Chapter 9
Digital Trends in Asian Hotel Industry

Narentheren Kaliappen and Azizul Hassan

Abstract In 2020, almost all sectors including hospitality were affected in some way by new waves of digital innovation. In order to satisfy the changing demands of customers in the digital age, hotels must go through digital transformation to remain ahead of both traditional rivals and market disruptors in a rapidly changing competitive climate. This requires hotels to have the best approach to technology, creativity, data-focused and customer-centric service, backed by appropriate working culture. Several digital trends (Artificial intelligence, Mobile technologies, Chatbots, Robots, Digital kiosks, Blockchain, Internet of Things, and Virtual reality, and Augmented reality) in hotel industry are discussed together with real-life applications in line with their respective operations. The practical implications and future research suggestions are also presented. This will be helpful to develop smart hotels to ensure post-pandemic survivability and sustainability. This chapter will also assist the hotels' top management in making decisions and policies regarding the usage of digital tools in hotel operation. This chapter also includes real examples from Asian hotels.

Keywords Digital · Trends · Hotel industry · Technology · Asia

Introduction

In 2020, almost all sectors including hospitality were affected in some way by new waves of digital innovation. Recent trends in the hospitality industry indicate that the industry intends to turn its attention to different settings to meet the growing

N. Kaliappen (✉)
School of International Studies, College of Law, Government, and International Studies, Universiti Utara Malaysia (UUM), Kedah, Malaysia
e-mail: narentheren@uum.edu.my

A. Hassan
Tourism Consultants Network, The Tourism Society, London, UK

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customer interest-tailoring digital content at their fingertips (Nevron, 2020). Our mobile devices have transformed the means of how we use mass media substance forever. Whilst several industries are stalling the unavoidable, hospitality technology developments will require to evolve rapidly to remain significant. As we transition into an immersive future, we can see some innovations evolving and crashing with developments in hospitality tourism and industries. We should expect to see more advancements in hospitality technologies using a range of intelligent technologies to minimize operating costs and boost guest experience while also exploiting new income sources. The most successful business enterprises of the future are most likely to invest in data systems that collect, analyze, and market data.

Nevron (2020) revealed that there are not many ways to be creative when it comes to the hospitality industry. However, as our lives become more dependent on digital technologies, this change would affect all industries, including hospitality. It is worthy to note that digitalization is a significant shift, much more significant than the Internet. The hospitality industry is threatened by accelerating technological developments, increased consumer power, and increased competition. Digital innovation is thus essential to the hospitality industry's sustainability in touristy destinations and the guests' interest in the tourist market (Ristova & Dimitrov, 2019; Ristova & Maglovski, 2018). Immediate access to the information on the Internet has been enabled by digital technology for hotel guests through any means of digital devices such as PC, laptops, tablets, or smartphones, with mobile bookings in accordance with constant development. They are often supposed to not only remember their actions, backgrounds, and interests but to make use of them for even more assistance and personalization. Mobile applications should also be used more efficiently to lower hotel advertisement costs and effectively reach potential guests (Ristova & Dimitrov, 2019; Kwon et al., 2013). Guests can reserve hotels, opt to lodge in the house of a stranger, and check on their smartphone for online hotel reviews, all while linked to the Wi-Fi hotel.

This medium can all be achieved separately or at its particular moment. With hospitality being a high-tech and high-touch business, it is also expected that the guest experience moves simultaneously within the area. The digitalization in the hospitality industry is needed in general to handle the loss of control over consumption, growing competition, and the likelihood of commercialization and interacting digitally with suppliers, partners and employees, and customers.

This chapter aims to explore and expand how artificial intelligence (AI) is used in hotels' management and its implementation in various operations, such as distribution, sales, service to the customers, advertisement, relationships, and customer responses. This chapter highlights top digital trends of AI, Mobile technologies, Chatbots, Robots, Digital kiosks, Blockchain, Internet of Things (IoT), and Virtual reality, and Augmented reality. This chapter provides real examples in the global hotel industry of the value of any digital trend.

Digital Trends in the Hotel Industry

Emerging more quickly than ever, digital technologies in the hospitality industry are anticipated to become universal immediately alongside several of the newest gadgets developed throughout the last decade. Increasing studies and surveys of current trends in the hospitality industry indicate that guests demand special attention and personalized entertainment only to grow over time. The growth in customers' demands is most likely because we see another new degree of rivalry in current trends in the hospitality industry. Hoteliers continue to aim to enhance their guests' satisfaction, and what improved approach to achieve so than concentrate on existing and emerging trends in hospitality and bring a new entertainment platform to their rooms' comfort.

Artificial intelligence (AI) production has a massive effect on relationships with clients, workers, and other stakeholders. In particular, AI is gradually incorporating analytical, intuitive, and empathic skills (Huang & Rust, 2018), allowing new communication methods to be taken into account in business strategy. As the modern digital era emerges and new developments in the hospitality industry advance, AI will become increasingly part of the hospitality industry's existing trends throughout 2020. More companies are adopting new technology and are starting to see the advantages. Not only can the launch of AI offer a lot of innovative business prospects to hotel owners in the hospitality industry, but for the most part, a brand-new objective. Nevron (2020) discussed an unparalleled customer experience, and above all, a more seamless and organized operation for visitors during their stay can be expected with the AI implementation. AI has only recently begun to enter the mass market. However, as its influence only expands, it will undoubtedly perform a crucial part in all the newest developments in the hospitality industry.

Besides being the most critical personalized content on the list, the key reason for the shift is also how the content is delivered to the customer, whose demands continually evolving concurrently with technology. As a result, a more difficult phase is being taken; AI facilitates the automation of processes and services, recently being used in frontline services to communicate directly with clients (Van Doorn et al., 2017). This chapter concentrates on some of the evolving digital trends of the hotel industry.

Mobile Technologies

Mobile connectivity, be it via smartphones or tablets, enables potential customers to find the best hotel in many locations. In advance, for additional hotel amenities, the client may check the various types of rooms and the spa and dining facilities, and other services. In other words, mobile technologies are turning intangible hotel services into tangible services. Since we have learned that digital technologies penetrate each part of lives, and hotels must realize that practically, nearly every guest

registered in the hotel, spa, or resort is equipped with a smartphone. Several hotels have also been using social media to promote hotel guests' registration, primarily through a website-based sign-in program and share their Twitter experience with friends and followers on Instagram and Facebook. If this technological trend continues, hotels should expect guests to use these platforms to provide feedback, complain about their experience, and praise their stay with more social media engagements.

One of the apparent advancements in mobile technologies is mobile applications. Mobile applications among the hotel industry have established the guest experience in a real way. Since the hospitality industry's service seems to have the highest value, the need to engage, communicate, and attract is crucial. In recent years, the importance of mobile apps in hotels has increased rapidly. More hotels concentrate on their implementation. The chances of returning guests are higher if hotels consider guests as individuals instead of homogeneous groups, and mobile apps elevate that. The prospective client will easily visit several hotels from the respective hotel business, regardless of where the hotels are located. The customer will make a reservation directly after selecting a particular hotel. If the customer wishes, they can look at the hotel room layout and select a particular room. The potential guest will also notify the hotel of their expectations for establishing the room via the app. Guests may also order several additional facilities, including food and drink, extra pillows, and any other auxiliary tasks they need. It will be there in their room upon arrival. Mobile applications also allow different functions for the guest at any convenience, in addition to just booking (Ristova & Dimitrov, 2019; Lukanova & Ilieva, 2019).

For instance, many prominent international hotel companies such as Marriott, Starwood Hotels & Resorts with their Starwood Preferred Guest, Hilton with Hilton HHonors App and AccorHotels Group are the precursors of mobile apps. Hilton Worldwide (2017) reported that they have carried out various studies since implementing its mobile app, representing members of Hilton HHonors of more than 40 million. The findings remain explicit and demonstrate that consumers would like more options and control. Almost 90% of hotel guests convey unusual reaction on the opportunity they get to pick the room they will be staying. This feedback proves that mobile applications help the hotel industry cater to each guests' preferences.

Besides following Accor (2017), AccorHotels Group, as one of the most prominent European international chain, also provide further proof of mobile technologies in the hotel industry. AccorHotels.com launched MoodMatch, a revolutionary technology where this platform is solely focused on tourist moods and experiences. Thirty-four main features have been outlined by the AI platform, which is vital to potential customers to select a hotel based on examining over 100 million reviews by visitors and experts in tourism. The platform identifies a specific collection of characteristics for each hotel worldwide; hence Hotel DNA is established as a content platform with four categories that a potential customer can choose from that corresponds to his particular preferences when he seeks a hotel through MoodMatch. As a result, the platform demonstrates the distinctive number of characteristics that

directly conforms with the classification chosen by customers toward these hotels (Lukanova & Ilieva, 2019; Accor, 2017).

Similarly, Virgin Hotels established a preferential program intended to generate extraordinary experiences called 'The Know.' In their mini-bar, guests can tailor what kind of drinks they want, and the hotel will have them already upon their arrival by filling in the online questionnaire. For instance, guests can first check-in then get in touch with the staff in charge any time before their arrival for a hassle-free process. The guest can also get information on exclusive deals, weather predictions, and tourist attractions in advance.

The cost of introducing and using the new technology can be quite distinctive on most occasions. Therefore, it is entirely appropriate that these emerging developments are mostly open to large hotel companies. Nonetheless, given the importance and role of emerging technology in hotels' modern growth, independent hotels too, are increasingly beginning to invest in them to enhance the experience of their guests. This pattern can be seen when an Austrian hotel, Schani Wien, via a mobile application, allows its guests to choose a level, view, size of the room, and other features. It also allows guests to directly link to the hotel, the weather prediction, unlock the room, and order airport transmission and flight check-in (Lukanova & Ilieva, 2019; Hotel Schani, 2020, Ivanov & Webster, 2017).

Chatbots

Chatbots are computer systems which can answer a text or verbal commands and questions, provide feedback in the position of an individual, is also identified as simulated agents, instant message bots and manufactured conversational objects (Shum et al., 2018; Lasek & Jessa, 2013; Allison, 2012). AI is transforming business rapidly, and chatbots are becoming an essential customer support channel, driven by AI. Smart support bots can engage with clients on every platform, either mobile websites, mobile applications, desktops, or social media. Clancy (2016) claimed that Hilton had taken steps since 2016 to distinguish its approach with the addition of AI to its wireless concierge services. Instead of utilizing an online travel platform such as Hotels.com, the idea is to persuade more guests and tourists to make use of Hilton's online booking services available on the website. There will be a chatbox to help and support him according to his particular needs while the customer is searching.

In line with Dickinson (2017), maximizing guest experience while conforming to the hotel is one of the significant benefits of the chatbot. The chatbot is always accessible and can accommodate guests from various nationalities as a multilingual application. Simultaneously, this contributes to lessening the workload of employees. This occurrence might allow the hotel to gather and examine the behavioral patterns of chatbots while optimizing facilities and contributions while the guest interacts with chatbot throughout their stay. The tracing of behavioral pattern, in turn, would enhance loyalty to the brand.

During the guest's stay at the hotel, there will be types of chatbot technology available, essentially, virtual concierge and chatbot concierge. This medium is extremely suitable for guests who like automatic interaction, want easy admission to specific information, want to save time instead of contacting an employee and wait for their response. Chatbots remains a relatively new technology for the hotel industry and are mainly used by big hotel chains such as Marriott, Novotel, Hyatt, and Holiday Inn. Private and minor hotels are also operating with instant messaging systems supported by humans, a more financially reasonable option for them. On a touch screen put at the hotel lobby or a smartphone application, even on a tablet provided for the guests at their arrival, the chatbots implementation can be accomplished across various customer service platforms. Guests may request the same facilities and amenities that would be provided by a human concierge. Guests can find information on the brand, the hotel and the nearby enticements and eateries, the weather information, the flight status- via chatbot technology. The integration of AI and chatbot enhance the purpose of a chatbot to understand the messaging style of guests and better suit their demands and individual preferences (Lukanova & Ilieva, 2019).

According to Accor (2017), AccorHotels Group's Mercure brand released 'BOT,' a minute assistant, as an instant messaging solution back in February 2017. This handy tool helps visitors and neighborhood residents to explore the 'local scenes' surrounding the guests, simply through geographical location and authorization to be led. Similarly, The Cosmopolitan in Las Vegas has 'Rose,' an AI concierge that help guests book restaurants and spa services and provide insider information, such as secret menu items, at the hotel bar. More than one thousand conversation threads were developed regarding developing 'Rose' to Offer visitors ways to book experiences such as restaurant bookings, spa treatments, tickets for events, and spontaneous activities such as self-directed art tours. Hotel guests are introduced to Rose by obtaining her card at the registration desk with their key and are encouraged during their stay to ask Rose for something. Hotel guests are introduced to 'Rose' by receiving a card with their key at the reception desk and are encouraged to ask 'Rose' for anything during their stay. 'Rose' provides them with insider information, such as secret menu items to help move visitors to bars and clubs and offer to raise house spending (Morgan, 2020).

As Goncalves (2017) demonstrated, digital technology's real revolution has yet to come and established its first signs in the hospitality industry. It was evident that chatbots would turn out to be an essential part of hotel operations' future while being pursued by many when Facebook and Slack were first launched in 2016. The 24/7 availability that chatbots can provide is one of the crucial qualities that is deemed useful for hotels as they can accommodate questions at any given time, day or night.

Robots

As indicated by recent papers, the applications of robots can be found in various hotel departments both at the front and back offices (Zeng et al., 2020; Ivanov et al., 2017; Pullen, 2017; Murison, 2016; Lopez et al., 2013). International Organization of Standardization (2012) defined robots as programmable systems with independency dictated through their capacity to carry out anticipated duties without human intervention. Murphy, Hofacker & Gretzel (2017) mentioned that the robots are categorized into three groups – manufacturing robots, professional, and personal service robots in which these three types of robots can be used in the hospitality industry. To give an instance, back-office operations like hotel restaurant dine preparation or cleaning rooms, industrial robots and specialist robots can be used. In comparison, in front office activities, such as concierge, room service, and entertainment, personal robots are more likely to be used.

The Japanese Henn-na Hotel is one of the pioneers and famous examples to be discussed in specialized literature regarding robotics implementation in hotel management. The hotel is in Sasebo, Nagasaki, in Huis Ten Bosch theme park and it opened in 2015 and is the first in the world to have robots in its operation. The robots perform multiple jobs from the front desk, housekeeping, concierge services and even baggage room operations. Furthermore, hotel room doors are opened with facial recognition software (Rajesh, 2017). Many hotel companies have been using robots in recent years, mainly for concierge service, entertainment, room cleaning and room service. Savioke, the technology firm, is a forerunner in creating an independent robot for indoor service in the hospitality industry. The butler robots are created to relay guests' order of various things (Savioke, 2017; Martin, 2016). The name of the robot manufactured is Relay; however, every hotel named the robot individually. For instance, Wally is for Residence Innit, Crowne Plaza with Dash, and Botlr is for Aloft.

Autonomous relay robots have first been used in Asia by an international hotel brand, Hotel Jen. The Relay robots can be seen at their hotels in Singapore. Singapore's M Social Hotel has AURA, their first guest-fronting butler robot. The butler robot has a closed section where the items ordered by the guest are placed, most often are necessities like snacks, water, or toothbrush. At the top of the robot, the delivery room number is dialed on a tiny monitor. The usage of Wi-Fi, sensors, and 3D cameras help the robot navigates around the house. When it is not in operation, the robot reverts to the reception area and rejuvenates its batteries. Butler robots can be utilized to charge electronic home appliances, serving coffee and other beverages at planned gatherings like business conferences together with deliveries to guest rooms (Joseph, 2017; Ward, n.d.).

Plus, the concierge is also one of the departments where robots are beginning to be used. The usage of robots has actively utilized Connie, a concierge robot that works for Hilton Worldwide, which operated by IBM's Watson AI; Mandarin Oriental Hotel has Pepper in Las Vegas; Mario for Marriott in Belgium; and Chi Hira Kanaee by Toshiba for Japanese hotels (Chestler, 2020; ReviewPro, 2016).

Concierge robots facilitate guests' check-in process, supply hotel service information, or touristy recommendations (Logan, 2016; Tussyadiah & Park, 2018). With every interaction with visitors, the artificially intelligent concierge robots learn and expand their expertise, allowing them to provide complete and precise details.

In addition to performing tasks such as delivering goods and providing various data, both concierge and butler robots accomplish a different role, symbolize themselves as attractions. Other concierge robots can dance, speak, tell on stories, and strike poses for pictures, like Pepper. Data gathering is an important role those hotel robots can perform. Robots may gather an array of data concerning guests' expectations, contentment, purchasing habits, and more activities in the course of engaging with guests. This process will help hoteliers obtain and use useful information to design an incredibly customized experience and thereby enhance the amount of returning customers.

The new San Gabriel Hotel, opened in 2018 by the Sheraton hotel chain in Los Angeles, proves that robots are becoming more and more trendy. Whereas other hotels only have one or two robots, Aethon, an autonomous mobile robots' provider, will have eight robots at this hotel (Aethon, 2017). One of them will take visitors to destinations on the first floor, acting as a bellboy robot, while the other robots will operate as butlers. These illustrations demonstrate that hotels companies are progressively beginning to use robots to minimize operational costs, increase efficiency, and boost customer service, both back and front office operations.

Digital Kiosks

Act as a new approach for systematic hotel service; digital kiosks can be a practical inclusion to each one of the hotel's strategy. Hotels give guests the chance to register themselves by installing digital kiosks, eliminating the reception's waiting period. Hotel guests were able to choose from multiple languages for check-in where usually the language options cannot be spoken of by receptionists. According to its specifications, the self-service program shows the guest many room styles and gives them a chance to elevate their choices. The guest evaluates the hotel's check-in and stays procedures, complete the necessary details, then scan fingerprint for confirmations. The kiosk issues a guest key card after the check-in procedures have been completed. This medium also offers the guest the chance to pay their bills by checkout. In this way, digital kiosks accommodate complete computerization of hotel service check-in and check-out procedures (Shaw, 2014; Lui & Piccoli, 2010; Ostrowski, 2010; Makarem et al., 2009).

Software firms like NCR, Clock, and IBM partner together with several big hotel chains such as Marriott, Hilton, Hyatt, and Sheraton, with hundreds of remote kiosk installation locations worldwide. By adding a digital kiosk even at luggage claim area at the airport, Hilton goes further. It implies that guests of Hilton can also check-in at the airport even before they arrive at the hotel. New features that are not accessible at reception are added to self-service apps to improve hotel kiosks' use.

Airline Web Check-in is one of the features. A software module with interactive maps can be included in self-service technology. Guests can find various locations close to the hotel or get hold of directions to their room and other hotel facilities.

Self-service kiosks are used for check-in and act as self-service stations that permit guests to check-out hastily. Locations of the kiosks are in the hotel lobby and available 24/7. After self-check-out, their room number and credit card credentials will appear on the digital screen. Guests may then gain access to their bills, check them, and pay. By improving guests' preference and comfort, minimizing delays, and boosting guest hands-on control over the arrival and departure course, digital kiosks that operated in hospitality enhance guests' experience. Digital kiosks' introduction offers a potential opportunity for hotels to raise sales by providing up-selling and one-to-one marketing of additional services.

Internet of Things (IoT)

Meant for the enhancement of guest experience and optimized costs, IoT in the hospitality industry is best described as a system of digital appliances and machines that interconnected throughout the Internet. To keep in personalizing customers' experience, many hotels have broadened their digital technology range into this. With changing times, IoT implementation in the hospitality sector is progressing. It commenced opportunities for technological driven automation for hotels and made it possible for guests to be approachable (Mistry, 2020). To serve guests better, the hotel industry is discovering and welcoming the IoT while improving their management's operational quality. These are some of the components that IoT offers for hotels.

Festa (2016) reported that some hotel companies, including Peninsula Hotels, use tablet technology in rooms for this purpose. Guests can monitor room temperature, lights, alarm setting, switch to television, pull the curtains, place order for room service, and ask for spa facilities with the tablet. Plus, nearly 5000 rooms of Wynn Las Vegas have already been introduced by 'Amazon Echo,' a voice-based activation platform. Hilton tested the first mobile-centred 'Connected room' hotel room where you can monitor the temperature, lighting, blinds, and thermostats with only touches on your telephones. "Connected room" is an ongoing innovation solution from Hilton, making it more straightforward for hotels to keep pace with rapid technological modifications. The breakthrough is in Hilton's DNA, commencing contractor Conrad Hilton acquiring Hilton's first property, and becoming a settler in the hospitality industry almost century ago. Hilton again sets new standards in the hospitality industry with several developments later, giving visitors a vivid experience while traveling.

For Marriott, which needs to continuously innovate the universal encounter for guests for their numerous brands, it is vital to building an insightful approach. Correspondingly, Marriott is in the progress of establishing their own IoT as they have partnered with Samsung and Legrand to launch smart rooms capable of

conducting various automated tasks, including providing facilities such as a simulated assistant, yoga exercises before a huge mirror, and the ability to attach images of friends and family during the stay with digital frames. The trend is straightforward: the idea of smart rooms would take the hotel industry to a stage that was unimaginable five years back. Now, guests can just pick up where they left off, resume watching Netflix and continue listening to the music on Spotify as soon as they register at the hotel and enter the room. Plus, to optimally maximize room temperature and light, the bed's sensor will be alerted when guests wake up or asleep (Ristova & Dimitrov, 2019).

Sooner rather than later, all these IoT resolutions are destined to revolutionize the hospitality industry. Hotel brands such as Marriott are already heading into hotel technology's future. However, the IoT implementation investment may only be a single expense, but it is demonstrated to be benefitting to all industries for the long run. There is one mission for the hospitality industry to concentrate on, which is guest satisfaction. Furthermore, IoT hotels have seized the proper niche and have been continually developing their essential services. IoT is now geared up to make customers feel at home, pampered, and enjoy the hotel stay to the fullest.

In the coming years, many new IoT trends in hospitality will emerge to enhance technology in the hospitality industry further. The IoT is rising rapidly, and the hospitality industry is evolving with the rapid speed of innovation and the increasing opportunities for smart hotel solutions. Smart hotels will soon become the trend, as hotel owners want to deliver the very best in guest facilities and modern amenities.

Blockchain

Conforming to what Zsarnoczky (2018) has claimed, the latest advances in technology and innovation in living spaces are all related to the alternative payment methods that can also be used in tourism. The development of a novel payment system has led to the advent of Bitcoin and other cryptocurrencies. The blockchain payment system is a decentralized ledger that records a continually increasing list of data blocks, preventing data from being counterfeited or altered. A list of transactions and the outcomes of calculations made by the programs stored consists of one block. For instance, if a customer buys any cryptocurrency or some other form of currency, then transfers it to another partner who exchanges it immediately, any loss caused by exchange rate fluctuations can be avoided by both partners. Plus, the whole transaction takes only minutes instead of the average few business days. This solution will provide anyone in the tourism industry with a new innovative, and revolutionary payment option.

The blockchain system's applicability is independent of currency rates. It is not the exchange rate that matters in the case of cryptocurrencies. Instead, the currency's actual value resides in protecting blockchain technology and the simple, open, unalterable, and decentralized recording method. This payment system provides a new level of encryption protection and intervention-free activity, and the data

managed in the system cannot be changed in any way. Another significant advantage of the method is that the transactions are realized without intermediary agents, thus eliminating any extra transaction costs. Today's leading service intermediaries, such as Booking.com, Agoda, Airbnb, and other platforms are predicted to lose some of their market positions when the "maturity" of blockchain payment solutions, as customers and service providers are likely to deal with their transactions directly (Pilkington, 2016).

Virtual Reality (VR) and Augmented Reality (AR)

With its use in video games, VR is best known to offer a three-dimensional, computer-generated world that can be accessed by a person. Nevertheless, its ability to enable users in a "virtual world" to control objects or perform a series of acts, with special sensory equipment (headsets and data gloves), has rendered it an indispensable instrument for the industry. VR has been used for training for nearly three decades, especially for hazardous or difficult duties. Among its earliest applications: simulators to train pilots in flight cockpits. Today, VR is widely used to help surgeons plan complicated procedures to help scientists tackle molecular structure issues (Hotel 2025, 2017).

In light of the hospitality industry, VR has significantly made its way into hotel management's betterment. As reported by Oracle (Hotel 2025, 2017), Marriott International included VR technology in large booths in New York City as a part of their 'Travel Brilliantly' crusade, where guests could teleport themselves to destinations such as Tower 42 in London or bright coastlines of Hawaii. The VR experience surrounded participants with visions, sounds, smells, and climatic conditions, like warmth and haze. The campaign's goal is to connect with and encourage travellers to book a trip, particularly tech-savvy millennials. Similarly, some hotels already use VR to show prospective guests their property: imagine viewing stunning views from a hotel balcony or being whisked away on a helicopter tour.

Oracle (2017) market analysts predict that consumer sales of VR devices may surpass 38 million units by 2020. Moreover, some think they will become as commonplace as mobile devices, even given away with cell phone contracts, maybe. Such widespread acceptance paves the way for hoteliers to accept virtual reality marketing, but it will also raise the demand for more creative and individualized approaches.

Meanwhile, emerging advancements in the hospitality industry similarly consist of something known as augmented reality. Augmented reality is a technology that extends and applies layers of digital knowledge to our physical world. AR does not build its virtual artificial world as a substitute for the real one, unlike VR. AR emerges and adds sounds, videos, and graphics to a clear view of an actual world. New doors for hotels have been opened by the ability to overlay data on the guest world. AR can be used to take guests on a hotel tour, highlight the property's facilities, and share details of the area (Morgan, 2020).

With the advent of the Internet and smartphones, AR carried out its second phase of return and is primarily identified with the digital notion after being discovered back in 1990. Different augmented reality applications will influence our lifestyles, communion, entertainment activities, and are steadily heading into the acceptance process, not just as an element of the latest trends in the hospitality industry, but also as part of everyday routines in our busy schedules. For example, the walls of every room of U.K.'s Premier Inn Hub contains a map of the local area in the form of AR. Then they can discover about local interests when tourists point a smartphone on top of the map and get recommendations for the best activities to do around the area. So, with a computer-generated picture projection, the short description of it is a vision of the actual-world environment, altering reality's perception (Nevron, 2020).

Although AR is yet a significant aspect of the latest hospitality trends, customers ought to anticipate more industry adoption in the coming years. AR-powered signs can have the opportunity for hotel managers and restaurant owners to guide visitors to various locations, as well as delivery or check-in spots, making it easier to steer at the proximity of the hotel and other areas. As an element of latest developments in the hospitality industry, some properties are already using AR to create a more convincing and thematic hotel experience as several restaurants have been taking full advantage of AR technology for promotional.

Digital Trends in the Asian Hotel Industry

Most of the world's population lives in the Asia region. It is a massive platform with many possibilities for astute hospitality marketers (Hotel News Resources, 2019). Many cultures and mindsets coexist in the field, and each country has its interests and approaches. With this approach at hand, Asian tech giants are quick to spot opportunities in the hospitality sector by attempting to push their innovations into the market while feeding the creativity needs of hotel chains to increase productivity and enhance the customer experience (Lim, 2018).

For instance, a hotel named Henn-Na in Tokyo, Japan utilized robot innovation in an attempt to reduce staffing costs. At the reception, guests are given options to speak to a beguiling Japanese female robot or, if they prefer, a dinosaur that has been programmed to speak their language during the check-in process. Besides, luggage will be carried to the room by robots, and there also will be an in-room robot that functions similarly to a personal butler to provide guests with utmost convenience during their stay (Lo, 2019).

Singapore-based and a leading developer in Malaysia, Hatten Land, planned to launch their own blockchain-based rewards app to retain and incentivize their Melaka retailers and customers. StayCay, the said app, is a platform that allows users to book discounted hotel stays in advance and redeem reward points at a variety of locations, including shopping, lodging, food and beverage, and wellness. As blockchain acts as a digital ledger that keeps track of real-time transactions by connecting rewards through their diverse portfolio of ventures, Hatten Land believes

they will ultimately form an international alliance of hotels and retailers that will attract more customers in the future (Chin, 2018).

Furthermore, Aloft, a hotel in the heart of Bangkok, Thailand, which opened in late 2011, is the grand dame of hi-tech hotels. A number of their guestrooms and suites are equipped with FINGI, a room key that can act as a personal smartphone and is referred to as Touch Rooms. The key can be used outside of the hotel vicinity, like navigating the complicated lanes or alleys near the hotel or reserve tables in local restaurants. FINGI also functions as the center to control the brightness of lighting and the air conditioning temperature inside the room (Lo, 2019).

In the Maldives, Hilton has invented Hilton Honours Access. This guest program allows guests to engage in a new holiday experience called "A Maldives Island Adventure," which can be redeemed with Hilton Honors Points. Moreover, innovative island resorts in the Maldives, such as Hurawalhi's Kudadoo Maldives Private Island and Amilla Fushi, are among the earliest to offer in-room iPads that enable guests to do anything from book dinner to create personalized island experience itineraries. The use of iPads will help boost in-room spending by sending direct promotions to guests (Manik, 2018).

These examples depict that Asia countries are open to venture and willing to adopt the technology-induced world that revolves around the hospitality industry. Like Japan and China, some of the Asia countries are the pioneer footprint for this setting, where they have set specific benchmarks of technology excellence for hoteliers worldwide.

Practical Implications

The digital trends presented have been if not explicitly, implicitly implanted throughout the operations in the hotel industry. For instance, to ease and develop the infrastructure advancement, smart IoT and AI has been used in room maintenance and other facilities like conserving energy and water and strengthen the security system. It can also be seen in human resources (HR) level where the training and development activity, payroll and scheduling, and employee engagement were all achieved practically with the aid of cloud-based HR system, Machine Learning and chatbot. These mediums have made things easy and efficient for processes that involve immaculate touch and handling.

Moreover, the check-in and check-out process were made easy with digitalization, like the usage of facial recognition and mobile key with Radio-frequency identification (RFID) reader instead of the regular key-in-the-hole access and digital kiosks for smooth deliverance. The operations and services level, e-menu, in room dining robots, IoT sensors and e-housekeeping apps are used for the ordering of food and beverage, housekeeping and leisure activities alike. This is ideal for manual labour work where it helps to reduce error and increase efficiency with appropriate and precise handling. This chapter provides an overview to hoteliers on integrating the technology innovation into their daily routine. This will be helpful to

develop smart hotels to ensure survivability and sustainability post-pandemic. This chapter will also help the hotels' top management in making decisions and policies regarding the use of digital tools in hotel operation.

Conclusion and Future Research

Therefore, the usage of AI in hotels' management is explored and its implementation in various operations, such as distribution, sales, service to the customers, advertisement, relationships, and customer responses has been analyzed. Several digital trends (Artificial intelligence, Mobile technologies, Chatbots, Robots, Digital kiosks, Blockchain, Internet of Things (IoT), and Virtual reality, and Augmented reality) in hotel industry has been highlighted. Real-life applications of the digital trends in line with their respective operations has also been discussed. In conclusion, it will most likely be human contact and innovative technology that better serves both customers and companies that make a future of current trends in the hotel industry.

The rapid adoption and the use of the former digital technology trend are now generally recognized in the entire segments of the world. Along with a technologically, increasing directed society, customers now can experience efficient business services. Notably, it is true of the hospitality industry, a trend that led users to expect products and services to be targeted, more active, and equally effective. The experience of visitors is the most critical feature for a hotel to achieve goals. Unless the hotel provides a fantastic experience, it is likely to hard to retain and gain loyal and new customers.

The future of current hospitality trends will most likely include human interaction and modern, reliable technology that fits businesses and customers best. It is simple to presume that guests favor human interaction, but we ought to beware in making assumptions. To add to the indicators that indicate a constructive reaction to technology, the change of the latest trends in the hospitality industry often provides other benefits.

The scholarly research on implementing digital trends in the hotel industry is still somewhat constrained, offering a variety of future research prospects. Future research might apply how diverse people with different age group perceive digital trends in the hotel businesses and guests' attitudes to the use of digital technology in different hotel categories, like luxury or economy. It demonstrates the stance of different types of trips (i.e. leisure, working, cultural, wellbeing, and the type of robots used). The enactment of digital trends in the hospitality industry will persist and will obtain its place in each layer of management, concerning future growth, as long as it does not violate ethics and regulation.

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