness with salt mixed air. The guest does not like that bad smell and they are complaining. As per the Green Certification, customer is the central focus of the tourism experience and customer satisfaction should be focused because they are the people who generate the revenue for the hotel. Replacing of plywood furniture with hardwood furniture is challenging at the moment as per the experts as well as it is very expensive when replacing existing furniture.

Biological growth, such as algae, fungi may create difficulties when maintaining green certification. Central corrosion is kind of discoloration issue in internal wall because of the sea breeze. Most of the inside area of the hotel has central corroded and it has taken light yellow colour with small spots on the wall. Chief Engineer of Case A quoted *"One of the challenges is central corrosion and growth of fungus. Central corrosion and growth of fungus are occurring due to wetness on the inside in the hotel. Because of we have planted some plants inside the building"*. Chief Engineer of Case B quoted *"we cannot off the A/C units because fungus is growing after shut off the A/C machine. The reason is a humidity of inside the room"*. Indoor environment has to be properly managed because central corrosion and fungus directly effect to the customer satisfaction because of they are the people who is highly concerned about the beautiful environment with a better

appearance. According to the Green Certification, erosion and other air contaminant should be reduced and it should not damage to the ecosystem and human of the hotel. Not only that but also this situation leads to generate many guest complaints within the premises. With the existing environmental condition, it is a real challenge for hotel management to enhance customer satisfaction as per the research findings.

4.5. SOCIAL AND CULTURAL RELATED CHALLENGES

Social and cultural related challenges are discussed under this section. Many parties are involved in hotel operations such as outside contractors, suppliers etc., in addition to the hotel staff and guests. Handling those parties is not an easy task. Poor human attitudes and bad behaviours were one of the leading issues identified and it has been created many issues. As an example, Chief Engineer of Case A stated that although they have taken many initiatives for reducing energy, cost etc. occupants are not practicing them. Guests are not concerning about energy consumption and they do not care of operating lights and all when they leave from the room. Assistant Engineer of Case A held *“Some of the guests leave the room without switching off lighting and all. Although we wanted to change this situation by changing their attitudes, it has become a real challenge with regard to same”*. Maintenance Supervisor of Case C highlighted *“When using energy and water, customers are informed about how to save energy and water in their rooms. But some customer’s attitudes cannot change by us”*. Further, he explained that not only guest, but also outside people such as contractors do not care about the energy cost of the hotel.

Lack of awareness of users also can cause some difficulties. As an example, Chief Engineer of Case A mentioned that most of the outside workers do not have much knowledge about sustainability concept and they do their activities which can cause to pollute the hotel environment. They are putting debris of renovation projects everywhere and they do not segregate those wastes. Therefore, as engineering division, training and awareness program need to be conducted for outside workers before entering the workplace. And also work permit is issued for every outside party. Sometimes it is time consuming with their busy schedules. Assistant Engineer of Case A mentioned that *“When doing small projects, many of outside people come to this hotel. Main challenge is lack of awareness of these people and always we should give instructions to them. Most of the contractors are not aware about waste segregation, safety and all and most considerable fact is that they do not really care about it”*. Therefore, many waste items are generated due to the prevailing situation and in-house cleaning staff has to dispose properly without harm to the environment. Maintenance Supervisor of Case A also expressed that some of outside contractors are not following rules and regulations of the hotel. Similarly, Assistant Engineer of Case C mentioned that *“When we are doing project we have to train the contractors and our staff. One of the challenges which we identified is some of labours are non-experiential and non-educated. Therefore, educating and training of them is a real challenge for us”*. When considering above all opinions it seems that dealing with un-educated outside contractors is a challenge to hoteliers. The next section draws conclusions for the discussion.

5. SUMMARY AND WAY FORWARD

Green Certification deliberates as a marketing tool for hotel industry which assistances to upsurge guest demand with the attraction. Even though having such paybacks through Green certification, maintainability of a Green Certification is not an easy task for hoteliers since have to comply with such criteria of Green certification. Aim of the study was investigate challenges in maintaining Green Certification in hotel sector in Sri Lanka. Aim was succeeded through investigating challenges faced by hotel sector in Sri Lanka. These challenges were mainly identified under on main five categories as Technical, Managerial, Political and Legal, Environmental and Biological, Social and Cultural. Further research proposed related this work could be developing strategies to mitigate challenges identified in this study.

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