



RECENT TECHNOLOGICAL TRENDS IN TOURISM AND HOSPITALITY INDUSTRY

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ABSTRACT

Just as the advancement in technology has influenced all activities of today's life, tourism and hospitality has also been changed towards the positive trend in the recent years. Various social and scientific apps and inventions has made tourism very enjoyable and at the same time, accessible. The article discusses the different sections of technology that have influenced the tourism and hospitality industry. Contributions by Social media, Online review websites, Virtual Reality, Augmented Reality, Artificial Intelligence, Robotics, Chatbots, NFC Technology and other technologies have helped investors a great deal in the development of business, marketing and publicity and in turn customer attraction and business. Such facilities not only benefit the travellers but are also a great tool of attraction for the industrialists to showcase their specialities and compete with other industrialists. The future has almost completely changed to digital and distant access technology with user friendliness and innovation as the key concepts. Exchange of information has become very rapid in these days that customers find it very easy to choose the best from the lot of services available. It therefore has become very mandatory for stakeholders in travel and tourism sector to keep up with the trends so as not to be left behind.

Keywords : Chatbot, Hospitality, Hotel, Robotics, Technology, Tourism, Travel, Virtual reality

1. INTRODUCTION

Different developments in science and technology have changed the perspective of individuals towards tourism and hospitality. The world today is becoming smaller while the places of visit and recreation business are becoming bigger. Revolutionary reforms in tourism and hospitality sector have changed the perspective to vacations and travel. Internet search, online transactions and mobile apps have made tour planning both effortless as well as enjoyable. Ease of choice and comparison between the different deals offered by different sources right from the desk has made it possible to plan and organize trips well in advance and leave the traveller just to enjoy and relish the travel experience without any hustle. It can be said without doubt that the recent developments in science and technology has brought the world in the finger tips with easy access to any distant and remote information in matter of seconds.



The hospitality industry is part of a huge group of companies known as travel and tourism industry, which provides the necessary or desirable goods and services to travellers. The hospitality and tourism industries are the large stand fastest-growing industries in the world [1]. Hospitality means providing service to others, as well as demonstrating consistent excellence and quality. It should also mean profitably providing value at any price level, while demonstrating your own unique points of distinction. Most of all, hospitality should be a “place”, where people can still be exceptional individuals and they can extend their own personality and style [2]. Success in the hospitality industry demands huge inputs not only in terms of cost but in terms of service and customer satisfaction. This also requires quick adaptability to technical and technological advancements in tourism as well as communication and relationship development.

2. CONTRIBUTIONS BY SOCIAL MEDIA

Social media has now become the first face of any hospitality service provider with the customer. They are the primary source of information to many travellers based on which they choose or reject any service. They therefore greatly determine the relationship between guests and hoteliers. There, guest and prospect guests can not only obtain information from the service industry but they can also receive feedback, be it positive or negative, from other fellow travellers from their past experiences with the service providers, regarding their services, amenities, attitude and cost. It is now considered greatly convenient for the traveller to decide where to stay, what restaurants to go, places to visit, transportation and attractions. Such facilities not only benefit the travellers but are also a great tool of attraction for the industrialists to showcase their specialities and compete with other industrialists.

Hotels hence strive to work harder to exceed expectations and outsmart their rivals. They also tend to resolve service problems as soon as they occur to prevent negative comments. The threat of a bad social media review has become a highly powerful tool for the visitors.

3. ONLINE REVIEW WEBSITES

Researchers have adopted online data such as search engine query volumes to forecast tourism demand for a destination, including tourist numbers and hotel occupancy [3]. According to current figures, 71% of independent travel-related bookings are done online, while 36% of all package tours are booked online. Many travelers have booked a room, made an airline ticket reservation, or reserved a table at a restaurant online in recent months. Hotels, be they luxury or best value, use online travel agents (OTAs) or booking platforms, and online sales form the biggest part of their revenue [4]. Customers like to search for objective opinions, and they prefer reviews, which are mostly delivered through large feedback platforms and consumer-centric sites, because of their independence from official or corporate content [5]. Research findings revealed that more than half of the analyzed articles focus on hotels and apply empirical methods based on secondary data, more attention has been paid to the relationship between online reviews and online buying as well as satisfaction and online



management, and opinion mining of online reviews, motivation to post reviews, and the role of reviews are evenly distributed [6].

4. VIRTUAL REALITY

Virtual reality is a recent advancement in computer technology, that generates three dimensional images, sounds and physical sensations that provides the users a feeling of physically being present in a imaginary world. Virtual reality technology uses specially designed VR headsets and other equipments that enable users to look around and immerse themselves in a digital environment.

In today's world, virtual reality has become the hottest and sensational experience in the hospitality industry creating new marketing and branding opportunities for hotels and entertainment channels. Providing a cutting-edge advancement, it makes way for all round engagement to modern customers of varying age groups providing maximum entertainment in even small space areas. VR is also being used for publicity and customer attraction by hotels with intimate experiences like 360° videos or VR presentations as a mark of identity to the hotels. Several hotel chains are now using VR as a marketing tool to attract international elite customers.

Current generations of types of companies typically produce content in assignment from destination providers, attraction providers and hospitality providers, and some offer a Content Management System (CMS) to travel agencies that they may use to develop their own immersive VR experiences to their clients. VR is considered to a promising technology for the Hospitality and Tourism industry that has the powerful effect of fooling the senses into believing one is present in a virtual world, by providing interactive 3D surroundings simulated by a computer. These simulations, can depict any tourist location or attraction reproduced as 3D imagery, controlled by powerful computers creating a complete Virtual Environment [7].

5. AUGMENTED REALITY

Augmented Reality is an integration of the real world and the virtual world, with the aim of providing additional information about something in the real world with information displayed in the virtual world. Creating unique and robust experiences for tourists can exert a widespread concept in the destinations ecosystem. With the proliferation of destination competition, destinations are willing to find innovative ways to differentiate their tourism services and provide distinct experience value for the tourists [8]. The fact that augmented reality can efficiently synchronise virtual objects over the real ones making highly interactive images that can run real time 3D images makes it a very successful technology of the century. Such advanced technology is today available in very simple gadgets as smart phones and tablets making it highly accessible and user friendly. This technology offers vast and high level strategies to hospitality industry as effective Planning, sustainable management, entertainment, education, attraction, interactive experience, translation, navigation in real-time, exploration, marketing and cost effectiveness.



6. ARTIFICIAL INTELLIGENCE

Artificial Intelligence, also denoted as machine intelligence is the intelligence demonstrated by machines which is comparable to human intelligence. Intelligent systems sense their environment and learn from the actions they implement to reach specific goals. They are increasingly used to support tourist information search and decision making as well as work processes. In order to model the tourism domain, these systems require a profound understanding of its nature. It challenges simplistic views of tourist information search and decision-making processes and calls for more research on potential impacts [9]. The advancement in AI capabilities presents a great potential for tourism destinations and hospitality companies to implement AI not only to promote their products and services to consumers, but also to influence responsible travel behaviour and achieve other social marketing goals in support of sustainability [10].

7. ROBOTICS

A robot can be defines as a automatic physical device that is capable of movement and performing a specified action. Robotic has now become a part of many common men’s lives. Robotic applications can now be seen in many areas including homes, manufacturing sector, medicine, marketing, business, entertainment and so on. Tourism and hospitality has also not been left behind in this aspect. Robotic interactions, robotic hospitality, service and competitions are now common attractions in tourist destinations that attract multitude of elite visitors. The advances in robotics and artificial intelligence, increased robot capabilities coupled with decreased purchase and maintenance costs will make robots a viable alternative to human employees in travel, tourism and hospitality companies. Of course, not all service processes can and have to be automated or performed by robots – at the end of the day it is the economic efficiency, customer experience, company’s competitiveness and other factors that will determine whether to automate and robotise the service delivery process [11]. In order to support sustainable tourism development, chatbots and companion robots can be designed as persuasive agents in behaviour modification and intervention efforts involving travel consumers (e.g., promotion of responsible travel behaviour) [10]. A recent hospitality and tourism article proposes six robotic research areas: customer acceptance of robots, robotic design and robots' impact on the work environment, management training, facility design and bottom line [12].

8. CHATBOTS

A chatbot has multiple names such as bot, chatterbot, smartbot, talkbot and IM bot. It is a programmed artificial conversational interface capable of conducting a conversation through auditory or textual inputs. These chatbots are designed with a database of language inputs which are scanned to provide with the most applicable key words and natural language handled by the user. It is very efficiently designed to simulate humans and is highly unpredictable to be a software at the other end of the conversation. Chatbots are now finding high end usage in dialog systems as customer service and help desk. Chatbots have a huge potential in the hotel industry as an



increasing number of customers are now relying on messaging and data apps for information. In many hotels chatbots provide quick answers to their queries as it saves the time and increase the efficiency of the hotel. At the time of check out the guests can check out their room with their smart phones apps. Gone are the days where guests have to stand on line and wait for their check-in and check out. Now information technology transforms the hotel industry and enables the guests to do self check-in and checkout. Hotels generate more revenue with the help of information technology and there is a great need that hotels adopt the latest technologies for smooth functioning of their business [13].

9. NFC TECHNOLOGY

Near Field Communication (NFC) as a promising short range wireless communication technology facilitates mobile phone usage of billions of people throughout the world that offers diverse services ranging from payment and loyalty applications to access keys for offices and houses. Eventually NFC technology integrates all such services into one single mobile phone. NFC technology has emerged lately, and consequently not much academic source is available yet. On the contrary, due to its promising business case options, there will be an increasing amount of work to be studied in the very close future [14]. Though in its latent stage, this is a promising technology towards effective transactions, and content exchange.

10. THE FUTURE

The future has almost completely changed to digital and distant access technology with user friendliness and innovation as the key concepts. Innovative technologies have revolutionized tourism and hospitality industries in keeping par with the tough competitive world. Innovations such as mobile-remote controls, mobile check-in and check-out, mobile banking, robotic lobbies, self-service kiosks, electronic access, e-lounge, smart phone boarding passes, remote homes and rooms, optimization services, personal device connectivity, self identifying gadgets, tablet menus and electronic reservation systems are the latest revolutionary trends.

Innovations in the hospitality and tourism industries follow a trajectory of service innovation modes, differing from a product innovation [15]. Such innovations have increased operational efficiency as well as created more value for customers [16]. Such systems offer great customer experience and customer satisfaction achieved through customer preference and accommodation to changing trends. Innovative partnerships and business collaborations between different brands and service providers operating in different industries are bringing in newer developments the hospitality and tourism industries. An important emerging business model is the sharing or collaborative economy which has further changed the landscape of hospitality and tourism. The idea behind the sharing economy is utilizing the unused personal resources such as spare bedrooms and car seats more efficiently [17].



Given the scale and importance of the sector to economic growth, it is imperative that governments assume a greater leadership role in shaping the training and education agenda. Talent management practices need to reflect the uniqueness and complexity of the sector and effective implementation of talent management requires CEO/Owner–Manager commitment and cascading down of a talent mind-set/culture within organizations. Examples of best practice in talent management provide a significant opportunity for the sector to improve both its employer branding and competitiveness [18].

In the co-creating process, tourism connected the stakeholders need to realize what is of value for the tourist and how smart destinations could enrich the tourism experience through providing products/services [19]. The task for the all stakeholders are to create meaningful and integrated experience environments [20] in which co-creation can lead to individualized and memorable experiences that are designed to face the needs of smart business eco-system.

11. CONCLUSION

In smart tourism, technology can bring multiple benefits, as compared to other individual information systems. They encompass a vast number of computing technologies integrating hardware, software, and network technologies to provide multiple experiences of the real world and advanced technologies guiding individuals to take intelligent decisions and consider alternatives. These technologies optimize business processes and business performances and takes tourism experience to the next level.

With the advancement in the century, growth and development in different fields have become rapid and vast. Incorporating different sectors and innovative collaborations yield instant results. Exchange of information has become very rapid in these days that customers find it very easy to choose the best from the lot of services available. It therefore has become very mandatory for stakeholders in travel and tourism sector to keep up with the trends so as not to be left behind.

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