Role of Technology in Implementing and Practicing Sustainability in Hospitality Sector

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Abstract

In the fast-evolving technology landscape, beacons bring with it multiple opportunities to improve revenue and is a popular technology in hospitality industry. These augmented reality technologies are used to communicate with devices such as tablets and smartphones. Over the past several decades, hospitality industry players have turned their focus to the importance of sustainability in the hospitality industry as it relates to hotel development and operations, including the environmental, economic and social impact. Sustainability is one of the most important issues currently facing our world. In this present paper w will discuss in detail the role of technology in implementing and practicing sustainability in hospitality sector.

Keywords: Technology, Smartphones, Tablets, Sustainability, Tourism, etc.

Introduction

The present paper elaborates about the status and development of tourism in the context of India. It shows that due to tourism sector India has gained brand image in the mind of foreign tourist and the data regarding tourism shows about the increasing trend of foreign tourist arrival which resulted the boosting in foreign exchange earnings in the year 2001 to 2010.The principles of sustainable tourism lay especial emphasis on the participation of local communities at tourism destinations. Here, the active involvement of local people is the critical success factor in sustaining momentum. Ideally, local communities should reap direct benefits from tourism development as reflected by the expansion of local business opportunities. Training and education programmes play an important support role here as they help to improve cultural heritage and the management of natural resources.

The most beneficial impact of tourism is its capacity to generate large scale employment opportunities, particularly in remote and backward areas. The direct employment in the sector during 1994-95 was about 7.8 million persons accounting for about 2.4% of the total labour force. The labour-capital ratio per million rupees of investment at 1985-86 prices in the hotel and restaurant sector is 89 jobs as against 44.7 jobs in the case of agriculture and 12.6 jobs in the case of manufacturing industries. In this case of tourism is combining the relevant individual segments. The ratio becomes 47.5 jobs and is still higher than most other segments. It is thus clear that tourism can play a major role in resolving the problem of large-scale unemployment in the country provided it is developed on the desired lines with major inputs and initiatives from the Central Government.

A third impact of tourism, which is of particular significance to India, is its contribution to national integration. Over 100 million domestic tourists visiting different parts of the country every year return with a better understanding of the cultural diversity of people living in different regions and carry with them a feeling of friendship and peace. Tourism in its present form is a post war phenomenon developed essentially as a consequence of technological developments in the field of automobiles, railways, ships, aircrafts, computers and communication system.

Technology and Sustainability in Tourism-India

In India, the Department of Tourism took the first initiative to introduce information technology in tourism in the year 1989 by establishing tour net with the technical assistance of CMC Ltd. The network consisted of 35 information nodes installed in the field offices of the Department of Tourism located in different parts of the country. Each node contained a CD-drive apart from the usual configuration of floppy drives and hard discs. Each node was provided with a CD containing textual database on all the major tourist destinations in the country.

Recently, multimedia databases on tourism have been developed by Rajasthan and Maharashtra Tourism Departments with the assistance of some of the private software development firms. Apart from the government initiatives, a few private firms are also active in the field and a few CDs on Indian tourism are already available through their efforts. The Central Department of Tourism is presently trying to tie-up with some of the private

software development firms to produce a series of multimedia CDs covering all the tourist destinations in India. The intention is to bring out a marketable product for sale within India and abroad.

In the online field, the CRS Amadeus and PARS are already operational in India. Amadeus was established in 1993 and PARS came in 1995. Internet facilities are also presently available in India.

The ministry of tourism has launched the 'Incredible India' mobile application that will assist international and domestic tourists to access information about ministry recognized tourism service providers namely approved inbound tour operators, adventure tour operators, domestic tour operators, tourist transport operators, travel agents, regional level guides, classified hotels available in respective cities / tourist centers. Details of the same will be given through this application to the tourists on their mobile phones based on their current location.

Tourist can also query similar details for any other city plans to travel in future. In addition to this, the application will provide places of interest. This mobile application has been developed as part of the initiative of the new government in taking important positive decisions, especially, affecting the general public since it is taking over the charge.

This new application developed by the National Informatics Centre (NIC) will help the tourists in seeking services from government of India recognized service providers and receive quality and reliable services from them. The app demonstrates ministry of tourism's commitment use of technology for service delivery. Incredible India Mobile Application (IMA) is available for the Android Phones on the Google Play store and for IPHONE this will available in App Store.

Since tourism is a multi-dimensional activity, and basically a service industry, it would be necessary that all wings of the Central and State governments, private sector and voluntary organizations become active partners in the endeavor to attain sustainable growth in tourism if India is to become a world player in the tourist industry.

Sustainable tourism practices in India are not new, bound together by the twin travel dicta of Bharat Darshan and Atithi Devo Bhavah, now known the world over through the medium of the Incredible India campaign. When undertaking a journey away from home, indeed that of life itself, one was guided by the quality of accepting life's offering and taking from one's environment what was needed while responsibly leaving behind that which would sustain future travelers. Today, that balance has been eroded by global shifts in population with resultant quantum leaps in the call on the earth's depleting finite resources, despite innovations in technology and access to information.

Technology and sustainability in Tourism-Karnataka

Karnataka, one of the most progressive and well-developed industrial states in the country, is focused on development of trade and service sectors, through various initiatives and policies. It is home to several forts, architectural marvels and is blessed with a rich cultural heritage of over 1500 years. Other diverse visitor attractions include pilgrim sites, coastal landscape, wildlife / national parks, Eco Tourism, Wellness Tourism – Alternate Lifestyle/ Yoga, Voluntary Tourism and Adventure Tourism. Over the years, Karnataka has also emerged as a strong contender in the global market for Business Tourism. The State has been ranked as the 4th preferred destination among domestic tourists and is the 3rd preferred destination for attracting investments in the tourism sector.

Initiatives will be encouraged to provide adequate and reliable information about destinations, accommodations, itinerary, events, online bookings and other offerings through various modes such as online web portals, tourism offices, booklets, flyers, brochures, maps etc.

Provision of audio guides, mobile technology, Wi-Fi at major tourist destinations will be encouraged. Technology interventions for social networking and data management will be supported.

Apart from promoting a digital marketing and information collateral, the Government will support other initiatives for branding and promotion such as development of information and interpretation centers at tourist destinations.

Efforts would also be made to include more heritage sites into UNESCO's World Heritage Sites list for bringing in significant international recognition and tourist traffic through preparation of integrated Site Management Plans, proposals to Government of India etc. The Government will pursue applying for other heritage sites like the Hoysala region, Srirangapattana and the Deccan Sultanate architecture. Integrated Tourism Management Plans will be encouraged for cities like Mysore, Bijapur and Bidar, as well as other smaller towns with heritage value. To improve the maintenance of existing tourist destinations, adoption/ management/sponsorship programs will be promoted to create ownership between locals/corporate for monuments, temples and destinations. To increase length of stay of visitors, development of tourist villages near existing attractions, will be encouraged.

Technology and Sustainability in Hospitality sector - Bangalore

Over the last decade, we are increasingly seeing hotels and resorts becoming aware of concepts of sustainability, and wanting to learn about the concepts. While the larger hotels and hotels and hotel chains will have resources to address issues surrounding sustainability, small and medium hotels and resorts need guidance. Small and medium

hotels and resorts form the bulk in terms of numbers of all hotels and resorts globally. United Nations Environmental Programme figures indicate that 83% of all hotels and resorts globally are small and medium size. Considering this, it is important that all resorts and hotels in general, and small and medium hotels and resorts in specific understand what sustainable tourism is, and what these hotels and resorts can do from a sustainable practice's perspective. This becomes critical, as pressure increases on these establishments slowly.

It is very important that hotels and resorts start to understand sustainability principles and guidelines. The concept of a 100% eco resort is new and requires a total understanding. However, this will only be possible if decision makers understand what a 100% eco resort is. They will also need to understand if it is practical to do develop these. And they will need to be exposed to working models of a 100% eco resort. This will help them be realistic of their expectations, set goals that are implementable, and be aware of sustainable issues from the perspective of hotels and resorts.

Research Design

Need for the study: Tourism and hospitality industries have widely adopted information technology (IT) to reduce costs, enhance operational efficiency, and most importantly to improve service quality and customer experience. IT is increasingly becoming critical for the competitive operations of the tourism and hospitality organizations as well as for managing the distribution and marketing of organizations on a global scale. Use of information technology (IT) in the tourism industry has become increasingly important in recent years. In its various forms, the advent of the Internet and its remarkable growth enables tourism organizations to reach customers worldwide with both ease and cost-effectiveness. They main reason for this study was to see how technology helps in bringing about sustainability in travel and tourism focusing more on hospitality sector.

Objectives

- To find out how technology helps in bringing sustainability in tourism sector
- To ascertain the impact of technology on consumers and service providers
- To study in what ways is technology minimizing the impact on the environment and economy of the industry
- To ascertain how technology helps in promoting e-tourism
- To suggest the usage of sustainable practices

Research methodology

Size of the samples: A set of questionnaire were prepared to get relevant information. On the whole it was 60 samples and it was divided in to 20 questions out of which each questionnaire was distributed to 60 authorities.

Source of data collection

Primary data: A large part of information has been collected through questionnaire. This questionnaire is prepared for authorities of various hotels of the place to get the information. This also includes some personal details of authorities as well.

Secondary data: Secondary data is the data that have been already collected by and readily available from other sources like newspaper magazines research articles travel magazines tourism books and websites.

Method of the data collection: The instruments for collection of data for the research were questionnaire. Questionnaire was drafted with suitable question to have full details for the study by collecting data of samples for the data collection the survey was conducted by preparing a questionnaire which was based on objectives the samples include five options where each question is based on likert scale the options are very good, good, barely acceptable, bad, very bad. The samples collected are further used for data analysis and interpretation.

Limitations

> 1. Many respondents were hesitant to respond to the questionnaire. Some were hesitant to give their personal information.
>
> 2. To meet the authorities was also very difficult.
>
> 3. It was time consuming during samples collection

Findings

Tourism is travel for recreation, leisure, religious, family or business purposes, usually for a limited duration. Over the last decade, we are increasingly seeing hotels and resorts becoming aware of concepts of sustainability, and wanting to learn about the concepts. While the larger hotels and hotel chains will have resources to address issues surrounding sustainability, small and medium hotels and resorts need guidance.

According to the analysis it was found that there were more male members in the hospitality sector. Majority of respondents were male. Respondents showed sporting spirit and answered all the asked questions patiently. The majority of authorities were Indians and few of them from other countries like UK, England etc.

According to the research it was found that the work was well distributed among managers and workers who constituted the majority of the report. Researcher found out that majority of respondents enjoyed the service provided to them for bringing in sustainability with the help of technology. Among all the respondents most of them have rated the sources of information available on net as very good. They anticipated more turnover of visitors following their online portal as provided for reference.

When it came to promotion of tourism product with the help of sustainability and technology researcher found out that the response was very good. Very few respondents said it was poor or they didn't receive visitors because of promotion of any kinds.

According to the research when it came to relating sustainability and technology respondents appreciated the outcome. Most of the respondent term the process as very good and they even said it helps them in optimum use of resources.

Researcher found out that there had been admirable growth in tourism ever since there has been adaptation of sustainable practices in hospitality sector. The research states that sustainable practices with the help of technology have been efficient enough in linking costumers with the service providers. None of the respondents have denied that fact. The most of the respondent's state that outcome of implementing sustainable practices in hospitality sectors has matched up their expectation in getting more costumers. The response from most of the authorities is very good. Very few of them have stated it as poor. Reason can be improper knowledge about technology and its usage.

The report reveals that the respondents have noticed that there is a fair inclination of costumers towards sustainable practices and availing the benefits of technology. Majority of the responses were very good.

According to the report firstly there was fair result in getting expected numbers of costumers, but the majority respondents said that there has been increase in the sales as well.

The research states that the majority of the respondents feel that because there is an involvement of technology there has been an ease in booking and reservation process. It has led to less time-consuming practices, cutting down the cost as well.

According to the respondents it is analyzed that because of sustainable practices there has been a less of negative impact on environment as well. Majority of respondents feel that there has been a positive impact on environment related to its preservation.

The report states that these positive impacts are appreciable and it is helping in implementing sustainability in hospitality sectors. Majority of respondents have answered in affirmative.

The survey states majority of respondents have accepted that sustainable practices helped in cutting down the cost of the industry as well as helps in optimal use of available resources.

Majority of the respondents' state that there has been a very good impact on the economy of the industry is leading to more sales and preservation of working capital.

According to the report it's clear that most of the respondents are enjoying the benefits of impacts of sustainable practices with a constant growth and stability. Majority of respondents have stated these benefits as very good.
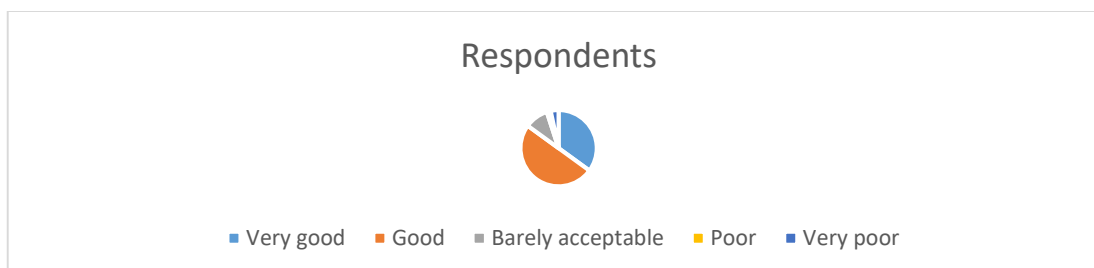
Most of the respondents' state that with technology being involved in the marketing process there has been sufficient promotion of e-tourism as well. Survey brings out the result stating the promotion as very good. With regard to reducing work burden majority respondents feel it is very good, few agree by saying it is good, some say it is barely acceptable when compared to respondents who said it was poor and very poor.

According to the data obtained from the survey majority of respondents feel approach of e-tourism keeping in mind sustainability and technology is very good. Respondents with less reliability on e-tourism were very less.

The survey states that majority of respondents feel definitely their satisfaction was very good, few say it was good. There were some respondents who felt that e-tourism was of no good them as their satisfaction level didn't match up their expectation.
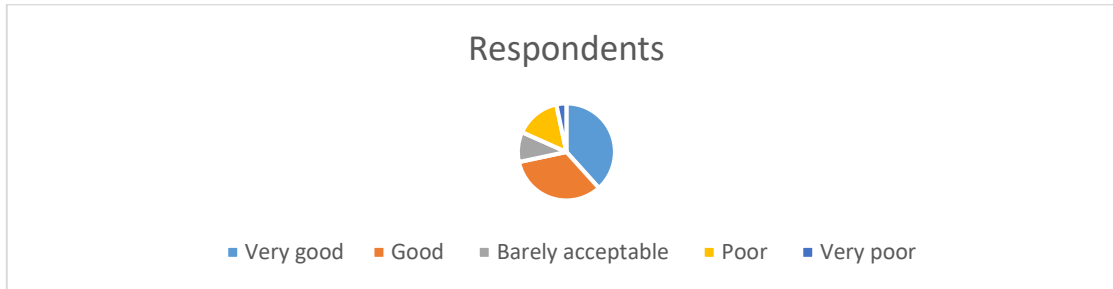
According to the report with reference to the fact that e-tourism uplifts the business majority of respondents' response were in affirmative. Very few respondents felt that e-tourism wasn't actually affecting their industry or business in any way.

Table.1. Rating of sources of available information

Respondents
■ Very good   ■ Good   ■ Barely acceptable   ■ Poor   ■ Very poor
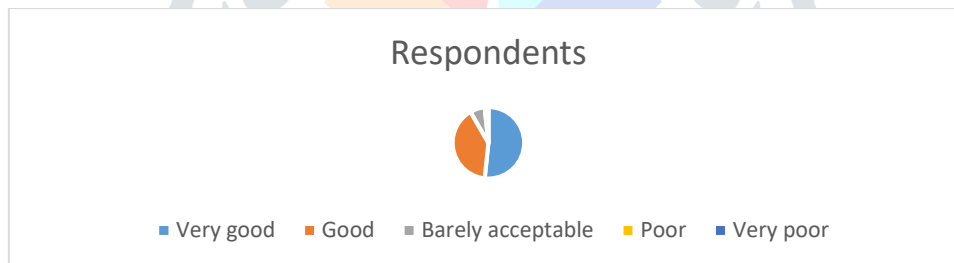
Interpretation of data: out of 60 respondents with regard to the rating of information one gets on net based on sustainable practices in hospitality industry 52% rated as very good, 33% as good, 8% as satisfactory, 5% as poor and 2% as very poor total 100%.

Table.2. Promotion of tourism product with the help of sustainability and technology

Respondents

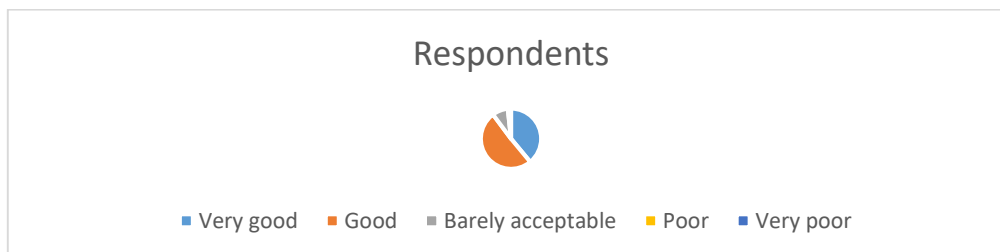■ Very good   ■ Good   ■ Barely acceptable   ■ Poor   ■ Very poor

Interpretation of data: When it came to how efficiently is the promotion of tourism product or destination is done with the help of sustainability and technology, out of 60 respondents 38% said it was very good, 34% stated it as good, 10% said it was barely acceptable, 15% said it was poor where as 3% considered it as very poor total 100%.

Table.3. Relating sustainability and technology in tourism

Respondents

■ Very good   ■ Good   ■ Barely acceptable   ■ Poor   ■ Very poor
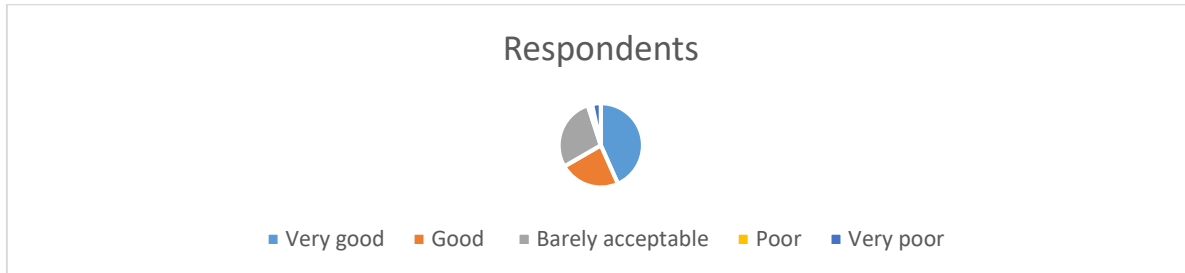
Interpretation of data: With reference to how well can we relate sustainability and technology in tourism; out of 60 respondents 52% respondents rate it as very good, 40% as good, 7% as barely acceptable, 1% as poor and 0% as very poor total 100%.

Table. 4. Efficiency in linking costumers and service providers

Respondents

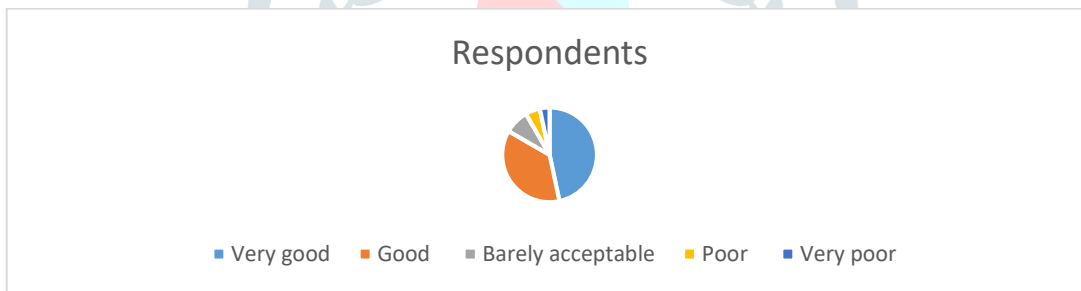■ Very good   ■ Good   ■ Barely acceptable   ■ Poor   ■ Very poor

Interpretation of data: Out of 60 respondents 39% feel it is very good, 50% feel it is good, 9% feel it is barely acceptable, 2% poor and 0% feel that it is very poor

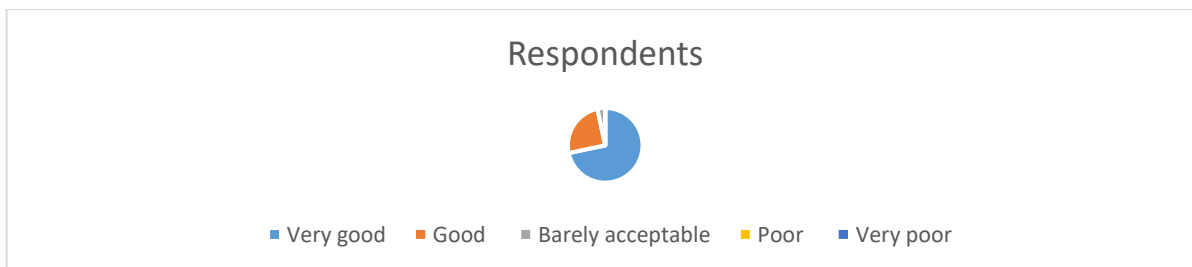**Table.5. Costumers inclination towards sustainable practices**

Interpretation of data: According to the data costumers inclination towards sustainable practices through technology 43% feel it is very good, 24% feel good, 28% barely acceptable, 2% say poor and 3% say it was very poor.

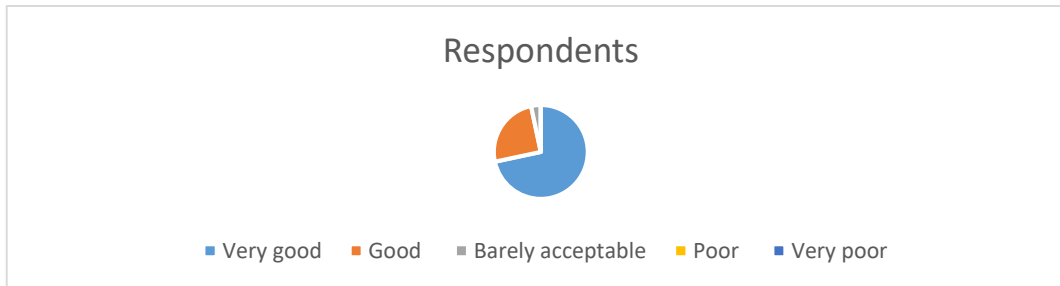**Fig.6. Ease in reservations and bookings**

Interpretation of data: With reference to the data 46% feel that it is very good regarding easing the reservation and booking process, 37% say it is good, 8% say it is barely acceptable, 5% say it poor and 4% say it is very poor.

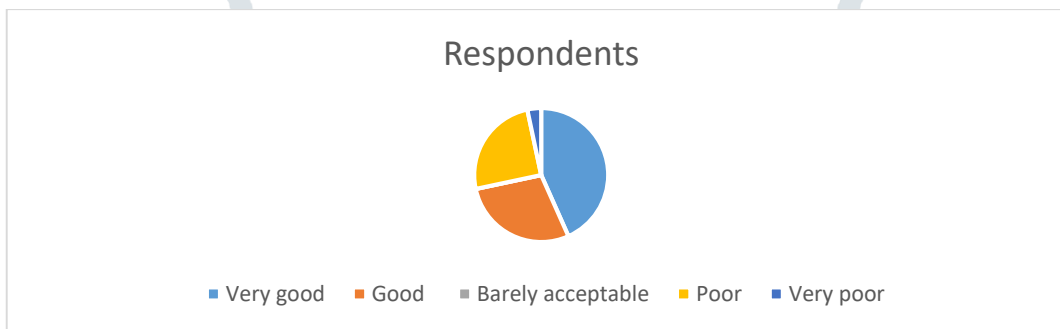**Table.7. Impacts helping in implementing sustainability**

Interpretation of data: out of 60 respondents with reference to implementation 72% respondents feel it is very good, 25% say it is good, 3% say it is barely acceptable, 0% say poor and 0% say it is very poor.

Table.8. Benefits of these impacts

Respondents

■ Very good ■ Good ■ Barely acceptable ■ Poor ■ Very poor

Interpretation of data: out of 60 respondents With reference to its benefits 72% respondents feel it is very good, 25% say it is good, 3% say it is barely acceptable, 0% say poor and 0% say it is very poor.

Table.9. Promotion of e-tourism

Respondents

■ Very good ■ Good ■ Barely acceptable ■ Poor ■ Very poor

Interpretation of data: Out of 60 respondents 43% feel definitely it is very good, 28% say it is good, 0% say it is barely acceptable, 25% say it is poor, and 4% say it is very poor.

Table.10. Satisfaction from e-tourism

Respondents

■ Very good ■ Good ■ Barely acceptable ■ Poor ■ Very poor

Interpretation of data: Out of 60 respondents 43% feel definitely it is very good, 28% say it is good, 0% say it is barely acceptable, 25% say it is poor, and 4% say it is very poor.

Suggestions

The survey was conducted mainly to find out the benefits of sustainable practices in hospitality sectors and the problems faced by them. With regard to the opinion / views given by the authorities for the development and rectification of these problems, the following suggestions are being given.

Effective utilization of available options for reducing cost and increasing the willingness of costumers is going for online. When it came to employment factor, report states that there were more male members when compared to female members. Government and private organizations should come up initiatives and policies which encourages women empowerment in hospitality sector.

Another important factor that is needed for the up gradation of Karnataka tourism industry is giving more awareness about the tourist centers in all levels state, national and international with all sorts of available media and technologically updated. Majority of the respondents were upset with the government for not giving proper infrastructural development.

Suggestions for staffs: Create an incentive program to encourage the staff to participate in and improve upon environmentally friendly practices. Educate the staffs to:

- Turn off lights and turn down heating air conditioning in unoccupied rooms or employee only area
- Close/open drapes to reduce the need for heating/air conditioning
- Report opportunities to reduce resource consumption

To reduce water use, consider rainwater harvesting. To reduce operational costs, water and energy consider installing an ozone laundry system. Use daylight exclusively in the lobby, bar, and restaurant for as much of the day as possible. If vending machines are used learn about opportunities to reduce energy use.

Suggestions for recycling:

- Provide guestroom recycler basket for newspaper, white paper, glass, aluminum, cardboard, and plastic.
- Provide recycling bins both in public areas, in the kitchen, and in the back office to make recycling as easy as possible.

Buy environmentally-friendly paper (copier, toilet paper, etc.). Minimize the amount of paper used for each guest and in the office i.e. reduce paper size of invoices, etc. it is Buying organic amenity products for bedding, hair and body care, coffee and tea etc.

Come up with creative ways to reward hotel guests for being green. Provide the guests with bicycles, walking maps, and information on public transport. If the hotel has a gift shop, consider selling sustainable products for example solar torch, organic products, handmade products etc.

Use occupancy sensors and/or timers for areas of the hotel that are less frequently used such as hallways, outdoor areas, or public bathrooms. In some cases, more energy is saved by training staff to turn off lights when a room is unoccupied.

Install window film to lower heating and cooling loads and reduce glare in guestrooms. If a hotel has a pool and/or hot tub, install a solar water heating system and use pool and hot tub covers when the pool area is closed.

Monitor, record and post rates of energy and water use. Make repairs or replace equipment when usage change indicates problem.

Conclusion

Green practices are a growing area of interest for the travel, tourism, and hospitality industry in the world. The growing importance of sustainability indicates that these practices are not a passing fad, but rather will become standard practice among businesses.

By implementing some of the above given recommendations, a hospitality industry can make an impact on their local environment and their bottom line. Producing and using environmentally friendly products and services is not a fad or a trend. It will continue to be important to ensure they are creating policies and procedures to encourage the use of sustainable practices by the authorities and its employees.

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