World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(REVIEW ARTICLE)

Hospitality management in the age of Artificial Intelligence: The future of hotel operations and customer service in Thailand by 2030

Aphisavadh Sirivadhanawaravachara *

Independent Scholar, Industry Professional, Associate Professor (Magadh University), Bangkok - Thailand

World Journal of Advanced Research and Reviews, 2025, 26(02), 1668-1681

Publication history: Received on 14 March 2025; revised on 03 May 2025; accepted on 05 May 2025

Article DOI: https://doi.org/10.30574/wjarr.2025.26.2.1656

Abstract

As Artificial Intelligence (AI) is changing industries at the speed of light globally, the Thai hospitality sector is on the cusp of a revolutionary shift. This study explores how AI technologies, ranging from room management systems and AI-driven booking engines to chatbots and predictive analytics, are reshaping customer services and hotel operations. By investigating existing trends and new applications, the study underlines the future potential for greater guest experience through customized services, adaptive environments, and unobtrusive virtual assistance. Additionally, it considers how AI can facilitate operational efficiency, ranging from resource optimization to adaptive pricing. While AI promises unparalleled benefits in delivery of service and guest interaction, the paper also addresses pertinent challenges, including job loss, adoption gaps in technology, data privacy concerns, and human touch requirements in service interaction. In the Thai hospitality context, this study foresees the AI-driven hotel management revolution until 2030, emphasizing a blended strategy with human touch and intelligent automation complementing each other to build the future of guest delight and business success.

Keywords: Artificial Intelligence (AI); Thai Hospitality Industry; Customer Experience; Operational Efficiency; Human-AI Collaboration; Technological Adoption Challenges

1. Introduction

Artificial Intelligence (AI) is the study of the development of intelligent machines and systems so that they understand the world in the same manner as human beings and think and act with knowledge or consciousness. AI is a very broad discipline that includes many different subfields. They can be Artificial Intelligence itself, Kognitour technologies, Machine Learning & Data Science, Speech Recognition, Natural Language Processing, Computer Vision, Internet of Things, Robotics, or Human-Computer Interaction. AI can be applied and used as a supporting tool in a significant number of fields in human life (Ananeva, 2019). The hotel business is a very broad tourism industry targeting to serve bigger units such as organizations, groups, or companies, with a wide range of services. Hotel business is prevalent in every country of the world and will never fall short of scope; since thousands of people are traveling to different places daily for business reasons, getting acquainted with the local culture, or simply for fun. Ever since humans started traveling, the hotel industry started taking form as they needed to stay away from home, work, and daily business. People in rooms for rent with various services such as laundry, cooking, storage, and transport. Hospitality and tourism businesses must be up-to-date and follow all the trends in the industry to have proper relations with their customers since their competitors are always in close competition. Artificial Intelligence, as well as robots and service automation, is entering the hospitality and tourism industry. Those technologies are aimed at enriching customer experience. Virtual Reality, Voice Recognition, or Recognition of the Facial Latency feature are embedded in Travel and Tourism sectors, whereas AI solutions entail Brave Robot, Chatbot, and Emotion Engine in hospitality.

* Corresponding author: Aphisavadh Sirivadhanawaravachara

2. Current Trends in Hotel Management

Today, hospitality is at the heart of the tourism and business world. The hospitality industry is one of the key industries for rapid economic growth. Hotel is one of the crucial components of the hospitality industry. In the hotel sector, hotel operations and service management is extremely crucial. It is also one of the toughest areas. Operations and service are two interrelated processes. Effective and accurate operations management leads to efficient hospitality service. Successful operations management makes use of controlling and monitoring of infrastructure facilities, physical resources, maintenance, hotel accommodation, environmentally friendly facilities, hotel public facilities, equipment and tools, housekeeping, back of house area, kitchen equipment, payroll, health and safety; and produces action plans for the allocation and limitation of resources. Well-organized service management fulfills guest requirements and needs as per pre-operations service and delivers out file information through personalized concern and care, check-in, guest inquiry, complaint and follow up, and other operating systems. Large hotels generally divide management work into different services. Each service has a service manager who reports to the hotel manager. Hotel service forms a hotel service chain (Ananeva, 2019). Information technology (IT) is one of the major factors among them to provide productivity and service. There are various technology applications such as application software (APPS), property management system (PMS), self-service kiosks, on-line hotel booking, free internet in hotels, and restaurant management software that have been applied. Particularly in Thailand, hospitality service is growing in a high-speed rate. In accordance with the information technology industry, the market for hotel information systems is positioned to expand. Hotel management must deliver efficient management on plans and resource allocations to effective operation and delivery of service.

3. AI Technologies Impacting Hotel Operations

The acronym AI refers to artificial intelligence or 'intelligent machines'. AI consists of statistical algorithms supplying machines with data to learn the relationships of numbers from thousands of parameters. The result of the classification discloses features that characterize the object in question. AI is not a 'robot', but information technology (IT), software that delivers certain results (Ananeva, 2019). Most services consider it as a black box where only the input data and the output are accessible, but not the configurations or structures that generate the output. Machines are not programmable and require scientific efforts to produce results. 3D models can be directly transcribed to 2D and edited, but reversing the process is extremely complex, one of a kind, computationally demanding and resource intensive. This is the asymmetry on which AI pledges complete automation with the assurance of tight quality and completely controllable services, even though the job is either difficult or simple for humans, creating the paradox between hype and commercial frugality which significantly hinders its entry to most industries. AI technologies are now widely being used in the hotel industry for analyzing different streams of data, generating insights and predictions about guests, controlling the temperature, airflow or lighting of a hotel, room price switching, demand forecasting, applying multiple payment methods and optimizing staff allocation. However, its opinions differ on the activities AI will disrupt and how it will do so. Replacement of a worker by AI does not necessarily mean the job loss of an employee. The purpose is not replacing humans but co-working and helping to achieve higher productivity. AI technologies offer huge potential for improving services, processes and profitability across many areas. The tasks were already automated by the AI worldwide, but not in the case study hotels. It may be too soon, and this technology is still in the trial phase, or challenging and risky to implement this technology. It may also be extensively used by some hotels, but insight did not learn more than journalism writing on it.

3.1. AI-Powered Booking Systems

The room selection process is an important feature during the hotel accommodation application. The hotel search process is usually a step-by-step process. The guests define the place to visit, date of trip, and number of visitors who will be traveling, and depending on these terms, the search engines provide hotel options with prices and preliminary information. If the guest is satisfied with the proposal, the hotel is booked. All the above processes are performed one after another. But there are certain of the above processes that are clubbed together and performed at a time. That is, the guest selects three dates and then inserts their budget range and other specifications like ratings or keywords. Only those hotel options will be shown, along with information on their cost, location, and amenities. So, it saves time. Let's do this. Enter the conditions: hotels, hotel app: (Ananeva, 2019). Artificial Intelligence (AI) is a trending topic and emerging trends in many areas, including the hospitality sector. Although this topic is getting broad-based, new ideas may be individually neglected and undistinguishable. However, systemic thinking and studying technology adoption and a broader subject can blend and be called disruptive innovation. There is a huge disparity between technological development that occurs at top speed and the sluggish pace of AI adoption in hotels. This is even bigger in the boutique and lifestyle hotel segment, where innovations take longer to reach farther than in hotel industry giants. The foundation for reservation is partly based on information and request delegation to a third party. AI can assist in speeding up the

whole process of hotel reservation. Certain instant book APIs may be utilized, but humans-NLP would be implemented in an existing flow. AI chatbots are trending in most branches nowadays. To capture the right guest preferences to ask for personal recommendations in online chat would satisfy a guest's deviation from the pre-set profile based on machine learning analysis of booking history.

3.2. Smart Room Technologies

Guestroom technology today spills over into a multitude of interconnected emerging spaces, viz., guest (room, home, mobility) and hotel Clever devices that enable interaction with AI via guestroom or hotel software, B2B sites, B2C sites, context databases, data protection and privacy controls. Concierge and information chatbots offer invisible and friendly 24/7 services but do not have accuracy gaps and do not include sensitive and complicated matters (live or in-house agents preferred). AI-based solutions to purify automation are also emerging. Minimal AI-based demand forecasting or none is used by most hotels. Guest and market matching and enhanced pricing could help the industry overcome demand and supply equation issues. Overall, the hotel guestroom setting is developing rapidly in a re-invented fragmentation. Broad AI solution partners have proliferated and are making it difficult for hotel groups to catch up and maintain costs against design, adaptation, and integration constraints. The hotel industry under stringent debt might need to rely on virtual teams to support them. Guest room system design and architecture concepts have evolved gently into smart devices, assistive robots, networks, and AI from the late 80s. Guest room hardware to interface with back-end systems must be compatible with communication protocols to make it easy to adapt. Unbundling guest intelligence, security, and well-being is as urgent as the present grievances about privacy and data protection violation by technological giants. Wireless, high-wire networks like 5G enrich model-based physics, deep-learning-based AI, speech recognition, etc. Flexibly changing adaptors would smoothly be able to tap into provided off-the-shelf services. Hospitality and health services are fast-changing, touch-sensitive, highly touchy, and rapidly growing service sectors with huge filtering choice decisions between notably fast decision axiom drift and notice screeding systems, along with trained personnel for handling these. Vintage machines must also be retrained or examined to help existing users and/or new AI systems to learn or extract features from data better, which are offering age-conditioned and/or culture-conditioned systems both. (Ananeva, 2019).

3.3. Chatbots and Virtual Assistants

Chatbots are entirely new digital agents, which are designed to provide guided answers to structured questions. A chatbot simulates the discussion with another human and interacts with users through the internet. Hotels utilize chatbots for several uses helping with guests' queries; pushing personalized reminders/updates to guests; providing guests with personalized information about hotel facilities/services/events; gathering guest preferences for upselling and customized service; and market discovery, including handling capacity control and attaining price adjustments. There are several implementations of chatbots. Text-based chatbots are typical. Voice-activated chatbots simulate telephone conversation (Geisler, 2018). Further, the applications of chatbots range from single-purpose chatbots providing hotel-related facts to multi-purpose chatbots engaging in multi-turn guest discourse and integrating machine learning to enhance conversational capability as users interact with them (Ananeva, 2019). Hospitality companies have a great stake and investment in chatbots. Yet, chatbot adoption is in the nascent stage in Thailand. As chatbots usher in new competitive advantages for hotels, especially international & independent hotels, it would be essential to look at the current state of chatbot adoption in Thailand. As radical innovation focuses on AI-powered voice-activated assistants that allow users to communicate with computers using a natural language, it must have a longer service delivery perspective of this radical innovation. The technology gives voice assistants the capability to interact with guests regardless of human intervention. The assistance occurs along the guest journey: before, during, and after hotel stays of guests. VAs is likely to usher in a new service delivery paradigm for the hotel industry, the same way online travel agents and social media have. Nonetheless, the marketing role would be completely different from what it is now. Thus, with the global advent of VAs, the business model and role of hotels would undergo deep-seated and systematic transformation.

4. Enhancing Guest Experiences with AI

AI can revolutionize how hotel guests interact with their surroundings. These afore-mentioned AI applications can better complement traditional ways than anyone might ever think. In dealing with authentic offers, hotels can be proactive in enhancing guest experiences. On the content level, different emotional approaches can be employed through dynamic aspects appended to core marketing messaging (Ananeva, 2019). Light, sound, and scent in conjunction with text and images directly lead to enhanced interaction and responsiveness. Touch supports and stimulates these ways. Adding a two-way short video to provide even more personalization would be added value. 'Responsive suites' at W hotels and Ritz-Carlton are attuned to the wishes and needs of the guests. As soon as the guest opens the door and enters the room, he is empowered and spoiled from a completely personalized perspective. All mood

changes are made hassle-free, ranging from the appropriate lighting of a wanted intensity to the perfect temperature, fragrance, noises, and entertainment. Guest communication during the pre-stay phase needs to be more relationship-centered than transactional. Complimentary consultations on travel arrangement, recreation packages, and stay planning can foster guest relations and confer a loyal impression on the hotel. Direct selling would reduce operational agility and quality, confidentiality, and transparency. Preventive guest interaction reduces frustration from lengthy problem-solving steps through personalized assistance. Successful crisis management means to instead of offering a more personal kind of guest experience for future satisfaction and high-end care. This may seem costly. But the cost of dealing with dissatisfied guests and revenue not born more than pays for the cost savings. Algorithmic care optimization can dramatically lower costs and improve guest satisfaction. Guest sentiment data can prepare guests better and make offerings more appealing, allowing for enhanced preferred care. Simple mood-monitoring devices may be a cost-effective starting point. Combining such tests with geolocation systems would greatly improve depth of insight while minimizing feedback effort. Liking and sharing social posts on hotels through contest entry can enable collected social footprint monitoring while ensuring interest-based support. Sharing actual offerings with corresponding social network members can increase overall awareness and facilitate word-of-mouth marketing. Prioritizing blocking access to hotel facilities at the door might eliminate the gap time and create a more pleasant experience. Since AI influences central elements of the hospitality value chain, guest interaction must be a human business. Computer program-driven interaction or chatbots can frighten guests and reduce inquiry effort. Social network emphasis demands personalness to build relationships, and European hotel chains understand that guests like direct contact here. With guest experience requiring ever-deeper guest insight, adopting pre-consumer awareness would need to sustain a dedicated marketplace identity.

4.1. Personalized Marketing Strategies

The hotel's conventional marketing strategy concentrates on the generation of variety and enticing attributes for consumers to choose from. However, if the hotel company carries on with aesthetic image marketing strategy, it could rake in reasonable revenue while all likely breakdowns in services would go unnoticed (Ananeva, 2019). Even so, today's visitors don't take hotel stay, but rather, they long for an intimate relationship with the hotel. They would want their stay experience to be personalized as though the hotel is their home. To meet these expectations, hotels discard the conventional philosophy and start concentrating on one-to-one marketing strategy. Apart from creating guest amenities with the help of automated services; they are anticipating guest behaviors, which are enabling hotels to cater to them precisely. In sixty decades of half a century when computers turned revolutionized, forecasting was not a new or breakthrough problems in hospitality management. Nevertheless, now hotels started able to forecast guest behaviors one step ahead and aligning the offer which is wanted by guests. This is customized marketing strategy and one of the key points how some hotels clearly surpass their competitors in the battle for the same set of visitors. Applying AI technologies and big data in the hotel should be personalized, prices setting is optimizing strategy for guest price optimizing. Propositions for guest targeting would improve revenues with the possible. Having large client database and promotional alliances with agents today actually paid off, hotels are looking to be in a predictable future. However, multi-sided systems in a hotel will grow downwards and with it, mass selling. Advertising in the future will act as local consumption, consideration on each side would truly be a hospitality promoting breakthrough. Based on all the information regarding a specific client, foreseeing his behavior and marketer matching makes one another willing to work with him. Infuriating hotel decisions are restrained by human cognition speed and belonging system. Generalized information frequencies and regularities could never be reasonably recognized. Most of the decisions still require onsite reasoning or offsite inference. Differentiation in criteria elasticity finally embodies immense tragedy in promising hotel system.

4.2. Predictive Analytics for Customer Preferences

Currently, with AI technologies and big data, the whole scope of companies needs to be reassessed. The AI algorithms can process huge volumes of data and anticipate the user's selection accurately based on the user's thrill and previous browsing history and suggest better options for hotel or experience recommendations (Ananeva, 2019). This is more than what most big travel agencies do now, where they simply suggest new hotels or activities based on experience-proven routes or lodgings. This can highly personalize the customer’s experience and can be done before and even during the trip. AI systems will know a lot about their customers and suggest personalized pre-trip experiences and packages. They will also be providing amenities such as wake-up calls at selected times in selected languages. Hotel staff will be notified of customers' preference, and this will provide more customized experience. Having knowledge of preferences such as window being closed will make customers feel more indulged.

4.3. AI in Customer Service

AI will have a positive impact on customer service in various service industries, including Thailand's hotels. AI can be where a computer program performs human work involving intelligent tasks. AI applies reasoning, experience learning, natural language understanding, computing, and understanding ideas. In 2023, AIs such as ChatGPT emerged to be "GPT" (Generative Pre-trained Transformers), which output text-like human speech when responding to proceedings produced by users (Ananeva, 2019). AI is forecast to be used in depth and realistically, such as with holiday and customer service chatbots, interpretation, and payment online. In Thailand, hospitality business gazes into the future at what AI holds for customers and business by the year 2030. Thai hoteliers and other hospitality professionals predict hotel check-in through an AI device or robot using face-recognition technology in identifying customers as well as verifying their credit cards efficiently to improve the customer experience, revenue, and labor availability. In-room service should be carried out through AI devices with local and natural language processing styled to suit customers' tastes, referencing previous in-room requests and complaints. AI robots will also be likely utilized for bringing room service and wastebaskets, especially for tier-1 luxury hotels and resorts. The marriage of human workforce and AI robots is predicted to be used in cleaning to save costs, increase coverage, and minimize human contact in laundry and cleaning operations. AI robots will facilitate room upkeep, facilitate guest preference modifications outside rooms, and minimize losses. Tier-1 luxury resorts or hotels with a villa concept only anticipate AI robot butler service, whereas midscale to upper-upscale hotels anticipate voice AI. The hotels must utilize AI-powered natural language recognition and processing for the delivery of local languages and responses to drive customer experience, revenue, and labor shortages. The future of AI in hospitality is estimated to be greater than that of human workers by 2030, especially with physical robots or pop-up AI robots handling food, drinks, and simple information. Natural and localized language processing for hotel visits facilitated by AI is also expected to yield a better customer experience by 2030.

5. Challenges in Implementing AI in Hotels

Adopting AI in hotels has its drawbacks. There is a threat of job loss when technology keeps changing at such a rapid pace. Fewer competency, skills, and qualifications roles are being threatened with substitution. This varies from low-tier to mid-service jobs, which encompass hotel swimming pool attendants, waiters, receptionists, and maids. Employee-customer interaction will be minimized, offering an interactive experience to the visitors, which is difficult for hospitality firms (Ananeva, 2019). Automation of services could violate the emotional relationship between visitors and employees, impacting brand worth. There are visitors who prefer human contact with employees, and this cannot be done by AI. Many hoteliers have little capital; therefore, it is challenging to replace technology while funding previous technology. A thorough explanation and definition of why new technology is being adopted and how effective the solution is in providing desired results are required. Data security and privacy are now top concerns, since AI and IoT systems continually capture, store, and transfer guests' personal data. Privacy breaches result in loss of revenue, loss of reputation, and lawsuits. Security aspects need to be incorporated into the data processing systems from the design stage, termed as 'privacy by design.' With more firms adopting new technologies, cyberattacks have been increasing. Hotels are poor security targets for cybercrime, including data breaches, credit card information selling, and denial-of-service attacks. Hotel businesses are haunted by payment blackmails, data decoder purchases, and tampering of hotel networks by hacking into them. To effectively utilize AI for efficiency as well as customer satisfaction in hotels, it is necessary to understand different types of AI solutions correctly. Chaos may arise in hotels when there is analysis of unstructured data or when there is implementation of sophisticated solutions without the involvement of already established operations. Correct understanding of problems and installation of correct solutions that yield positive benefits while integrating existing operations are necessary.

5.1. Data Privacy Concerns

Use of mobile apps and other internet-based systems to enable bookings, other arrangements, payment for services, feedback from customers, etc. brings up some concerns of data privacy. The trends suggest that such data collection, processing, and storage are going to be regulated in a way to align with privacy laws where the hotels are located (Ananeva, 2019). This will rather be a deterrent for hotels in case of hotels' operation across borders. The data regulations of the European Union are among the most famous. In the United States, for instance, there are rules in California; however, much less regulation than EUs exists. Nonetheless, offering personal data by customers is a chance for hospitality service providers to offer fulfilling offers to customers. With more data about customers, it is essential to be able to sift through that and take sufficient measures towards data security. Firewalls and other IT tools have been implemented recently by companies to seal up their databases and protect them from attacks; however, not such a tightening exercise has been done on processes at the company regarding gathering and utilizing data within. Not all of those in hotels are necessarily trained in how to deal with personal customer data even if customer information is kept in very secure places. Customers, though, might also have problems with the way personal information is dealt with after Check Out as well. Customer momentum is usually felt by hotel operators by way of Call Centers. Nowadays, many

hotels like to get a multi-platform and multi-language Call Center where they obtain their customers. These Call Centers, however, tend to look more like a cost trap due to relatively higher offshore center operations costs. Moreover, Call Centers also do not serve the hotel guest expectation of being accurate and reliable in communications. There is a dilemma associated with outsourcing Call Center services. The hotels themselves will normally not handle customer grievances. On occasions when things go wrong, the outsourcing company would be held to blame despite the latter investing huge sums of money in technology and systems. For this reason, it is strongly recommended that hotels all over the world own our own co-own Call Center functions with other hotels and/or chains.

5.2. Integration with Existing Systems

Hotel managers in Thailand must think about how they can best incorporate AI into their hotels with the rapid development of artificial intelligence technologies. Artificial intelligence is getting the lion's share of attention recently in all industries because it makes scaling updates and advancements to existing applications and advancements possible. AI hotels will likely provide differentiated customer experiences such as boutique hotels are doing today. Especially, AI agents will dynamically create human behaviors, maintaining human and machine communication and affecting consumer behavior without compromising the human interface. AI-based hotels will be less influenced by various industry standards than most of the existing hotels and will instead create their own branding to attract customers. Today, various types of AI-based hotel agents can be used to alter various consumer behavior patterns before and throughout the duration of actual stay. However, the installed base of such agents is very low as of now (Ananeva, 2019). Hence, today in the year 2023, Thai managers also possess vision and time to decide whether to utilize an AI-based hotel agent or not and, if so, which ones to use. Following this, a mixed-methods approach was carried out involving an in-depth interview and online survey of the hotel representatives in Thailand as well as other subject matter experts, inquiring regarding their opinions on AI-based hotel agents up to 2030. Application of such superior artificial intelligence tools is highly likely to revolutionize hoteliers' customer contacts by utilizing new communication features with special reference to speech and emotion detection along with the potential to shape consumer behavior using virtual agents to act as chatbots. As a result of these estimates, by 2030, more customer interaction automation and utilization of systems offering different types of services are possible. However, even in 2030, even these systems will still not have social experience; therefore, it will still be important to preserve the current human-in-the-loop setup in conversational agents. It is likely that the hotel infrastructures of 2030 will be able to integrate with such advance AI-driven systems because the hotel industry will invest heavily on integration. Looking at the Gather Hype Cycle of these technologies, conversational agents which were used actively by the hotel industry are now reached the bell plateau of disillusionment. All forms of AI hotel facilities/menu agents currently installed will find themselves being used by hotels in Thailand. Agents will be anticipated to have benefits for consumer behavior forming measuring systems and future planning assignments too cumbersome for humans.

5.3. Staff Training and Adaptation

Hotels personnel need proper staff training and adaptation measures to keep employees' daily operations in line with this AI development. Employees should have some technical knowledge such as computer skills, electronics and AI knowledge to prepare to learn front desk AI. Additionally, every facility needs a specialized technician to handle AI service at the hotel. On the side of the visitor, front desk AI must also have graphics software with good UI. Such a design must reduce the metal load on hotel staff. All these can adhere to the shareability principle of AI methods when hotels need to retrieve front desk AI. This research provides a good reference for academic studies and basic theoretical knowledge of AI in hotel selection. Also, front desk AI adoption practices and actual operations can be used by hotel managers and front desk personnel in the acceleration of AI fundamental research. Hoteliers believe 50% of service work would be replaced by AI or machines in the next five to ten years yet also anticipate 80% of staff training have no trouble adapting. AI systems not only lead to good performance but evaluation conclusion. Managers worry that staff training and adaptation will lead to performance decline due to the problem of interaction change. As Assistant Manager succinctly stated, 'one has to carefully search whether anyone is a slow learner'. Individual managers will need to acquire AI flexibility to acquire a better environment. Too much dependence on machines will increasingly lead to the deterioration of basic skills and judgment abilities of hotel staff in the service process, still needed when machines fail or enter downtime. The rapid expansion in AI technology will substitute 50% of employees, but assumptions tend to underestimation of institutional social engineering policies that are needed. The AI technologies that were commissioned hotels after collecting and learning data resulted in acquiring knowledge about means of machines on which the performance of hotels was enhanced by choosing business models as well as selecting cross-organizational paths of innovation (Ananeva, 2019).

6. Case Studies of AI in Thai Hotels

Prior to the outbreak of COVID-19, the hospitality sector had already been contemplating various ways to integrate AI into their business. With AI technology growing, new software tools were developed that could significantly change the way hotels carry out daily activities. A study of some Thai hotels nearly two years after the COVID-19 pandemic presented the following case studies on leveraging AI to optimize profitability. Qualitative exploratory approach was employed along with semi-structured interviews from 15 participants involved in direct hotel operation types within six weeks between 23 May 2022 and 30 June 2022. Newly opened hotels developed during the pandemic age integrated upgraded technology to support day-to-day operations amid reduced human resources, including automating day-to-day tasks such as sales and marketing, guest communication, F&B and accounting operations, housekeeping, maintenance, procurement, and security. For example, digitalized guest experience was provided as AI chatbots that could answer questions 24/7, a pre-check-in guest messaging app, IR Drones and cameras to prevent employees from climbing tall buildings, rooster-feeding robots in F&B, IoT BMS for electric and water utilities, and web scrapping programming for competitor pricing analysis. In contrast, earlier hotels that were opened before the pandemic were forced to contend with out-of-date technology where legacy systems could not be combined, thus presenting constraints. New systems in hotel technology upgrades with in-built legacy systems were not an option since guest experience solutions were not provided by new systems. Moreover, replacement of most of the systems was too expensive, and the providers were few (Ananeva, 2019). However, tourists' expectations for a better individualized experience at hotels, which can be offered through AI, were surpassed. Caution should be exercised to keep in mind that the study is desktop qualitative analysis and exploratory case studies of Thai hotel brands purchased and established during the pandemic. It did not consider hospitality companies outside Thailand. Quantitative survey research, extensive bidding research with large established properties, and 2030 projections could be areas of future research.

6.1. Luxury Hotels

Luxury hotel brands, with emphasis on a premium customer base, give importance to quality service. Luxury services include educating luxury hotel employees, and simply hiring hotel management graduates may not suffice. Proper personalities, hard work, and interest in working for the guests along with proper skills are necessary for quality luxury service workers (Ananeva, 2019). Profitability of the luxury hotel industry is limited by rising labor costs. Customer-oriented labor-intensive tactics, along with rising hotel operating costs, compromise profitability and sustainability. Self-service technology uptake drives significant hospitality research changes and strong debates on luxury hospitality potential. Initial studies indicate a preference for human interaction and personal touch before and throughout luxury hotel stays to guarantee premium status. Luxury hotel guests clearly articulate a strong need for traditional hospitality. Luxury hotels provide unique and personal experiences where guests expect personalized services from the moment of arrival until they leave. Recommending local excursions and personal service in restaurants and bars is also expected. Luxury hotel guests visit hotels not only to sleep and have breakfast but also to relax or socialize. First-class travel companions include the luxury hotel experience. Uniqueness is a fundamental element of luxury hospitality's allure, which cannot be obtained by self-service technologies. Companies already employing self-service technology in luxury hotels completely overlook this marketing strategy. Luxury brands research indicates a need to employ wealth and uniqueness as a marketing strategy to differentiate company offerings. Companies already employing self-service technology in luxury hotels offer other, more unique benefits to preserve their premium positioning and not just luxury accommodation. Luxury brands have distinct positions based on values that set them apart from competitive or other brands. Consumers are willing to pay more, even if inexpensive production of most luxury-brand products is possible. Luxury hotels are also costly and sophisticated, with industry growth determined by technology, economic change, competition, and socio-cultural change. Online travel agencies, artificial intelligence, social media, and cultural and global shifts are examined, with Thailand featured as an emerging market with a growing luxury hotel segment. The point of distinction for Thailand is its rich tourist destinations from nightlife through unique culture, beautiful temples, beautiful natural scenery, and great cuisine.

6.2. Budget Accommodations

In mid-range hotel establishments, while travelers are subject to budget constraints, their needs in terms of high-quality service are managed by the brands and standards of hotels. In the integration of competitive alternatives with comparative attributes, technologies bring about revolutionary and irreversible changes to address customer needs. Empirical evidence on low-budget hotels shows very heavy reliance on manpower with basic infrastructures. Informed applications of Artificial Intelligence are still in the infancy stage, therefore minimal ROI-directed attention. Lastly, whereas budgeted realignments currently focus substantially on interactive and amiable manpower to be emphasized as competitive advantages, potential risk of AI applications is observed, therefore reverse engineering proposed to convert mid-class accommodations in hotel operations to benefit from profitability gains and long-term customer loyalty. On the contract case with exponential growth of know-how and knowledge base in hotel operations, interim

start contracts of AI applications implemented to progressively overhaul staffing level and satisfaction through uniform quality service which is comprised by brand, chain, and sector identification algorithm; operation and maintenance procurement service contracts; multilingual NLP chat-bot scripting; and multi-attribute data analytics based on data and rivalry payback market devising. On event-driven AI contracts with uncertain cases on human and software assets to selectively implement AI on copy works and contents timeframe, where draft selections from draft cull scripts are reviewed with approximate billable rate, AI-authored drafts compare versions with same compliant with prompt issue of length. And then either word content refers cohesively arcing upon other peer's reviewing or thoughts which might be machine learning dependent on key thrusts thus action for pits of deadline. In event-driven artificial intelligence contracts there are unexpected burdens on human and software labor pools to be agile with the use of AI for copy work and content by time frame, where drafts range with the norm a billable rate has been compared against zero cost and cap of starting/total time and monotonicity compliant changes. And then pieces of textual translations either word content expandingly maximize upon other peers' reviewing or idea processes that might be machine learning based upon key terms so action for girds of upside prices.

6.3. Boutique Hotels

Boutique hotels are undergoing drastic transformation since Asian consumers tend to choose travel as a form of recreation (Ananeva, 2019). Travel adds an experiential factor to people's lives. Lifestyle, personal taste, and cultural inclinations define our personal brand to express individuality. As the impact of social media increases, more boutique hotels are being developed as Instagrammable spots. Nowadays, boutique hotels in Asian environments usually duplicate international luxury brand lexicons. Still experienced baristas, front desk diplomats and chefs must interpret ideas into live actions. To pass on brand tales, rustic design pieces must be balanced by earthy genuine hospitality. Brand stories bond customers and result in favorable attitudes. Since hospitality is a two-way communication, the closer customers and hotels are, the stronger their desire to go to the hotels. After the changing market environment of the Asian market, boutique hotels change their business strategies drastically into forming experiences that cannot be forgotten. The significantly lowered investment cost of boutique hotels compared to international chain hotels is enticing property developers to venture into the hotel business. By assuming a "behind-the-scenes" position and offering soft brand affiliation and integration support, big hotel operators become boutique hotels themselves. Boutique hotels' distinctive sense of place is rooted in local community culture and genuine stories about local experiences. Boutique hotels should leverage this opportunity to feel empowered while being sustainable competitive advantages over reliability uncertainties. Boutique hotels have to be in front of sleep positioning without sacrificing the contemporary sleep experience. Sophisticatedly researched segmentations enable boutique hotels to craft sleeps through story telling branded products, services and even spaces. The bond between people and place is strongest in boutique hotels. While boutique hotels' strengths are etched in years, the turnover is shaped into a strategy to add financial agility while maintaining talent momentum through innovation. The strategy has restaurants in view. Dining fetters too frequently do not communicate with the hotel brand, leading to stagnation of hotel revenues. By turning their restaurants, brand credibility, quality assurance, and price power significantly absorb risks from formative acts against resilient competition.

7. Future Predictions for AI in Hospitality

It makes a prediction on future applications of AI technologies in operations of hotel companies from the hotel managers' point of view. The participants are four hotel managers who have been assigned significant operations in hospitality management in their individual hotels. While the first half of the interviews were focused on AI technologic potential of the Thai hospitality industry, in this place the AI forecast for each hotel with its individual circumstances are put forward and analyzed. The participants approximated AI uses in customer service delivery, HR, marketing and sales processes and human staff roles together with AI machines. The first one is a 5-star luxury hotel in Bangkok owned by an international brand hotel chain with hundreds of hotels worldwide. By 2030, chatbots would handle all customer pre-arrival requests, check-ins would be done through facial recognition software, and the interactions of concierges with in-house visitors would be minimized as smart information providers would be installed and the rooms would be equipped with smart IOT TV systems to contact staff directly. Moreover, AI robots will be used in delivering goods to rooms and cleaning guest rooms and working in the backend. Moreover, human staff's roles will be divided into those who interact with customers and those who work behind the curtain on repeatable and predictable tasks. The AI machines will predominantly replace the work of transactional staff in contactless customer service products. Thus, human staff will be free from tedious work and able to undertake more dynamic and more sophisticated requests such as inquiry, concierge, and complaint handling. Still, customer satisfaction will be lost without the presence of human beings in operations (Ananeva, 2019). The second hotel is a co-living hotel startup at one of the busy areas on Koh Samui Island which is populated by local low-medium budget tourists. The respondents predicted that hotel operations would not be disrupted by AI technologies in all areas by the year 2030. AI will be utilized in safety and security services,

accounting process, preparation of data for market analysis and profitability forecasting, and response inquiry email preparation in marketing and sales. Along with the customer services, the AIs would help provide guest check-in through the operation of a kiosk or face recognition, yet human staff would still process the service so wholesome and whole services may be provided. Further, the backroom would be made even more automated and would help to reduce redundant human effort which is currently bothersome and difficult in terms of maintaining the quality and precision of tasks. Moreover, the character of fellowship of co-living approach may not be furthered by robotic speech.

7.1. Emerging Technologies

Like in most industries today, new technologies are transforming not only the hotel business operations but also how hotels communicate with their consumers. Thus, hospitality operation in this dynamic environment is going to experience a major shift by 2030. The present paper, therefore, elaborates the views of hotel operation managers on future technologies and their implications on hospitality operations by 2030, findings on the transformative technologies in the hospitality sector, impacts of such technologies on hotel operating process and Thailand hospitality industry areas of improvement in future technology environment. Hospitality AI is the hype, but job replacement anxieties remain. Technologies as much as they have to offer to life also have the fear of removing people from employment. AI is the future and present of the hotel sector with its competitors across the globe wanting to harness this hip and helpful technology (Ananeva, 2019). Hotel administrators are upbeat on the onset of AI, but concerns have been raised against human workers losing jobs sooner than anticipated in most of the hospitality work in sight, with the most eye-catching example being an erring service robot from one of the hotels in Singapore. Overriding concerns, AI has been the greatest technology ever to influence hospitality operations. In conjunction with enhancement of natural language processing, AI has ceased being an experimental customer-interaction technology. A case in point is Marriott International's Courtyard brand. The hotel replaced concierges with virtual concierge screens in the lobby partly in the hope of improving guest experience but partly with a by-product of not having to write as many employee paychecks. AI for hotels promises improved efficiency of computer systems and guest processing capacity. The product is timesaving for hotel managers, and the electronic memory eliminates concerns about lost and misplaced items. As with topic-based chatbots, AI in hotel operations is becoming more and more popular, initiated by most of the major lodging companies and being used company-wide in numerous ways. Bearing in mind the future of AI hotel data analytics, it is a disruptor to the hotel industry as it enables hotels to gain much deeper understanding about consumers, their needs, identify problems at every stage of interference along the customer journey, create and refine propositions, provide better customer experience and optimize revenue.

7.2. Long-term Impacts on Employment

Thailand's hotel, restaurant, bar, and casino industry is predicted to be one of the larger employers in the Thai economy, based on the level of interaction with the public. Labour and occupational factors resulting from the expansion of restaurants and hotels were the most explored. Most hospitality managers are concerned that further automation using robots in hotel operations will lead to the loss of employees and substitution of existing hotel jobs, hence having negative impacts. Regardless of the huge role the robots will have to play in hotel operations and guest services, this will greatly rely on acceptance and effectiveness. It is likely that the jobs of humans and robots will be complementary rather than being in competition among hotel occupations. The potential impacts of the infusion of artificial intelligence robotic service delivery in Thai hotels were revealed by employing a mixed methods approach amidst the looming period of the Thailand 4.0 economic model. Six driving forces were identified: attractiveness of hotel's brand image, depression of hotels' employment costs, dangerous of human workforce, diffusion of AI robotic systems, hospitality innovation creation, and financial capital availability. The same driving forces were grouped into four subsets with varying degrees of importance in the perceived impacts among hospitality managers. The findings enlighten hotel management's considerations for the adoption of AI robotic service delivery in subduing and leveraging the long-term effects. Hotels are concerned that the advancement of automation and artificial intelligence technologies will transform service delivery within the hospitality sector and that the volume of hotel employees' tasks that cannot be performed by robots will dwindle. To balance this concern, it is contended that while increasing automation will lower the level of employment, it will not take the place of jobs. Businesses still need to design and produce the technology, manage and service it, and operate the firms. A report recently suggested that there would be a need for higher skill levels and fewer, but larger, jobs. There will be growth in supervisory and managerial roles which require multi-skills, and reductions in less-skilled roles that do the work which can be performed by robots. While artificial intelligence has spread rapidly to allied support services, it will have little effect on the pure hospitality aspects of the hotel stay.

8. The Role of Government and Regulations

But there are serious concerns regarding how Artificial Intelligence Systems will replace a significant number of workers in most sectors of the economy, such as hospitality, which consists of most of the unskilled labor. Fears of job

loss are being debated in most regions, and new regulations or laws need to be implemented to demystify fears of job risk or job change (Ananeva, 2019). There is an intense debate currently on the potential reorientation of AI reliance and reliance in other industries. Governments need to act quickly to discover AI, analyze potential dangers, and implement more guidelines for rules of operation for current AI systems and limits. Nations need to urgently create new legislation or amend consumer protection, privacy protection, security, criminal responsibility, responsibility, etc., regulations due to the likely risks of AI. In addition, legal regulations should be improved to guarantee regulation compliance, and more emphasis should be placed on the government's credit and public interest factors in relevant examination and approval of AI systems. Regulate the creation of AI robots and online data services, clarify application scope and obligation supervision, intensify safety supervision, and adopt rigorous cybersecurity standards. Establish a model of sectoral management in line with the stage of AI industry development of the different sectors; IT and civil aviation and medical sectors should implement strict licensing management.

8.1. Policy Frameworks

With the emergence of artificial intelligence (AI), the future of hotel management is being reshaped. AI is an idea that has been on the drawing board since the arrival of computers. While programming did exist then, it was still unrefined and without well-defined boundaries. In such situations, AI systems were created, and various tasks were automated. Following up on this subject, three AI projects are being pre-designed in this framework of the thesis. The first project consists of the current state of AI research by the year 2030 and humanitarian law, together with a simple description of how the ethical limits of AI are addressed currently. AI jobs related to hospitality management and hotel systems specifically will then follow. Finally, possible limits of hotel AI service systems will be set. The hospitality management of the future is perceived as that of a modern hotel in Thailand. Novel artificial intelligence, machine learning, and natural language processing methods and software packages are under the spotlight. Pricing strategy, sales, marketing resource allocation, market segmentation, and buying behavior prediction for customers are outlined. The building and development of guest management system, room service, concierge call, and AI voice system introduction and growing usage constitute other hotel systems based on AI. These are meant for staff and not guests and help human staff in their daily work. These advanced hotel systems do not aim to replace humans but are intended to assist them. Implementation of such systems will likely be saving manpower and costs, improving profitability, and improving customer satisfaction (Ananeva, 2019). The aim of this paper is to create a consistent vision of hospitality management in 2030 based on hotel automation by AI technologies within the industry itself. Nine transformational states scenarios by the year 2030, a change timeline, AI hotel systems through which such changes are channelled, projected strategies and efforts an AI hotel will have to endure, and valuable skills and competencies relevant are examined. Given all of this, this paper can be applied to hotel businesses and hospitality management and to major hotel chains and brands preparing for a long-term hotel automation trend.

8.2. Support for Technological Adoption

To maintain a competitive hotel advantage in the future, it must utilize facilities and infrastructure for technological and innovative capability. Several incentives are experimented and verified that have been found to increase staff support and learning and development within hotels. Incorporating corporate culture and reorganizing cross-functional communication are significant incentives for alteration and implementation of hotel technologies. Moreover, structuring knowledge sharing also enables the digital transformation efforts leverage firsthand knowledge, experience, and people-to-people relationships (Ananeva, 2019). Conversely, though, if the hotel management wants novelty or revitalizes the mindset and position of new technologies among employees, transformational leadership styles and their extent in time need to be applied before, during, and after the purchase of technological change. When the focus is placed on modifying habits or creating application-specific formal skills development programs to acquaint the possibilities of the given technologies, greater transactional leadership behaviors must be practiced. Transformational behaviors also usually ensure that an environment of teamworking is in place so that the tension can be replaced with synergy and allow hospitality professionals to become architects of their own crafted capabilities. Today, world-famous technology champions are searching for the best practices to implement technology in hotels all over the world. Based on the findings of the research and different motivational tactics successfully implemented on other continents and firms, this research also suggests reflections on minimizing resistance towards an imminent set of new technologies for technological foresight. Focus on these aspects increases acceptance, capacity, and leverage of the technologies to maintain indirectly or directly a competitive advantage. In addition, incorporating greater studies of hotel facilities, educational innovation and capitalization, additional available and accessible beneficial technologies, and hotels' world-class reputation and experience all enable hotels to remain up to date. These threads of counsel are all guided by theories of resistance and acceptance to slow technological change that runs through the mosaic of behavioral, managerial, educational, and contextual change.

9. Sustainability in AI-Driven Hospitality

Sustainability concerns bring tremendous pressure upon the hospitality industry to reduce waste and adverse environmental impacts. Increasingly, hotels prioritize corporate social responsibility and environmental management. Technology reduces labor requirements and optimizes room occupancy, with numerous start-up companies venturing into the hospitality sector to provide AI solutions implemented in hotels. However, technology must be complemented by human effort and occupy the middle ground, ultimately being only a facilitator. A look at AI usage in hotels reveals that some opt to take advantage of customers in an unfair manner using deceptive pricing targeting certain groups of customers, without being honest or open about their operations. Automation will be limited only to areas where machines are better at it than human beings or where laborers cannot be found or cannot afford to hire labor. Human intervention is required for some activities, particularly inter-human functioning. Despite the advancement in customer interaction and information processing, robots cannot replace empathy, understanding, and human attribute superiority. AI is being used at an increasing pace because of increased competition, a chronic lack of labor, and increased staff turnover due to COVID-19 (Ananeva, 2019). Economic, technical, and social pressures must be organically aligned to support AI in hospitality. AI supply can resolve some problems for possible business wiretaps, but readiness profiles with massive investments in skills, infrastructure, capital, and knowledge create society challenges. Quality of output varies for various types of AI, requiring differentiating investment and skill. These results require multi-fronted thinking regarding tech adoption in hospitality. Although the engagement strategies are indicative of society awareness of hospitality emerging technology, guest preparation engagement is surprisingly untargeted. Troublesome AI implementation requires input from parties affected by the changes in the local situation. Disruptive change will need more evolved methods of participation than multi-quadrant analyses generally provide when handling technological developments in the future.

9.1. Energy Efficiency Innovations

Hotels would be saving lots on energy bills with fresh, cleaner technology, according to an analyst. The hotels invest huge sums of money to cool, illuminate, heat, and power their properties, much of which can be saved through improved energy efficiency in room automation equipment and appliances, HVAC equipment, hot-water systems, guestroom lighting control systems, LED lighting, etc. For example, by allowing the light-to-task to exactly match, hotels can reduce 30 to 40 percent of the lighting power. Clever energy controls such as turning off the light when no one is present are also on the move, and this will translate into additional energy savings that will take continuous research and development. Motion-sensor lighting options with timers, for instance, would curb bathroom energy wastage. Additionally, single-chip flat-panel displays will influence the energy efficiency of guestrooms and LED lighting will prevent guests from wasting energy because it is quite difficult to derive and reformulate into other types (Ananeva, 2019). There are a few new developments in the energy categories, such as theft-proof liquid-crystal display (LCD)/plasma color TV (one of the basic five energy-consumption devices in hotels) will be available for the hotel industry in 2009. The energy-saving features not only save energy bills but also appear good as these energy-saving features are designed into the sets of the TVs, not an afterthought. Furthermore, Psylock keypad guestroom locks will also be released, providing security and energy savings as they cannot be pulled and copied off-site, and not ringing the door unlocks will turn them off automatically. Automation and Display Dynamics glass sheets pretending to be opaque LCDs were also set to become available in hotels at this time, enabling hotels to benefit from new energy codes and provide energy savings without reducing user comfort. With regards to theft-proof LCD/plasma TVs, the big five hotel companies were anticipated to have automatic displays with considerable lowering of heat emissions since 2009 and a reputable national brand that will sell a surface-mounted master key light switch in the United States further advocating for energy savings.

9.2. Sustainable Practices Enhanced by AI

Sustainable practices have become increasingly relevant and important to the hospitality industry as there is a growing need for sustainable locations. AI, in addition to other modern technology, is essential to conserve valuable resources either in the form of water, energy, or manpower, or time. With the recent surge of the COVID-19 pandemic, the hospitality industry adopted sustainability as one of its fundamental operational areas. The awareness and sensibility toward environmental, social, and governance (ESG) decisions have gained prominence and have encouraged a rethink of hotel operation and management on the part of operators as well as investors. Both sustainability and ESG are widely understood and recognized terms in many contexts. However, there is still room in the hospitality sector to do better regarding universal and same definitions from consumer to capital markets (Ananeva, 2019). Problems regarding wastage of resources and environmental factors can have a significant impact on a company. The hospitality sector consumes high amounts of various kinds of resources like water, food, cleaning, chemicals, and energy consumed for space heating, cooling, hot water supply, laundry, and cooking. Resources and funds need to be used efficiently or recycled to minimize their impact on the environment. AI technology can be used efficiently to adopt various

participative and direct-to-guest connecting platforms to inform customers and hotel staff about wasteful activities that involve monetary costs, loss of resources, and harm to nature. AI can offer visitors customized content and useful services, in terms of place, at both macro scale with wide options and micro scale by the hotel. Modern AI technologies will enable customer personalization services, enhanced option recommendations for experience, and handy overall assistance. AI can potentially enhance the operations and aid staff to better improve customer service quality. AI can be used on equipment or resources layout representational systems within hotels and gear logistics optimization. AI can process large amounts of data and simulate operations to suggest operating strategies necessary for optimal service now. AI can learn visitor behaviors and help hotel brands create a new communication system to successfully deliver necessary offerings.

10. Cultural Considerations in AI Implementation

AI is a common technology that is propelling progress in sectors. Although AI is a common technology within the global hotel and hospitality industry, there is acceptance of the same technology across different cultures. Thailand is a favorite tourist destination and tourist firms in Southeast Asia and hospitality is imperative to Thai economic growth. However, AI adoption is still far behind global hospitality stakeholder fear of potential job loss, exorbitant energy consumption, displacement of human employees and undeserving technologically level among the hospitality staff (Ananeva, 2019). Hospitality fears and issues related to AI adoption differ across cultures. AI is a more capital-intensive project than IT. The hospitality culture is rooted in a "people before profits" culture. International Journal of Hospitality Management. AI overwhelms the entire hospitality staff with a focus on lower education levels and low-level sophistication skills. Issue is demonstrated in pre-study interviews. The focus is on understanding why people must "sell" machines used for monitoring anything from hotel bookings to cleaning, administrative, financial, and accounting work. Thai culture on the sub-sectorial level doesn't believe in machine-made built environments but AI management of non-guest interactive jobs would set hotel employees free to take care of guests. The Tourism Board pitches widening nations' hospitality image, service culture and hospitality training to generate marketing worth. In addition, meanwhile-level systems modelling, AI would refine labor practices to raise productivity, increase job satisfaction and their ability to continually construct local knowledge. Improving speed, efficiency, response time and service culture translates into increased guest satisfaction and return on investment towards higher economic stability. Facilitating globally lower cost added-values, automated labor tasks will surpass displacements, unfettered managerial capability could drive larger businesses. Then, AI implementation and innovation would gradually re-position Thai hospitality into global competitiveness indices.

10.1. Local Customer Preferences

Despite the recent entry of global hospitality brands, relatively fewer Thai hotel brands inspire local loyalty, even as domestic travel surges. Hotel marketing studies emphasize the local positioning of incumbent brands whose characteristics and values resonate with those of prospective guests. Based on their travels, top hospitality executives foresee that in 2030, travelers will relish new hotels offering service-enhanced, Insta-worthy, and sustainable experiences. Thai hotel brands that are well-liked by local customers, especially first-time domestic travelers who travel in group tours, can utilize this information for target marketing and service development (Ananeva, 2019). Hotel guest experience relies on numerous factors, the estimation of which can become troublesome for hoteliers. Identifiable scene components such as facilities, colors, and attributions can be incorporated, however, to prepare a blueprint service through the utilization of font designs to establish a distinctive image. Subsequently, each service script can be analyzed for stimulating, culminating, and concluding experiences, with high "experience scores" indicating high levels of satisfaction. Scripts and stories are closely related; the latter offers instructions for performing scenes and responding to customers' inquiries while co-modifying experiences as actors and co-creators. Negative experiences offer service warnings and camera disclaimers from entrance gate to front to safeguard new scripts and scenes. Scripts can then be analyzed from a design angle while remembering the guest's story. The hotel function is at its peak in pre-critically imagining the stay; travelers are likely to anticipate a locally grounded hotel image or narrative thread. Research in this area could uncover these expectations as hotels can develop rich relationships with consumers and take on a local partnership function in guiding the co-creation of the tourist experience. Learning can turn local hotels into sympathetic service providers, while embracing solo dining can collaborate with local eating and drinking places in spearheading new scenes and scripts. Looking at local wise shops and attractions, hotels can provide newcomers with rich stories for improved purchasing connections through expectation management, sherry behavior, and good content reviews.

10.2. Cultural Sensitivity in AI Solutions

The accelerated pay increase of Thai workers in the hotel industry, supported by the government as part of a move to recover the economy amid the pandemic, is poised to have profound effects on hotels' operations and service in the country, most particularly in terms of human resources. As applications of Artificial Intelligence (AI) currently

experience rapid growth, many job roles can be put at risk. Since such AI technologies are being increasingly created and implemented worldwide, many countries may be at risk of being left behind by the sudden digital shocks. The stakeholders of Thailand's tourism industry need to prepare themselves for how they can effectively cope with these rapid changes by 2030. Potential areas of influence and opportunities for hotel operations and customer service are discussed. Most new hospitality AI solutions in 2030 to serve back-of-house or cloud-based support and data processing, facility management, remote sensing, unmanned service, content creation, and multi-functional service robots at front office facility and front-of-house or guest-facing space will be more sophisticated and intricate "integrated" functions than their previous versions. Compared to previous AI-driven systems, novelty of AI use forecasted in hospitality in 2030 will feature more consolidated functions that are able to handle thousands of familiar hotel functions that are normally performed by human employees or simply by online systems. With more consolidated AI applications, professionalism in operating hotels is forecasted to reduce significantly, therefore hotel employees will have to perform less complex and manual tasks. These labor-saving cutting-edge systems can provide its managers with a more recreational-like working setup, which can improve job satisfaction and reduce turnover rate. In this sense, better AI applications can be more than just a cost-saving step and wasteful spending on networking and can also introduce qualitative improvements to whole operations. But such a heavy reliance on newer AI technologies could bring in new problems after machines started malfunctioning. Since hotel would still be reconfiguring operations with newer systems and event layouts in the event of failure of the network, synthesis cloud data analysis, and state-of-the-art multi-purpose robots in event operations side, if anything goes wrong, guest service will literally grind to a halt until such faults are fixed. Additionally, AI choices and service robots malfunctioning are prone to be automatically difficult for human beings to detect or repair. Moreover, hotels that adopt such AI technologies would be on the virtually similar operation level, therefore likely to experience an "all head to an iceberg" situation (Ananeva, 2019). Finally, there remains an unanswered question of how personalized service variations would take place with increasing data exclusions whereby the rapid transitions of guest data to out-source firms and cloud computation may evict guests from hotel's decision-making in personalization.

11. Comparative Analysis with Global Trends

AI technology has brought promising approaches to service businesses, like hotels, to optimize their operational effectiveness, enhance customer service experience, and improve profitability (Ananeva, 2019). The conventional hotels that have not embraced AI tools, however, will encounter a threat from Agile companies. Lean start-up teams with better technology capabilities can offer competitive prices and favorable conditions to employees and customers. Whether employing machine-based or human labor pools, productivity advantage of agile hotels and OTAs already forces the traditional hotel model to cost-reduction or customer loyalty programs in most markets. However, in most hospitality markets, agile players are still in their infancy stage, since OpCos of traditional hotels have resources and processes at their command to respond faster than new players. Besides, free markets such as out-of-home consumption and highly fragmented unbranded hotel segments are particularly at risk of agile start-ups. Hospitality companies' readiness for AI thus seems to be a no-brainer. It speaks to so many problems to which hospitality scholars can offer responses: theory on mature companies' use of new technology in general; current application of technology within the hospitality sector and being prepared to add new services; vibrant hospitality new entrants; hospitality industry's potential for innovation and retransformation; effectiveness of AI in hotel operations; and AI technology per se. Despite an obvious demand for all this scholarly activity, few analyses of any of the foregoing have been published in hospitality literature, even though the subjects have been widely researched within related disciplines. This is a shortcoming which could and should be addressed by hospitality researchers. The international hotel industry is estimated to grow continuously in the coming decade from USD 573.59 billion in 2018 to USD 892.90 billion in 2028. This report presents a thorough study of the international hotel market with statistical and qualitative data from 2018 to 2028, and growth pattern roadmaps of the market. Industry drivers are covered and the detailed company profiles of the leaders. The report also provides significant insights into trends and developments of the global hotel market. This report also plots the qualitative impact of the various drivers on the geographic segments of the hospitality industry.

11.1. AI in Hospitality Worldwide

The hospitality industry is one of the most significant industries in the world. Hospitality and tourism organizations and companies attempt to make their clients' times comfortable and memorable. In the age of new opportunities, services, and technological development, it is extremely crucial for hospitality and tourism organizations to be acquainted with the latest developments and trends. AI technologies will be examined to determine how it can be used within the hotel sector, and areas of operation and customer service which are endangered by AI are determined (Ananeva, 2019). AI technologies are quite new, yet with ongoing development, the potential of AI is great and with a broad area of applicability. AI has only recently been embraced and infiltrating sectors in hospitality, sports, manufacturing, eCommerce and shopping, and data analysis. AI could find opportunities to be applied in other fields as well. Most of

the world's hotels have already been using AI in operation to have more management, higher ROI ratio, and higher service for their customers by utilizing chatbots, mobile, data, and ML. The hospitality industry, and the hotel industry specifically, was chosen as the most appropriate sector for technological disruption. As part of the whole hospitality industry and tourism sector, it is widespread in many countries and is not in danger of losing its potential. AI in hospitality technology development, applicability, and use cases within the hotel industry will be described. The area of AI application in the hotel industry includes AI in operation, customer service, and hotel chain management.

11.2. Lessons from Other Countries

In 2016, one of the most viral stories done about Japan's robot hotel (Henn na) was about how this "robot hotel" was the world's first hotel to have entirely original robotic concepts. Henn na became popular because of its seemingly bizarre idea: it used anthropomorphic robots that operated as its front desk and greeted guests in different languages. However, in October 2020, the media reported that Henn na would be forced to release about 40% of its robots, tagging it as a technological assimilation failure. While much as it was being a unique gimmick to draw tourists, what proved was that the robots, as competent as they were to handle checkout, swipe cards, and luggage transfer, could not perform and automate basic hospitality tasks, adversely lowering the standard of service. Additionally, the cost of maintenance and upkeep was discovered to be disproportionate to savings realized due to reduced staffing rates (Ananeva, 2019). The case is a reminder of the appreciation of future preparedness in hospitality. It brings out the fact that service providers need to achieve an optimal balance between employment and technology. Japan is poised to become an even more extreme society, with a fast-growing elderly population and declining birth rate. To address the labor shortage in the aging society, service automation providers are encouraged to make use of advanced technologies to reduce the number of individuals required to provide a service. In this regard, AI-embedded robotic technologies have emerged as a commonly researched and developed solution around the world. While Japan is universally researched to examine the meaning of service automation in hotels, other developing and developed nations' experiences can provide valuable lessons to the hospitality sector in Thailand, showing how AI is used in hospitality and how it should be managed, something that reduces the losses and harms related to lack of preparation for upcoming technologies.

12. Conclusion

This report states that AI technology will be utilized to all kinds of operations 24/7 for Thai hotels by the year 2030. Based on the report, the amount of hotel personnel will be reduced by 50%, but everything will be aided by big data, machine learning, smart systems, and the robots in the age of AI. In Thailand, AI technology will be integrated into most of the hotel operations by 2030, leading to faster guest services and transactions, personalized promotional offers, minimal operational cost, and enhanced room management. However, the traditional way of welcoming guests and hotel operations expected by hotel guests in the current age will likely be replaced. AI will revolutionize how hotels operate and provide guest services. The job of hotel employees will be transformed into the line of AI manipulation. There have emerged academic pieces on the prospects and implications of using AI technologies in the hotel industry in different nations and circumstances (Ananeva, 2019). This research contributes to hospitality literature through the presentation of a timely 2030 forecast on the adoption of AI technology in Thai hotel companies, a hospitality service-reputed country. Additionally, it fills the theoretical gap regarding AI technologies in hospitality management. Apart from that, it contains valuable advice to hoteliers regarding the AI strategy or tech adoption roadmap, suggested ways of dealing with staffing changes, and recommendations for regaining guest confidence by utilizing AI in a correct manner. The hotel sector in Thailand is known to be the most important industry for its tourism economy and employment. Thailand, in general, is famous for its hospitality service, yet the hospitality service is labor intensive in the manual sense. As a developing country, Thai hotel staff even constitute 75% of overall activities. Furthermore, it has lower labor productivity with average 133 US dollars per room night of RevPAR compared to other countries such as Hong Kong, Singapore, and Malaysia. These considerable labor costs make it challenging for hoteliers to ensure profitability. Artificial intelligence technology has unbridled potential to drive value creation for the hotel industry with enhanced efficiency, service quality guarantee, and revenue diversification.

References

[1] Ananeva, D. (2019). Artificial intelligence as disruptive innovation in the hotel industry: Finnish boutique and lifestyle hotels perspective. Retrieved from Read here

[2] Kecić, A. (2019). Is technology stealing our jobs? The impact of the fourth industrial revolution on the hotel industry workforce. Retrieved from Read here

[3] Apriandito Arya Saputra, M., Alamsyah, A., & Ibnu Fatihan, F. (2021). Hotel preference rank based on online customer review. Retrieved from Read here