

SUSTAINABLE PRACTICES IN HOTELS: A STUDY OF FIVE STAR HOTELS IN NORTHERN INDIA

Dr. Ashutosh Kumar*, Dr. Anupama Mahajan† & Shikha Sharma‡

Abstract

The hospitality sector is one of the fast growing and dynamic sectors in India. Of late not only has there been a change in demand and supply trends, but consumer preferences and desires are also changing, which has led to an eruption of innovative management practices. One of the critical issues facing this industry today is that of sustainability. Therefore, many hotel chains, particularly five-star hotels, have incorporated a number of green practices to reduce their carbon footprints. This in turn has a considerable effect on consumers' willingness to pay for their services.

This study aimed to explore the factors of consumer awareness, consumer attitude and willingness to pay premium that impact choice of sustainable 5-star hotels of Northern India. Based on the study aim, a quantitative research was conducted using survey of 447 customers or visitors of the chosen hotels. The questionnaire pertained to elements crucial for this research consisting list of important sustainable practices and how these practices are affecting their preference for the hotel chains. Data was gathered using a close-ended questionnaire from the customers of these hotels. KMO factor analysis method was applied to identify the most significant factors of consumer awareness; consumer attitude and willingness to pay premium that impact their choice of the sustainable five star hotels of Northern India.

Keywords: *consumer attitude, consumer awareness, willingness to pay, hotels, sustainability*

* Professor, Amity Business School, Amity University, Haryana

† Associate Professor, Department of Commerce, Bharati College, Delhi University

‡ Assistant Professor, Amity College of Commerce, Amity University, Haryana, email: shikhabhardwaj2008@gmail.com

Introduction

India is a large market for tourism for both domestic as well as international tourists with northern India at the helm of this phenomenon (Hall et al., 2019; Mohsin & Lockyer, 2010). This region is experiencing a rapid pace of growth in tourism, but the negative effect has been significant consumption of resource and waste generation and management. As a subsector, accommodation and lodging contribute as second highest greenhouse gas emission after transport. Also, this sector needs many resources such as land, water and energy that also create waste of food, water and other wastes. Thus, there is growing attention towards consumer, manager, staff and owner's behaviour, awareness, attitude as well as practices towards sustainability in this industry (Hall et al., 2016). This study presents three aspects of choice of sustainable hotels; consumer attitude, awareness and willingness to pay premium for sustainable five-star hotels in Northern India.

Global agreement on the acknowledgment of the idea of sustainable development incepted at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil in 1992, at which the delegates of every single world nation marked a statement of its reception. This demonstration regulated the idea of manageable advancement and set the reason for another sort of collaboration among nations at the worldwide level that depends on regular interests, common needs and shared duty (Lee, 2013). Sustainable development addresses the economic, social and environmental issues without compromising these conditions for the future generations. It aims to encourage effective and minimal utilisation of earth's limited resources in order to meet the present and future needs (Miller, Rathouse, Scarles, Holmes, & Tribe, 2010). The connection between the tourism industry and sustainable development is more than evident because of following two actualities: the tourism industry is one of the most dominant ventures on the planet and the fundamental "assets" that it utilizes in its advancement are the most excellent common, social and chronicled puts on the planet. In this way, the portion of the tourism industry in worldwide financial and business patterns is amazingly high, just as its effect on the state and personal satisfaction in neighbourhood networks that are utilized as visitor regions (Amir, Ghapar, Jamal, & Ahmad, 2015; Miller et al.,

2010). Mass the tourism industry often considerably imperils or devastates the normal living space, dirties water or soil, produces unreasonable clamour, deficiently reacts to the necessities of the nearby populace and weakens their personal satisfaction since it doesn't consider the particulars of their custom, culture, religion (Amir et al., 2015; Choi & Sirakaya, 2006). For that reason, sustainable tourism has been promoted by the United Nations under Agenda 21 of Chapter 4 (United Nations, 2017).

The tourism industry is one of the quickest developing enterprises with a yearly normal development rate about 5%, and quantities of global tourism may almost twofold until 2020 contrasted with 2015. Having encountered a development of 25 % on a normal consistently, the tourism industry today represents 10 % of the world's financial movement and is one of the fundamental generators of business (Doganer, 2017; UNESCO, 2009). It is a great source for trade income for some developing nations. The tourism industry positions about sixth in universal economic rank after petroleum and gas, media communications, automobiles, and agribusiness. It is an industry which is bound to a geographical location and different businesses for the most part rely upon normal assets or potentially benefits. Besides the tourism industry relies upon conventions, culture, historical monuments, environment and natural sceneries (Lee, 2013). These highlights are fused into the tourism industry organizations winding up some portion of the tourism industry. This makes a cross-sectoral, dynamic way to deal with the tourism industry with a relating the executives pattern. The tourism industry can be a rewarding wellspring of income for a goal, however it can likewise have significant negative effects on it. These effects are physical, yet additionally social. The effects fluctuate as indicated by the number and the idea of voyagers just as the attributes of the site at which the tourism industry exercises occur (Doganer, 2017; United Nations, 2017). These negative effects must be overseen successfully on the off chance that they have been recognized, estimated and assessed (Doganer, 2017).

Ecological effects of the tourism industry happen at the neighbourhood, territorial and worldwide level (Sutawa, 2012). Environmental change and the consumption of the ozone layer are two civic chairman impacts of the expanding worldwide traffic and mechanical advancement, in which the

tourism industry assumes a significant job. Ecological effect that basically have consequences on the community additionally impact the earth comprehensively over the long period (Choi & Sirakaya, 2006; Miller et al., 2010). Fundamentally, loss of natural assorted variety is a noteworthy outcome of these effects. Socio-social effects of the tourism industry are regularly difficult to distinguish or to gauge and a subject of individual worth decisions (Janusz & Bajdor, 2013). The tourism industry realizes changes in worth frameworks and conduct of the individuals and cause changes in the structure of networks, family connections, aggregate customary ways of life, functions and ethical quality (Angelkova, Koteski, Jakovlev, & Mitrevska, 2012; Janusz & Bajdor, 2013). The equivocalness of socio-social effects is because of the way that tourism industry may have impacts that are helpful for one gathering of a general public, however which are negative for another. Because of the component of the tourism industry and on the grounds that tourism industry is connected so basically to characteristic regions; it is one of the significant dangers to biodiversity and common assets around the world (Amir et al., 2015; Doganer, 2017; Lee, 2013). Therefore, there is an imminent need for the development of various international organizations and national policies with definitions, principles, charters, codes and criteria for sustainability in tourism.

In India, the obligation of the hotels has been given to the Hotel and Restaurant Approval Classification Committee (HRACC) which is a focal government board of trustees to check and assessing the hotels based on various offices and administrations offered by them. Hotel properties like Jaypee Hotel (Mussoorie), Hotel Arif Castles (Nainital), Claridges Nabha (Mussoorie), Naini Retreat (Nainital) in Uttarakhand follow eco-friendly practices as does other hotel properties in India (Aggarwal, 2015). ITC India which is one of the most prominent global hotel chain operators has started "Welcom Environ" initiative for the purpose of supporting issues related to environment in its workplace. This initiative has been prepared on the basis of policies which are environmentally friendly by using the principles of recycling, reusing and reducing (ITC, 2012). The hotel group also promotes awareness of the general public regarding environmentally friendly practices, making their employees more sensitive towards environment and endeavours to conserve energy by utilizing materials and technology which

are eco-friendly. Taj is another of the loftiest lodgings known for its legacy around the world. The Taj Group has begun its condition agreeable activity called the EARTH which is an Environment Awareness and Renewal Program (IHCL, 2019). The program EARTH started as a cognizant exertion to spare vitality and create condition cordial reasonable business systems and has now been officially received over the entirety of its properties (Mittal & Dhar, 2016). The Raintree Hotels, Chennai have remembered condition neighbourly practice while development of the lodging. For instance the lodging has been assembled utilizing medium thickness fiber, bamboo and elastic wood. In addition the concrete utilized in development of the inn has a level of fly fiery debris. The inn has introduced an imaginative flushing framework called “George Fisher Concealed Cistern” which uses just six litres of water for each flush when contrasted with conventional flushing framework which utilize 15-20 litres (Singhal, Deepak, & Marwaha, 2018). The water utilized in the inn is reused and reused in cooling. Curiously the warmth produced through cooling is again used to warm water for restrooms and kitchen.

The main aim of the study is to explore the factors driving the choice of green hotels or adopting sustainable practices in the hotels industry of Northern India, based on the factors of consumer awareness, consumer attitude and willingness to pay premium.

Literature review

Consumer attitude talks about the perspective of the consumer regarding sustainability- the environmental policies and practices of 5-star hotels in North India (Hall et al., 2016). Consumers' act of purchasing a good or not, their decisions of selecting a particular brand, the psychology of the consumer is thus described by consumer behavior (Ajzen, Amherst, & Amherst, 2014). Since a business can grow only by satisfying its customers', it is important to study consumer attitude and behavior towards the business, their policies, new implementations and work according to their needs and wants (Manaktola & Jauhari, 2007). Sustainability refers to “the development that meets the need of the present without compromising the ability of the future generation to meet their needs” (Ritchie, 2002). Sustainable tourism is growing attention as to attract tourist, the resources

needs to be used efficiently. For the long run attraction of the tourist places, it needs to be clean and sustainable. Since, the expansion of tourism activities in unsustainable way can bring its own destruction; there arises the need to use sustainable measures in tourism.

Sustainable tourism is important and need of the hour (Ritchie & Crouch, 2013). How the consumer behaves regarding this is gaining importance for the researchers. In this paper, consumer behavior is studied for their decision of going to sustainable five-star hotels or not. If sustainability in hotels seems to be a need or not and if they are expensive. Studying consumer attitude is important. People have become more responsible for the environment and make purchases that are good for them as well as their future generations (Punitha, Abdul Aziz, & Abd Rahman, 2016). But on the other hand, research shows feeling of disempowerment and unwillingness in the change of tourism behavior among consumers (Punitha et al., 2016). Consumer research has examined inconsistencies in behavioural decisions from a goal management perspective (Szmigin, Carrigan, & Mc Eachern, 2009). Consumer attitude depends on the psychology of the consumer which varies person to person. Hence research is still going on the percentage of people favoring sustainable tourism and who are still feeling it is unnecessary (Fraj & Martinez, 2007).

Consumers must be aware about the pollution, harm, greenhouse gas emissions and destruction caused by the hotels to the environment (Punitha et al., 2016). People are becoming more aware of the damages caused by hotels on the environment. This awareness is being generated through radio stations, internet advertisements, television advertisements, social media sites, magazines and many more. As a result, more guests have started looking for hotels following practices to protect the environment. Creating more awareness can become a great marketing strategy for the green hotels. This can help the hotels to position it distinctively in the market and earn higher profits (Manaktola & Jauhari, 2007). But still the limitation of green marketing is lack of standards or public consensus about what constitutes green (Punitha et al., 2016). Hence, there needs to be more research as well as the awareness regarding the sustainable tourism, its standards and the best policies to protect the environment. There are various factors that affect the

extent of consumer awareness. Education level is one such factor (Manaktola & Jauhari, 2007). Green advertising is an important source of creating awareness among people (Punitha et al., 2016).

Willingness to pay refers to the consumer's wish to pay premium for accommodating in green hotels. Premium is the extra payment charged by hotels for use of renewable source of energy. Ethical consumer behavior can be seen through their willingness (Hall et al., 2016). Their concern for the environment along with various other factors can affect an individual's willingness to pay. It is an important aspect to research upon after researching about the behavior and attitude of the consumers as this aspect will help the green hotels to earn profit as well as improve and become more sustainable (Han, Hsu, & Lee, 2009; Hedlund, 2011).

There are various factors that affect consumer's willingness to pay for renewable source of energy in hotels (Kostakis & Sardianou, 2012). Middle-aged people and men will prefer paying a premium for lodging in a green hotel. Experience, environmental awareness, intentions and overall image of the hotel also affect the consumer's willingness to pay for renewable sources. If policies are implemented by the government for use of sustainable practices, this can increase consumer's acceptance towards green hotels and lead to adoption of sustainable lifestyle in general. People with high incomes prefer green hotels over lower income groups (Birdir, Ünal, Birdir, & Williams, 2013). Thus, demographic factors, economic variables, information disseminations and experience are major factors regarding a consumer's willingness to pay a premium for sustainable hotels along with their positive attitude and responsibility of protecting the environment.

Research Methodology

Research design

This study aims to conduct a factor analysis of the relatively unexplored consumer side of the sustainability issues in the five star hotels for the identified factors of consumer awareness, their attitude, willingness to pay premium. Based on the empirical design of the study, a deductive approach was adopted, that resorted to hypothesis testing. A closed-ended structured quantitative questionnaire was developed. The target participants were

asked about their perspectives on consumer awareness, consumer attitude, willingness to pay premium towards five star hotels regarding sustainable practices. The data was therefore collected using a survey strategy where the survey was of quantitative nature.

Data collection and sample size

For the current study, the population was the customers of five star hotels situated in the northern India. For this purpose, the researcher personally reached out to the consumers by travelling to a few of the five star hotels located in Delhi NCR and gathered a data of 500 consumers who visited these hotels for the factor analysis. A purposive sampling technique was used to constitute the sample so that only a specific section of the customers visiting and dining in the targeted hotels would be selected in the sample. A closed-ended and structured questionnaire was developed for the study purpose. Each questionnaire was divided into four sections. In the first section, questions were framed to gather data on the demographic profile of the respondents. The second section consisted questions on the general background of the survey participants and their frequency to visit and dine in five star hotels. The third and fourth sections of the questionnaire comprised Likert scale questions which were developed to collect data needed to test the relationship between the dependent and the independent variables of the study, or in other words, for hypothesis testing. These Likert scale questions asked the respondents to inform their choices on a 5 point scale (strongly disagree (SD) =1, disagree (D) =2, Neither agree nor Disagree (N) =3, agree (A) =4, strongly agree (SA) =5) about various sustainable practices followed by these hotels.

Data analysis methods and tools

Descriptive analysis included frequency analysis and measures of central tendency such as mean and standard deviations. The inferential analysis helped to draw inferences from statistical tests of the data collected from the respondents and deductions about the set of population comprised of factor analysis and KMO barlett test. Using the KMO barlett test, the study found out the most important factors of consumer awareness, consumer attitude

and their willingness to pay regarding sustainable practices. However, to conduct the tests, SPSS v23 was used.

Data Analysis

This section of the study presents the results of the data analysis in order to examine the consumer attitude, awareness and the willingness to pay for the sustainable practices in the five-star hotels in Northern India. The data for the variables were collected through personal surveys and Google forms collected from 447 respondents. The information was extracted using a set of 114 closed-ended questions. The study used exploratory factor analysis method in order to examine the relationship among the variables. Initially the study presents the descriptive statistics of demographic profile and the descriptive statistics of the chosen factors by presenting their mean, standard error, t statistics, p-value and the frequency distribution. Following this, the study presents the results of Kaiser Meyer Olkin and Barlett’s test which is used for measuring the strength of the relationship among the variables. Subsequently, the researcher highlights the results of communalities in order to examine whether the variables that have been accounted for by the extracted variables. Lastly, the researcher uses the rotation component matrix in order to reduce the factors on which the variables used under the investigation have a high level of factor loadings.

Descriptive Analysis

Demographic profile

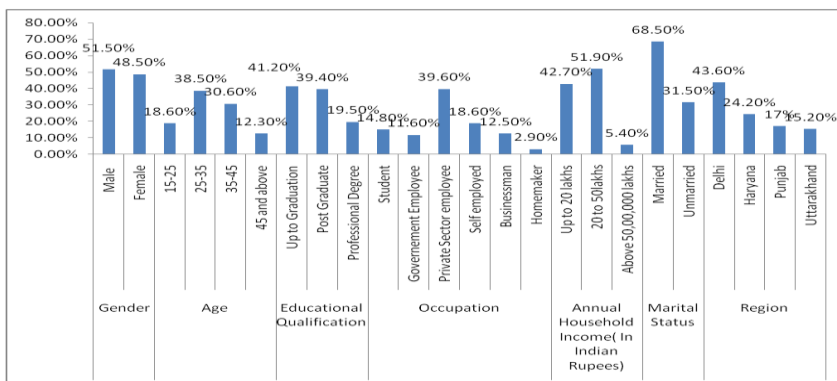


Figure 1: Demographic Profile

The above figure highlights the demographic profile of the respondents. The figure clearly indicates that out of 447 respondents, about 51% are males and the rest are females. In terms of age distribution, majorly about 39% of respondents belonged to the age group of 25-35 years. In terms of educational qualification, about 42% of respondents were graduated. In addition to this, in terms of occupation, about 40% of respondents were the private sector employees. In terms of annual household income, about 52% of respondents had an annual household income between 20 lakh to 50 lakhs. Further, about 69% of respondents are married and about 44% belonged to the Delhi region. Overall, it can be said that most of the respondents were young, graduated and worked as a private sector employee. Further, most of the respondents were married and belonged to the Delhi region.

Descriptive statistics regarding various sustainable practices followed by five star hotels

The results indicate that the average for all the statements is greater than 3 indicating positive perception among the respondents regarding the sustainable practices adopted by the five-star hotels in the northern region of India. And also it is greater than 4 in the statements AS9 and H10 indicating their awareness regarding use of solar panels by five star hotels and their willingness to contribute for the planet earth. Further, the results of the t statistic indicate that except AS7, AS8, H24, H25 and W12 all the variables are significant with the average score of less than or equal to three. This indicates the perception regarding the practices on adoption of the waste recycling policy and carbon footprints of the hotel restaurants on the environment. Also the consumers believe that sustainable practices adopted by the hotels can help in protecting the environment and also perceive sustainable non sustainable hotels different and hold the opinion that paying premium is a not a wastage of money. On the other hand, more than 45% of the respondents as stated statements AS2 and AS4 are highly aware of the practices of the recycling bin and the use of motion detectors for lights in the rooms. Also more than 55 % of the respondents in statements H1 and H2 Believe that selecting sustainable hotels are healthier for them but also holds the opinion that they are more expensive in comparison to non-sustainable hotels. Also, more than 50% of the respondents as stated in the

statementsW12believe that their willingness to pay extra depends on their environmental concern and also on their moral reflectiveness.

Table 1: Descriptive analysis of the various sustainable practices

Indicators	Count	Mean	Standard Error of Mean	t-statistics	P-value	Frequency (%)				
						Very Low	Low	Average	High	Very high
AS1	447	3.51	.050	10.217	.000**	6.5%	9.6%	24.8%	44.1%	15.0%
AS2	447	3.89	.051	17.484	.000**	5.6%	5.6%	13.4%	45.2%	30.2%
AS3	447	3.70	.050	13.924	.000**	5.4%	7.8%	20.4%	44.1%	22.4%
AS4	447	3.78	.050	15.718	.000**	4.9%	6.7%	18.6%	45.2%	24.6%
AS5	447	3.82	.052	15.921	.000**	4.9%	7.2%	19.0%	38.5%	30.4%
AS6	447	3.89	.048	18.362	.000**	4.3%	5.4%	16.8%	44.5%	29.1%
AS7	447	2.98	.058	-2.269	.788	10.7%	29.8%	24.4%	20.6%	14.5%
AS8	447	2.86	.056	-2.442	.015	11.0%	32.7%	27.3%	17.2%	11.9%
AS9	447	3.99	.053	18.742	.000**	5.6%	5.1%	13.6%	36.0%	39.6%
AS10	447	3.74	.053	13.926	.000**	5.8%	7.4%	21.9%	37.1%	27.7%
AS11	447	3.85	.052	16.290	.000**	5.1%	7.2%	17.0%	38.9%	31.8%
AS12	447	3.99	.053	18.692	.000**	5.1%	5.8%	15.0%	32.7%	41.4%
AS13	447	3.93	.053	17.665	.000**	5.4%	6.0%	15.4%	36.2%	36.9%
AS14	447	3.71	.053	13.426	.000**	5.8%	8.5%	20.6%	39.1%	26.0%
AS15	447	3.79	.051	15.355	.000**	4.5%	8.3%	19.7%	39.4%	28.2%
AS16	447	3.94	.051	18.576	.000**	4.5%	5.6%	16.8%	37.6%	35.6%

Indicators	Count	Mean	Standard Error of Mean	t-statistics	P-value	Frequency (%)				
						Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
H1	447	3.87	.046	18.687	.000**	4.9%	7.4%	4.9%	55.0%	27.7%
H2	447	3.46	.046	10.148	.000**	2.7%	4.9%	6.5%	55.9%	30.0%
H3	447	3.74	.046	15.946	.000**	1.8%	6.3%	6.9%	53.7%	31.3%
H4	447	3.84	.043	19.533	.000**	1.8%	10.3%	8.9%	51.9%	27.1%
H5	447	3.91	.041	22.165	.000**	2.5%	9.6%	8.3%	51.5%	28.2%
H6	447	3.76	.042	17.934	.000**	4.3%	12.3%	10.5%	52.1%	20.8%
H7	447	3.33	.052	6.321	.000**	7.6%	12.8%	33.1%	32.0%	14.5%
H8	447	3.82	.046	17.980	.000**	3.4%	4.5%	23.5%	44.1%	24.6%
H9	447	3.48	.056	8.573	.000**	8.1%	13.4%	21.0%	37.4%	20.1%
H10	447	4.08	.047	22.973	.000**	3.4%	4.3%	12.5%	41.2%	38.7%
H11	447	3.71	.048	14.803	.000**	4.9%	5.8%	23.3%	45.0%	21.0%
H12	447	3.79	.046	17.322	.000**	2.9%	6.9%	21.0%	46.1%	23.0%
H13	447	3.49	.047	10.385	.000**	3.8%	11.2%	31.8%	38.7%	14.5%
H14	447	3.85	.049	17.336	.000**	4.3%	5.1%	21.0%	40.9%	28.6%
H15	447	3.63	.049	12.910	.000**	4.5%	7.8%	28.2%	39.1%	20.4%
H16	447	3.72	.047	15.388	.000**	3.4%	7.6%	23.9%	43.6%	21.5%
H17	447	3.86	.045	18.921	.000**	3.4%	4.0%	21.7%	45.4%	25.5%
H18	447	3.65	.045	14.344	.000*8	3.8%	5.4%	30.4%	43.0%	17.4%
H19	447	3.61	.047	12.916	.000**	4.5%	6.0%	31.8%	39.6%	18.1%
H20	447	3.67	.048	14.054	.000**	4.3%	7.4%	25.1%	43.6%	19.7%
H21	447	3.78	.046	16.840	.000**	4.0%	4.3%	24.2%	45.2%	22.4%
H22	447	3.78	.047	16.440	.000**	4.3%	5.1%	22.6%	44.5%	23.5%
H23	447	3.87	.047	18.664	.000**	3.6%	4.9%	19.5%	45.2%	26.8%
H24	447	2.92	.060	-1.316	.189	14.1%	26.8%	26.0%	19.0%	14.1%
H25	447	2.95	.058	-.888	.375	12.1%	28.4%	25.1%	21.5%	13.0%
H26	447	3.61	.046	13.095	.000**	4.7%	5.8%	29.8%	43.4%	16.3%
H27	447	3.53	.047	11.391	.000**	4.0%	9.6%	30.2%	41.2%	15.0%
H28	447	3.91	.047	19.263	.000**	2.9%	5.6%	20.4%	40.0%	31.1%
H29	447	3.43	.049	8.616	.000**	5.1%	12.8%	30.4%	37.8%	13.9%
H30	447	3.48	.049	9.827	.000**	4.7%	10.7%	32.4%	36.0%	16.1%

Indicators	Count	Mean	Standard Error of Mean	t-statistics	P-value	Frequency (%)				
						Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
H1	447	3.87	.046	18.687	.000**	4.9%	7.4%	4.9%	55.0%	27.7%
H2	447	3.46	.046	10.148	.000**	2.7%	4.9%	6.5%	55.9%	30.0%
H3	447	3.74	.046	15.946	.000**	1.8%	6.3%	6.9%	53.7%	31.3%
H4	447	3.84	.043	19.533	.000**	1.8%	10.3%	8.9%	51.9%	27.1%
H5	447	3.91	.041	22.165	.000**	2.5%	9.6%	8.3%	51.5%	28.2%
H6	447	3.76	.042	17.934	.000**	4.3%	12.3%	10.5%	52.1%	20.8%
H7	447	3.33	.052	6.321	.000**	7.6%	12.8%	33.1%	32.0%	14.5%
H8	447	3.82	.046	17.980	.000**	3.4%	4.5%	23.5%	44.1%	24.6%
H9	447	3.48	.056	8.573	.000**	8.1%	13.4%	21.0%	37.4%	20.1%
H10	447	4.08	.047	22.973	.000**	3.4%	4.3%	12.5%	41.2%	38.7%
H11	447	3.71	.048	14.803	.000**	4.9%	5.8%	23.3%	45.0%	21.0%
H12	447	3.79	.046	17.322	.000**	2.9%	6.9%	21.0%	46.1%	23.0%
H13	447	3.49	.047	10.385	.000**	3.8%	11.2%	31.8%	38.7%	14.5%
H14	447	3.85	.049	17.336	.000**	4.3%	5.1%	21.0%	40.9%	28.6%
H15	447	3.63	.049	12.910	.000**	4.5%	7.8%	28.2%	39.1%	20.4%
H16	447	3.72	.047	15.388	.000**	3.4%	7.6%	23.9%	43.6%	21.5%
H17	447	3.86	.045	18.921	.000**	3.4%	4.0%	21.7%	45.4%	25.5%
H18	447	3.65	.045	14.344	.000*8	3.8%	5.4%	30.4%	43.0%	17.4%
H19	447	3.61	.047	12.916	.000**	4.5%	6.0%	31.8%	39.6%	18.1%
H20	447	3.67	.048	14.054	.000**	4.3%	7.4%	25.1%	43.6%	19.7%
H21	447	3.78	.046	16.840	.000**	4.0%	4.3%	24.2%	45.2%	22.4%
H22	447	3.78	.047	16.440	.000**	4.3%	5.1%	22.6%	44.5%	23.5%
H23	447	3.87	.047	18.664	.000**	3.6%	4.9%	19.5%	45.2%	26.8%
H24	447	2.92	.060	-1.316	.189	14.1%	26.8%	26.0%	19.0%	14.1%
H25	447	2.95	.058	-.888	.375	12.1%	28.4%	25.1%	21.5%	13.0%
H26	447	3.61	.046	13.095	.000**	4.7%	5.8%	29.8%	43.4%	16.3%
H27	447	3.53	.047	11.391	.000**	4.0%	9.6%	30.2%	41.2%	15.0%
H28	447	3.91	.047	19.263	.000**	2.9%	5.6%	20.4%	40.0%	31.1%
H29	447	3.43	.049	8.616	.000**	5.1%	12.8%	30.4%	37.8%	13.9%
H30	447	3.48	.049	9.827	.000**	4.7%	10.7%	32.4%	36.0%	16.1%

Indicators	Count	Mean	Standard Error of Mean	t-statistics	P-value	Frequency (%)				
						Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
W1	447	3.59	.048	12.343	.000**	5.4%	7.6%	25.1%	46.3%	15.7%
W2	447	3.80	.043	18.376	.000**	2.9%	5.6%	19.9%	52.1%	19.5%
W3	447	3.74	.045	16.557	.000**	4.0%	4.7%	22.6%	50.8%	17.9%
W4	447	3.77	.044	17.471	.000**	3.4%	4.5%	23.7%	49.2%	19.2%
W5	447	3.71	.044	16.030	.000**	3.6%	5.4%	24.8%	49.0%	17.2%
W6	447	3.77	.043	17.802	.000	2.7%	6.5%	20.4%	51.9%	18.6%
W7	447	3.47	.047	10.147	.000	4.3%	10.3%	32.2%	40.5%	12.8%
W8	447	3.48	.046	10.463	.000	2.5%	13.0%	32.4%	38.7%	13.4%
W9	447	3.72	.048	14.910	.000	4.7%	5.4%	25.5%	42.3%	22.1%
W10	447	3.52	.048	10.857	.000	4.0%	10.1%	32.4%	36.7%	16.8%
W11	447	3.40	.047	8.363	.000	5.1%	10.5%	36.0%	36.2%	12.1%
W12	447	2.80	.051	-3.852	.000	12.3%	26.8%	35.3%	19.2%	6.3%
W13	447	3.44	.047	9.354	.000	3.6%	12.5%	33.8%	36.7%	13.4%
W14	447	3.54	.046	11.698	.000	3.8%	8.9%	31.5%	40.7%	15.0%
W15	447	3.69	.047	14.551	.000	2.7%	9.4%	26.0%	40.5%	21.5%

KMO and Bartlett's Test

In order to understand the consumer's attitude, awareness and the extent of willingness to pay for the sustainable practices, the study has conducted factor analysis. The results of the KMO and Bartlett's test are shown in the table below. The results clearly indicate that the value for KMO is 0.959 which is higher than the minimum required level of 0.6. This means that the sampling plan used by the researcher is adequate. Any value of KMO which is less than 0.6 is considered to be unacceptable as the low value of KMO indicates that the correlations are widely distributed. The KMO shows that the samples are adequate and is acceptable as the value is .959. Bartlett test is used for defining the extent of the relationship among the variables. In this statistical test, the correlation matrix is considered to be equal to the identity matrix under the null hypothesis. The results of the Bartlett test indicate that the significance value of p is less than 0.05, it is equal to 0.000. This means that the null hypothesis is rejected. Table 4: KMO and Bartlett's Test stating that the correlation matrix is significantly different from the identity matrix.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.959
Bartlett's Test of Sphericity	Approx. Chi-Square	23559.486
	df	1830
	Sig.	.000

Communalities

The communalities table describes the variance of each variable that can be explained by the other factors. It is defined as the sum of the squared factor loadings of the variables. It is the squared multiple correlations between the item and all other items. Principal axis factoring method is used for extracting the variables for further analysis. For the variable to be considered for further analysis, the communality value must be greater than the threshold level of 0.5. In this context, the table shown below highlights the extracted values for the variables representing different sources of creating awareness regarding the sustainable practices represented from AS1 to AS16. In addition to this, the indicators for selecting sustainable practices are represented by HS 1 to HS30. Further, the factors affecting the willingness to pay are represented by the variables W1 to W15. The results indicate that all the variables have an extraction value of more than 0.5 and none of the variables are removed for further analysis.

Table 5: Communalities

	Extraction		Extraction
AS1	.566	H15	.749
AS2	.743	H16	.649
AS3	.657	H17	.700
AS4	.665	H18	.641
AS5	.699	H19	.681
AS6	.711	H20	.731
AS7	.934	H21	.793
AS8	.932	H22	.730
AS9	.745	H23	.691
AS10	.698	H24	.694
AS11	.762	H25	.771

AS12	.810	H26	.706
AS13	.700	H27	.659
AS14	.699	H28	.718
AS15	.670	H29	.664
AS16	.727	H30	.644
H1	.679	W1	.729
H2	.654	W2	.795
H3	.685	W3	.832
H4	.718	W4	.824
H5	.768	W5	.743
H6	.711	W6	.779
H7	.643	W7	.718
H8	.688	W8	.775
H9	.567	W9	.703
H10	.667	W10	.681
H11	.611	W11	.627
H12	.698	W12	.619
H13	.743	W13	.646
H14	.710	W14	.651
		W15	.569

Rotated component matrix

The table shown below presents the results of the rotated component matrix. This matrix helps in forming the link between consumer awareness, attitude and the willingness to pay. The table helps the researcher in examining which factors are more important. The factor loading is the correlation values between the variables and the factors. The correlation values for all the factor loadings lie between 1 and -1. The values shown for components 1, 2 and 3 will be used for further analysis and values in components 4-9 have higher loadings. Therefore, 14 variables will be used for consumer awareness, 16 variables from consumer attitudes and 10 variables from the willingness to pay will be used. The codes highlighted will be used for further analysis.

Table 6: Rotated Component Matrix

	Component								
	1	2	3	4	5	6	7	8	9
AS1	.688								
AS2	.805								
AS3	.761								
AS4	.785								
AS5	.788								
AS6	.806								
AS7							.925		
AS8							.934		
AS9	.808								
AS10	.799								
AS11	.841								
AS12	.871								
AS13	.804								
AS14	.807								
AS15	.787								
AS16	.823								
H1				.608					
H2								.679	
H3				.690					
H4				.690					
H5				.720					
H6				.694					
H7									
H8				.639					
H9									
H10		.666							
H11		.613							
H12		.728							
H13		.664							
H14		.730							
H15		.761							
H16		.720							
H17		.718							
H18		.710							
H19		.740							
H20		.701							
H21		.720							
H22		.711							
H23		.626							
H24									
H25									
H26									
H27									
H28		.518							

H29					.549				
H30		.534							
W1			.722						
W2			.769						
W3			.815						
W4			.788						
W5			.749						
W6			.767						
W7			.591						
W8			.582					.520	
W9			.649						
W10			.560						
W11									
W12						-.658			
W13						.595			
W14									
W15									

Factors Explored

The rotation matrix of the factor analysis identified three major factors have been identified in this study that 14 out of 16 sustainable practices in the five-star hotels have been identified and are considered as **first factor representing consumer awareness** . These are statements from AS1 to AS6 and AS 9 to AS 16. Only AS 7 and AS8 were not identified and were deleted as they did not form the part of the factor.. This means that the use of symbols, recycling bin, motion detectors, treated water cycled water, recyclable take-outs, solar panels, natural lights, prevention of tress, smoke free zones and the use of rainwater harvesting acts as the major sustainable practices.

In terms of the level of agreement or disagreement regarding advantages of sustainable practices, statements HS10 to HS23 were identified under the second factor and are named as consumer attitude. Further, HS28 and HS30 were also identified under the **second factor and is represented by consumer attitude**. This means consumer’s positive attitude towards word “green”, willingness to contribute to save planet earth, keeping enough information about sustainable hotels, following the family and friends and would like to protect them , nearby location of sustainable hotels, their willingness to participate in the green movement ,seeking information from employees and staff on sustainable practices, considering response and

opinion of people, relying on environmental certifications, considering deterioration of environment as serious issue acts as the major Factors leading to Consumer attitude.

Also in the case of statements from W1 to W10 were identified under the **third factor and is represented as willingness to pay extra**. This means the consumers' willingness extra depends on their behaviours, environmental concern, moral reflectiveness, sustainable practices, constraint of tight budget, keeping price as the first factor, believe in subsidized prices for the sustainable practices acts as the major factors leading to consumers' willingness to pay extra.

This implies that the sustainable practices can be based on these factors and these factors may lead to better adoption of the sustainable practices in five star hotels if handled efficiently and effectively.

In terms of willingness to pay extra, W1 to W10 were identified under the third factor. In this regard, the study of (Kang, Stein, Heo, & Lee, 2012) focused on the fact that there exist a strong relationship between the consumer's attitude towards the green behaviour, their perception regarding the level of services offered. The study of Verma and Chandra (2016) also stated that the green strategies adopted by the five-star hotels effects the consumer's willingness to pay for the sustainable practices.

Conclusion

The survey showed that 14 factors for consumer awareness, 16 factors for consumer attitude and 10 factors for willingness to pay premium were the most significant aspects that impact the choice of sustainable hotels in India. These are the use of symbols, low flow restrictors, motion detectors, treated cycled water, recyclable takeouts, waste recycling policy, carbon footprints, solar panels, locally grown food, natural source used for light, plantation of trees, smoke free zones, refillable amenities, paper straws and rain water harvesting. As regards customer attitudes, the results indicate that the consumers choose the five-star hotels on the basis of green certification, based on the recommendations of the family members and friends. Further, the consumers give more preference to the hotels on the basis of

geographical location, reputed brands and information. Finally, the aspect of willingness to pay extra for services in a hotel implementing sustainable practices was analysed, wherein it was found that elements like energy savings techniques used in the rooms, organically grown food used in preparing food for the guests, towel reuse programme, refillable shampoo containers in rooms etc. are acknowledged by the customers positively.

The concept of sustainable development is gaining importance in the tourism industry worldwide. Due to this, the five-star hotels have also started adopting sustainability practices in order to make the wide impact on the perception of the consumers. In contrast to the traditional times, the consumers in the modern era are more aware of the sustainability issues. These consumers are more concerned towards the air and water quality. The adoption of sustainable practices by the five-star hotels can improve their reputation which can in turn improve the financial performance of the firm. The hotel industry can also play a major role in creating awareness among the consumers using different sources. This includes the use of symbols, low flow restrictors, motion detectors, treated recycled water, recyclable takeouts, waste recycling policy, carbon footprints, solar panels, locally grown food, natural source used for light, plantation of trees, smoke free zones, refillable amenities, paper straws and rain water harvesting

Apart from the sources, the researcher examined the consumer attitude towards the sustainable hotels in Northern India. The literature review highlighted that the attitude of the consumer is built by the level of personal experience of staying in green fields and the services they receive. The consumers often have positive attitude towards implementing the sustainable practices in the hotels. Thus, there exist a positive relationship between the consumer's attitude and the choosing the green hotels. In this context, the present study examined the consumer's perception towards the different advantages of adopting sustainable practices by the five-star hotels. The results indicate that the consumers choose the five-star hotels on the basis of green certification, based on the recommendations of the family members and friends. Further, the consumers give more preference to the hotels on the basis of geographical location, reputed brands and information.

The willingness to pay extra also impacts the consumer's perspective to choose the sustainable hotels in Northern India. The literature review highlighted that the consumer's beliefs on adopting the eco-friendly ways did not coincide with the willingness to pay for the products in the sustainable hotel. In the current study, the aspect of willingness to pay extra for services in a hotel implementing sustainable practices has been analyzed on the basis of elements like energy savings techniques used in the rooms, organically grown food used in preparing food for the guests, towel reuse programme, refillable shampoo containers in rooms etc. This is further analyzed with respect to customer's environmental concern, moral effectiveness, consciousness, image of the Hotels, price comparisons between sustainable and other hotels available in the area etc.

Limitations and Scope of Future research

The present study focused upon the impact of adopting the sustainability practices on the consumer's perception and willingness to pay. The study examined the impact of adopting the sustainable practices only from the perspective of the consumers. However, adoption of sustainable practices requires use of advanced technological inputs that requires huge investment which can negatively affect the profitability of the hotels. The study doesn't consider the affect of using such practices on the profitability of the five-star hotels which limits the scope of the present study. In this context; the future research must be conducted to examine the impact of adopting sustainable practices on the profitability and the business operations of the five-star hotels. Apart from this, the study targeted only the five-star hotels in Northern India. Future research must be conducted in order to examine the impact of adoption of sustainability practices in the five star hotels functional all across India.

Recommendations

Below mentioned recommendations can be adopted in order to examine the consumer's attitude, behaviour and willingness to pay for the sustainable practices.

Policy recommendations

- Promoting Green construction: The five-star hotels in some in countries like Netherlands and Canada have adopted a green construction policy wherein the hotel is build using environment friendly construction material. Likewise, the Rain tree hotels in Chennai have used environment friendly methods for the construction of hotels. These hotels have been built up using the medium density fiver, bamboo and the rubber wood material. In addition to this, the hotel has installed an innovative flushing system that minimizes the use of water per flush. The water used in the hotel is recycled through air conditioning. In this context, the Indian government must frame mandatory regulations for the five-star hotels to adopt the use of such systems which minimizes wastage and promotes sustainability.
- Sustainability certification: The government in Bulgaria has farmed incentives for the tourist's accommodations to obtain sustainability certifications wherein the hotels or guests houses are offered tax rebates on meeting the minimum standards for sustainable practices. These sustainable practices are audited by the government officials and a sustainability report card is framed for the five star hotels. In the similar context, the Indian government can also offer incentives in the form of tax rebates. Further, the government must monitor the use of such sustainable practices by publishing the sustainability report for five star hotels.
- Greater Awareness - Some of the luxurious five-star hotels in USA like Hotel South Beach have adopted a range of sustainable practices including the wood key cards, glasses made of custom wide bottles and the reusable socks rather than the use of slippers and the use of organic cotton sheets. This has reduced their operating cost. In addition to this, the hotel has developed a unique reputation for following the sustainable practices. However, one of the major problems is that there is lack of awareness regarding the adoption and use of such sustainability. The government can create awareness among the five-star hotels in the Northern Region of India that regarding the adoption of such practices which would not only build their unique image but also reduced the cost of operating.

- A more detailed study should be done on assessing the importance of the sustainable practices.
- The impact of Demographic factors on the factors can be studied in more in detail.
- More detailed study can be done on consumer awareness, consumer attitude and willingness to pay extra.
- Personal observation interviews with the hotel employees and managers can be done to get the in depth knowledge of implementation of the sustainable.
- There is also a need for stringent policy laws and actions to implicated by the government to restrict the undue use of natural resources.

References

1. Aggarwal, N. (2015). GREEN PRACTICES IN THE HOSPITALITY INDUSTRY: CASE STUDY OF DEHRADUN AND MUSSOORIE. *Scholarly Research Journal for Interdisciplinary Studies*, 3(18), 230–239.
2. Ajzen, I., Amherst, M., & Amherst, U. (2014). Consumer attitudes and behavior.
3. Amir, A. F., Ghapar, A. A., Jamal, S. A., & Ahmad, K. N. (2015). Sustainable Tourism Development: A Study on Community Resilience for Rural Tourism in Malaysia. *Procedia - Social and Behavioral Sciences*. <https://doi.org/10.1016/j.sbspro.2014.10.217>
4. Angelkova, T., Koteski, C., Jakovlev, Z., & Mitrevska, E. (2012). Sustainability and Competitiveness of Tourism. *Procedia - Social and Behavioral Sciences*. <https://doi.org/10.1016/j.sbspro.2012.05.023>
5. Birdir, S., Ünal, Ö., Birdir, K., & Williams, A. T. (2013). Willingness to pay as an economic instrument for coastal tourism management: Cases from Mersin, Turkey. *Tourism Management*, 36, 279–283. <https://doi.org/10.1016/j.tourman.2012.10.020>
6. Choi, H. S. C., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2005.05.018>
7. Doganer, S. (2017). Architectural design studio on sustainable tourism alternatives in the San Antonio Missions Historic District. *Tourism and Hospitality Research*. <https://doi.org/10.1177/1467358415602955>

8. Fraj, E., & Martinez, E. (2007). Ecological consumer behaviour: An empirical analysis. *International Journal of Consumer Studies*, 31(1), 26–33. <https://doi.org/10.1111/j.1470-6431.2006.00565.x>
9. Hall, C. M., Dayal, N., Majstorovic, D., Mills, H., Andrews, L. P., Wallace, C., & Truong, V. D. (2019). Accommodation Consumers and Providers' Attitudes, Behaviours and Practices for Sustainability: A Systematic Review. *Indian Brand Equity Foundation (IBEF)*, 1–5.
10. Hall, C. M., Dayal, N., Majstorović, D., Mills, H., Paul-Andrews, L., Wallace, C., & Truong, V. D. (2016). Accommodation consumers and providers' attitudes, behaviours and practices for sustainability: A systematic review. *Sustainability (Switzerland)*, 8(7), 1–30. <https://doi.org/10.3390/su8070625>
11. Han, H., Hsu, L. T. (Jane), & Lee, J. S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, 28(4), 519–528. <https://doi.org/10.1016/j.ijhm.2009.02.004>
12. Hedlund, T. (2011). The impact of values, environmental concern, and willingness to accept economic sacrifices to protect the environment on tourists' intentions to buy ecologically sustainable tourism alternatives. *Tourism and Hospitality Research*, 11(4), 278–288. <https://doi.org/10.1177/1467358411423330>
13. IHCL. (2019). Responsibility.
14. ITC. (2012). ITC celebrates 2nd Anniversary of the “National Recycling Day” For a cleaner and greener Chennai.
15. Janusz, G. K., & Bajdor, P. (2013). Towards to Sustainable Tourism – Framework, Activities and Dimensions. *Procedia Economics and Finance*. [https://doi.org/10.1016/s2212-5671\(13\)00170-6](https://doi.org/10.1016/s2212-5671(13)00170-6)
16. Kang, K. H., Stein, L., Heo, C. Y., & Lee, S. (2012). Consumers' willingness to pay for green initiatives of the hotel industry. *International Journal of Hospitality Management*, 31(2), 564–572. <https://doi.org/10.1016/j.ijhm.2011.08.001>
17. Kostakis, I., & Sardianou, E. (2012). Which factors affect the willingness of tourists to pay for renewable energy? *Renewable Energy*, 38(1), 169–172. <https://doi.org/10.1016/j.renene.2011.07.022>

18. Lee, T. H. (2013). Influence analysis of community resident support for sustainable tourism development. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2012.03.007>
19. Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management* (Vol. 19). <https://doi.org/10.1108/09596110710757534>
20. Miller, G., Rathouse, K., Scarles, C., Holmes, K., & Tribe, J. (2010). Public understanding of sustainable tourism. *Annals of Tourism Research*. <https://doi.org/10.1016/j.annals.2009.12.002>
21. Mittal, S., & Dhar, R. L. (2016). Effect of green transformational leadership on green creativity: A study of tourist hotels. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2016.05.007>
22. Mohsin, A., & Lockyer, T. (2010). Customer perceptions of service quality in luxury hotels in New Delhi, India: An exploratory study. *International Journal of Contemporary Hospitality Management*, 22(2), 160–173. <https://doi.org/10.1108/09596111011018160>
23. Punitha, S., Abdul Aziz, Y., & Abd Rahman, A. (2016). Consumers' perceptions of green marketing in the hotel industry. *Asian Social Science*, 12(1), 1–16. <https://doi.org/10.5539/ass.v12n1p1>
24. Ritchie, B. (2002). Tourism, development and growth: the challenge of sustainability. *Tourism Management*. [https://doi.org/10.1016/s0261-5177\(01\)00082-6](https://doi.org/10.1016/s0261-5177(01)00082-6)
25. Ritchie, B., & Crouch, G. I. (2013). The competitive destination: a sustainable tourism perspective. *Choice Reviews Online*. <https://doi.org/10.5860/choice.41-6012>
26. Singhal, S., Deepak, A., & Marwaha, V. (2018). Green Initiatives Practices in Indian Hotels. *IOSR Journal of Business and Management* . <https://doi.org/10.9790/487X-2008031013>
27. Sutawa, G. K. (2012). Issues on Bali Tourism Development and Community Empowerment to Support Sustainable Tourism Development. *Procedia Economics and Finance*. [https://doi.org/10.1016/s2212-5671\(12\)00356-5](https://doi.org/10.1016/s2212-5671(12)00356-5)
28. Szmigin, I., Carrigan, M., & McEachern, M. G. (2009). The conscious consumer: Taking a flexible approach to ethical behaviour. *International*

Journal of Consumer Studies, 33(2), 224–231.
<https://doi.org/10.1111/j.1470-6431.2009.00750.x>

29. UNESCO. (2009). Sustainable Tourism Development in UNESCO Designated Sites in South-Eastern Europe. Ecological Tourism in Europe (ETE).
30. United Nations. (2017). The Sustainable Development Goals Report. United Nations Publications. <https://doi.org/10.18356/3405d09f-en>