

Sustainability Practices in Hotel Industry: A Study on Guest Awareness and Satisfaction

Shweta Mathur*, Kavita Khanna**, Sanjeev Kumar Saxena***

Abstract

The research paper is an empirical work to ascertain the awareness and satisfaction levels of the hotel guests on the sustainability practices in Five Star hotels in Delhi. This paper also aims to determine the extent to which certain sustainability practices influence customer preferences and requirements. The methodology used in this research included a survey method, combined with an extensive secondary research and descriptive methods. The survey was conducted in selected Five star and Five-star deluxe hotels in Delhi from June 2016 until September 2016. The results of the study establish a direct relationship of sustainability practices with customer's satisfaction in Five Star Hotels in Delhi, however, it reveals that the prevailing sustainability practices do not satisfy the guests to a considerable extent. The research results can be used by hotel managers in order to improve and adopt sustainability strategy in their management policy in order to raise the level of awareness towards the hotel's sustainability initiatives undertaken and then to meet the demands of cognizant guests and for the sake of its own business survival.

Keywords: Sustainability, Customer Awareness, Customer Satisfaction, Five Star Hotels, Delhi

Introduction

The surge in tourism worldwide gives way to phenomenal increase in the tourism receipts and witnesses rise in travel by people to different places across the globe. But there is a darker side to it as well. The rise in tourism is a precursor of environmental and societal woes. The issues of population explosion, depletion of scarce and non-renewable resources, unscrupulous practices and infrastructural developments in tourism are some of the grave concerns which need an immediate attention and redresser as they are causing an irreversible loss of natural habitats and resources and environmental degradation.

Euro monitor International, 2012 suggest there is a gradual rise in sustainable tourism as it gets an impetus by sustainability conscious traders, authorities and local people. The United Nations has also officially declared the year 2017 as *The International Year of Sustainable Tourism for Development*.

The lodging sector alone holds the largest share in tourism sector and hotels emerge as biggest players within this sector. Environment advocacy and protectionism is a common behaviour portrayed by both service providers and consumers in a hotel. Notionally, there is a trend of customers critically selecting a hotel based on its accountability towards the society and environment. They also realize that their decision would also assess their grant to the protection of environment and abatement of carbon footprint.

The leading hotel chains have recently stepped in to address social and environmental challenges. Accor has launched the sustainable development management system *Planet 21 in Action* under which engaged hotels can highlight their sustainable actions online using the *#ActingHere* hashtag. The '*Green Engage program*' of Intercontinental Hotel Group (IHG), an internal sustainability system, projects an annual energy savings of 20%. A 25% reduction by 2017 in energy and water consumption per room is targeted by Marriott. Euromonitor International, 2012 reports of similar sustainability-driven programs in place in industry icons such as Hilton, Hyatt, and ITC. It places Accor at the top in the sustainability ranking, with a score of 55%, thus making it the most sustainable of the world's 10 largest hotel groups. IHG and Marriott follow it with 43% with 35% score respectively. Other hotel group scores lag much behind scoring within the range of only 6%-17%. Besides these, other hotel groups, namely, Scandic, Carlson, Movenpick have also awakened to the

* PhD Scholar, Amity University Uttar Pradesh & Lecturer, Delhi Institute of Hotel Management, New Delhi, India. Email: shwetasmathur@gmail.com

** Associate Professor, Amity School of Hospitality, Amity University, Uttar Pradesh, India. Email: kkhanna@amity.edu

*** AGM, HRD, Jaypee Palace Hotel and Convention Center, Agra, Uttar Pradesh, India. Email: saxenaprak@rediffmail.com

sustainability mission, however, is yet to intrinsically incorporate sustainability management and performance monitoring in a true sense.

The term Sustainability has been used in a variety of ways, but for the sake of this paper, the scope of this term has been confined to the below-mentioned definitions. According to the World Commission on Environment and Development (Brundtland, 1987), the sustainable development ensures the meeting of the present generation needs without compromising the ability of future generations to satisfy their own needs. Subsequently, Elkington J. (1998) established the concept and argued that sustainability cannot be limited to environmental management only, but instead is a multi-dimensional construct. Elkington (2004) famously coined the Triple Bottom Line (TBL) and observed that true sustainability can only be achieved when a balanced approach towards environmental, social and economic progress is adopted. Wirttenberg (2012) defined “triple bottom line” approach to integrating people, planet, and profits into all management actions or decisions. Sev (2009) too, recognized sustainable strategy as an action plan for an organization that is aimed to simultaneously satisfy these three dimensions. The concordance of the enduring environment, social equity and sound economic health - also referred to as the “three dimensions” of sustainability serve as a ground for ‘Sustainability’.

Hotels are rapidly adapting to the latest SMART technologies such as HVAC systems, energy saving devices and regular maintenance schedules for improvements in indoor air quality and acoustic and thermal comfort of both internal and external guests. Investments in these technologies result in minimizing guest complaints and enhancing the guest’s experience during their stay as the hotel guests are more conscious of environmental problems and have started to consider the green hotels for their accommodation choice. It is believed that in a few years environmental conservation will become a legal obligation for hotels that may warrant them to win a competitive advantage (Reuland, 2008).

This paper is therefore centered on the objectives to study the level of awareness of sustainability practices in hotel guest and to measure the impact of sustainability practices on customer’s satisfaction in 5 Star Hotels in Delhi. For the purpose of building a radical understanding of the research area, an exhaustive number of publications

were reviewed by the researcher revolving around the keywords of the research topic as below:

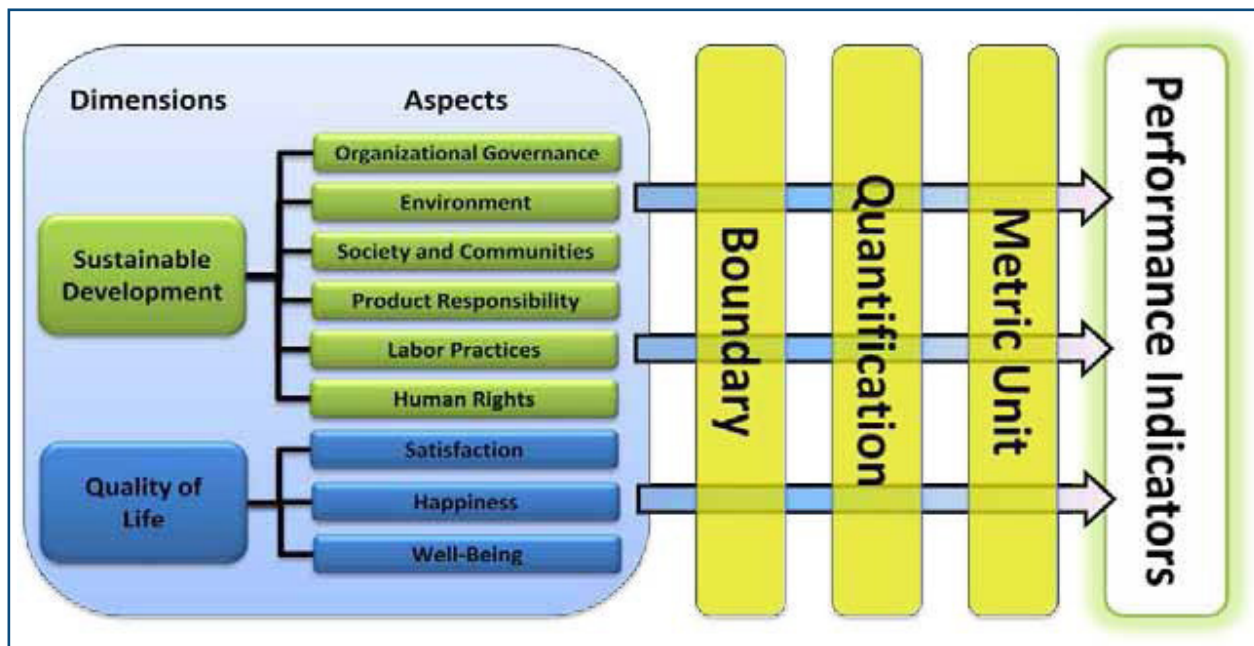
The term ‘Sustainability’ is central to the ideology of service organizations nowadays (Porter & Derry, 2012). The concept of Sustainability encompasses various definitions. According to the World Commission on Environment and Development Brundtland, 1987 (Brundtland, 1987) the sustainable development warrants upcoming era begetting all its needs along with the fulfilment of the demands of the present era. Johnston, Everard, Santillo, & Robèrt (2007) deduced, Sustainability as an activity that is capable of being continued indefinitely. Bergmans (2006) developed a model to support the decision-making process through an integration of People, Planet and Profit, leading to value creation in company policy and practices. He found that companies practising this have gradually turned to measure their performance through Triple Bottom-line, thus representing the goal of total sustainability.

According to Prairie (2012), the hotel industry is in the midst of a sustainability awakening. Gawankar & Rathore (2009) identified 6 “Go Green” themes important to sustainability within the hotel sector. Revilla, Dodd, & Hoover (2001) based on a study on eight Mexican hotels, pointed out that, when impelled by cost cuts, coercion of media, stringent laws and environmental awakening, they transitioned to sustainability practices. However, the hotel managers disregarded customers’ demand as a reason behind their reorientation to environmental well-being. While, Porter & Derry (2012) presented a complexity-based model to bridge the gaps between theory and practice in realizing the adaptation of businesses to the radical and comprehensive sustainability practices.

An article titled, 25 Years of Sustainability in India with ITC Hotels (2013) highlighted, how ITC hotels have been the flag bearers of responsible hospitality since 1988. The hotel chain has profoundly integrated environmental and social responsibility in their corporate philosophy. This accounts for 11 LEED platinum rated units in India, 5 properties running on wind energy and the only hotel group having a captive consumption of around 30 MW of wind power from self-owned farms. Two books by ITC are assumed to be the primer of industry’s best practices for those aspiring to follow the suit. Hashmi & Muff (2015) advocated that the holistic merger of kaleidoscopic views of society, ecosystem and economy is the key to

become a truly viable company along with overcoming interdisciplinary barriers. According to Rezaee & Choi (2015) reporting of sustainability performance in conjunction with the annual reports could be a boon to the hotels and its stakeholders.

Ricaurte (2011) addressed the stakeholders' of luxury accommodation sector with a remedy for seeking out reliable responsible hospitality indicators through a sustainability indicator model. Fig. 1 denotes sustainable development and quality of life, the two integrated dimensions of organizations sustainability measurement framework.



Source: (Ricaurte, 2011)

Fig. 1: Sustainability Measurement Framework of Ricaurte

Much of the guest-satisfaction literature focuses on the complaint and error reduction and up gradation and maintenance of quality standards. Instead of concentrating on reducing errors, an effort to determine the attributes that guests consider important and focus on those attributes would result in customer satisfaction.

Customer satisfaction has been defined by Gundersen, Heide, & Olsson (1996), as an evaluation of the products and services consumed based on specific attributes. Customer satisfaction, or guest satisfaction with respect to the hospitality industry, is an essential service measurement tool and a valuable marketing principle that intends to attract and retain guests. According to Howard (1977) satisfaction is a mental state of consumer caused by the comparison of his costs and benefits. While Hunt (1977) also asserted, that, satisfaction is not an emotion, but an evaluation process, where the experience is at least as good as expected. The satisfaction and dissatisfaction

of the consumers are simultaneous reactions to different components of the total service delivered.

The main goal of all business to meet customer needs while achieving profit targets. The rising business competition and increased quality standards have led businesses to remain customer-orientation and to their satisfaction. Karakas (2014) professed, price reduction may not guarantee customer satisfaction at the expense of service quality. Customer and/or guest satisfaction is important to the hotel industry, as the repeat business of the hotels is largely dependent on satisfied guests combined with positive brand positioning and word-of-mouth publicity.

Becker (2009) based on a survey done on 241 guests of the hotel taken as a case study, found that fifty percent of the respondents were motivated to stay at a hotel on account of its environmental consciousness and actions towards the restoration of our natural surroundings, besides discretely conceived environment of luxury and

comfort. An optimistic view of the survey results, lead us to the conclusion that sustainability practices have a cutting-edge resonance over intrinsic factors of luxurious hospitality. Lotta (2017) redefined sustainability as, 'pursuance of the guests' dreams and desires without jeopardizing the aspirations of future generations'. Heskett, Jones, Loveman, Sasser, & Schlesinger (1994) presented a service-profit chain that establishes the links between profitability measures including internal service quality, employee satisfaction and perceived customer value of service delivery, satisfaction and their loyalty.

A qualitative study of Robinot & Giannelloni (2010) rolled out a list of the service features instrumental to the cumulative appreciation and satisfaction of hotel guests services through a 'Tetraclasse model' on their respective manners to generating guest satisfaction. This study unveiled ecological variables as an imperative constituent of the service offer, wherein, reuse of room and bath linens and adoption of renewable energy sources were expected by guest and its absence lead to their dissatisfaction. Vickers, et al. (2007-2017) in a working paper deliberated the effectiveness of environment nurturing practices on the satisfaction level of the hotel guests in Mexico. It also outlined the specific factors spurring the payments of higher premiums for nature caring room features and amenities by the guest there.

The clientele of the hotel industry attaches extravagant provisions of facilities and amenities, to the word 'Luxury', thereby, disregarding the efforts made by the industry for the advancement towards green and responsible hospitality. Thus it is suggested by Doherty (2013) to incorporate customer awareness initiatives in their sustainability policies to make environmental sustainability a predominant facet of the Hospitality industry. On the contrary, Kanchan, Kumar, & Gupta (2015) reasoned that the Green image of a company that takes the environmental initiative in all its ramifications in its stride has a greater likelihood of retaining existing and enticing new customers thus mitigating its competition with those who have not endeared clean and green operations hitherto.

A qualitative study done by Bobbett (2010) to gauge the implications of phasing out the bathroom amenities in hotels upon the guest satisfaction index reflects the significance of surpassing guest expectations. Han, Hsu, Lee, & Sheu (2011) based on a survey of green hotel guests revealed that the true patrons consistently show higher levels of satisfaction that can positively affect the hotel reputation.

Thus, on the basis of gaps identified through the literature review, this study provides the following hypothesis:

H1: There is a higher level of awareness of sustainability practices amongst guests of five star hotels in Delhi.

H2: There is a great degree of impact of sustainability practices on customer's satisfaction in 5 Star Hotel.

Methodology

The scope of this paper includes estimation of the sustainability practices adopted by five star hotels, involving the employment of energy saving methods, water conservation methods and waste management methods, certifications of environment and quality, maintenance of indoor-air quality, reduce, reuse, and recycling methods and involvement in socially responsible activities. The primary purpose of the study was to assess the customer's satisfaction of sustainability practices in five star hotels in Delhi. Awareness of customers about the various practices followed in the hotels was also analyzed.

15 hotels were identified for the study from the list of 17 hotels including five star and five star deluxe hotels in Delhi that were approved by and available on the Ministry of Tourism, Govt. of India website in June 2016 (Table 1). Hotel 'The Oberois New Delhi' was closed for renovation at the time when the survey was being done and JW Marriotts was included in both Five Star and Five Star Deluxe categories of hotels and hence treated as one making only 15 hotels qualifying as the population to be studied.

Table 1: List of Five Star and Five Star Deluxe Hotels in Delhi

5 STAR		
S.No	City	Hotel Name
1	New Delhi*	Jaypee Siddharth
2	Delhi	JW Marriott

5 STAR		
S.No	City	Hotel Name
3	New Delhi*	Park Plaza, Delhi
4	Delhi	Piccadilly Hotels Pvt. Ltd.
5 STAR DELUXE		
	City	Hotel Name
5	Delhi	Hotel Welcom Sheraton
6	Delhi	Hotel Amanbagh
7	Delhi	Le Meridien New Delhi
8	Delhi	Kempinski Ambience Hotel Delhi
9	Delhi	ITC Maurya
10	Delhi	The Oberoi, New Delhi (closed for renovation)
11	Delhi	Hotel Imperial
12	New Delhi*	The Taj Palace Hotel
13	Delhi	The Park
14	Delhi	Radisson Blu Dwarka
15	Delhi	JW Marriott
16	Delhi	The Lodhi
17	Delhi	The Ashok

Source: Ministry of Tourism, Government of India, 2016

The sampling population represented a mix of guests who were staying in those hotels or had stayed with them. A survey methodology was chosen because it was deemed to be the most efficient way of reaching a large number of respondents. This study used a self-administered, close-ended questionnaire with order choices to survey a random sample. An online questionnaire was prepared and circulated amongst travellers who used the communities on Facebook and Whatsapp. The questionnaires were also emailed to a set of contacts at random. Out of 372 distributed questionnaires, usable questionnaires were returned by 365 guests. The questionnaire had two parts, Part A for obtaining responses on questions leading to finding Guest's understanding, awareness, experience and satisfaction of the Sustainability Practices in Hotels they stayed and Part B to know the demographic profile of the guest including their gender, age, qualification, the purpose of stay and length of stay. Majority of the questions relating to our objectives were made on a Likert scale. The statistical tools used in this study were percentages. The analysis of the survey results combined with the statistical applications (SPSS) allowed for the

researcher to draw conclusions regarding the objectives of the study is produced.

The data collected through the survey was tested for reliability using Cronbach's alpha, that shows internal consistency reliability of .958 for the composite scores of 38 items used that denotes a reliable variance.

Results

Percentage analysis has been used to analyze the demographic variables of the customers including gender, age, qualification, the purpose of stay and length of stay are revealed in the Table 2 through the options made available in the questionnaire. It can be inferred that 35.6% of the male and 64.4% of the female respondents shared their level of awareness and satisfaction with sustainability practices. Majority of the respondents (43.6 % of the Respondents) belong to the age group 31-40 years, 51% of the respondents are educated uptill Post Graduate level, 87.3% of the respondents stayed for the purpose of conferences and 73.2% of the respondents stayed for less than 3 days.

Table 2: Demographic Variables of the Respondents

<i>Factors</i>	<i>Options</i>	<i>No. of Respondents</i>	<i>Percentage (%)</i>
Gender	Male	130	35.6
	Female	235	64.4
Age	< 20 years	29	7.9
	21-30 years	132	36.2
	31-40 years	159	43.6
	41-50 years	27	7.4
	51-60 years	18	4.9
	>61 years	-	-
Qualification	Senior secondary	14	3.8
		3	0.8
	Higher secondary	8	2.2
		134	36.7
	Diploma	186	51.0
	Graduate	20	5.0
	Post Graduate		
Purpose of Stay	PhD.		
	Business	-	-
	Leisure	-	-
	Events	-	-
	Conferences	48	87.3
Length of stay	Others	7	12.7
	1-3 days	267	73.2
	4-6 days	76	20.8
	7-9 days	18	4.9
	>10 days	4	1.1

Table 3: Respondents Level of Awareness Towards the Sustainability Practices in Hotels

<i>Factors</i>	<i>Options</i>	<i>No. of Respondents</i>	<i>Percentage</i>
Employment of energy saving methods	Not at all aware	131	35.9
	Slightly aware	155	42.5
	Somewhat aware	54	14.8
	Moderately aware	12	3.3
	Extremely aware	13	3.6
Employment of water conservation methods	Not at all aware	133	36.4
	Slightly aware	146	40.0
	Somewhat aware	47	12.9
	Moderately aware	20	5.5
	Extremely aware	19	5.2
Employment of waste management methods	Not at all aware	119	36.2
	Slightly aware	148	40.5
	Somewhat aware	51	14.0
	Moderately aware	18	4.9
	Extremely aware	29	7.9

Factors	Options	No. of Respondents	Percentage
Certifications of environment and quality	Not at all aware	116	31.8
	Slightly aware	151	41.4
	Somewhat aware	51	14.0
	Moderately aware	18	4.9
	Extremely aware	29	7.9
Maintenance of indoor-air quality	Not at all aware	122	33.4
	Slightly aware	128	35.1
	Somewhat aware	58	15.9
	Moderately aware	24	6.6
	Extremely aware	33	9.0
Reduce, reuse, and recycling methods	Not at all aware	139	38.1
	Slightly aware	135	37.0
	Somewhat aware	49	13.4
	Moderately aware	12	3.3
	Extremely aware	30	8.2
Involvement in socially responsible activities.	Not at all aware	137	37.5
	Slightly aware	103	28.2
	Somewhat aware	61	16.7
	Moderately aware	23	6.3
	Extremely aware	41	11.2

Table 3 shows the respondents level of awareness towards the sustainability practices in hotels. The questionnaire presented 7 factors that represented the broad sustainability practices that are adopted by hotels. These were the employment of energy saving methods, employment of water conservation methods, employment of waste management methods, certification of environment and quality and lastly, maintenance of indoor air quality. The respondents were asked to rate their level of awareness on a five-point Likert scale ranging from not at all aware to extremely aware. The results of the survey as indicated in Table 3 denote that out of 365 respondents, 42.5%, 40%, 41.5%, 41.4% and 35.1% of the respondents are slightly aware of Employment of energy saving methods, Employment of water conservation

methods, Employment of waste management methods, Certifications of environment and quality and Maintenance of indoor-air quality respectively. However, the majority of the respondents are not at all aware of reduce, reuse, and recycling methods and involvement in socially responsible activities.

Therefore, *there is sufficient evidence to conclude that there is an extremely low level of awareness amongst hotel guests with regards to the sustainability practices adopted in five star hotels in Delhi.*

Below are the frequencies and Percentage analysis and results of Impact of sustainability practices on customer satisfaction survey.

Table 4: Respondents Level of Satisfaction Towards the Sustainability Practices in Hotels

Survey Responses	n (n%)				
	ES	S	N	DS	EDS
Guest rooms					
Level of lighting.	1 (0.3)	14 (3.8)	29 (7.9)	143 (39.2)	177 (48.5)
Natural lighting during daytime.		14 (3.8)	28 (7.7)	153 (41.9)	170 (46.6)
Use of energy saving lights.		10 (2.7)	64 (17.5)	105 (28.8)	186 (51)
Occupancy sensor light fittings.	1 (0.3)	14 (3.8)	19 (5.2)	114 (31.2)	216 (59.2)
Key card sensor for room lighting.		12 (3.3)	30 (8.2)	135 (37)	188 (51.5)
Water saving fittings and systems.		7 (1.9)	32 (8.8)	148 (40.5)	178 (48.8)

Survey Responses	n (n%)				
	ES	S	N	DS	EDS
Water temperature in the washroom.		7 (1.9)	53 (14.5)	115 (31.5)	189 (51.8)
Water pressure in the washroom.		15 (4.1)	26 (7.1)	149 (40.8)	174 (47.7)
In-room air quality.		11 (3)	29 (7.9)	152 (41.6)	172 (47.1)
Consistent room temperature.		8 (2.2)	38 (10.4)	152 (41.6)	166 (45.5)
Noise level of heating and cooling unit.		8 (2.2)	45 (12.3)	194 (53.2)	118 (32.3)
Ambient noise level.		16(4.4)	36 (9.9)	166 (45.5)	147 (40.3)
Frequency of bed and bath linen changing.		13 (3.6)	58 (15.9)	161 (44.1)	133 (36.4)
Re-use of room amenities.	1 (0.3)	35 (9.6)	29 (36.4)	166 (45.5)	133 (36.4)
Eco-friendly room supplies provided.		34 (9.3)	50 (13.7)	166 (45.5)	114 (31.2)
Display material for hotel's and guest's engagement in sustainability practices.		1 (0.3)	25 (6.8)	139 (38.1)	200 (54.8)
General room cleanliness.		5 (1.4)	22 (6)	137 (37.5)	200 (54.8)
Overall room comfort		8 (2.2)	30 (8.2)	115 (31.5)	212 (58.1)
Public Areas					
Natural lighting during daytime.		8 (2.2)	37 (10.1)	163 (44.7)	157 (43.)
Occupancy sensor lights.		7 (1.9)	52 (14.2)	162 (44.4)	144 (39.5)
Motion sensor doors.		8 (2.2)	41 (11.2)	187 (51.2)	129 (35.3)
Non-carpeted floorings.		1 (0.3)	22 (6)	168 (46)	174 (47.7)
Consistent temperature in all covered public areas.		17 (4.7)	21 (5.8)	190 (52.1)	137 (37.5)
Display material for hotel's and guest's engagement in sustainability practices.		8 (2.2)	65 (17.8)	138 (37.8)	153 (41.9)
Transportation					
Shuttle service for pick and drop.		35 (9.6)	104 (28.5)	153 (41.9)	72 (19.7)
CNG/battery operated cars.	15 (4.1)	57 (15.6)	112 (30.7)	95 (26)	82 (22.5)
Availability of bicycles during your stay.	13 (3.6)	32 (8.8)	45 (12.3)	159 (43.6)	115 (31.5)
Food & Beverage					
Options available for organic items on the menu.		48 (13.2)	75 (20.5)	149 (40.8)	93 (25.5)
Locally procured / in-house ingredients used in the menu.		24 (6.6)	56 (15.3)	143 (39.2)	142 (38.9)
Seasonal and indigenous ingredients used.		21 (5.8)	46 (12.6)	175 (47.9)	122 (33.4)
Portion size that may eliminate wastage.		21 (5.8)	45 (12.3)	128 (35.1)	171 (46.8)
Eco-friendly and food grade packaging of food and beverage items done.		20 (5.5)	45 (12.3)	128 (35.1)	171 (46.8)
Miscellaneous					
E-Billing procedures adopted (Minimal usage of paper).		36 (9.9)	56 (15.3)	132 (36.2)	141 (38.6)

Survey Responses	n (n%)				
	ES	S	N	DS	EDS
Use of recycled stationery.		29 (7.9)	54 (14.8)	149 (40.8)	133 (36.4)
Hiring of specially-abled staff.		27 (7.4)	63 (17.3)	136 (37.3)	139 (38.1)
Green patches and landscaping done in the hotel's surrounding community areas.		25 (6.8)	6 (1.6)	155 (42.5)	179 (49)
Environmental and quality certifications obtained by the hotel.		9 (2.5)	55 (15.1)	143 (39.2)	158 (43.3)
Engagement of the hotel in socially responsible activities.		10 (2.7)	56 (15.3)	133 (36.4)	166 (45.5)

Note: ES- Extremely Satisfied, S- Satisfied, N- Neutral, DS- Dissatisfied, EDS- Extremely Dissatisfied

Table 4 suggest the respondents (i.e, guests of the sampled five star hotels in Delhi) level of satisfaction towards the sustainability practices in hotels. The customers who were staying or had stayed in the sampled hotels were asked to rate their level of satisfaction pertaining to sustainability practices in those hotels on the basis of their experience or observation during their stay on a Five-point Likert scale ranging from Extremely Satisfied to Extremely Dissatisfied. The questionnaire had segregated all the sustainability practices into five sub-categories of distinctive areas of guest service and experience. These categories are Guest rooms, Public area, Transportation facility, Food and beverage and Miscellaneous. 18 variables of sustainability practices in Guest rooms, 6 variables in the Public area, 3 in transportation facility, 5 in food & beverage and 6 in miscellaneous subcategory were evaluated on guest satisfaction level. Table. 4 highlights that more than fifty percent of the guests are either dissatisfied or extremely dissatisfied with the sustainability practices in the guest room, public area, transportation, food and beverage and other miscellaneous variables. The table indicates that occupancy sensor light fittings, overall room comfort, the noise level of heating and cooling unit, display material for hotel's and guest's engagement in sustainability practices and general room cleanliness have more than 50% response rating as dissatisfied or extremely dissatisfied in the category of sustainability practices in the guest room. Motion sensor doors and consistent temperature in all covered public areas have more than 50% response rating as dissatisfied in the category of sustainability practices in the public area. Shuttle service for pick and drop and availability of bicycles during stay got 42% and 44% response rating of dissatisfied respectively in the category of transportation. Seasonal and indigenous ingredients used, Portion size that may eliminate wastage, Eco-friendly and food grade

packaging of food and beverage items done have nearly 48%, 47% and 47% response rating as dissatisfied and extremely dissatisfied in the category of sustainability practices in food and beverage. Green patches and landscaping done in the hotel's surrounding community areas and Engagement of the hotel in socially responsible activities have nearly 49% and 46% response rating as extremely dissatisfied in the miscellaneous category of sustainability practices. Overall Table 4 is indicative of a large percentage of dissatisfied guests for most of the sustainability practices in the five star hotels in Delhi.

Besides the frequency distribution, the researcher also did a correlation test to estimate the extent of the relationship between customer satisfaction level and sustainability practices. The correlation coefficient of a majority of sustainability practices variables falls in the range of 0.30 to 1.00. Hence, there exists a positive moderately strong relationship between sustainability practices and customer's satisfaction in 5 Star Hotels in Delhi. Hence the researcher can conclude that *there is enough evidence to accept the Null hypothesis and there is an absence of significant positive impact of sustainability practices on customer's satisfaction in 5 Star Hotels in Delhi. Thus the prevailing sustainability practices do not satisfy the guests to a considerable extent.*

Discussion

The current findings add to a growing body of literature on customer awareness and satisfaction in relation to sustainability Practices in Hotels. These findings enhance our understanding of the impact of sustainability practices on customer's satisfaction derived in the absence or presence of the former. At the same time, it aids in identifying potential practices that all hotels

could implement. The findings of this research reaffirm the studies of the previous researchers Aznar, Sayeras, Galiana, & Rocafort (2016), where, it is asserted that the factor of sustainability though supported ethically by the customers; do not fetch any support in action. It also validates the findings of the former researchers that the travellers despite personally advocating for saving the environment, are not comfortable with the idea of compromising with services perceived to be low on luxury and comfort by being a responsible guest towards the environment and society. However, this paper also bridges the existing gap by including social sustainability in the purview of this study to address the issues of customer awareness and satisfaction when the focus of the previous researchers Becker (2009); Gawankar & Rathore (2009) was limited primarily to the environmental aspects of sustainability.

At the same, this paper based on the study done in Delhi serves to fill the deficit of the research work available in order to assess the level of customer awareness of sustainability in hotels, particularly in the Indian context.

This paper will serve as an insight to the hotel managers and developers to consolidate their agenda of spreading awareness of sustainability of the planet and people through various marketing and promotional drives and continuous assessments of the same along with the measurement of the customer satisfaction revolving around the sustainability-driven initiatives of the hotel. Replication of the study would assist in further validating the results of this study. It would be interesting to compare customers' opinion on sustainability practices in a hotel in NCR and the rest of the parts in India. Another possible area of research would be to develop a quantitative instrument to measure the constructs explored in this study.

Conclusion

Hotels are attempting to do their part in saving the environment and safeguarding the interest and development of its stakeholders by implementing environmental and social sustainability initiatives. But these initiatives are only successful if they are well received by customers of these hotels who must support and contribute to it. This study set out to explore whether the environmental and social sustainability initiatives by the sampled hotels lead to the satisfaction of customers.

The results of this research are indicative of poor efforts on the part of the sampled hotels in generating awareness amongst the segments of the clientele they attract for stay and also on leaving any substantial impression of their sustainability initiatives by customers' participation and appreciation of the experience.

The findings of this research paper suggest lack of awareness, understanding, critical observations and opinions towards deployment of sustainability practices by the guests of Five Star hotels in Delhi. The analysis of the responses gives a clear indication the employment of energy saving methods is most commonly known followed by certification of environment and quality by the respondents. Whereas, involvement in socially responsible activities garners the least awareness of them.

The finding of the second objective was strangely alarming, as the majority of the guests were seen dissatisfied with the sustainability orientation of the hotels they have stayed in. However, it was noted that there exist a moderately strong positive correlation between sustainability practices and guest satisfaction, that can be interpreted as customer satisfaction has a direct relationship with the sustainability practices adopted in hotels.

Thus the following conclusions can be drawn from the present study: 1) there is an extremely low level of awareness amongst hotel guests with regards to the sustainability practices adopted in five star hotels in Delhi; 2) the prevailing sustainability practices do not satisfy the guests to a considerable extent.

References

- Aznar, J. P., Sayeras, J. M., Galiana, J., & Rocafort, A. (2016). Sustainability commitment, new competitors' presence, and hotel performance: The hotel industry in Barcelona. *Sustainability*, 8(8), 755. doi:10.3390/su8080755
- Becker, E. (2009). *The Proximity Hotel: A Case Study on Guest*. Retrieved from The University of North Carolina at Greensboro (UNCG). Retrieved from <https://libres.uncg.edu/ir/listing.aspx?id=1837>
- Bergmans, F. (2006). Integrating People, Planet and Profit. In D. W. Jonker, *Management Models for Corporate Social Responsibility* (pp. 115-125). Springer Berlin. Retrieved 05 24, 2017
- Bobbett, E. J. (2010, December). An Investigation of sustainable environmental practices and consumer

- attitudes & behaviours toward hotel bathroom amenities. *UNLV Theses, Dissertations, Professional Papers, and Capstones*. Retrieved from <http://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=1481&context=thesedissertations>
- Brundtland, G. H. (1987). *Report of the World Commission on Environment and Development: Our Common Future*. Retrieved from <http://www.congo-education.net/>. Retrieved 07 07, 2015, from <http://www.un-documents.net/wced-ocf.htm>
- Doherty, L. (2013, June). Environmental Sustainability Practices in the Hospitality Industry of Orange County, California. *Senior Project*. California Polytechnic State University, San Luis Obispo. Retrieved 12 08, 2015, from <http://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1039&context=rptasp>
- Elkington, J. (1998). *Cannibals with forks: The triple bottom line of 21st-century business*. Gabriola Island, BC: New Society Publishers.
- Elkington, J. (2004). Enter the Triple Bottom Line. In *The triple bottom line, does it all add up?: Assessing the sustainability of business and CSR* (1st ed., pp. 1-16). Earthscan Publications Ltd. Retrieved from <http://www.johnelkington.com/archive/TBL-Elkington-chapter.pdf>
- Gawankar, D., & Rathore, J. (2009). Exploring Sustainability Practices in Hotel Industry. Retrieved 2 22, 2016, from <http://cthospitality.us/wp-content/uploads/2015/02/2009-Exploring-the-Sustainability-Practices-in-the-Hotel-Industry.pdf>
- Gundersen, M. G., Heide, M., & Olsson, U. H. (1996, April 1). Hotel guest satisfaction among business travelers what are the important factors? *Cornell Hospitality Quarterly*, 37(2), 72-81. doi:<https://doi.org/10.1177/001088049603700222>
- Han, H., Hsu, L.-T. J., Lee, J.-S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management*, 30, 345-355. doi:10.1016/j.ijhm.2010.07.008
- Hashmi, Z. G., & Muff, K. (2015). Evolving towards truly Sustainable Hotels through a "Well-Being" lens: The S-Well Sustainability Grid. In M. A. Gardetti, & A. L. Torres, *Sustainability in Hospitality: How Innovative Hotels are Transforming the Industry* (pp. 117-135). Retrieved from https://www.researchgate.net/publication/291165117_Evolving_towards_truly_sustainable_hotels_through_a_well-being_lens_The_S-WELL_sustainability_grid
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E., & Schlesinger, L. A. (1994, March-April). Putting the Service-Profit Chain to work. *Harvard Business Review*, 164-170. Retrieved from <http://www.business.uzh.ch/professorships/som/stu/Teaching/Teaching/HeskettJonesLovemanSasserSchlesinger1994.pdf>
- Johnston, P., Everard, M., Santillo, D., & Robèrt, K.-H. (2007, February). Reclaiming the Definition of Sustainability. *Environmental Science and Pollution Research*, 2. doi:<http://dx.doi.org/10.1065/espr2007.01.375>
- Kanchan, U., Kumar, D. N., & Gupta, A. (2015, 09 22). Green Business-Way to achieve globally sustainable competitive advantage. *Journal of Progressive Research in Social Sciences (JPRSS)*, 2(2). Retrieved 04 25, 2017, from www.scitecresearch.com/journals/index.php/jprss
- Karakas, K. M. (2014). Importance and impact of guest satisfaction. *Applied studies in agribusiness and commerce*, 8(4), 31-37. Retrieved from https://ageconsearch.umn.edu/bitstream/210472/2/5_Karakas.pdf
- Lotta, V. (2017). The Boutique Design trade fair. November 11-12, 2018 – Jacob K. Javits Center – NYC. Retrieved from <https://www.bdnyc.com/speakers/vito-lotta>
- Ministry of Tourism (2016, May). Retrieved from <https://hotelcloud.nic.in/MOT/Catrpt.aspx>
- O'Neill, S. (2013, December 4). 25 Years of Sustainability in India with ITC Hotels. *Green Hotelier*. Retrieved from <http://www.greenhotelier.org/destinations/asia-pacific/25-years-of-sustainability-in-india-with-itc-hotels/>
- Porter, T., & Derry, R. (2012). Sustainability and business in a complex world. *Business and Society Review*, 117(1), 33-53. doi:10.1111/j.1467-8594.2012.00398.x
- Prairie, P. (2012, July 002). A Critical look at Hotel Sustainability. Retrieved July 06, 2016, from http://www.huffingtonpost.com/patti-prairie/a-critical-look-at-hotel-_b_1471188.html
- Reuland, M. R. (2008). Best Environmental Practices for the Hotel Industry. Retrieved from <http://www.sba-int.ch/spec/sba/download/BGH/SBABGEHOTELLERIEENG2008.pdf>
- Revilla, G., Dodd, T. H., & Hoover, L. C. (2001). Environmental Tactics Used by Hotel Companies in Mexico. *International Journal of Hospitality & Tourism Administration*, 3(4), 111-127. Retrieved

- 04 04, 2016, from <http://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=1026&context=hhrc>
- Rezaee, Z., & Choi, E. K. (2015). The relevance of business sustainability in the hotel industry. In *Sustainability in Hospitality: How Innovative Hotels are Transforming the Industry*, (Vol. 16, pp. 25-40). Greenleaf Publishing in association with GSE Research. doi:https://doi.org/10.9774/GLEAF.978-1-78353-197-4_4
- Ricaurte, E. (2011). Developing a sustainability measurement framework for hotels: Toward an industry-wide reporting structure. *II*. Cornell Hospitality Report. Retrieved 11 15, 2016, from <http://docplayer.net/25427298-Developing-a-sustainability-measurement-framework-for-hotels-toward-an-industry-wide-reporting-structure.html>
- Robinot, E., & Giannelloni, J.-L. (2010, April). Do hotels' "green" attributes contribute to customer satisfaction? *Journal of Services Marketing*. doi:10.1108/08876041011031127
- Sev, A. (2009). How can the construction industry contribute to sustainable development? A conceptual framework. *Sustainable Development*, 17, 161-73. doi:10.1002/sd.373
- Vickers, M., Wirtenberg, J., Harmon, J., Lindberg, A., Lee, J. M., & Dennis, D. J. (2007-2017). *Creating A Sustainable Future: A Global study of current Trends and Possibilities*. American Management Association. Retrieved 07 07, 2017, from <http://view2.fdu.edu/legacy/amawebcastreport.pdf>
- Wirtenberg, J. (2012, June). Triple-bottom-line: This is leadership development 3.0. *Leadership Excellence*, 6(8). Retrieved from <http://view2.fdu.edu/site-downloads/8095>