A Study on the Impact of Technological Innovations on the Hospitality Industry

Mrs. Darshana Gangurde and Mr. Parth Mahadik

Anjuman-I-Islam's College of Hotel & Tourism Management Studies & Research, Mumbai

Abstract*: The influence of technological advancements on the hospitality industry is significant, bringing about substantial changes in guest experiences, operational efficiency, and marketing tactics. The introduction of mobile check-ins, smart rooms, AI-based services, and online platforms has completely revolutionized the sector. However, certain challenges such as ensuring data security and mitigating job displacement also present themselves. Emerging trends like blockchain, IoT, and biometrics are expected to shape the future of the industry. It is critical for businesses in the fiercely competitive hospitality landscape to embrace technology for success.Technology has changed the hospitality industry in big ways. Guests now have better experiences, hotels can work more efficiently, and marketing and distribution are done differently. While this has made the industry more competitive, it has also created new challenges that can only be met with investment and adaptation to new technology.*

Keywords: Technological advancements, Data Security, Emerging trends, Smart rooms, Guest experiences.

I. INTRODUCTION

Housekeeping refers to the management and organization of tasks and activities involved in maintaining a clean, orderly, and well-maintained living or working space. It encompasses a wide range of chores and responsibilities aimed at ensuring that a space is both aesthetically pleasing and safe for its occupants. Housekeeping activities typically include cleaning, tidying up, organizing, and performing various maintenance tasks in a commercial or hospitality context, housekeeping may also involve managing the cleanliness and organization of public spaces, such as hotels, offices, or healthcare facilities. The primary goal of housekeeping is to create a comfortable, functional, and hygienic environment while minimizing the risk of accidents or hazards.

1.1 Objective:-

- Exploratory study of technological innovation its types in the hospitality Industry and its importance on the operations in hotels.

II. RESEARCH METHODOLOGY

This research paper is based on secondary data. The data is collected from research journals, magazines & internet websites.

III. LITERATURE REVIEW

Article Author: -Hristina Filipova,DOI:-2017, every industry is undergoing a technology-driven transformation, and the hospitality industry is no different. Online booking systems, customer relationship management, social media, and smartphones are transforming the hospitality industry and enabling a new level of customer service. The efficiency and purposefulness of implementing each new technology depends on the decision of end users (employees and clients) to accept and use it. Despite the many changes that are being brought on by these technological innovations, they are there to enhance, not to replace, the core offerings of a hospitality business. The conceptual framework for studying the impact of technological innovations in hospitality service is defined based on the "Guest cycle" model. Top-quality customer service is the fundamental pillar of the industry, but the technologies can make it easier to consistently deliver a memorable experience to guests.

Article Author:-Anusha Thakur ,DOI :-10.4018/978-1-7998-6904-7.ch004, Over the past few years, services have had a vital role in the economies of technologically advanced nations (Song, 2009). The introduction of innovative business models and technologies is significantly engaged in transforming the environment. Service innovation is best defined as the "introduction of something innovative into the life, timing, organization, as well as placement of what can be defined as the collective as well as individual processes which relates to the customers". In today's scenario, every industry is enduring a technology-driven transformation, including the hospitality industry as well. Innovative technologies have exponentially boosted the growth in the market for the tourism and hospitality industries. Innovation is one of the key aspects for hospitality businesses which caters to the changing requirements and necessities, at the same time being relevant according to the time as well.

Article Author:- Elena A. Dzhandzhugazovaa , Ekaterina A. Blinovaa , Liubov N. Orlovaa and Marianna M. Romanovaa, DOI :-10.4018/978-1-7998-6904-7.ch004, The article focuses on the study of the role and importance of innovation, its classification, the problems of its application in the hotel industry, with emphasis on the application of sensory marketing tools in the development of the innovative marketing mix within the hospitality industry. The article provides an analysis of the "seven sensual notes of hospitality", i.e. "sight", "hearing", "smell", "taste", "touch", "intuition", and "impression". The authors rely on the "sensual notes" in their consideration of an innovative hotel marketing mix, and generalize and systematize the results of studies and practical examples from the experience of the world's best hotels. The authors have conducted a comparative analysis of research findings pinpointing the impact of the innovative marketing mix on the performance of hospitality industry enterprises..

Article Author:- Chandra Shekhar ,DOI :-2018, Information Technology has played an important role in the hospitality and tourism industry over the last decade. Technology has helped reduce costs, enhance operational efficiency, and improve services and customer experience. Both customers and businesses can benefit from improved communication, reservation, and guest service systems. Technology has helped the tourism and hospitality industries replace expensive human labor with technological labor. This helps reduce labor costs but also helps avoid customer service issues.

Article Author: Dr. Francisco-Jose Molina-Castillo, Prof. Dr. Ángel L. Meroño-Cerdán, Dr. Carolina Lopez-Nicolas, Laura Fernandez-Espinar DOI:23 February 2021,This article aims to explain the innovative behaviour of large Spanish companies by comparing the hospitality industry with other service providers and industrial manufacturers. Several hypotheses are proposed and tested for different innovation stages: innovation effort, outcome and performance. The sample includes 2944 Spanish companies with 200 or more employees. Using one-way ANOVA analysis, this study fills an important gap in the impact of innovation and technology on the performance of the hospitality sector. The results show that catering establishments have differentiated innovation behaviours not only to manufacturers but also compared to service providers. The findings support the hypothesis and suggest that hotel companies complement in-house R&D with other innovative activities. Furthermore, hospitality organisations have the highest percentage of innovation revenue due to fewer innovation efforts and innovation outcomes, mainly due to the organisation's innovations.

Article Author: Olena Sukach, Svitlana Kozlovska, Natalia Sushko DOI: Jun 25, 2021, The hospitality industry is a dynamic sector that stimulates the development of various sectors of the economy. The challenges posed by the economic crisis and the pandemic require new mechanisms for managing the industry. The main purpose of this research is to create modern management tools to develop the investment potential of Ukrainian hospitality enterprises. The study identifies the main modern problems of the hospitality industry, and proves the importance of modern management tools based on marketing principles. The study offers promising areas for attracting investment resources in the hospitality industry and the concept of developing innovative services.

Dr. E. B. Khedkar DOI: 9 Mar 2016, this research paper aims to investigate the different service innovations that the hospitality sector has implemented and their impact on customer satisfaction. The study collected responses through surveys that included a well-designed set of questions. Respondents were divided into two categories, business and leisure travelers, as well as travel agents and marketers who provide innovative services to travelers in the hospitality sector. The data was analyzed using graphical representation and statistical tests. The results clearly show that certain service innovations were more preferred by both categories of travelers, such as flexible check-ins, customized services, child care facilities, kitchen, and IT/internet-related facilities. Furthermore, the results indicated that these services have a positive impact on customer satisfaction, which highly influences the business of the hospitality sector.

Article Author:Hakseung Shin, Richard R. Perdue, Juhyun Kang DOI: October 2019, author explained in the paper thatUnderstanding technology innovation is a key strategic management concern in hotels. Still, the existing hotel technology research has focused heavily on technology adoption processes; even though technology adoption is mandatory for most employees. There is a lack of scholarly knowledge of the company-wide managerial processes and effects associated with technology innovation. To fill this research gap, using Helkkula et al.'s (2018) service innovation archetypes as a theoretical lens, this research explored the effects associated with hotel front desk technology innovation by a large multi-national hotel corporation. Following a qualitative approach, written interviews of 251 hotel managers were conducted. Three-step thematic analysis was used to examine the data. Specifically, the sequential hiring, training, and implementing process associated with technology innovation, the outputs of technology innovation, and experiential value were examined to develop a comprehensive operational framework. The framework provides strategic knowledge on successful development and management of front desk technology.

Innovation In Hospitality Industry:-

The hospitality industry has undergone a significant transformation due to technological innovations that have brought about notable improvements in guest experiences and overall industry dynamics. Some of the most notable technological advancements that have made an impact in the hospitality sector include the use of mobile apps for booking and check-ins, smart room technology that allows for personalized guest experiences, and the use of data analytics to optimize operational efficiency. The integration of technology in the hospitality industry has also led to the emergence of new business models, such as sharing economy platforms that offer alternative lodging options to traditional hotels. As technology continues to evolve, the hospitality industry will likely continue to see further advancements that enhance the guest experience and drive efficiency.

Type of Innovation Are:-

Mobile check-in and keyless entry: Guests can check in and access their rooms using mobile apps, reducing waiting times and improving convenience.

Smart room features: Smart thermostats, lighting, and entertainment systems in rooms offer guests personalized control.

Artificial intelligence (AI): AI chatbots and virtual assistants provide instant customer service, answer inquiries, and make personalized recommendations.

Data analytics: Hotels use data analytics to understand guest preferences and behaviors, enabling tailored services and marketing.

Virtual reality (VR) and augmented reality (AR): VR and AR are used for virtual tours, marketing, and enhancing guest experiences with immersive elements.

Robotics: Robots are employed for tasks like room service, concierge services, and even cleaning in some cases.

Automation: Housekeeping and maintenance tasks are automated, improving efficiency and reducing labor costs.

Online booking platforms: Websites and mobile apps enable easy booking and reservation management, reducing reliance on third-party agencies.

IoT (Internet of Things): IoT devices monitor and control room amenities and facilities, leading to energy savings and efficient resource management.

Online reputation management: Social media and review platforms are used to manage and respond to customer feedback.

Biometrics: Biometric recognition systems for check-in, access control, and payment provide enhanced security and convenience.

Block chain: Block chain technology is used for secure and transparent transactions, particularly in payment processes.

Environmental innovations: Sustainability efforts involve technology, such as energy-efficient systems and waste reduction initiatives.

Direct booking strategies: Many hotels now encourage guests to book directly through their websites with incentives like discounts and loyalty programs.

Big data and machine learning: These technologies are used to analyze large datasets for insights into guest preferences, helping hotels tailor their services.

Wireless charging: Charging stations and wireless charging pads are integrated into furniture in guest rooms and common areas.

Voice assistants: Voice-activated devices like Amazon's Alexa and Google Assistant are integrated into rooms to provide information and services to guests.

Importance of Innovation in the hospitality industry:

Improved Guest Experience: Technology enhances the overall guest experience by providing convenience and personalization. Mobile check-ins, keyless entry, and in-room smart features contribute to a seamless and comfortable stay.

Efficiency and Cost Reduction: Automation of various tasks, such as housekeeping and check-in processes, reduces operational costs and increases efficiency.

Data-Driven Insights: Technology enables hotels to collect and analyse data on guest preferences and behaviours. This data helps in making informed decisions regarding services, marketing, and pricing.

Marketing and Promotion: Online booking platforms, social media, and digital marketing tools allow hotels to reach a wider audience and tailor their promotional efforts to specific demographics.

Enhanced Safety and Security: Advanced security systems, including surveillance cameras and biometric access control, improve the safety of both guests and their belongings.

Environmental Sustainability: Technology supports eco-friendly practices by enabling energy-efficient systems, waste reduction, and resource management.

Competitive Advantage: Hotels that invest in and adapt to the latest technology gain a competitive edge. Customers often choose hotels based on the technology and services they offer.

Online Reputation Management: Technology allows hotels to monitor and respond to online reviews and feedback, which is critical for maintaining a positive brand image.

Inventory and Revenue Management: Software tools help in optimizing room inventory and pricing strategies, maximizing revenue.

Customer Relationship Management (CRM):CRM systems enable hotels to manage guest profiles, preferences, and loyalty programs, fostering long-term relationships and repeat business.

Operational Streamlining: Technology simplifies various operational tasks, from accounting and inventory management to human resources and guest service requests.

Accessibility and Inclusivity: Technology ensures accessibility for guests with disabilities through features like text-to-speech, voice command, and assistive technologies.

Innovation and Adaptation: Staying current with technological trends and innovations is essential for hospitality businesses to remain relevant and meet evolving guest expectations.

Global Reach: The internet and digital platforms enable hotels to attract international guests and adapt services for various cultures and languages.

Efficient Communication: Modern communication tools, such as instant messaging and chatbots, allow for real-time communication between guests and staff, addressing concerns and requests promptly.

Disadvantages of Innovation in hospitality industry:

Cost of Implementation: Integrating new technologies can be expensive, from purchasing the necessary equipment and software to staff training. Smaller businesses may find it challenging to make these investments.

Complexity and Learning Curve: New technologies can be complex, requiring staff to adapt to and learn new systems. This can lead to resistance to change and potential errors during the transition period.

Data Privacy and Security Concerns: The collection and storage of guest data raise significant privacy and security concerns. Hotels must ensure the protection of guest information from data breaches and cyberattacks.

Depersonalization: While technology can enhance guest experiences, it can also depersonalize interactions. Guests may miss the human touch when interactions are primarily with AI or automated systems.

Maintenance and Downtime: Technological systems can require regular maintenance and may experience downtime due to technical issues or updates. This can disrupt operations and inconvenience guests.

Overreliance on Technology: Relying too heavily on technology can be a disadvantage when it fails to deliver the expected benefits or when guests prefer human interactions.

Digital Divide: Not all guests are tech-savvy or have access to modern devices. This can create disparities in the guest experience, with some feeling excluded or frustrated by technology-focused services.

Online Reviews and Reputation Management: While technology allows hotels to manage online reviews, it also means that negative feedback can spread quickly and impact a hotel's reputation.

Job Displacement: Automation and robotics in housekeeping and other areas can lead to concerns about job displacement among hotel staff.

Short Lifespan of Technology: Technology becomes outdated quickly, and hotels must invest in regular upgrades to remain competitive. This constant need for updates can be costly.

IV. CONCLUSION

To sum up, technological innovations have had a significant impact on the hospitality industry, transforming the way guests experience hotels and how hotels operate. From mobile check-ins and smart rooms to AI-based services and online booking platforms, technology has revolutionized the sector. However, with these advancements come challenges such as data security and job displacement, which must be addressed. Looking forward, emerging trends like blockchain, IoT, and biometrics are expected to shape the future of the industry. It is imperative for businesses in the competitive hospitality landscape to embrace technology to succeed and stay ahead. By investing in and adapting to new technology, hotels can offer better guest experiences, work more efficiently, and improve marketing and distribution to remain competitive.

REFERENCES

[1]. https://www.traveldailynews.com/column/featured-articles/the-impact-of-technology-on-the-travel-and-hospitality-industry/
[2]. https://www.revfine.com/hotel-technology/
[3]. https://lesroches.edu/blog/innovation-hotels/
[4]. https://stampede.ai/blog/the-pros-and-cons-of-using-ai-in-hospitality
[5]. THE IMPACT OF TECHNOLOGICAL INNOVATIONS ON HOSPITALITY SERVICE.
[6]. Research Gate, https://www.researchgate.net/publication/317290270_THE_IMPACT_OF_TECHNOLOGICAL_INNOVATIONS_ON_HOSPITALITY_SERVICE.
[7]. Technological Innovations in the Hospitality and Tourism Industry
[8]. A Study of Technology Used In Hospitality Industry
[9]. https://https://www.ijsr.net/archive/v8i8/ART2020169.pdf.
[10]. IMPACT OF TECHNOLOGICAL DEVELOPMENT ON BUSINESS EFFICIENCY IN THE FOOD AND BEVERAGE DEPARTMENT .Journal: - Vol: - Issue: - M21; L83
[11]. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=5351bb955f936616b664dc9e7d5504a3be4bd317
[12]. Innovation and Technology in Hospitality Sector: Outcome and Performance
[13]. https:https://www.mdpi.com/2673-7116/3/1/14
[14]. Modern Management Technologies In The Hospitality industry
[15]. Https: http://www.baltijapublishing.lv/index.php/issue/article/view/1199
[16]. Impact of Service Innovations in Hospitality Industry.
[17]. https://https://www.ijsr.net/archive/v8i8/ART2020169.pdf.
[18]. Front desk technology innovation in hotels
[19]. https://www.sciencedirect.com/science/article/abs/pii/S0261517719300664