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HOW ARTIFICIAL INTELLIGENCE AND EMPLOYEE SERVICE QUALITY MARRIED CUSTOMER-RELATED OUTCOMES

Korankye Benard[1], Odai Afotey Leslie[2], Omane Abigail[3]
[1,2]*School of Business Administration, Zhejiang Gongshang University, Hangzhou, 314423, China.*
[3]*Director, Methodist Child Development Center, Effiduase-Asokore, Ghana.*

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ABSTRACT
This study investigates the impact of artificial intelligence (AI) and employee service quality on customer satisfaction, engagement, and loyalty in the hotel industry. The research focuses on the customer perspective and specifically examines the experiences of departing guests who have encountered both AI and employee services in surveyed hotels in China. The results reveal that AI and employee service quality significantly contribute to overall service quality assessment, customer satisfaction, engagement, and loyalty. However, specific dimensions of service quality have a more pronounced effect on the outcomes of interest. More so, some dimensions of AI service quality also have a pronounced effect on outcomes of interest. This study enriches the existing research on AI and customer-related outcomes (satisfaction, engagement, and loyalty), offering valuable insights for hotel management on synergizing AI and employee service to obtain a competitive advantage and favorable customer behaviors.

KEYWORDS: *Artificial intelligence, employee service quality, customer satisfaction, customer loyalty, customer engagement*

1 INTRODUCTION

Numerous studies in marketing and management literature have extensively examined the significance of service quality as a determinant of customer satisfaction (e.g., Fida et al., 2020; Shamsudin, 2020), engagement (e.g., Abror et al., 2019; Hapsari et al., 2017) and loyalty (e.g., Hapsari et al., 2017; Prentice, 2013). The concept of service quality pertains to how customers perceive and evaluate the service offerings provided by a business entity (Parasuraman et al., 1994). It encompasses customers' value judgments regarding both tangible aspects (e.g., physical environment, service setting) and intangible elements (e.g., service personalization & interaction) delivered by employees (Ramseook-Munhurru et al., 2010).

Artificial intelligence (AI) integration into various industries, particularly the service industry, e.g., hospitality, aviation and tourism, has rapidly advanced due to the proliferation of technology and digitalization. The primary objective of this integration is to enhance operational efficiency and customer experience (Bayón Pérez & Arenas Falótico, 2019; Jarrahi, 2019; Saura et al., 2021). AI involves the intelligent performance and behavior displayed by machines, computers, or robots that assist businesses and humans in their daily operations (van Esch & Stewart Black, 2021). In the context of the service sector, AI mainly provides digital and robotic services to customers, facilitating their purchasing and consumption experience (Bansal et al., 2022; Chintalapati & Pandey, 2022). Essentially, AI forms an essential component of the services offered by service providers to positively impact customer experience, ultimately shaping customer attitudes, such as satisfaction, and behaviors, such as constant purchases, engagement, and loyalty (Ameen et al., 2021; Manjula, 2021). Evaluating commercial services is typically reflective of customer perceptions, indicating the quality of service (Prentice et al., 2020). However, existing research has rarely explored the integration of AI services into service quality perceptions and assessments, particularly in terms of their impact on

customer satisfaction, engagement, and loyalty. This study aims to investigate how AI services impact service quality and customer-related outcomes, contributing to the advancement of research in this area.

The widespread use of AI in service industries has raised concerns about job losses, as highlighted by various publications (Bayón Pérez & Arenas Falótico, 2019; Brougham & Haar, 2018). Magazine articles and blogs have documented potential job replacements by AI, such as concierge services or brokerage clerks (Bruegel's Weekly Newsletter, 2018). An investigation by Pew Research Center indicated that about 72% of Americans express worry about AI-related job loss (Smith & Anderson, 2017). These findings and claims have significant implications for employee reactions in the workplace, as evidenced by the impact of AI service awareness on turnover intention (Li et al., 2019). Contrary to concerns about job replacement, some argue that AI can only replace specific tasks, not entire jobs (Bayón Pérez & Arenas Falótico, 2019; Huang & Rust, 2018). They suggest that only low-skill, low-wage positions are likely to be automated, while AI services can enhance human tasks rather than replace them. AI is found to positively influence employee performance and productivity (Wisskirchen et al., 2017).

AI's impact on employees can also extend to customer experiences in the service context, as customer responses are greatly influenced by employee attitudes and behaviors (Hapsari et al., 2017). Customer interactions involve not only service employees and physical elements but also AI services (Prentice et al., 2020). However, research on how customers respond to AI-related offerings is still at the infantile stage. While service organizations strive to leverage AI for operational efficiency and convenience, studies have shown that customers generally prefer human interaction over AI-powered robots (Wirtz et al., 2018). This creates a knowledge gap between management's perceptions and customer expectations. Few studies have approached this issue from the customer's perspective to understand their response to AI and employee services (Prentice et al., 2020). Therefore, this study aims to bridge this gap by examining how customers respond to services delivered by AI-powered tools and employees.

This study specifically examines the application of AI services in the hotel industry, considering the diverse range of AI services available in different contexts. Commonly utilized AI services in hotels include concierge robots, facial recognition services, digital assistants, voice-activated services, and travel experience enhancers. For the purpose of this study, AI services will be standardized. The subsequent section provides a comprehensive review of relevant literature on AI and employee services. The methodology for testing the proposed hypotheses is outlined, followed by a detailed analysis of the collected data and a presentation of the results. The findings are then discussed, emphasizing their implications for researchers and practitioners in the field.

2 LITERATURE REVIEW

2.1 AI service quality

Artificial intelligence (AI) refers to machine intelligence that mimics human cognitive abilities to achieve specific goals in various contexts, such as businesses (Chintalapati & Pandey, 2022). It involves using automation, big data, and machine learning to perform tasks traditionally performed by humans (Saura et al., 2021). AI is now a part of people's daily lives, with tools such as Apple's Siri providing voice-activated assistance to mobile users. It is also prevalent in businesses, organizations, and industries, where it is used to improve operational efficiency and achieve defined goals (Nair & Gupta, 2021). Prentice et al. (2019) present an overview of how AI is conceptualized, operationalized, and applied. While human intelligence is innate and inherent to individuals, AI is embodied in machines, both humanoid and non-humanoid, and programmed by humans to fulfill business and human needs. The use of AI in businesses and organizations can be viewed as a commercial service that delivers value and benefits to relevant stakeholders, including customers and service providers (Prentice et al., 2020). This perspective is consistent with the marketing literature's characterization of services as "economic activities offered by one party to another" (Prentice et al., 2020b; Wirtz et al., 2018). AI services in the organizational context add value by enabling employees to perform their tasks more efficiently, such as responding to customer's queries, managing inventory, and writing reports (Li et al., 2019; Murphy et al., 2019), and enhancing the overall customer experience throughout their journey (Prentice et al., 2020).

The hotel industry has increasingly adopted AI services to enhance the guest experience. For example, Alibaba has established Hotel FlyZoo, a robotized hotel in China where robots virtually serve customers from check-in to checkout, offer them room service and laundry, and act as waiters (daxueconsulting, 2019). Hangzhou Marriot Hotel and Sanay

Marriot Hotel Dadonghai Bay have introduced facial recognition and voice-control technology to deliver a more natural human-computer interaction experience. Guests can freely switch settings between work and leisure modes and enjoy a more convenient room service experience (Hertzfeld, 2018). Hilton Hotels & Resorts has implemented Connie, an AI-powered entity similar to Apple's Siri, to perform various tasks such as greeting guests in different languages, recommending local attractions, answering queries, refining responses based on customer interactions, and assisting with check-in (Solomon, 2016). The Wynn Casino in Las Vegas has integrated Amazon Echo into its rooms, enabling guests to control room lighting, temperature, TV, and draperies using voice commands. The Clarion Hotel Amaranten in Stockholm has also employed Amazon Echo as a chatbot butler, helping guests with room service, taxi bookings, and providing online information. The Cosmopolitan has implemented Rose, an AI-powered concierge, who assists guests during check-in and can manage customer queries and requests for entertainment options and information on local sites and hotel specialities (Makadia, 2018).

According to van Esch & Stewart Black (2021), AI services offer a range of benefits such as selecting travel options, designing itineraries, choosing preferred locations & payment methods (Chintalapati & Pandey, 2022), concierge robots, digital assistants, and travel enhancers that assist customers in making purchases (Manjula, 2021). These services are not limited to hotels but extend to the entire customer journey to enhance their experience and facilitate consumption (Ameen et al., 2021). AI is used in the pre-purchase stage to collect information on customers' previous purchases, travel preferences, destination choices, journey patterns, and payment options (Sharma et al., 2022). AI applications are available on various online channels, providing personalized recommendations, saving user preferences, and travel bookings (Kavyashree, 2023). These services also include suggestions for safe routes, room reservations, and advanced food and beverage preferences (S. Sharma et al., 2022). During the purchase and consumption stage, hotels can leverage AI-powered tools to streamline guest experiences. For instance, Hangzhou Marriott Hotel Qianjiang and Sanya Marriott Hotel Dadonghai Bay enable their guests to use a mobile app to complete check-in, checkout, and payment processes conveniently, without waiting in long queues at the front desk (Wong, 2018). Once checked in, guests can use specialized mobile devices to interact with AI-powered chatbots, which can assist them in ordering meals, scheduling activities, controlling the room temperature and lighting, planning travel itineraries, and providing recommendations for local attractions (Wong, 2018). These AI-powered applications serve as a representation of the hotel's service offerings, aiming to enhance guest satisfaction, engagement, and convenience.

2.2 AI service quality and customer-related outcomes

This paper suggests that AI applications in service should be considered as a part of overall service quality, which can have a significant financial impact on organizations (Huang & Rust, 2018). Service quality is the level of service provided that meets or exceeds customer expectations and is typically evaluated based on how customers perceive the organization's offerings (De Leon et al., 2020). It is widely accepted that service quality is a precursor to customer satisfaction (Ameen et al., 2021), engagement, and loyalty (Prentice et al., 2020). However, rare studies have investigated the role of AI service in service quality assessment, its influence on customer-related outcomes, such as satisfaction, engagement, and loyalty behaviors, and its reflection on organizational performance.

Despite the increasing use of AI-based services by service organizations, such as hotels, there is limited academic research on how customers respond to these services. The quality of AI service is based on technology, and customer response is likely influenced by their attitudes and experiences with technology (Prentice et al., 2020b). Previous research has shown that technology-based services can affect customer satisfaction, engagement, and loyalty. A study by Meuter et al. (2000) found that self-service technologies (SST) generated both positive and negative experiences for customers. Positive experiences included SST effectively meeting customer needs, being easy to use, and saving time and cost. However, customers also experienced frustration with technology failure and ineffective designs. Another technology-based tool called customer relationship management (CRM) is utilized for handling customer information and service interactions to improve outcomes, such as consumer purchase and loyalty behaviors (Hapsari et al., 2017; Sharma & Singh, 2021). Despite the significant investment involved in CRM technologies, research (e.g., Sharma & Singh, 2021) has shown that such investment is worthwhile, as CRM applications positively affect customer engagement, customer engagement (Vu, 2021), leading to customer loyalty (Chen et al., 2022).
In a service quality investigation of the banking industry, McKecnie et al. (2011) identified four technology-based service quality dimensions, including customer service, technology security and information quality, technology convenience, and technology reliability and ease of use. They found that two of these dimensions were significantly

related to customer satisfaction and loyalty. In a study establishing customer engagement and loyalty via artificial intelligent tools by marketers, Bansal et al. (2022) found out voice assistants, Chatbots, sentiment analysis, and facial recognition significantly affect customer engagement and loyalty and the future of customer interactions. In a study that explored artificial intelligence's relation with customer experiences, Ameen et al. (2021) indicated that -enabled service revolutionalized customer interaction and experiences with beauty brands, establishing customer satisfaction and engagement. Based on the above discussion, this study proposes the following hypotheses:

H1 – AI service quality is significantly related to customer satisfaction.
H2 – AI service quality is significantly related to customer engagement.
H3 – Customer satisfaction with AI service is significantly related to customer loyalty.
H4 – Customer engagement with AI service is significantly related to customer loyalty.

2.3 Employee service quality and customer-related outcomes

Parasuraman et al. (1994) proposed that an organization's services comprise tangible and intangible components. The tangible elements include marketing promotions, communication materials, equipment, and physical facilities, while the intangible components include employee service quality, such as reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1991). Although tangible factors are crucial, in industries where human interactions play a vital role, such as hotels, the intangible services delivered by employees during customer service encounters offer a competitive edge (Lin et al., 2021; Shamsudin, 2020). This is because customers' perceptions of service quality are shaped by the interpersonal interactions they have with employees (Hapsari et al., 2017; Hoang et al., 2022). The service experience with employees distinguishes one service organization from another, as it is a unique interaction between the customer and the employee (Fida et al., 2020).

Frontline service employees are critical in shaping customers' perceptions of any service encounter (Vu, 2021). They are the first and primary point of contact for customers before, during, and after the service process (Vu, 2021). Customers often base their overall impression of the firm on the service they receive from customer contact employees (Shamsudin, 2020). The quality of service provided by frontline employees is pivotal in determining a customer's level of perceived service quality (Prentice et al., 2020b). The widely used service quality measure, SERVQUAL, identifies five core dimensions, with the first four dimensions focusing on the service delivery performed by employees, emphasizing service promptness, accuracy, consistency, friendliness, and caring. The last dimension relates to the physical setting of the service premises, including the appearance of employees (Parasuraman et al., 1991). Even if the facilities are immaculate and the service is delivered as ordered, a customer may leave with a negative impression due to the attitude of an employee, with other efforts overlooked (Hapsari et al., 2017; Prentice, 2013).

The way employees behave and perform during a service encounter has a significant impact on how customers perceive the quality of service they receive (Hoang et al., 2022). This, in turn, affects customer satisfaction, engagement and their likelihood to continue using the business's services (Hapsari et al., 2017b). The service profit chain model, first developed by Heskett et al. (1994), outlines this relationship between employee behavior, customer satisfaction and engagement, and business growth. According to the model, customer loyalty is the key driver of profit and growth, and loyalty is directly linked to customer satisfaction and engagement. Employee service performance and productivity have a significant influence on satisfaction and engagement levels, as they shape the customer experience and contribute to their perceptions of service quality. This, in turn, influences customers' retention and loyalty behaviors towards the business (Lin et al., 2021; Shamsudin, 2020). Based on the above discussion, this study proposes the following hypotheses:

H5 – Employee service quality is significantly related to customer satisfaction.
H6 – Employee service quality is significantly related to customer engagement.
H7 – Customer satisfaction with employee service is significantly related to customer loyalty.
H8 – Customer engagement with employee service is significantly related to customer loyalty.

AI services offer convenience and can greatly impact the customer experience, as supported by research (Huang & Rust, 2018; Prentice et al., 2020b). However, customer adoption of these services is influenced by their readiness and awareness, as shown in studies (Ivanov & Webster, 2017; Prentice, 2013). Despite this, very little research has been conducted on how customers respond to services performed by AI compared to those provided by employees. Some anecdotal evidence, such as blogs and news articles, suggest that customers prefer human employees over AI and may become frustrated with AI services (e.g., Bansal et al., 2022; Gursoy, 2018; Solomon, 2016). This frustration could

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impact their overall perception of a company's service quality and subsequent purchasing behavior. Therefore, we propose the following hypotheses:

H9 – Employee service quality accounts for more changes in overall service quality other than AI service quality does for overall service quality.

H10 – Employee service quality accounts for more customer loyalty changes than AI service quality.

2.4 Conceptual Model

Given the relevant literature espoused in this section, a conceptual framework was proposed (Figure 1). The model proposes that AI service quality is a latent second-order construct measured through AIs adopted by firms to serve their customers, which are concierge robots, voice recognition, digital assistance, travel experience enhancers, facial recognition, and automated data processing. Furthermore, employee service quality is also considered a second-order construct that is measured through employees' service to customers, which are tangibility, reliability, responsiveness, assurance, and empathy. AI service quality and Employee service quality are proposed as antecedents of customer satisfaction, engagement, and loyalty.

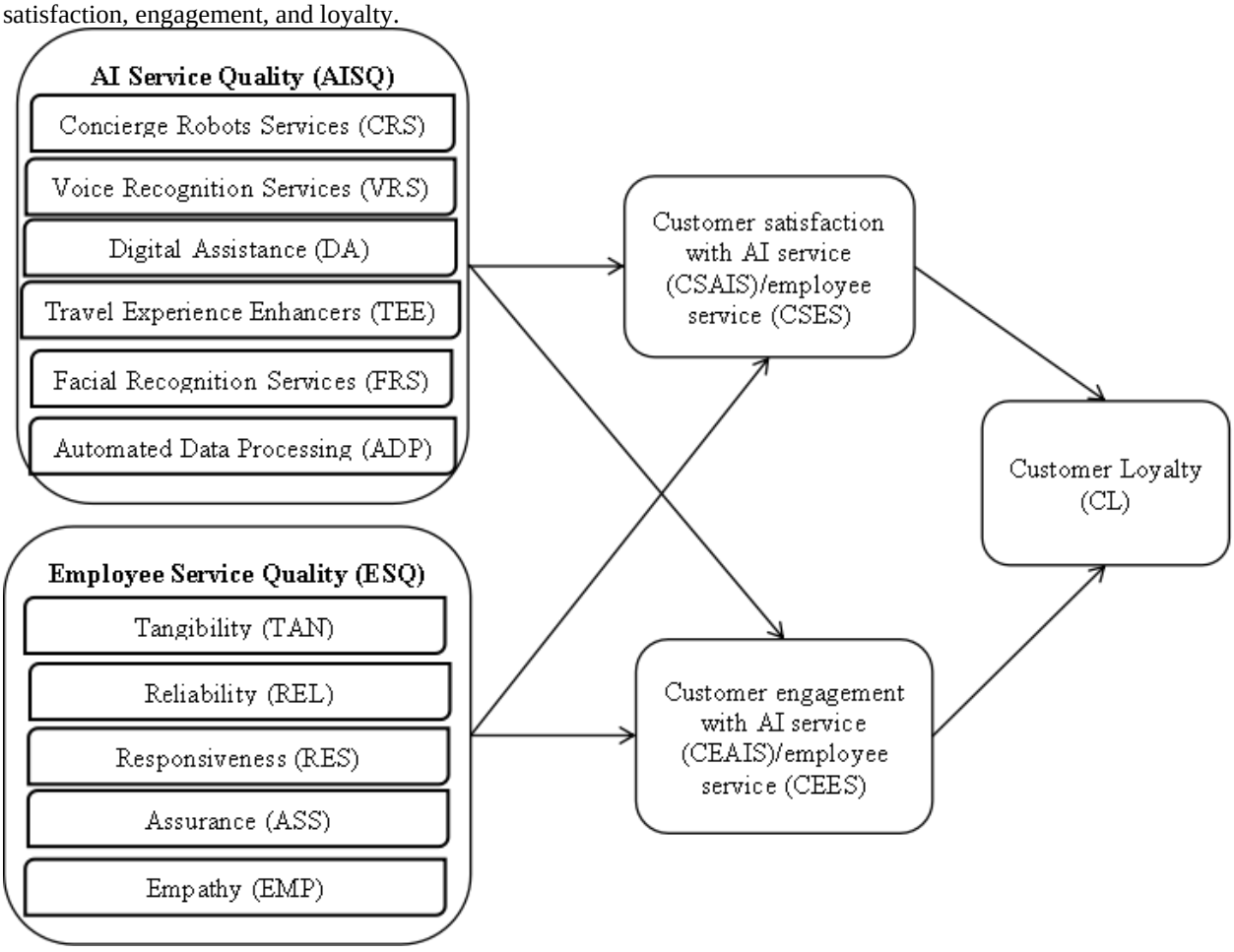


Figure 1 Conceptual model

3 RESEARCH METHODOLOGY

3.1 Population and sampling approach

The research was conducted at hotels in China, particularly in Zhejiang Province, Hangzhou. These hotels are committed to different kinds of AI that support their business operations and provide customer services. Voice recognition services, digital assistance, concierge robots, facial recognition services, chatbots, and travel experience enhancers are some common examples. The researchers solicited responses from customers who had patronized the

services of these surveyed hotels and were checking out. Specifically, only individuals who understood, experienced, and used these AI-enabled services from the hotels were engaged to partake in the study.

3.2 Measurement scales

The study of AI services is context and setting-specific. In this study, we focused on AI services within the context of hotels. The study used items that were used to evaluate AI service quality that was taken from daxueconsulting (2019); Hertzfeld (2018) and is reflective of the AI-powered services provided to hotel guests by all the hotels in China that were surveyed. To ensure that the measure was content valid, we reviewed the AI services offered by the hotels and consulted AI experts and management from the hotels to confirm these services. As a result, we identified the following AI services that were used by all hotels and included them in the study: concierge robot services, voice-recognition services, digital assistance, travel experience enhancers, facial recognition services, and automated data processing. The study generated a total of 21 items to assess AI service quality in the hotel context, asking participants to rate their satisfaction with certain services provided by the AI tools on a scale of 1 (strongly disagree) to 5 (strongly agree).

Relying on the SERVQUAL scale developed by Parasuraman et al. (1991) and validated in the study of Ramseook-Munhurru et al. (2010) was deployed to measure employee service quality on a scale of 1 (strongly disagree) to 5 (strongly agree). This scale consisted of five dimensions, namely: tangibility, reliability, responsiveness, assurance, and empathy. Three items was used to evaluate tangibility with a Cronbach alpha value of 0.71, such as "the hotel environment is conducive and attractive" and "the facilities at the hotel are visually appealing". Four items were used to evaluate reliability with a Cronbach alpha value of 0.85, such as "the hotel's employees provide services at the right time" and "the hotel employee followed through on their promises". Three items were used to measure responsiveness with a Cronbach alpha value of 0.79, such as "the hotel employees provide prompt services to customers" and "the hotel employees are always willing to help customers". Four items were used to measure assurance with a Cronbach alpha value of 0.84, such as "the hotel employees' behavior instils confidence in customers" and "the hotel employees can be trusted by their customers". Three items were used to measure empathy with a Cronbach alpha value of 0.75, such as "the hotel employees give individual attention to their customers" and "the hotel employees have their customer's best interest at heart". Additionally, there was also an item to evaluate customers' perception of the overall service quality scale from 1 (poor) to 5 (excellent).

The study measured customer satisfaction with AI and employee service quality using three items adopted from previous research by (Bogicevic et al. (2017); Cronin et al. (2000); De Leon et al., 2020). The items addressed the overall satisfaction with the services provided by AI and employees, respectively. For example, "Overall, I am happy with the experiences I have had with the AI/employee services at that hotel". The reliabilities were 0.76 and 0.84 for AI and employee service quality, respectively. The study measured customer engagement with AI and employee service quality using three items adapted from Bansal et al. (2022); Chen et al. (2022). The items addressed the overall engagement with services provided by AI and employees. For example, "Overall, I am emotionally attached to the hotel given their AI/employee services". The reliabilities were 0.74 and 0.81 for AI and employee service quality, respectively. To measure customer loyalty, the study adapted items from Kandampully and Suhartanto (2003). These include the customer's intention to return, become an ambassador, and pay a premium price for service. The reliability score is 0.83. All items in the study were measured using a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (5).

3.3 Sampling and data collection

The research project was carried out at hotels in China, specifically Hangzhou, which is described as the hub of the technology revolution in China. These hotels use different AI technologies to aid their operations and cater to the needs of their customers. These technologies included chatbots, robotic concierges, digital assistants, voice-activated services, and tools to enhance the overall travel experience. The data was gathered from guests who had recently completed their checkout procedures and had utilized the AI-powered services offered by the hotels. Only those who had a comprehension of and interacted with the AI-powered services were invited to participate in the survey.

The researchers engaged in a thorough discussion with AI experts from various hotels to ensure that the questionnaire related to AI dimensionality was appropriate before the survey began. To validate the questionnaire and minimize the

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time required to complete the survey, an average of less than 15 minutes, a pilot test was conducted with ten randomly selected customers who had used the hotel's AI services. As a result of the pilot test, some questionnaire items were revised to enhance clarity.

To obtain permission to conduct the survey, the research assistants contacted hotel management from different hotels through emails and personal visits. Hotel customers who were checking out were approached and informed about the research purpose through the help of the hotel receptionists. The Microsoft form platform was utilized to conduct the questionnaire, where a QR code was developed and printed, and participants scanned the QR code with their phones to complete the survey. Those who were challenged with the code were given an iPad to undertake the survey with the help of the receptionist. This approach is cost-effective, simple to execute, and can accommodate a wide range of question formats. To minimize response bias and increase the overall completion rate, participants were not permitted to preview or skip questions. After 122 days, we obtained a valid 507 responses, which was adopted for the study.
Given the total usable sample, the age of respondents ranged from 18 to 46 years old and above. About 17% fell in the age group 18-25, 35% % from the age group 26-35, 18% from the age group 36-45%, and 29% in the 46 years and above group. 81.9% were males, and 18.1% were females. Over half of the participants had university degrees. Table 1 covers the descriptive information on respondents.

Table 1 Descriptive statistical analysis results (N=507)

Elements	Description	Frequency	Percentage (%)
Age	18-25 years	89	17.6
	26-35 years	178	35.1
	36-45 years	93	18.3
	46 years and above	147	29.0
Gender	Male	415	81.9
	Female	92	18.1
Education	Basic school	34	6.7
	High school	70	13.8
	Higher National Diploma	94	18.5
	Bachelor degree	183	36.1
	Post-graduate degree	126	24.9
Employment status	Full-time	404	79.7
	Part-time	103	20.3
Position	Board Member	93	18.3
	Top management	145	28.6
	Middle management	64	12.6
	Supervisor	101	19.9
	Non-supervisory	75	14.8
	Other	29	5.7
Income	Below ¥ 5,000	115	22.7
	Between ¥5,000 and ¥9,999	194	38.3
	Between ¥10,000 and ¥19,999	65	12.8
	Between ¥20,000 and ¥29,999	93	18.3
	Over ¥30,000	40	7.9
Marital status	Married with children	441	87.0
	Married without children	22	4.3
	Single	44	8.7
	Other	-	-

3.4 Statistical analysis

This study, given the large sample size divided randomly into two independent samples. The first half was subjected to exploratory factor analysis (EFA), and the second half underwent confirmatory factor analysis (CFA) following the validation approach used in studies such as Blau (2009); Prentice et al. (2020); Xu (2008). This approach was to aid

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in assessing the factorial validity of the AI service quality scales. With the EFA, the study used the principal axis factoring with Direct Oblimin Rotation to deduce the AI service factors, relying on the first subsample using SPSS version 26. KMO statistics of 0.819 confirmed a factor structure underlying the data. Bartlett's test of Sphericity for the correlation matrix: chi-square = 4155.045; p = 0.000; indicating the existence of large correlations amongst the variables. Cognizance to that, six factors were observed, which align with the suggested dimensions. Moreover, four items were dropped because of low loadings and cross-loadings following a standard statistical approach (Hair et al., 2011), resulting in an 18-item AI service quality scale for further analysis. Each of the 18 items loaded onto one of the six factors that were analyzed (see Table 2).

Table 2 Measures and statistics for AI service quality dimensions

Dimension	Item	Std. loading	Mean	Std. deviation
Concierge robot services (α=0.833; CR=0.845)	Providing room services and laundry	0.834	3.98	0.86
	Act as waiter in the hotel restaurant	0.565	3.86	0.97
	Answering critical queries	0.921	3.76	0.99
Voice recognition services (α=0.720; CR=0.743)	Controlling room temperature	0.688	3.87	0.96
	Orders meals and drinks	0.561	3.93	0.97
	Switch on the television and suggest channels	0.560	3.91	1.01
Digital assistance (α=0.768; CR=0.744)	Easy access to hotel service assistants	0.657	3.78	1.03
	Fast online assistance	0.695	4.07	0.97
	Scheduling meals periods			
Travel experience enhancers (α=731; CR=0.763)	Travel booking and appropriate routes	0.688	4.01	0.97
	Engage travel planner and tourist guide to city attractions	0.683	4.01	0.99
	Travelling promotional offers	0.664	4.04	0.96
Facial recognition services (α=740; CR=0.743)	Easy entrance to hotel rooms and elevators	0.696	4.02	0.89
	Security enhancement at the hotel	0.668	4.03	0.97
	Quick login into hotels applications and event registration	0.564	3.95	1.02
Automatic data processing (α=766; CR=0.788)	Saving user preferences and page visits	0.851	3.89	0.97
	Personalized options and recommendations	0.700	3.80	0.98
	Return travel booking services	0.857	3.90	0.95

Notes – n=253; α: Cronbach alpha; CR: composite reliability

To evaluate the measurement reliability and validity of the 18-item scale measurement model, a confirmatory factor analysis (CFA) using maximum likelihood approach was undertaken (Hair 2010), relying on the second subsample. The IBM AMOS 23 software was used to conduct the CFA. The fit indices: chi-square=163.865, p=0.000, GFI=0.931, RMSEA=0.048, NFI=0.920, CFI=0.969, AGFI=0.899, PCLOSE=0.593, suggest that the model with the six latent variables represent a good fit to the data. The final model with six variables measured with 17-items provide evidence on convergent validity (significant critical ratios, α>0.70, CR>0.70) and discriminant validity (AVE>0.50 for all variables) see Table 2 & 3.

Table 3 Discriminant validity for dimensions of AI service quality

	1	2	3	4	5	6
Facial recognition services	**0.785**					
Concierge robot services	0.284	**0.795**				
Voice recognition services	0.146	0.358	**0.680**			
Digital assistance	0.597	0.340	0.296	**0.614**		
Travel experience enhancers	0.319	0.410	0.305	0.269	**0.689**	
Automated data processing	0.026	0.373	0.398	0.358	0.078	**0.723**

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Note: the bold diagonal values indicates the Average Variance Extracted (AVEs) for the relevant variable, and below the diagonal are squared correlations between variables.

To appreciate how AI and employee service affect customer satisfaction, engagement, and loyalty, the two independent constructs were treated as a second-order factor to determine their overall effects and then as first-order factor to evaluate the effect of each dimension on the outcomes of interest. Before testing the overall effects, the sub-dimensions are treated as first-order factors in line the approach of (Shmueli et al., 2019). The second-order CFA model fit indices both AI and employee service quality were acceptable (Table 4).

Table 4 CFA model fit of assessing second-order constructs

	Second-order CFA					First-order CFA				
Constructs	RMSEA	NFI	CFI	Chi-square	GFI	RMSEA	NFI	CFI	Chi-square	GFI
AI Service Quality	.07	.96	.91	X^2=1614.30 d.f.=338	.95	.08	.98	.92	X^2=1086.08 d.f.=314	.97
Employee Service Quality	.08	.91	.93	X^2=1272.72 d.f.=314	.96	.04	.93	.96	X^2=604.55 d.f.=296	.92

Additionally, the study found significant relationships (path coefficients) at a 0.05 level between the indicators and their respective first-order factors. Additionally, the model fit indices for the second-order factor structure, which involved averaging the scores of the first-order constructs and conducting a one-factor confirmatory factor analysis (CFA), were satisfactory. All path coefficients in the second-order factor structure were significant at the 0.05 level, indicating that it is suitable for further testing. The correlations among the variables are presented in Table 5.

Table 5 Correlations and square root of AVE (diagonal)

	1	2	3	4	5	6	7	8
1. AI service quality	**.79**							
2. customer satisfaction with AI	.39**	**.74**						
3. customer engagement with AI	.31**	.34**	**.87**					
4. Employee service quality	.42**	.26**	.29**	**.79**				
5.CSES	.58**	.15**	.32**	.27**	**.76**			
6. CEES	.26**	.35**	.45**	.56**	.32**	.92		
7. Service quality	.32**	.12**	.27**	.25**	.53**	.30**	-	
8. Customer loyalty	.28**	.25**	.34**	.26**	.35**	.45**	.33**	**.88**

**significance at .01 level. Note- CSES = Customer satisfaction with employee service, CEES = Customer satisfaction with employee service.

4 EMPIRICAL RESULTS

After evaluating the model, we tested for the hypotheses in this section, undertaking regression in SPSS. We began by evaluating how AI and employee service are related to overall service quality. The outcome represents that AI explains 21% whiles employee service quality explains 39% of the changes in the hotel's service quality evaluation. Importantly, employee services played a central role in this evaluation. In accessing the specific changes contributed by each dimension, voice recognition and automated data processing had no impact cognizance to AI, whiles responsiveness and empathy did not contribute to quality assessment cognizance to employee services. The results are captured in Table 6 & 7.

Table 6 The effects of AI service quality dimensions on customer-related outcomes and service quality

AI service quality	CSAIS	CEAIS	CL	SQ
Concierge robot services	.21**	.32***	.18***	.19*
Voice recognition services	.02	.30***	.04	.16**
Digital assistance	-.12	.04	.06	.24***

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Travel experience enhancers	.14	.22***	.35***	.22**
Facial recognition services	.01	-	.32***	.29***
Automated data processing	-.04	.03	.06*	-.05
R^2	.02	.21	.19	.21

*p < 0.05; **p < 0.01, ***p < 0.001

Note – CSAIS: customer satisfaction with AI service; CEAIS: customer engagement with AI service; CL: customer loyalty; SQ: sleep quality.

Table 7 The effects of employee service quality dimensions on customer-related outcomes and service quality

Employee service quality	CSES	CEES	CL	SQ
Tangibility	.13*	.14*	.21***	.26**
Reliability	.01	.10	.38***	.37***
Responsiveness	-.04	14*	.19***	.15
Assurance	-.09	.35***	.13**	.17*
Empathy	.51***	.01	-.01	-.03
R^2	.04	.40	.31	.39

*p < 0.05; **p < 0.01, ***p < 0.001

Note – CSES: customer satisfaction with employee service; CEES: customer engagement with employee service.

The outcome for evaluating H1, H2, H3, and H4 through the Process Macro Model 4 in SPSS show that AI service quality has a positive effect on customer satisfaction with AI *(β=.36, p<.001),* which invariably affect customer loyalty *(β=.19, p<.001, 95% CI[.147, .241]).* AI also had a direct *(β=.15, p<.001, 95% CI [.091, .205])* and indirect effect indirect effect *(β=.07, CI [.002, .008]).* Moreover, AI service quality has a positive effect on customer engagement with AI *(β=.26, p<.001),* which invariably affect customer loyalty (β=.12, p<.001, 95% CI [.055, .176]). AI also had a direct *(β=.17, p<.001, 95% CI [.117, 241])* and indirect effect indirect effect *(β=.03, CI [.041, .152]).* See Figure 2.

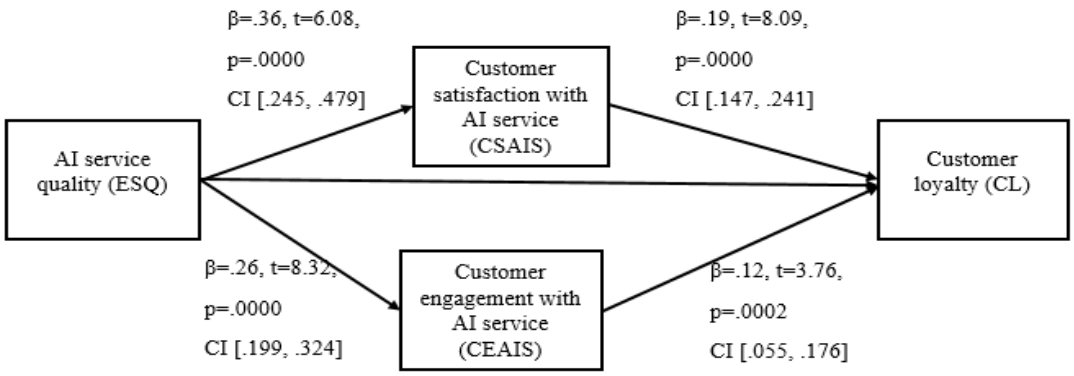
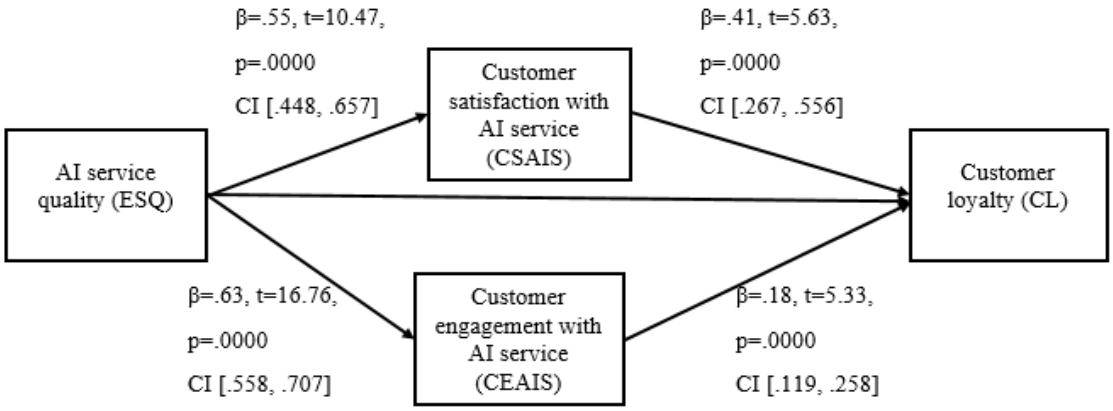


Figure 2 The relationship between AI service quality, customer satisfaction & engagement with AI service and loyalty.

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With customer satisfaction: the direct effect of employee service quality on customer loyalty - β=.42, t=6.27, p=.000, CI [.290, .557], and the indirect effect β=.23, CI [.135, .322].

With customer engagement: the direct effect of employee service quality on customer loyalty - β=.58, t=15.68, p=.0000, CI [.513, .660], and the indirect effect β=.11, CI [.067, .177].

Figure 3 The relationship between employee service quality, customer satisfaction & engagement with employee service and loyalty.

The outcome for testing H5, H6, H7, and H8 reveal that employee service quality has a positive effect on customer satisfaction with employee service *(β=.55, p<.001),* which invariably affect customer loyalty *(β=.41, p<.001, 95% CI[.267, .556]).* AI also had a direct *(β=.42, p<.001, 95% CI [.290, 557])* and indirect effect indirect effect *(β=.23, CI [.135, .322]).* Furthermore, employee service quality has a positive effect on customer engagement with AI *(β=.63, p<.001),* which invariably affect customer loyalty (β=.18, p<.001, 95% CI [.119, .258]). AI also had a direct *(β=.58, p<.001, 95% CI [.513, .660])* and indirect effect indirect effect *(β=.11, CI [.067, .177]).* See Figure 3.

Additionally, to test H9 and H10, both AI and employee service quality were regressed in one equation to determine the total effect of the constructs on overall service quality assessment and customer loyalty. Overall AI quality service had a positive effect on overall service quality (β=.509, p<.001) and on customer loyalty (β=.423, p<.001). Employee service quality had a positive effect on overall service quality (β=.629, p<.001) and on customer loyalty (β=.670, p<.001). Given the total variance caused in the two dependent variables, employee service quality accounted for the higher changes in overall service quality and customer loyalty. These finding support H9 & H10 (Table 8)

Table 8 The effects of AI and employee service quality on overall service quality and customer loyalty

Variables	Service quality				Customer loyalty			
	β	SE	t	p	β	SE	t	p
AI service quality	.509	.089	5.714	.000	.423	.048	8.848	.000
Employee service quality	.629	.094	6.681	.000	.670	.051	13.248	.000

*p < 0.05; **p < 0.01, ***p < 0.001

5 DISCUSSION AND CONCLUSION

The article contends that AI-powered applications can be classified as commercial services provided by hotels to improve customers' service experience. Given the scarcity of studies on this phenomenon, the study examines the contribution of AI and employee services to overall service quality and their association with customer satisfaction, engagement, and loyalty. The study assesses the quality of AI services using commonly used applications in hotels and evaluates employee service quality based on tangibility, reliability, responsiveness, assurance, and empathy. The findings reveal that both AI and employee service quality significantly influence the overall service quality assessment. However, when both factors are regressed together in a single equation, employee service quality accounts for a

substantial portion of the overall service quality assessment. Further analysis indicates that AI and employee service quality are significantly related to customer satisfaction, engagement, and loyalty to the hotel, respectively. The study provides detailed insights into these findings.

Concluding on AI apps used by hotels to offer services to customers, the study deduced six dimensions of AI service quality namely: concierge robot service, voice recognition service, digital assistance, travel experience enhancers, facial recognition services, and automatic data processing and evaluated how they affect customer-related behaviors. Given that the dimensions are service quality scale, AI contributes significant changes in overall service quality. This outcome suggests that the quality of AI services is a crucial factor in assessing hotel service quality. When examining the specific change explained by each dimension, concierge robot services, voice-recognition services, digital assistance, travel experience enhancers, and facial recognition services significantly contribute to the overall service quality assessment. This outcome is relatable since customers directly interact with these services. Among the five services, facial recognition services have the most notable impact. The results indicate that when customers have positive experiences with facial recognition services, they tend to develop favorable attitudes towards hotel services as a whole. Conversely, if these services encountered difficulties in accurately recognizing individuals, it could lead to less favorable attitudes among customers. Trust in facial recognition services is particularly relevant in situations where security and personal identification are involved, as customers relied on the accuracy and reliability of the technology. On the contrary, automatic data processing did not contribute significantly, given that; they are less susceptible to be directly used by customers.

Additionally, the study demonstrates a significant relationship between AI service quality and customer satisfaction & engagement, which in turn has a substantial impact on customer loyalty. The findings reveal that AI has a significant direct and indirect effect on customer loyalty, indicating that customer satisfaction and engagement partially mediate these relationships. These results suggest that customer loyalty behaviors can directly stem from the quality of AI services provided.

Conversely, among the dimensions of AI service quality, concierge robots service appeared to affect significantly all the customer-related outcomes i.e., satisfaction, engagement, and loyalty. Robots are capable of offering room & laundry services, acting as waiter, and answering critical queries (Ivanov & Webster, 2017; Wirtz et al., 2018). This much appreciated by customers as compared to the other dimensions, such as voice recognition services, digital assistance, travel experience enhancers, facial recognition services, and automatic data processing services, which do not appear humanlike in nature as compared to the robots. Zhang, (2021) demonstrated that human-like robots have a greater impact on consumers' acceptance of AI services. However, the remaining AI service dimensions appear common and service providers are expected to offer them in this technological dispensation.

Furthermore, the study's outcome reveals that employee service quality contributes significantly to changes in overall service quality evaluation, consistent with studies of Lin et al., (2021); Shamsudin, (2020). Given the five dimensions of employee service quality, only empathy showed a negative and an insignificant effect. The outcome put the commitment and willingness of employees towards making the interest of customers a priority in question. Additionally, responsiveness showed an insignificant effect, which also suggests that employees probably do not promptly, responds to customer needs as compared to AI-powered apps. AI services are accessible 24/7 due to their computer and internet-based nature, while employee services particularly in smaller hotels are typically limited to office hours.

In evaluating the effect of employee service quality on customer satisfaction, engagement, and loyalty, tangibility and empathy are significantly related to customer satisfaction. Responsiveness and assurance had a negative and insignificant impact. Tangibility represents the conducive, attractiveness, and appealing hotel environment. Empathy represents employee's commitment to customer's interest. The significant influence from these two dimensions indicates that hotel guest expect an appealing hotel environment and level of service dedicated to their demands in order to portray the distinctiveness of the hotel. These outcomes are in line with the study of Pham Thi Phuong & Ahn, (2021). Responsiveness insignificant impact may suggest that employees maybe are not prompt in assisting customers as expected or that customers do not prioritize this factor as much, as they have the option to use digital services. More so, the outcome highlights the significant effect of tangibility, responsiveness, and assurance on customer engagement.

Reliability and empathy did not have an impact. Customers probably prefer the reliable services offered by the AI-powered apps and are ready to access digital services at their discretion. It is also likely that many hotel guests have limited interactions with employees and therefore require minimal attention from them given the insignificance of empathy. Lastly, given the five dimensions of employee service quality, tangibility, reliability, responsiveness, and assurance significantly affect customer loyalty. However, empathy negatively and insignificantly influenced loyalty. Given the findings, employee service posit as an essential element to promoting customer loyalty. Stretching the argument, every area of employee service and its interaction with customers account for customer behaviors. An uninspiring encounter between an employee and a guest may influence the general assessment of customers when it comes to service quality, satisfaction, engagement, and loyalty.

Conclusively, regressing AI and employee quality service to determine their total effect on overall service quality produced a significant effect for both constructs. However, employee service quality appeared to be the variable with higher effect in assessing service quality. The result is consistent Hapsari et al., (2017); Shamsudin, (2020). The outcome also even implies that the changes caused by AI service in the overall service quality less as compared to employee service. Notwithstanding, AI service quality accounts for a reasonable variance in service quality making it an explanatory construct. Additionally, some of the AI service dimensions also influenced service quality. Extending the argument to cover customer loyalty, given that employee service quality showing a greater positive effect, AI service quality also contributed to the variations in customer loyalty. Given that AI-powered apps are becoming prevalent in business operations and enhancing efficiency, it is a critical component to service quality just as employee service does which contradicts the study of Prentice et al., (2020). Given that service quality has been deduced as a competitive tool to enhance customer satisfaction, engagement, and loyalty, AI services cannot be disregarded.

5.1 Implications

This research encompasses the integration of AI-powered applications within the context of service quality, aiming to explore its impact on customer satisfaction, engagement and loyalty. By introducing AI into the services marketing domain, this initiative contributes to the existing body of knowledge on service quality, artificial intelligence and customer loyalty, introducing a novel dimension for evaluating overall service quality. The study specifically identifies and validates six dimensions of AI services in the hotel industry through robust exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). This scale for assessing AI service quality can potentially be adapted and applied to measure AI services in other hospitality organizations as well.

Furthermore, this research includes employee services from the framework of traditional service quality assessment. Its primary objective is to examine the respective contributions of machine/computer-based services and human employees towards the overall service quality and customers' related behaviors. This approach aims to address concerns raised in the broader community regarding the potential replacement of humans by AI-powered robots and machines. The study's findings indicate that customers still prefer human employee services since it appeared to have a greater effect. More so, researchers and practitioners are advised to highlight and gather more empirical evidence on AI service quality since it also appears to influence service quality. Given the outcome, practitioners should enhance services emanating from both AI and employees to remain competitive and generate positive customer responses.

The study postulates some important practical for hotel practitioners. Given the impact of AI-powered tools as demonstrated by the study, embracing AI-powered services in the hotel industry can lead to improved operational efficiency, enhanced customer experiences, and a competitive edge in the market. Hotel practitioners should carefully evaluate their specific needs and goals to effectively implement and leverage AI technologies for maximum benefit. The study further deepen the necessity of employee service on overall service quality assessment and customer related outcomes. Even though customer's responses indicate they are enjoying AI, it is important for hotel practitioners to strike the right balance between AI-powered services and human interaction. While AI can offer convenience, customers still value personalized and attentive service from human staff. Therefore, it is essential to integrate AI tools as a complement to, rather than a replacement for, employee services. Proper training and monitoring of AI systems are also necessary to ensure accurate and reliable performance. The insignificant effect of some dimensions of employee service quality on customer responses call for the need for evaluate the responsiveness, and promptness of employees towards hotel guest and if these elements could be augment by AI powered tools in order to enhance competition.

When considering the integration of AI and employee services to evaluate their influence on customer loyalty and service quality, it became evident that employee reliability surpasses all other factors. Reliability indicates employee's readiness to solve customer's challenge. It important employees are positioned in a manner that could make them provide services to guest at the right time. Empathy surpasses all when it comes to customer satisfaction. Empathy serves as an indicator of an employee's approachability, effective communication skills, and their ability to provide personalized attention to customers. It is crucial for hotel management to ensure that employees possess these traits and capabilities. Empathy, being a personal attribute, sets employees apart from robotic services. Unlike AI-powered solutions, empathy is a fundamental aspect of human interaction and has the potential to profoundly shape customers' experiences at the hotel. Assurance surpasses all factors when it comes to customer engagement. It is important for hotel employees to act in a manner that instill confidence, trust in customers and demonstrate that they have the requisite knowledge in responding to customers concerns.

6 LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDIES

This study has some limitations. Firstly, assessing AI-service quality is context-specific driven (Prentice et al., 2020). Given that, evaluating the AI-service quality and its dimensions in a different political, social, economic, and cultural environment would be important, especially comparing contexts. The study was conducted in Chinese hotels, making the findings limited, and generalizability must be cautioned.

Furthermore, the AI service quality scale employed in this study was developed based on non-academic sources and insights from hotel experts. Consequently, it is essential to conduct cross-validation of this scale to ensure its applicability in diverse settings. We recognize this limitation in our study and suggest that future research should focus on validating this measure across various contexts. Additionally, it is important to acknowledge that the surveyed hotels encompassed a wide range of sizes, rankings, and ownership types (local, international), resulting in potential variations in their AI and employee services. Therefore, caution should be exercised when attempting to standardize these factors, as doing so may be arbitrary.

It is will prudent for future researchers to focus on expanding the effect of AI services on elements such as employees' performance and other customer behaviors such as purchase, complaint, referral, and online behaviors. Future studies should explore customer attitudes and behaviors regarding data privacy and their trust in AI services. Investigating these areas can provide insights into the positive and negative implications of AI, guiding the development of responsible and trustworthy AI applications.

7 REFERENCES

1. *Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2019). Service quality, religiosity, customer satisfaction, customer engagement and Islamic bank's customer loyalty. Journal of Islamic Marketing, 11(6), 1691–1705. https://doi.org/10.1108/JIMA-03-2019-0044*
2. *Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. Computers in Human Behavior, 114, 106548. https://doi.org/10.1016/j.chb.2020.106548*
3. *Bansal, R., Pruthi, N., & Singh, R. (2022). Developing Customer Engagement Through Artificial Intelligence Tools (pp. 130–145). https://doi.org/10.4018/978-1-6684-4496-2.ch008*
4. *Bayón Pérez, J., & Arenas Falótico, A. J. (2019). Various perspectives of labor and human resources challenges and changes due to automation and artificial intelligence. Academicus International Scientific Journal, 20, 106–118. https://doi.org/10.7336/academicus.2019.20.08*
5. *Blau, G. (2009). Can a four-dimensional model of occupational commitment help to explain intent to leave one's occupation? Career Development International, 14(2), 116–132. https://doi.org/10.1108/13620430910950737*
6. *Bogicevic, V., Bujisic, M., Bilgihan, A., Yang, W., & Cobanoglu, C. (2017). The impact of traveler-focused airport technology on traveler satisfaction. Technological Forecasting and Social Change, 123, 351–361. https://doi.org/10.1016/j.techfore.2017.03.038*
7. *Brougham, D., & Haar, J. (2018). Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA): Employees' perceptions of our future workplace. Journal of Management & Organization, 24(2), 239–257. https://doi.org/10.1017/jmo.2016.55*
8. *Bruegel's Weekly Newsletter. (2018). The impact of artificial intelligence on employment. Https://Www.Bruegel.Org/Report/Impact-Artificial-Intelligence-Employment.*

9. *Chen, Y., Prentice, C., Weaven, S., & Hisao, A. (2022). The influence of customer trust and artificial intelligence on customer engagement and loyalty – The case of the home-sharing industry. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.912339*
10. *Chintalapati, S., & Pandey, S. K. (2022). Artificial intelligence in marketing: A systematic literature review. International Journal of Market Research, 64(1), 38–68. https://doi.org/10.1177/14707853211018428*
11. *Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. Journal of Retailing, 76(2), 193–218. https://doi.org/10.1016/S0022-4359(00)00028-2*
12. *daxueconsulting. (2019). AI in hospitality in China: Are robots taking over the hotel industry? | Daxue Consulting.Https://Daxueconsulting.Com/Ai-Hospitality-China/#:~:Text=The%20use%20of%20AI%20in%20hospitality%20in%20China,Computers%20that%20mine%20data%20provide%20tailored%20customer%20experiences.*
13. *De Leon, M. V., Atienza, R. P., & Susilo, D. (2020). Influence of self-service technology (SST) service quality dimensions as a second-order factor on perceived value and customer satisfaction in a mobile banking application. Cogent Business & Management, 7(1), 1794241. https://doi.org/10.1080/23311975.2020.1794241*
14. *Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman. SAGE Open, 10(2), 215824402091951. https://doi.org/10.1177/2158244020919517*
15. *Gursoy, D. (2018). Future of hospitality marketing and management research. Tourism Management Perspectives, 25, 185–188. https://doi.org/10.1016/j.tmp.2017.11.008*
16. *Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing Theory and Practice (2nd ed., Vol. 19).*
17. *Hapsari, R., Clemes, M. D., & Dean, D. (2017a). The impact of service quality, customer engagement and selected marketing constructs on airline passenger loyalty. International Journal of Quality and Service Sciences, 9(1), 21–40. https://doi.org/10.1108/IJQSS-07-2016-0048*
18. *Hertzfeld, E. (2018). IHG launches AI-powered rooms in Greater China. Https://Www.Hotelmanagement.Net/Tech/Ihg-Launches-Ai-Rooms-Greater-China.*
19. *Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E., & Schlesinger, L. A. (1994). Putting the service-profit chain to work. . Harvard Business Review, 72(2), 164–174.*
20. *Hoang, H. T., Ho, N. T. T., & Nguyen, N. (2022). The influence of leadership commitment to service quality on hotel employees' brand citizenship behavior: a mediation and moderation analysis. Journal of Hospitality Marketing & Management, 31(3), 369–395. https://doi.org/10.1080/19368623.2021.1970072*
21. *Huang, M.-H., & Rust, R. T. (2018). Artificial Intelligence in Service. Journal of Service Research, 21(2), 155–172. https://doi.org/10.1177/1094670517752459*
22. *Ivanov, S. H., & Webster, C. (2017). Adoption of Robots and Service Automation by Tourism and Hospitality Companies. Revista Turismo & Desenvolvimento, 27(28), 1501-1517.*
23. *Jarrahi, M. H. (2019). In the age of the smart artificial intelligence: AI's dual capacities for automating and informating work. Business Information Review, 36(4), 178–187. https://doi.org/10.1177/0266382119883999*
24. *Kavyashree, K. (2023). Impact of Artificial Intelligence on Consumer Behaviour: An Empirical Study in The Retail Sector In Mangalore City. EPRA International Journal of Research & Development (IJRD).*
25. *Li, J. (Justin), Bonn, M. A., & Ye, B. H. (2019). Hotel employee's artificial intelligence and robotics awareness and its impact on turnover intention: The moderating roles of perceived organizational support and competitive psychological climate. Tourism Management, 73, 172–181. https://doi.org/10.1016/j.tourman.2019.02.006*
26. *Lin, M., Ling, Q., Liu, Y., & Hu, R. (2021). The effects of service climate and internal service quality on frontline hotel employees' service-oriented behaviors. International Journal of Hospitality Management, 97, 102995. https://doi.org/10.1016/j.ijhm.2021.102995*
27. *Manjula, S. (2021). THE IMPACT OF ARTIFICIAL INTELLIGENCE CONSUMER BUYING BEHAVIORS. International Journal of Creative Research Thoughts (IJCRT), 9(9), 105–109.*
28. *McKecnie, S., Ganguli, S., & Roy, S. K. (2011). Generic technology-based service quality dimensions in banking. . International Journal of Bank Marketing, 29(2), 168–189.*
29. *Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. Journal of Marketing, 64(3), 50–64. https://doi.org/10.1509/jmkg.64.3.50.18024*
30. *Murphy, J., Gretzel, U., & Pesonen, J. (2019). Marketing robot services in hospitality and tourism: the role of anthropomorphism. Journal of Travel & Tourism Marketing, 36(7), 784–795. https://doi.org/10.1080/10548408.2019.1571983*

31. *Nair, K., & Gupta, R. (2021). Application of AI technology in modern digital marketing environment. World Journal of Entrepreneurship, Management and Sustainable Development, ahead-of-print(ahead-of-print). https://doi.org/10.1108/WJEMSD-08-2020-0099*
32. *Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. Journal of Retailing, 67(4), 420. – 450.*
33. *Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. Journal of Marketing, 58(1), 111–124. https://doi.org/10.1177/002224299405800109*
34. *Pham Thi Phuong, L., & Ahn, Y. (2021). Service Climate and Empowerment for Customer Service Quality among Vietnamese Employees at Restaurants. Sustainability, 13(3), 1172. https://doi.org/10.3390/su13031172*
35. *Prentice, C. (2013). Service quality perceptions and customer loyalty in casinos. International Journal of Contemporary Hospitality Management, 25(1), 49–64. https://doi.org/10.1108/09596111311290219*
36. *Prentice, C., Dominique Lopes, S., & Wang, X. (2020). Emotional intelligence or artificial intelligence– an employee perspective. Journal of Hospitality Marketing & Management, 29(4), 377–403. https://doi.org/10.1080/19368623.2019.1647124*
37. *Prentice, C., Dominique Lopes, S., & Wang, X. (2020). The impact of artificial intelligence and employee service quality on customer satisfaction and loyalty. Journal of Hospitality Marketing & Management, 29(7), 739–756. https://doi.org/10.1080/19368623.2020.1722304*
38. *Ramseook-Munhurru, P., Naidoo, P., & Lukea-Bhiwajee, D. S. (2010). Measuring Service Quality: Perceptions of Employees. Global Journal of Business Research, 4(1), 47–58.*
39. *Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2021). Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research. Industrial Marketing Management, 98, 161–178. https://doi.org/10.1016/j.indmarman.2021.08.006*
40. *Shamsudin, M. F. (2020). The Effect of Service Quality on Customer Satisfaction Towards Myrapid Bus Services. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3812084*
41. *Sharma, D. R., & Singh, B. (2021). Understanding the Relationship Between Customer Satisfaction, Customer Engagement and Repeat Purchase Behaviour. Vision: The Journal of Business Perspective, 097226292199259. https://doi.org/10.1177/0972262921992593*
42. *Sharma, S., Islam, N., Singh, G., & Dhir, A. (2022). Why Do Retail Customers Adopt Artificial Intelligence (AI) Based Autonomous Decision-Making Systems? IEEE Transactions on Engineering Management, 1–17. https://doi.org/10.1109/TEM.2022.3157976*
43. *Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. European Journal of Marketing, 53(11), 2322–2347. https://doi.org/10.1108/EJM-02-2019-0189*
44. *Smith, A., & Anderson, M. (2017). Automation in everyday life. . Pew Research Centre. Retrieved from Http://Www.Pewinternet.Org/2017/10/04/Automation-in-Everyday-Life/.*
45. *Solomon, M. (2016). Technology Invades Hospitality Industry: Hilton Robot, Domino Delivery Droid, Ritz-Carlton Mystique. Https://Www.Forbes.Com/Sites/Micahsolomon/2016/03/18/High-Tech-Hospitality-Hilton-Robot-Concierge-Dominos-Delivery-Droid-Ritz-Carlton-Mystique/.*
46. *Van Esch, P., & Stewart Black, J. (2021). Artificial Intelligence (AI): Revolutionizing Digital Marketing. Australasian Marketing Journal, 29(3), 199–203. https://doi.org/10.1177/18393349211037684*
47. *Vu, T. (2021). Service Quality And Its Impact On Customer Satisfaction. University of Northampton .*
48. *Wirtz, J., Patterson, P. G., Kunz, W. H., Gruber, T., Lu, V. N., Paluch, S., & Martins, A. (2018). Brave new world: service robots in the frontline. Journal of Service Management, 29(5), 907–931. https://doi.org/10.1108/JOSM-04-2018-0119*
49. *Wisskirchen, G., Biacabe, B. T., Bormann, U., Muntz, A., Niehaus, G., Soler, G. J., & von Brauchitsch, B. (2017). Artificial intelligence and robotics and their impact on the workplace. . IBA Global Employment Institute, 2012–2017.*
50. *Wong, H. M. (2018, July 18). High-tech hotel wars: Sleeping in China just got more futuristic. Https://Edition.Cnn.Com/Travel/Article/China-High-Tech-Hotels/Index.Html.*
51. *Xu, J. (2008). "Validation of scores on the Homework Management Scale for high school students." Educational and Psychological Measurement, 68(8), 304-24.*
52. *Zhang, Y. Z. A. K. (2021). The Application Status and Development Prospects of Artificial Intelligence and Industrial Robots in the Manufacturing Industry. International Conference on Information Technology and Mechanical Engineering (ITME 2021).*