

Knocking the Future: Unraveling the Role of Guests' Experience Using Chatbot on their Acceptance and Intention to Visit Saudi Arabian Hotels

Ahmed M. Hasanein

*Management Department, College of Business Administration
King Faisal University, 380 Al-Ahsaa,
Saudi Arabia.*

aabdelrazek@kfu.edu.sa

Tamer Hamdy Ayad

*Management Department, College of Business Administration
King Faisal University, 380 Al-Ahsaa,
Saudi Arabia.*

Corresponding Author: Ahmed M. Hasanein

Copyright © 2024 Ahmed M. Hasanein and Tamer Hamdy Ayad. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

This study investigates the direct impact of hotel guests' perceptions towards using Chatbot on their acceptance and usage intention to visit the hotel, as well as the indirect role of actual use of Chatbot in the correlation between guests' acceptance and usage of Chatbot and their intention to visit Saudi Arabian hotels. Self-administered surveys were provided to a randomly selected sample of hotel guests as part of the research, which used a quantitative technique. Structural equation modeling (SEM) analysis of 429 valid responses showed substantial positive influence by "PE", "EE", "SI", and "FC" on "UEX" and "IVH". The study also proved that "UEX" mediates the relation between all independent variables and "IVH". These insights provide executives and decision-makers in the hotel industry with thorough guidance on utilizing this innovative technology. This will empower them to tackle novel technological obstacles and optimize its utilization to optimize its advantageous impacts on hotel guests.

Keywords: Artificial Intelligence, Chatbot, UTAUT, Guest Experience, Intention to Visit.

1. INTRODUCTION

Due to the growing usage of artificial intelligence (AI) platforms in service industries (i.e., hotel industry) [1–3]. Chatbot has been emerged as a one of the most crucial AI assistance in different contexts [4]. This innovative AI assistance tool generates an immediate response to their inquiries about the services offered by the establishment pre during and after staying in hotels [3]. These responses are based on data and rules entered and adopted by enterprises [5]. Compared to other AI platforms, Chatbot is considered one of the cutting-edge cognitive frameworks that provide more

enhanced and accurate answers to guests' inquiries [3, 6, 7]. Numerous studies [e.g., 1, 3, 4] have addressed drivers and consequences of using AI platforms, such as Chatbot, in different contexts. Chatbot has recently become ubiquitous in hotel marketing and sales functions, such as pre-, during, and post-purchase products and services [6].

Previous research studies [e.g., 8–10] have predominantly examined Chatbot usage from the perspective of users, with limited focus on how system-related factors influence their usage experience. Similarly, earlier studies have explored variables affecting the intention to use Chatbot [1, 3, 4, 11]. Nevertheless, there is a lack of comprehensive understanding regarding guests' attitudes towards Chatbot and their ongoing intention to visit hotels [2, 7]. While Chatbot have achieved considerable success, their use in the service industry has been questioned, particularly regarding their potential to replace social interactions [12]. Previous research has raised concerns about whether Chatbot can adequately substitute for human social skills [13]. Alam et al. [14] found that interacting with social Chatbot led to a decline in human social development. Human perception, or user-related factors, plays a crucial role in the success of information systems technologies [15]. While user factors remain critical, the integration of AI enhances Chatbot intelligence and interaction capabilities, making them more prominent [3].

Several studies [e.g., 1, 3, 4] highlighted the acceptance and use of AI-generated tools, such as Chatbot, in the hotel industry. However, there are limited but growing attempts by scholars about the variables that push guests to use Chatbot in the hotel industry. The study by Nguyen et al. [16] examined the impact of Chatbot on guests' trust in the hotel industry. The key findings indicated that AI technologies, such as Chatbot, are still in the early stages of development within the hotel industry. However, their implications for this sector are unquestionable [17]. Adopting this transformative technology is critical to addressing the emerging technological challenges guests face. It is equally important to ensure that all Saudi Arabian guests acquire the necessary technical skills to actively participate in the upcoming artificial intelligence platforms [18]. Drawing upon the "Unified Theory of Acceptance and Use of Technology" (UTAUT), the current research aims to examine the perception of hotel guests towards using Chatbot and its impact on their acceptance and usage intention to visit the hotel. Moreover, this research pursues to examine the indirect role of actual use of Chatbot in the correlation between guests' acceptance and usage of Chatbot and their intention to visit Saudi Arabian hotels.

2. LITERATURE REVIEW

2.1 Guests' Acceptance and Usage Experience of Chatbot

The UTAUT offers a comprehensive framework for evaluating the acceptance and use of technological innovations i.e., chatbot across different contexts [3, 4, 7]. Applying the UTAUT model to the adoption of Chatbot in the hotel industry helps to systematically understand guests' acceptance towards using this cutting-edge technology and their usage experience [3]. According to Venkatesh [19] the main factors that influence user acceptance and behavior include performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC). PE refers to how guests perceive the ability of Chatbot to improve their experience during their hotel stay [7]. Guests' perceptions of Chatbot capabilities and their potential to enhance directly their usage experience

[1]. Additionally, when guests believe that Chatbot can effectively address inquiries, improve guest service, and enrich their overall hotel experience, they are more likely to show a positive experience towards using Chatbot for various services within the hotel [4]. EE relates to guests' views on how simple or complex it is to use Chatbot technology inside hotel website [3]. EE is crucial in determining guests' willingness to engage with Chatbot [20]. To date study of Loureiro et al., [15] showed that guests who find Chatbot easy to use, intuitive, and user-friendly and immediate response to their inquiries are more likely to incorporate them into their hotel experience.

SI, on the other hand, reflects the influence of peers, hotel staff, and other guests on shaping individual attitudes toward Chatbot usage [16]. While guests observe others interacting positively with Chatbot, they are more inclined to adopt the technology [12]. Numerous Studies [e.g., 6, 9, 21] declared that a positive reputation surrounding the use of Chatbot in guests' services can greatly influence their experience. Finally, FC considers the availability of resources that are essential for effectively utilizing Chatbot [22]. It includes having access to the technology, user-friendly tools, and sufficient support from hotel website [23]. Guests are more likely to use Chatbot when they perceive that the hotel website offers the necessary frequently asked questions [FAQ] and immediate answers about guests' inquiries and resources to facilitate a smooth interaction with the technology [24, 25]. This support can range from ensuring responsive Chatbot tools that improve the overall guests' experience [3, 4]. Drawing upon on this framework, we recommend the following hypotheses.

H1: PE positively influences Usage Experience of Chatbot.

H2: EE positively influences Usage Experience of Chatbot.

H3: SI positively influences Usage Experience of Chatbot.

H4: FC positively influences Usage Experience of Chatbot.

2.2 Guests' Acceptance and Intention to Visit Hotels

Several studies on AI-platforms, including Chatbot [e.g., 13, 17, 18, 20], have highlighted the critical roles of PE and EE in predicting guests' acceptance and use of Chatbot within the hospitality industry. These factors are shaped by the perceived usefulness, ease of use, simplicity, and alignment of the Chatbot with guests' needs [26]. Additionally, elements such as task efficiency, a sense of accomplishment, and increased engagement contribute significantly to PE [5, 27, 28]. In the context of hotel sector, PE plays a crucial role in shaping guests' perceptions of Chatbot and their ability to enhance the overall hotel experience as well as their intention to visit [18, 26]. Similarly, understanding EE which involves the ease of use, simplicity, and smooth integration of Chatbot into guests' inquiries about the hotel information [9]. It significantly increases usage experience and guests' perceived value of Chatbot [12]. In terms of SI, research shows that positive attitudes, recommendations, and active use of Chatbot by others, such as peers, fellow guests, or hotel staff, can greatly impact guests' willingness to adopt the technology [26, 27]. Positive feedback, encouragement, or shared experiences from others can play a major role in influencing guests' decisions to use Chatbot for various hotel-related services as well as intention to visit hotel [16]. Additionally, prior research on Chatbot adoption [17] has underscored the importance of FC in determining guests' acceptance to use Chatbot and intention to visit. Factors such as the availability

of mobile devices, reliable internet access, and technical support are critical in facilitating the use of Chatbot [4]. The presence of strong FC in Saudi Arabian hotels is likely to increase guests' willingness to use Chatbot, which in turn will positively influence their intention to visit these hotels [18]. Based on these insights, we suggest the following hypotheses.

H5: PE positively influences guests' intention to visit Saudi Arabian hotels.

H6: EE positively influences guests' intention to visit Saudi Arabian hotels.

H7: SI positively influences guests' intention to visit Saudi Arabian hotels.

H8: FC positively influences guests' intention to visit Saudi Arabian hotels.

2.3 Actual Use Experience of Chatbot and Guests' Intention to Visit Hotels

The connection between guests' actual use experience with Chatbot and their intention to visit hotels is a crucial aspect of technology adoption [5]. Recent studies [e.g., 17, 18, 20]. The usage experience of Chatbot has emerged as a key factor influencing guests' intention to visit hotels, particularly in the context of the hospitality industry's increasing reliance on AI [27]. Positive interactions with AI-driven Chatbot, which provide personalized services and quick responses, can significantly enhance a guest's overall experience, shaping their behavioral intention to return or visit a hotel [13]. The study of Alamoudi et al. [18] suggested that guests who perceive Chatbot as user-friendly, efficient, and capable of resolving inquiries are more likely to have a favorable attitude toward Saudi Arabian hotels, ultimately increasing their intention to visit. Moreover, guests' satisfaction with Chatbot usage can bridge service gaps, contributing to enhanced customer loyalty and repeat visits [29]. When hotels effectively integrate Chatbot that provide seamless and intuitive service, guests' positive experiences not only improve operational efficiency but also influence their decision-making processes, driving future booking intentions [30–32]. Thus, Therefore, building on these insights, we propose the following hypothesis:

H9: Usage Experience of Chatbot positively influences guests' intention to visit Saudi Arabian hotels

2.4 The Role of Actual Use Experience in the relationship between Guests' Acceptance to use Chatbot and Intention to Visit Saudi Arabian Hotels

The usage experience of using AI-generated platforms plays a crucial role in shaping the relationship between guests' acceptance of these innovative technologies and their intention to visit hotels [29, 31, 33]. While the importance of usage experience has been well-documented in other contexts, such as Hotel industry, particularly in the use of tools like Chatbot, there is a significant research gap concerning the mediating role of actual use experience in the relationship between guests' acceptance and use of Chatbot and intention to visit hotels in the hotel industry. This study seeks to fill this gap by addressing the UTAUT framework to propose the following hypothesis:

H10: Usage Experience of Chatbot mediates the connection among PE and guests' intention to visit Saudi Arabian hotels

H11: Usage Experience of Chatbot mediates the connection among EE and guests' intention to visit Saudi Arabian hotels

H12: Usage Experience of Chatbot mediates the connection among SI and guests' intention to visit Saudi Arabian hotels

H13: Usage Experience of Chatbot mediates the connection among FC and guests' intention to visit Saudi Arabian hotels

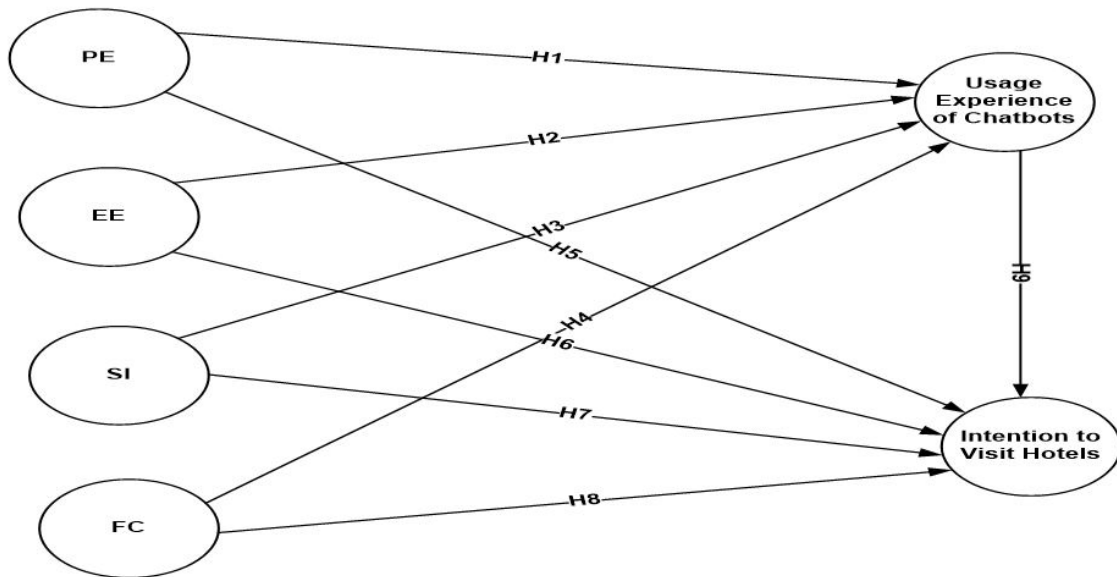


Figure 1: Theoretical Framework of the Study

3. MATERIALS AND METHODS

3.1 The Study Constructs

The literature studies served as the basis for the scale that was used in the current research to examine the variables. The user acceptance and behavior of using technology where measured through four factors which are: PE [4 items), EE (4 items), SI (3 items), and FC (4 items), which developed by Venkatesh et al. [33]. Regarding usage experience of Chatbot “UEX”, it was measured (3 items), which were adopted from Trivedi [34], which are I enjoyed interacting with hotel chatbot; using hotel chatbot has been quite an interesting experience; overall, I’m satisfied with how hotel chatbot work. As for intention to visit hotel “IVH”, it was evaluated by (6 items), which were developed from Bubaš et al. [35], which are After experiencing the hotel chatbot service, I intend to visit this hotel whenever I can; In my case, the decision to visit a hotel for a specific reason comes with positive feelings; In the future, I will definitely look for excuses to visit hotels that use chatbot or

other like tools, and I won't pass up the chance; I hope to visit hotels that offer chatbot services as often as possible in the future; I anticipate staying at hotels that use chatbot services for a very long time; and If I make use of hotel chatbot services, I think I'll finish my future hotel reservations more quickly and effectively. All variables' demonstrated a high level of reliability, with values exceeding 0.833.

3.2 Research Population and Sampling

Hotel guests who have already used the hotel's website chatbot services are the target population for the study. Based on Veal's recommendations and the lack of government accurate statistics about hotel guests who have already used the hotel's website chatbot services, and in addition to the large number that exceeds millions, the sample size for any study with an unknown population is often calculated with a population of 20,000 people [36]. Stephen Sampson's formula was used to determine the suitable sample size [37]. Yielding 372 replies.

3.3 Data Collection and Data Analysis Techniques

The self-administered questionnaires were used in the study's quantitative methodology to gather primary data. A panel of academics and tourism industry experts examined and modified the questionnaire. In May, June and July 2024 at five-star and four-star hotels in major cities in the Kingdom of Saudi Arabia, 455 guests received it. In the end, 429 completed surveys [response rate of 94.3%] were received and subjected to statistical analysis. Due to their strong connections with various hotels reservation managers and sales managers, which facilitated reaching a large number of hotel guests, the authors achieved a high response rate. The questionnaire is structured into four sections to address the study's objectives. The first section gathers demographic data, while the subsequent three sections focus on the main three variables of the study: The user acceptance and behavior of using technology (Four sub-factors: Performance Expectancy "PE"; Effort Expectancy "EE"; Social Influence "SI"; and Facilitating Conditions "FC"), usage experience of chatbot "UEX", and intention to visit hotel "IVH". Respondents to the questionnaire evaluated items for all the study variables using Likert scale (5-points scale). The analysis of descriptive data and the exploration of the demographic features of the sample were carried out utilizing Excel-sheet V.2010 and SPSS version 24. Additionally, PLS-SEM version-4 was devoted to test the research hypotheses and an investigation of the correlations between all variables.

4. STUDY RESULTS

4.1 Measurement Model

Convergent validity was assessed to verify the construct reliability and validity of the model. The findings indicated that the reliability of all items exceeded 0.7, thereby meeting the threshold proposed by Hair et al. [38]. Additionally, the composite reliability (CR) for all study variables exceeded 0.7, in line with the criteria established by Bryman and Cramer [39] and the threshold proposed by Hair et al. [38]. Furthermore, the "AVE" values for the study variables were above

0.5, consistent with the recommendations, which proposed by Fornell and Larcker [40]. These results affirm that the model is both valid and reliable. Further details can be found in TABLE 1.

Table 1: The Results of Convergent Validity

Variables	Scale-Items	Loading	AVE	α	CR
PE	PE1	.955	.761	.891	.926
	PE2	.820			
	PE3	.948			
	PE4	.748			
EE	EE1	.786	.675	.833	.891
	EE2	.955			
	EE3	.792			
	EE4	.859			
SI	SI1	.792	.749	.834	.899
	SI2	.927			
	SI3	.872			
FC	FC1	.904	0.683	0.848	0.895
	FC2	.785			
	FC3	.889			
	FC4	.711			
UEX	UEX1	.967	.925	.960	.974
	UEX2	.975			
	UEX3	.943			
IVH	IVH1	.818	.750	.932	.947
	IVH2	.934			
	IVH3	.829			
	IVH4	.930			
	IVH5	.836			
	IVH6	.840			

4.1.1 Discriminant Validity “DV”

In order to bolster confidence in the proposed model results and conclusions, TABLE 2 and TABLE 3 as well as FIGURE 2 explored that every model variable is different from every other one, proving the discriminant validity of Kock’s model [41]. This was achieved using the cross-loadings method and the Fornell-Larcker criterion.

All the above mentioned results, shown in TABLE 2 indicate that each variable accounts for the variance of its own components more efficiently than other factors in the proposed model, consistent with the recommendations of Fornell & Larcker [40] and Hair et al. [38]. This finding confirms the model’s DV.

Table 2: The Criterion of Fornell-Larcker

Variables	PE	EE	SI	FC	UEX	IVH
PE	.872					
EE	.694	.821				
SI	.662	.662	.866			
FC	.651	.730	.761	.826		
UEX	.610	.679	.637	.637	.962	
IVH	.671	.649	.696	.725	.692	.866

* The bolded values represent the square root of the AVE.

Table 3: R² Values

Variable	R ²	Level
UEX	.952	High
IVH	.999	High

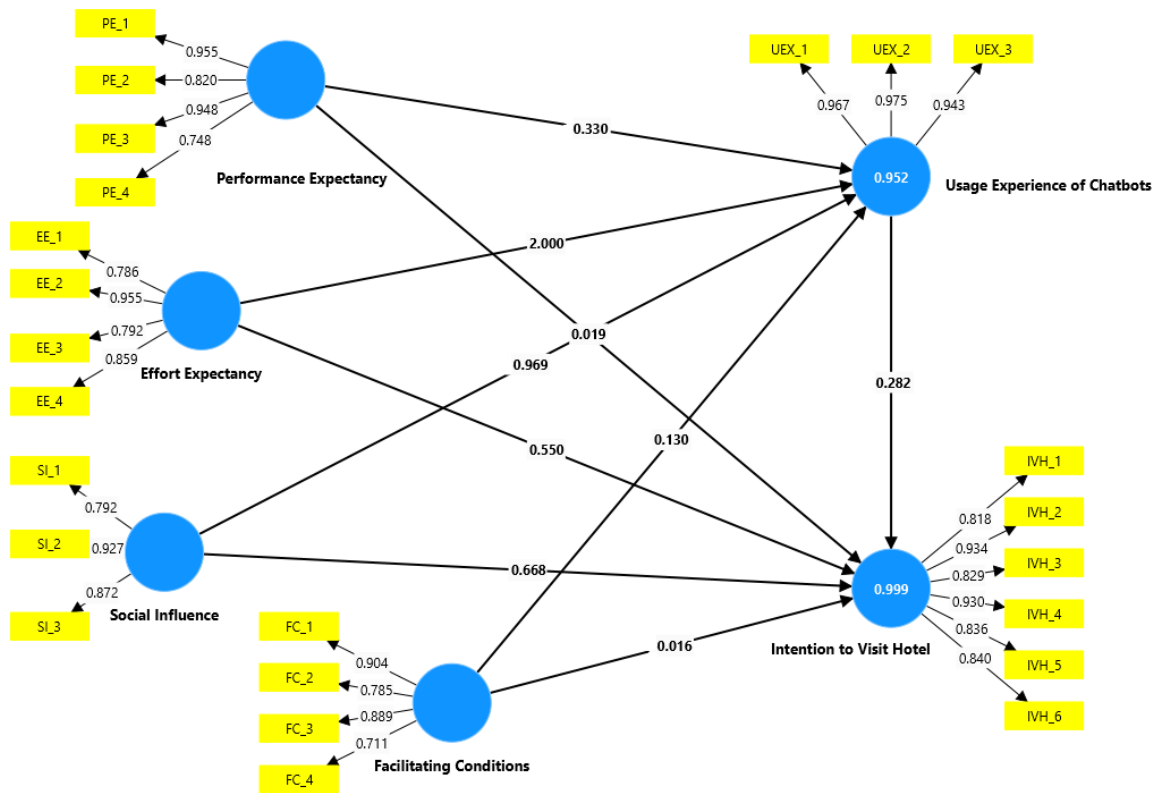


Figure 2: Assessment of the Measurement Model

4.2 Measuring Structural Model

4.2.1 Determination coefficient

Determination coefficient (R^2) as presented in TABLE number 4 explore the forecasting ability of the proposed model by examining the proportion of variance in the “DV” explained by the “IV”. TABLE number 3 presents that the “IV” significantly influence the “DV”, “UEX” and “IVH,” with high R^2 values, surpassing the minimum level of Chin [42].

Table 4: Effect Size (f^2)

Variables	IVH	UEX
PE	.181 (Small)	.127 (Small)
EE	.528 (Large)	.588 (Large)
SI	.612 (Large)	.437 (Large)
FC	.146 (Medium)	.193 (Small)
UEX	.424 (Large)	

4.2.2 Effect size

The relative contributions of the “IV” to the “DV” in the proposed model were assessed using f^2 . The above mentioned results presented in TABLE number 4 demonstrate that the IVs “PE,” “EE,” “SI,” & “FC” have varying degrees of impact on the DVs “IVH” and “UEX,” ranging from small to large. Of particular note, the effect size of “UEX” on “IVH” was substantial, meeting the criteria outlined by Cohen [43].

4.2.3 Model fit assessment

To verify that the proposed study model meets the criteria for a global comprehensive fit measure, a goodness of fit (GOF) test was performed at the levels of measurement, structural, and overall model performance, as demonstrated and suggested by Chin [44]: $GoF = \sqrt{R^2 \times AVE}$ $GoF = 0.859$

It is possible to infer that GOF of proposed model is sufficiently enough to be deemed adequately standing for a global PLS model, based on the recommended point of reference proposed by Wetzels and Odekerken [45] and goodness of fit test result.

4.3 Assessment of Hypotheses “Significance of Path Coefficients”

In order to assess the alignment of the proposed theoretical model with the primary data, as shown in TABLE 5 the significance of the path coefficients was evaluated. The following is a summary of the results for each hypothesis test.

Table 5: Path Coefficients for Hypothesized Relationships

Hypothesis	Relation	S.Beta	S.E	T	P	Findings
H1* PE UEX	Direct	.330	.139	2.382	.017**	Accepted
H2* EE UEX	Direct	2.000	.251	7.955	.000**	Accepted
H3* SI UEX	Direct	.969	.349	2.773	.006**	Accepted
H4* FC UEX	Direct	.130	.037	3.533	.000**	Accepted
H5* PE IVH	Direct	.019	.015	1.307	.001**	Accepted
H6* EE IVH	Direct	.550	.160	3.443	.001**	Accepted
H7* SI IVH	Direct	.668	.117	5.692	.000**	Accepted
H8* FC IVH	Direct	.160	.008	1.836	.000**	Accepted
H9* UEX IVH	Direct	.282	0.63	4.484	.000**	Accepted
H10* PE UEX IVH	In-direct	.093	.048	1.930	.005**	Partial
H6* EE UEX IVH	In-direct	.564	.112	5.022	.000**	Partial
H7* SI UEX IVH	In-direct	.274	.072	3.825	.000**	Partial
H8* FC UEX IVH	In-direct	.037	.013	2.782	.000**	Partial

**Significant at P. Value ≤ .005

The SEM results (TABLE 4 and TABLE 5) and the three proposed hypotheses (FIGURE 1). As demonstrated by FIGURE 3, “PE” positively and significantly influences “UEX” (Effect size = .127; Std.Beta = .330) and “IVH” (Effect size = .181; Std.Beta = .019). Also, “EE” has a direct impact on “UEX” and “IVH” that is both positive and significant (Effect-size = .588; Std.Beta = 2.00) and (Effect-size = 0.528; Std.Beta = 0.550). “SI” positively and significantly influences “UEX” (Effect size = 0.437; Std.Beta = 0.969) and “IVH” (Effect size = .612; Std.Beta = .668). Moreover, “FC” has a direct impact on “UEX” and “IVH” that is both positive and significant (Effect-size = .193; Std.Beta = .130) and (Effect-size = .146; Std.Beta = .16). On the same context, “UEX” positively and significantly influences “IVH” (Effect size = .424; Std.Beta = .282). Therefore, all of the direct impacts hypotheses from H1 till H9 were shown to be true and received support. As for the indirect relationship between the study variables, “UEX” shows a partial mediating impact on the relationship between “PE” and “IVH” (Std.Beta = .093 and P-value = .005), “EE” and “IVH” (Std.Beta = .564 and P-value = .000), “SI” and “IVH” (Std.Beta = .274 and P-value = .000), and “FC” and “IVH” (Std.Beta = .037 and P-value = .000). Consequently, as the mediating relationship was significant, the hypothesis H10, H11, H12, and H13 were accepted.

5. DISCUSSION AND IMPLICATIONS

Using the “UTAUT”, this study aims at exploring hotel guests’ perceptions regarding the use of chatbot and their impact on acceptance and intention to visit hotels. Furthermore, the research examines the indirect role of actual chatbot usage in the relationship between guests’ acceptance and usage of chatbot and their intention to visit hotels in Saudi Arabia. The findings showed that performance expectancy (PE) has a positive and significant effect on user experience (UEX) among hotel guests in Saudi Arabia, aligning with the findings of Alamoudi et al. [18] which suggest that PE positively influences user adoption of new technologies in the hospitality sector. Furthermore, effort expectancy (EE) also demonstrates a positive and significant effect on UEX,

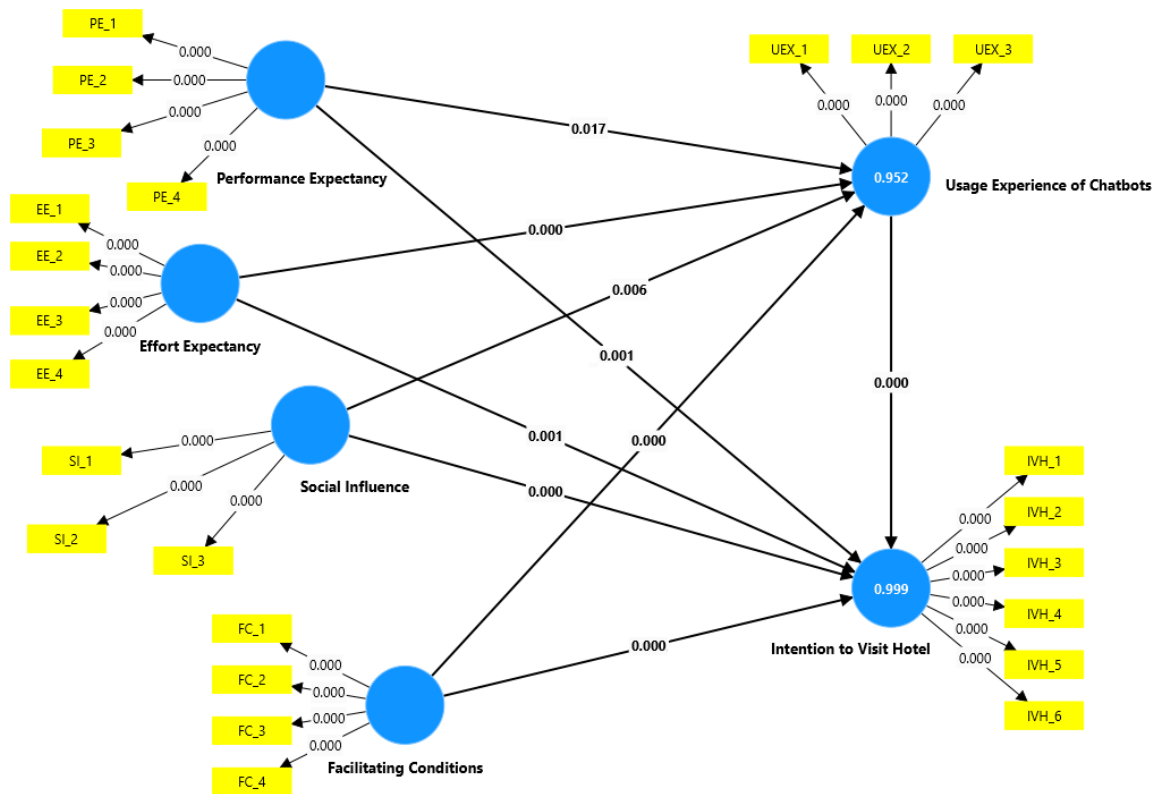


Figure 3: Significance of Path coefficients

consistent with the work of SP et al. [20], who argue that ease of use significantly affects users’ intention to utilize technology, especially in the service industry. Moreover, social influence (SI) positively and significantly affects UEX among hotel guests, corroborating the findings of Auer et al. [26], who emphasize the role of peer influence and societal norms in shaping technology adoption decisions, particularly in service environments. Similarly, facilitating conditions (FC) positively and significantly impact UEX, which aligns with the findings of Ajaz et al. [17], who found that users are more inclined to adopt technology when they perceive adequate infrastructure and resources to support its use, particularly in hospitality and tourism.

Additionally, PE significantly influences intention to visit hotels (IVH) among guests, consistent with Pham et al. [10], who assert that guests are more likely to return to or visit hotels that provide advanced and efficient technological solutions that enhance their overall experience. Likewise, EE positively and significantly affects IVH, aligning with the conclusions of SP et al. [20], who argue that ease of use in hotel technologies, such as mobile applications and online platforms, significantly improves guests’ intentions to stay at hotels due to the convenience these technologies offer. Furthermore, SI has a positive and significant effect on IVH among hotel guests, which is consistent with Nguyen et al. [16], who affirm that social influence, particularly in collectivist cultures, significantly impacts individuals’ intentions to utilize technology and visit technology-enhanced hotels. Additionally, FC positively influences IVH, aligning with the findings of Çalışkan et al. [24], who found that the availability of necessary support and resources, such as technical infrastructure and knowledgeable staff, positively affects guests’ intentions to stay at technologically

advanced hotels. Moreover, UEX shows a positive and significant effect on IVH among hotel guests in Saudi Arabia, which corresponds with the findings of Nazri et al. [9], who argue that positive prior experiences with technology lead to greater customer satisfaction and a stronger intention to revisit hotels or other service-oriented environments. The findings also highlight the mediating role of UEX in the relationships among all independent variables (i.e., PE, EE, SI, and FC) and the dependent variable IVH. This aligns with previous research [e.g., 29, 31, 33], which emphasizes that users' experiences with technology significantly shape their behavioral intentions. When guests have positive experiences with chatbot and other technological features, their intentions to revisit or stay at a hotel are markedly enhanced, underscoring the importance of optimizing user experience as a vital component of customer satisfaction and retention [33]. The research yields several findings that have significant theoretical and practical implications for the hotel industry. It contributes to addressing gaps in the literature concerning the mediating role of users' experience with hotel chatbot services (UEX) in the relationship between technology acceptance and behavior, encompassing its four sub-factors (PE, EE, SI, FC) and the intention to visit hotels (IVH). Furthermore, this implies that UEX can alter the effects of PE, EE, SI, and FC on IVH. These findings prompt hotel managers and decision-makers to adopt this transformative technology to tackle emerging technological challenges effectively and leverage it to maximize positive impacts on customers.

6. CONCLUSION

This paper aims at investigating hotel guests' perceptions towards using Chatbot and its impact on their acceptance and usage intention to visit the hotel as perceived by guests at five-star and four-star hotels in major cities in the Kingdom of Saudi Arabia, and the indirect role of actual use of Chatbot in the correlation between guests' acceptance and usage of Chatbot and their intention to visit Saudi Arabian hotels. Data were gathered from 429 hotel guests. Data analysis of Descriptive and demographic statistics of the respondents were analysed using SPSS-24. Additionally, PLS-SEM V.4 was employed to explore influence between variables (direct and indirect) as well as examine the proposed model. Meanwhile, The SEM results proved that "PE", "EE", "SI", and "FC" have a positive and significant impact on "UEX" and "IVH", in addition, "UEX" has a positive and significant impact on "IVH". Moreover, the SEM results showed the mediating role of "UEX" on the relationships between all independent variables "PE", "EE", "SI" and "FC", and the dependent variable "IVH", which offer comprehensive advice to hotel executives and decision-makers on how to use this revolutionary technology. This will enable them to meet new challenges in technology and make the best use of it to maximize its beneficial effects on guests.

7. ACKNOWLEDGEMENT

"This work was supported through the Annual Funding track by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia [Project No. KFU242476]".

8. CONFLICT OF INTEREST

The authors declare no conflict of interest.

References

- [1] Huang A, Ozturk AB, Zhang T, de la Mora Velasco E, Haney A. Unpacking AI for Hospitality and Tourism Services: Exploring the Role of Perceived Enjoyment on Future Use Intentions. *Int J Hosp Manag.* 2024;119:103693.
- [2] Islam MS, Tan CC, Sinha R, Selem KM. Gaps Between Customer Compatibility and Usage Intentions: The Moderation Function of Subjective Norms Towards Chatbot-Powered Hotel Apps. *Int J Hosp Manag.* 2024;123:103910.
- [3] Zafar MS, Asghar Z, Malik A, Abubakar M. Determining Behavioural Intention to Use Artificial Intelligence in the Hospitality Sector of Pakistan: An application of UTAUT Model. *J Tourism Hosp Serv Ind Res.* 2024;4:1-21.
- [4] Fu J, Mouakket S, Sun Y. Factors Affecting Customer Readiness to Trust Chatbots in an Online Shopping Context. *J Glob Inf Manag.* 2024;32:1-22.
- [5] Ayanwale MA, Ndlovu M. Investigating Factors of Students Behavioral Intentions to Adopt Chatbot Technologies in Higher Education: Perspective From Expanded Diffusion Theory of Innovation. *Comput Hum Behav Rep.* 2024;14:100396.
- [6] Lei C, Hossain MS, Wong E. Determinants of Repurchase Intentions of Hospitality Services Delivered by Artificially Intelligent (AI) Service Robots. *Sustainability.* 2023;15:4914.
- [7] Sam SJ, Jasim KM. Diving Into the Technology: A Systematic Literature Review on Strategic Use of Chatbots in Hospitality Service Encounters. *Manag Rev Q.* 2023:1-29.
- [8] Aslam W, Ahmed Siddiqui D, Arif I, Farhat K. Chatbots in the Frontline: Drivers of Acceptance. *Kybernetes.* 2023;52:3781-3810.
- [9] Nazri NA, Anuar FI, Ridho MZ. The Rise of Bots: Exploring Malaysians' Intention to Use Chatbots for Travel Planning. *J Tourism Hosp Culinary Arts.* 2024;16:454-470.
- [10] Pham HC, Duong CD, Nguyen GK. What Drives Tourists Continuance Intention to Use ChatGPT for Travel Services? A Stimulus-Organization-Response Perspective. *J Retailing Con Serv.* 2024;78:103758.
- [11] Ayad TH, Elsayed RM. Predicting the Interrelationships Among ChatGPT Tourists Satisfaction and Usage Intention: Moderating Role of Traditional Tour Operator Services. *J Infrast Policy Dev.* 2024;8:4183.
- [12] Han H, Kim S, Hailu TB, Al-Ansi A, Lee J, et. al. Effects of Cognitive Affective and Normative Drivers of Artificial Intelligence Chatgpt T on Continuous Use Intention. *J Hosp Tourism Technol.* 2024;15:629-647.

- [13] Zhang B, Zhu Y, Deng J, Zheng W, Liu Y, et al. "I Am Here to Assist Your Tourism": Predicting Continuance Intention to Use AI-based Chatbots for Tourism. Does Gender Really Matter?. *Int J Hum Comput Interact.* 2023;39:1887-1903.
- [14] Alam SS, Masukujjaman M, Mohamed Makhbul ZK, Helmi Ali M, Ahmad I, et. al. Experience, Trust, eWOM Engagement and Usage Intention of AI Enabled Services in Hospitality and Tourism Industry: Moderating Mediating Analysis. *J Qual Assur Hosp Tourism.* 2023:1-29.
- [15] Loureiro SM, Ali F, Ali M. Symmetric and Asymmetric Modeling to Understand Drivers and Consequences of Hotel Chatbot Engagement. *Int J Hum Comput Interact.* 2024;40:782-794.
- [16] Nguyen VT, Phong LT, Chi NT. The Impact of AI Chatbots on Customer Trust: An Empirical Investigation in the Hotel Industry. *Con Behav Tourism Hosp.* 2023;18:293-305.
- [17] Ajaz MA, Saeed A, Yaseen A, Syed A. Effects of Artificial Intelligence on Tourism Business: How European Hospitality Industry Responded. In: *The role of artificial intelligence in regenerative tourism and green destinations.* Emerald Publishing Limited. 2024:101-114.
- [18] Alamoudi Y, Alasmari H, Alamoudi G, Alghamdi H. Ai-Powered Virtual Assistant: To Enhance Saudi Arabia Travel Experience and Support Tourism Growth. In: *Intelligent Systems Conference.* Cham: Springer Nature Switzerland. 2024:254-273.
- [19] Venkatesh V. Adoption and Use of AI Tools: A Research Agenda Grounded in UTAUT. *Ann Oper Res.* 2022;308:641-652.
- [20] Asokk D, Prasanna S, Alam AS, Nisha Pradeepa S P. Investigating Chatbot Users'E-Satisfaction and Patronage Intention Through Social Presence and Flow: Indian Online Travel Agencies (Otas). *J Syst Inf Technol.* 2024.
- [21] Balakrishnan J, Abed SS, Jones P. The Role of Meta-Utaut Factors Perceived Anthropomorphism Perceived Intelligence and Social Self-Efficacy in Chatbot-Based Services? *Technol Forecasting Soc Change.* 2022;180:121692.
- [22] Alagarsamy S, Mehrolia S. Exploring Chatbot Trust: Antecedents and Behavioural Outcomes. *Heliyon.* 2023;9:e16074.
- [23] Pereira T, Limberger PF, Minasi SM, Buhalis D. New Insights Into Consumers Intention to Continue Using Chatbots in the Tourism Context. *J Qual Assur Hosp Tourism.* 2024;25:754-780.
- [24] Çalışkan, G., Yayla, İ., & Pamukçu, H. The Use of Augmented Reality Technologies in Tourism Businesses From the Perspective of UTAUT2. *Eur J Innov Manag.* 2023.
- [25] Dhiman N, Jamwal M. Tourists Post-adoption Continuance Intentions of Chatbots: Integrating Task–Technology Fit Model and Expectation–Confirmation Theory. *Foresight.* 2023;25:209-224.
- [26] Auer I, Schlögl S, Glowka G. Chatbots in Airport Customer Service—Exploring Use Cases and Technology Acceptance. *Future Internet.* 2024;16:175.
- [27] Nyagadza B, Muposhi A, Mazuruse G, Makoni T, Chuchu T, et al. Prognosticating Anthropomorphic Chatbots Usage Intention as an E-banking Customer Service Gateway: Cogitations From Zimbabwe. *PSU Res Rev.* 2024;8:356-372.

- [28] Iancu I, Iancu B. Interacting With Chatbots Later in Life: A Technology Acceptance Perspective in COVID-19 Pandemic Situation. *Front Psychol.* 2022;13:1111003.
- [29] Loi KI, So AS, Lo IS. Examining the Impact of Chatbots on Customer Loyalty in Hotels: A Mediation Model. *J Hosp Tourism Technol.* 2022;13:123-142.
- [30] Tussyadiah I. A Review of Research Into Automation in Tourism: Launching the Annals of Tourism Research Curated Collection on Artificial Intelligence and Robotics in Tourism. *Ann Tour Res.* 2020;81:102883.
- [31] Huang MH, Rust RT. A Strategic Framework for Artificial Intelligence in Marketing. *J Acad Mark Sci.* 2021;49:30-50.
- [32] Kasabov E, Warlow A. Customer Experience Management: Enhancing Experience and Loyalty Through Chatbots in Hotels. *Int J Hosp Manag.* 2021;92:102729.
- [33] Venkatesh V, Morris MG, Davis GB, Davis FD. User Acceptance of Information Technology: Toward a Unified View. *MIS Q.* 2003;27:425-478.
- [34] Trivedi J. Examining the Customer Experience of Using Banking Chatbots and Its Impact on Brand Love: The Moderating Role of Perceived Risk. *J Internet Com.* 2019;18:91-111.
- [35] Bubaš, G.; Čižmešija, A.; Kovačič, A. Development of an Assessment Scale for Measurement of Usability and User Experience Characteristics of Bing Chat Conversational AI. *Future Internet.* 2024;16.
- [36] Veal AJ. *Research Methods for Leisure and Tourism.* 3rd ed. London: Prentice Hall. 2006.
- [37] Ayad TH. Tourism-Graduates Are They Employable? *Eurasian J Educ Res.* 2022;101:100-123.
- [38] Hair JF, Hult GT, Ringle CM, Sarstedt M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM).* 2nd ed. Thousand Oaks CA: SAGE Inc. 2017.
- [39] Bryman A, Cramer D. *Quantitative Data Analysis With IBM SPSS 17, 18 & 19: A Guide for Social Scientists.* Routledge. 2012.
- [40] Fornell C, Larcker DF. Evaluating Structural Equation Models With Unobservable Variables and Measurement Error. *J Mark Res.* 1981;18:39-50.
- [41] Kock N. Multilevel Analyses in PLS-SEM: An Anchor-Factorial With Variation Diffusion Approach. *Data Analysis Perspectives.* 2020;1:1-6.
- [42] Chin WW. The Partial Least Squares Approach for Structural Equation Modeling. In: Marcoulides GA Editor. *Modern methods for business research.* Lawrence Erlbaum Associates Publishers. 1998:295-336.
- [43] Cohen J. *Statistical Power Analysis for the Behavioral Science.* 2nd ed. Hillsdale NJ: Lawrence Erlbaum Associates Publishers. USA. 1988.
- [44] Chin WW. How to Write Up and Report PLS Analyses. In: Esposito Vinzi V, Chin WW, Henseler J, Wang H, editors. *Handbook of Partial Least Squares: Concepts Methods and Applications.* Heidelberg Dordrecht London New York: Springer. 2010:655-690.

- [45] Wetzels M, Odekerken G, Van Oppen C. Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration. *Management information systems quarterly—MISQ*. 2009;33:177-195.