

THE ADVANCEMENT TO THE DEVELOPMENT OF HOTEL INDUSTRY THROUGH TECHNOLOGICAL INNOVATIONS

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Abstract

The leisure and hospitality industry is one of the driving forces of the global economy. A recent survey revealed the high importance of Wi-Fi to the guests these days. The survey said that a guest without Wi-Fi is like a room without a bed. Hotel industry will not face any lack of progress and will manage to keep going in difficult circumstances in the competitive world, if they predict the different ways to delight the guest through technological innovations. Many five star hotels in Mumbai gain market share by getting to know their guests, offering personalized services beyond expectation and encouraging direct bookings to increase profitability. Now- a- days guests not just enjoy the experiences because of unique style of service, ambiance of the hotel or the presentation of the food but also because of smooth and continuous information that untangle and magnify every aspect of their visit.

In short, hotel industry should modify the growth of development through technological innovations. As technology is advancing at a faster pace, this is changing both the assumption of guest as well as the way in which the hospitality industry conducts its business. Hotels can use technology in numerous ways to improve guest experience, like online bookings, enhancing guest experience for e.g. voice controlled room, smart solutions and robotic luggage storage. Also, Marriot Hotels launched VR Postcards, a series of immersive travel stories that guests view in 3-D on Samsung Gear VR headsets.

This paper aims to study how hotel industry is having a period of great prosperity.

It also features exclusive insights from the hoteliers to bring new or improved product innovation, service innovation, administrative innovation and overall innovation performance.

Keywords: Technology, Guests, Innovation, Hotels, Experience, Development.

I. INTRODUCTION

Technology is boosting at a faster pace than ever before in the hotel industry and this is changing the expectation of the guest in which the hospitality industry conducts its business.

Innovation in the hotel industry is very important nowadays to transform into dynamic industry. Many five star hotels with new technological advancement have given support to guest expectations to be unique in the competition.

Artificial Intelligence (AI) is the next innovation dignified to make an impact on hospitality. The latest technology trend is necessary for those operating in the hospitality industry, because the industry itself is extremely competitive to meet the challenge of growing guest expectations. Nowadays many hotels are committed to environmental sustainability programs and reducing energy. Starwood hotels and resorts worldwide have started using daylight harvesting to adjust indoor lighting based on the natural light coming from outside.

II. LATEST TECHNOLOGY USED IN HOTEL INDUSTRY

Hotels nowadays are more concerned in increasing the revenue, but to survive in the competitive world of hospitality they need to concentrate more on technological innovations. Here are some essential changes that will influence the hotel industry.

Smart Rooms, Smart Controls: Smart room allows the guest to adjust the temperature of the room using their smart phones to create a perfect atmosphere that is modified according to their requirement. Not just that, The Renaissance New York Mid town hotel also well known by the name as New York's Living building changes the interiors of the room according to the seasons. This helps guests to do many works from their room. Such kinds of innovations anticipate the guest needs and understand their values.

Virtual Concierge: Virtual Concierge is software that showcases what hotel has to offer and enhance the guest experience with information at their fingertips. Powerful marketing tool for trade shows and group meeting planners allows guest to connect and share the hotel experience. It captures attention with floating banner promotions. In the form of Postcard Guests can share their vacation experience with family and friends. It also has a special requests like pre-arrival, housekeeping, valet, front desk, etc. It also has a comeback option which allows guests to book their next stay directly through booking engine. Virtual Concierge can be installed on unlimited devices.

Artificial Intelligence Services: Chinese internet giant Alibaba has launched a hotel with Artificial Intelligence (AI) and robots, automating a series of procedures like check in, light control, check out and room service. Alibaba's FlyZoo Hotel is said to be "the hotel of the future" located in Hangzhou, China. The FlyZoo Hotel project was led by Alibaba's online travel platform, Fliggy. The hotel brings together technology and hospitality to find innovations that empower the industry in the digital era. It all started with FlyZoo mobile app, where guest can book their stay with option of choosing the floor and even the direction of their room. FlyZoo features a range of AI services to create a convenient and seamless experience for guests. For Example, Guest can choose to use facial recognition rather than keys and key cards to access the hotel room. That means everything from using the elevator to entering the room is as easy as smiling for the camera.

Technology for Energy Conservation: As hotels are operational round a clock throughout a year, so it requires more usage of energy. Energy management will definitely save owners on a massive electricity bills. To ensure that hotel's maximum profit is not eaten up by these huge bills, few hotels have come up with innovative technology for conserving energy such as LED lighting, eco friendly laundry units that saves water, ozone water treatments, energy efficient appliances in the kitchen area which will help cut down costs on energy consumption. For example, motion sensor lighting systems turns on when guest enters the room and turns off when guest exits the room which creates a glowing impression on the minds of the guest.

Smart Phone "Keys"

Hotels nowadays are getting into the digital age. Many hotels have moved away from using key cards to unlock the room. A major hotel chain like Starwood, Marriott and Hilton has introduced a new technology for guest which will allow them to use their smart phones to unlock their rooms hassle free. To avail this facility guest first need to install the hotel app in their smart phone. By attracting guest to use the hotel app in their mobile for booking, hotels get more revenue. If the guest book through the hotel's mobile app they will get notification along with their key code that their room is ready and they can directly go to the room without wasting their time in front desk for check-in process. The smart phone-based keys use Bluetooth technology inside the handsets to unlock the doors, and require the guest to open the app and put their phone next to the panel of the door.

III. EMERGING TRENDS IN HOTELS

Catering to Millennials: Millennial are the one whose age lies between 18-34 years. According to Cornell Center for Hospitality research Millennials travellers love to stay online, travel a lot and they are also trend setters who adopt technology faster than the other age groups, promote the business on social media platform. In such cases, hotels always indulge with every attention and do easy check-in and gourmet dining experiences in a reasonable price. Also hotels build better website with amazing user interface UI and user experience UX, which a user interacts with an application or website. Through this website hotels can easily reach to guests and can tell them about the upcoming features and promotional activities.

Proficient in the use of modern technology: The hotel industry is transforming modern technology trends to survive in the competitive world. Hotel like Marriott have introduced the world's first virtual reality travelogs share stunning destinations and real travel stories with Marriott guests. To see new places meet new people and experience new things, Marriott constantly seek new ways to make travel more brilliant around the world to create an inspiring new virtual reality travel series. From the mountains of Chile, to an ice cream shop in New Zealand, to the busy streets of Beijing, Marriott is using state of art technology to capture real stories from real travellers and learn what drives them forward their desire to hear new ideas make new connections and discover new horizons. Now with these experiences Marriott guests can experience anywhere and can join the adventure from their hotel rooms with VR postcards.

Augmented Reality Hologram Menu: Hotels nowadays are in trend of using digital holo lamp menu instead of paper menu. This touch screen table menu easily engages the diners with their surroundings which allow the guest to preview the dishes from the menu before placing the order in a new way. Not just that, guest can orders anything from the menu with proper knowledge of presentation, style and quantity of the dish. More start-ups are also trying to come up with new ways to use holographic menu.

IV. REVIEW OF LITERATURE

India Today web desk (2019); for hospitality brands to attract and retain customers, offering different experiences to meet the different needs and expectations of guests will be of primary importance, and this requires innovation. By 2020, global Millennial spending power will overtake Gen X, becoming greater than that of any other generation, according to World Data Lab. www.indiatoday.in/education-today.

Erick Kobres (2018); New technologies will revolutionize the hospitality industry. As technology innovations continue to transform 'many businesses will adopt intelligent machine automation, and by 2022, according to Gartner one in five workers engaged in mostly non-routine functions will rely on AI to do many tasks associated with their roles. *www.forbes.com* Stampford, Conn (2017); Gartner says by 2020, Artificial Intelligence will create more jobs than it eliminates. AI Will Create 2.3 Million Jobs in 2020, While Eliminating 1.8 Million 2020 will be a crucial year in AI-related employment dynamics, according to Gartner, Inc., as artificial intelligence (AI) will become a positive job motivator.

Jeff Robinson (2019) Technology in the Hospitality industry –exploring the very latest trends; Technology is advancing at a faster pace than ever before, and this is changing both the expectations of guests as well as the way in which the hospitality industry conducts its business. Aurecon's experts concentrate at some of the latest trends in industry such as WI-FI infrastructure, Robots and Infrared sensors, Smart roomkeys, entertainment on tap, cloud services and technology for energy conservation.

Technology is making Hospitality smarter (*www.helloinspire.com*) ; Technology and the on-demand economy have transformed every aspect of our lives. While the hospitality industry has been slower to catch onto smart tech, some of the hotels have adopted smart tech to streamline hospitality for the guest's benefits such as voice controlled rooms, Smart phone as a remote control, Virtual concierge.

Lara O' Keefe, Bisnow National (2018)New technology will allow guest to view restaurant meals in immersive 3D experience before they order. Hololamp, which is portable, glasses- free augmented reality device, will soon launch with two new solutions aimed to improve the guest experience in both the hospitality and real estate sectors.

Scott Karmer (2015); Marriott launched virtual reality postcards for Marriott guests who can travel afar from the hotel room without passport. Hotel guests are invited to call a dedicated Vroom service extension or use Marriott's mobile request app to request a Samsung virtual reality headset and accompanying headphones. The set is hand delivered to the room, along with easy to use instructions, and is available up to 24 hrs.

FINDINGS

Telephonic Interviews were conducted of Hospitality Professionals from Hotel, restaurant, café and other sectors.

A survey was conducted wherein Questionnaire through Google docs were circulated among the Hospitality Industry Professional.

The area selected for our research was Mumbai area including Navi Mumbai.

The sample size was 50 respondents.

The review of literature and the feedback regarding the innovations in the hospitality industry the researchers decided to divide the innovations into product innovations, service innovations and administrative innovations.

To make the respondents understand the meaning of the innovations, the definitions were provided as follows:

Overall Innovations: Successful development and implementation of novel ideas, products, and services

Product Innovation: Ability to bring new or improved products to the marketplace

Service Innovation: Ability to bring new or improved services to the marketplace.

Administrative Innovation: Ability to implement new or improved business processes and practices within the firm.

The hotels need to analyze the customer feedback so that the guests always remain happy and are prompted to come back as repeat customers.

Our findings helped to realize that the hotel service market is changing rapidly; customers or the guests want different ways of treating them and not the regular standard way of service. This has prompted the Hotels to innovate in terms of Product, Service and Administration thus contributing to overall innovations of the Hotel.

It is a necessity that Hotels constantly keep improving their quality standards through innovation management. With the changing needs and habits of guests the Hotels have to innovate in all departments. Innovation in Hospitality Industry does not necessarily means tangible aspects but also can be intangible aspects such as uplifting the mood, spiritual or cultural development or the provision of a unique experience.

Customers are no longer happy with comfortable and well furnished rooms, they expect to pamper them with rooms which impress them and convince them.

Marketing Innovations such as developing and introducing the concept of sensory marketing. Marketers believe that through Sensory marketing a guest develops a direct contact and associates with the brand through melodies, sounds and smells. Sensory marketing is an innovative method to improve the mood of the consumers.

Innovations in the terms of quality service can be interesting architecture of the hotels, modern landscape design, and attractive interiors.

Technological Innovations include providing WI FI in the rooms as well in the Hotel Lobby or Innovative Smart House Technology.

Boutique Hotels, an example of one the most advanced trends in the Global Hospitality Industry and Unique Hotel designed by most fashionable architects and designers.

UrsKarli, a famous experimentalist in the field of Hospitality and Gastronomy, remarked that the trend of Boutique Hotels is quite natural.

¹ <https://www.forbes.com/sites/forbestechcouncil/2018/06/28/new-technologies-will-revolutionize-the-hospitality-industry/>

Boutique Hotel, an example of Product Innovation where the entire hotel is created as a design object right from the room's layout to the latch of a room.

Examples of Boutique Hotels in Mumbai are Le Sutra, Bandra. In this Boutique Hotel each room is inspired by mythological character such as Ravana and Buddha Rooms.

The pleasant background music played in the Cafés, Restaurants and Hotels is a innovative method aimed to create a positive response from the customers and makes them more benevolent towards products and services.

Findings have shown that 75% of the guests like to listen to the background music in the hotels, restaurants, cafes, public areas, lobbies etc. Guests tend to pay more for the products or services if there is music playing. Functional Music is an Innovative Service Product. Luxury Hotels have introduced music even in lavatories. Functional Music introduced by hotels creates a positive impact customer loyalty and improve the profitability. The best example is Le Sutra, Bandra. They have a TAAL Room with various musical instruments displayed and also played. They have a TABLA CHAIR, BANSURI LAMP, and SHEHNAI CUPBOARD HANDLES.

Even the Marketing department comes with amazing Marketing Communications such as jingles for promotion, voiced logos, musical advertising slogans.

Aroma Marketing is another way of attracting guests and increasing their loyalty by means of creating special fragrances. International Hotel Chains such as Sofitel, Westin are using carefully selected fragrances to create a luxury star feeling. Many High end luxury hotels are creating signature fragrances. These fragrances are specifically designed by perfumers and custom made to suit hotels brand and target audience.

The TAJ Group has introduced new signature fragrance, Jasmine a mark for guests to identify when they walk into Taj property.

The LEELA uses a blend of relaxing oils: Jasmine, Cardamom, Sandalwood and Ginger.

CAROLINE'S FOUR HUNDRED is a signature fragrance of St. REGIS. However FOUR SEASONS is one exception where it creates signature fragrance depending on the place the property is.

Gastronomy an example of product innovation. The Hotel Industry strives to create a brand image through gastronomic pleasure. Chef Hemant Oberoi, the Executive Grand Chef of the TAJ Group creates a magic and a Gastronomic Attraction through ATTA CHICKEN and KALI MIRCH KA MURGA.

DUM PUKHT an example of Product Branding and Innovation by ITC GRAND MARATHA.

V. CONCLUSION

Modern Customers appreciate high quality service, responsiveness of the staff, and the readiness of the staff to assist and personalised service.

Innovative Technologies in Hospitality Industry are a welcome change. The Innovation can be a new service product, new technology or individual elements of its implementation, as the arrangements of the hotel operations, as new approaches to the management or marketing of the hotel.

Innovative Technologies in the Hotel Industry target the effective satisfaction of the needs of the consumers and the increase in the competitiveness of service organization.

Innovative trend in the Hospitality Industry is manifested through the ability to generate diverse innovations, which will ensure the successful development of Hotel. The large scale applications of new knowledge as well as its combinations generate new products, new services and technologies.

If a hotel is not involved in any innovation process its performance will sooner or later will diminish and its competitiveness will be lost.

VI. QUESTIONNAIRE

Innovation Perceptions

This brief survey is a for a research paper undertaken to know more about the innovations in initiative regarding "THE ADVANCEMENT TO THE DEVELOPMENT OF HOTEL INDUSTRY THROUGH TECHNOLOGICAL INNOVATIONS"

It should take less than 5 minutes to complete.

Please respond to the survey items based on your personal perceptions about your company or organization.

Question Title

1. **PRODUCT INNOVATION** is the ability to bring new or improved products in your organization contributing to the hospitality marketplace.

Indicate your perception of your organization's PRODUCT INNOVATION against similar organizations in your industry segment during the past 5 years:

- Much less innovative
- Somewhat less innovative
- About the same level of innovation
- Somewhat more innovative
- Much more innovative

Please provide an example of a **PRODUCT INNOVATION** your organization implemented during the past 5 years

Question Title

2. **SERVICE INNOVATION** is the ability to bring new or improved services in your organization contributing to the hospitality marketplace.

Indicate your perception of your organization's **SERVICE INNOVATION** against similar organizations in your industry segment during the past 5 years:

- Much less innovative
- Somewhat less innovative
- About the same level of innovation
- Somewhat more innovative
- Much more innovative

Please provide an example of a **SERVICE INNOVATION** your organization implemented during the past 5 years

3. **ADMINISTRATIVE INNOVATION** is the ability to implement new and improved business processes and practices within your organization contributing to hospitality marketplace. .

Indicate your perception of your organization's **ADMINISTRATIVE INNOVATION** against similar organizations in your industry segment during the past 5 years.

- Much less innovative
- Somewhat less innovative
- About the same level of innovation
- Somewhat more innovative
- Much more innovative

Please provide an example of an **ADMINISTRATIVE INNOVATION** your organization has implemented during the past 5 years.

Question Title

4. **OVERALL INNOVATION PERFORMANCE** is the successful development and implementation of novel ideas, products and services in your organization contributing to the hospitalitymarketplace.

Indicate your perception of your organization's **OVERALL INNOVATION PERFORMANCE** against similar organizations in your industry segment:

- Much less innovative
- Somewhat less innovative
- About the same level of innovation
- Somewhat more innovative
- Much more innovative

General Company Information

The following survey items ask you to enter general information about the size and longevity of your company or organization as well as contact information. The information you provide will be used only to contact you for further research information (i.e.: inclusion in best practices summary) and to provide you a copy of the study's overall findings. No specific information about your company or organization will be shared without your permission.

Question Title

5. Indicate the industry segment for your company or organization.

- Star Hotels
- Lodging
- Restaurant
- Meeting/Event Services
- Professional Services
- Transportation
- Other

Question Title

6. What is the current size of your company or organization?

- Less than 10 employees
- 11-50 employees
- 51-100 employees
- 101-300 employees
- Greater than 300 employees

Question Title

7. How long has your company or organization been in operation?

- Less than 2 years
- 2-5 years
- 6-10 years
- Longer than 10 years

Question Title

8. Please list contact information and we will provide you a copy of the completed research report.

Name:

Company:

Address:

Address 2:

City/Town:

State:

Postal Code:

Question Title

10. What is your email address?

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