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Adoption of Cloud Computing Technologies in Hospitality Enterprises and Their Impact on Business Performance: The Case of Türkiye

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Abstract

Background: Cloud computing (CC) has emerged as a transformative technology that offers flexibility, scalability, and cost efficiency to enterprises across various sectors, including tourism and hospitality. Despite its potential, the level and determinants of cloud computing adoption (CCA) in the hospitality industry, particularly in developing countries, remain insufficiently explored.

Purpose: This study aims to identify the key factors that facilitate or hinder the adoption process of cloud computing in accommodation businesses operating in Türkiye and to analyse the impact of this technology on business performance.

Study design/methodology/approach: A theoretical model was developed by integrating the Diffusion of Innovation (DOI) theory and the Technology-Organization-Environment (TOE) framework. Within this model, 11 constructs were formulated, their reliability and validity were tested and regression analyses were conducted to examine the relationships between CCA determinants and business performance outcomes.

Findings/conclusions: The results show that compatibility has a strong positive effect on the adoption of CC in hospitality enterprises, while complexity and security and privacy concerns negatively affect adoption. External support and technological readiness were also found to be significant positive predictors. Conversely, relative advantage, top management support, organizational resources and competitive pressure did not have significant effects. Importantly, the study reveals a positive and significant relationship between CCA and business performance, highlighting the strategic potential of this technology for hospitality enterprises.

Limitations/future research: The study is limited to hospitality enterprises in Türkiye and future research could extend the analysis to other countries or service sectors. Further studies employing longitudinal or mixed-method approaches may also deepen understanding of the long-term effects of CCA.

Keywords

Cloud Computing, Hospitality Enterprises, Diffusion of Innovation (DOI) Theory, Technology-Organization-Environment (TOE) Framework, Business Performance

Introduction

The incorporation of Industry 4.0 technological frameworks into tourism operations is fundamentally reshaping the sector through the concept of "smart hospitality." While tourism as a whole typically demonstrates slower uptake of technological innovations (Gomes et al., 2024), the accommodation sector has historically distinguished itself through early technology adoption (Zeqiri & Youssef, 2020; Buhalis & Law, 2008).

Cloud infrastructure, recognized as a contemporary application delivery mechanism in

global service markets (Danylenko et al., 2019), presents substantial prospects to the accommodation industry as an innovative and decentralized framework facilitated by contemporary Industry 4.0 instruments (Taqi et al., 2025). Evidence suggests that cloud infrastructure exercises perhaps the most profound influence within the hospitality domain, and as primary information systems transition to cloud environments, it functions as an enabler for additional cloud-dependent digital solutions (Wynn & Jones, 2022). This prominence stems from the fact that computational and operational dimensions of digital, smart, and intelligent technologies predominantly depend upon cloud infrastructure (Hsu, 2024).

Cloud infrastructure holds strategic value in the hospitality sector due to its capacity to respond quickly to changing guest expectations and facilitate revenue-enhancing strategies (Mansour et al., 2020). Cloud-based applications enhance operational performance by strengthening communication between leadership and staff and make processes more efficient by establishing instant connections between digital and physical systems (Sujood et al., 2023). These solutions, which digitise reservations, guest transactions, inventory management, and financial processes (Anwar et al., 2024; Wynn & Jones, 2022), accelerate the digital transformation of businesses by increasing customer satisfaction and competitiveness (Buhalis & Leung, 2018; Çankaya Kurnaz & Kurnaz, 2022). Cloud infrastructure, integrated with 5G, the Internet of Things (IoT) and smart city technologies (Tabrizchi & Kuchaki Rafsanjani, 2020), plays a critical role in data processing and storage, becoming a fundamental technology in the hospitality sector in terms of operational efficiency, customer experience and competitive advantage.

Despite the cloud infrastructure's capacity to provide economically and temporally efficient services, it is noteworthy that a significant proportion of organizations in both developing countries (Khayer et al., 2020) and across the European Union have yet to adopt this technology (Bania & Geradin, 2024). The main reasons for this include the complexity of transferring data from legacy systems to cloud-based platforms, uncertainties regarding the commercial benefits and organizational outcomes of the technology, the absence of industry-specific standards, low levels of technological readiness, concerns about service reliability, and discrepancies between expected and actual performance (Khayer et al., 2020).

Comparable obstacles appear to have manifested within the Turkish tourism industry, as evidenced by the Twelfth Development Plan (2024-2028), which has highlighted the necessity for the tourism sector to embrace digital transformation to develop a competitive framework responsive to rapidly evolving demand patterns. The plan articulates an objective to implement a "seamless end-to-end travel" model throughout the sector by digitally connecting all participants across the tourism value chain. Within this framework, the plan emphasizes that assistance will be extended toward strengthening the technological capabilities of particularly small-scale tourism operations and cultivating digital competencies among their workforce (T.C. Cumhurbaskanligi Strateji ve Butce Baskanligi, 2024). Nevertheless, available scholarship indicates that research examining factors affecting CCA within hospitality organizations remains considerably limited. This scarcity hampers thorough comprehension of challenges associated with CC implementation in hospitality contexts. Accordingly, these circumstances have established the rationale for the present investigation. Aligned with this overarching objective, the study pursues responses to the following inquiries:

1. What are the fundamental factors influencing the adoption of CC by hospitality enterprises and how are these factors shaped within the context of the Turkish hospitality sector?
2. Is there a significant relationship between the adoption of CC and the performance of hospitality enterprises?

1.Background

1.1. DOI

DOI Theory, developed by Rogers (1962) and used for over sixty years, is a powerful theoretical framework for understanding how new ideas and technologies spread (Valente, 2003; Wamba & Queiroz, 2022). According to Rogers (2003), diffusion is 'the process by which an innovation is communicated over time through specific channels among members of a social system.' Unlike other change theories, DOI does not focus on changing individuals; instead, it focuses on the process of reshaping products and applications to fit the needs of individuals and groups (Robinson, 2009). Rogers (1995) emphasised that the rate of adoption depends on the perceived characteristics of

innovations and defined five key characteristics in this context: relative advantage, compatibility, complexity, trialability and observability. DOI is widely used as an important model in information systems research that links technology characteristics with user perceptions (Oliveira et al., 2014).

1.2. TOE Framework

In response to criticism that previous organisational adoption frameworks inadequately incorporated environmental factors, TOE Framework developed by Tornatzky and Fleischer (1990) is one of the earliest examples of comprehensive models aiming to explain the likelihood of innovation adoption (Awa & Ojiabo, 2016). TOE defines three fundamental contexts that shape an organisation's process of adopting technological innovations: technological, organisational and environmental.

1.3. CCA Related Studies

CCA decisions have been analysed through empirical studies based on various theoretical approaches. For example, in user-centred studies, factors such as Perceived Usefulness and Personal Innovativeness (Ahmed et al., 2020), User-Friendly Interface, Security, Flexibility and Reliability (Tella et al., 2020) have been found to influence adoption intentions. In the context of organisational and environmental factors, Server Location in Bangladesh (Khayer et al., 2020), Top Management Support and Government Policy in Ghana (Entsie et al., 2025; Atuah et al., 2023), Competitive Pressure and External Expertise in the Indian education system (Singh & Mansotra, 2019) and Corporate Competencies in Australia (Senarathna et al., 2018) have been decisive. Relative Advantage and Compatibility have commonly shown positive effects (Athambawa et al., 2023; Atuah et al., 2023), while the effect of Complexity has been found to be insignificant in some studies (Entsie et al., 2025). The perception of Regulatory Support as a barrier among SMEs in South Africa (Sithole & Ruhode, 2021) and the identification of economic barriers, brain drain, and infrastructure deficiencies as significant issues in Lebanon, where adoption is strongly associated only with technological factors (Baalbaki et al., 2025), demonstrate that the impact of factors varies by geography and sector. Furthermore, it has been shown that Information and service quality improves business operations.

A review of the literature reveals that some studies on the adoption of CC have been conducted using secondary data (Entsie et al., 2026; Holler & Westner, 2025) and that the majority of research has focused on SMEs (Amini & Bakri, 2015; Nosheen et al., 2025; Suttidee & Savithi, 2025), libraries (Tella et al., 2020; Ibrahim et al., 2025), the oil and gas sector (Oduoza & Lawan, 2026), and the public sector (Entsie et al., 2025). However, studies conducted specifically on accommodation businesses are limited in number and have small sample sizes (Ayoobkhan & Kaldeen, 2020), focusing solely on the level of adoption (Godolja et al., 2025), or examining the relationship between adoption and business performance without comprehensively addressing the adoption factors explaining this relationship (Hui & Mohammadi, 2024). The fundamental difference of this study is that it is an empirical research conducted with a large sample size, comprehensively examining the factors affecting the adoption of CC and the effects of this adoption on business performance within the same model, and testing these relationships in the context of Türkiye, an emerging economy, thereby filling existing gaps in the literature while offering contextual and comparative original contributions.

1.4. Combining DOI and TOE

DOI Theory faces criticism for its inadequacy in explaining collective adoption behaviours, particularly those involving elements such as network externalities, while also failing to accelerate decision-making processes and ensure sustainability (Rogers, 2003; Haider & Kreps, 2004; García-Avilés, 2020). On the other hand, TOE framework has been criticised for the lack of clarity in contextual variables and shortcomings in explaining adoption mechanisms (Wang et al., 2010). These limitations have led to the widespread integration of more robust frameworks such as DOI and TOE to increase explanatory power and include the environmental dimension, rather than relying on a single model in the academic field (Oliveira & Martins, 2011; Gangwar & Date, 2016). In this study, an integrated use was deemed appropriate because TOE explains adoption at the organisational level by addressing technological, organisational, and environmental aspects simultaneously, while DOI emphasises individual elements (Khayer et al., 2020; Oliveira et al., 2014). Research examining the organisational adoption of information technologies has supported both theories with strong empirical

evidence (Ahmed & Saidu, 2022), and current literature indicates that they retain their strategic importance (Holler & Westner, 2025). The integration of these two theoretical approaches provides a more robust and comprehensive framework for analysing adoption processes by addressing the diffusion of technological innovations and organisational adaptation from a multidimensional perspective (Oliveira et al., 2014; Sahin, 2006).

2. Research Hypotheses and Model

Key independent variables within the model, under the DOI framework, comprise relative advantage, compatibility and complexity. Additional independent variables within the model, under the TOE framework, include technological readiness, security and privacy concerns, cost savings, competitive pressure, top management support, and organizational resources. Dependent variables in this investigation are CCA and business performance.

2.1. Research Hypotheses

2.1.1. Relative Advantage

Relative Advantage, derived from Rogers' DOI theory, expresses how much better an innovation is perceived to be than the idea it replaces (Rogers, 2003) and, in CC, expresses the perception of reducing operational costs and increasing commercial benefits (Lian et al., 2014). Numerous studies on CCA (Sithole & Ruhode, 2021; Al Hadwer et al., 2021; Athambawa et al., 2023; Atuah et al., 2023) have confirmed that relative advantage has a positive effect on adoption. Therefore, the following hypothesis is proposed:

H1. Relative advantage will positively affect the CCA.

2.1.2. Compatibility

The compatibility dimension stems from Rogers' DOI theory and refers to ‘the degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters’ (Rogers, 2003). The scientific literature emphasises that compatibility with existing business models, corporate strategies and customer expectations is among the priority issues for organisations adopting CC (Priyadarshinee et al., 2017; Alkhater et al., 2018). Numerous studies (Athambawa et al., 2023; KardanMoghaddam et al., 2022; Lawan et al., 2021; Atuah et al., 2023) show that this factor is an important determinant. Therefore,

H2. Compatibility will positively affect the CCA.

2.1.3. Complexity

Complexity is defined in Rogers' DOI theory as ‘the degree to which an innovation is perceived as relatively difficult to understand and use’ (Rogers, 2003). Academic discussions emphasise that complexity delays the adoption process by making technologies difficult to learn and complicating workforce adaptation (Stieninger et al., 2014; Priyadarshinee et al., 2017). Numerous studies (Al Hadwer et al., 2021; AlBar & Hoque, 2019; Lawan et al., 2021; Athambawa et al., 2023) confirm that complexity negatively affects CCA. Hence,

H3. Complexity will negatively affect the CCA.

2.1.4. Security and Privacy Concerns

Security and privacy concerns are the main reasons why many organisations hesitate to adopt cloud services. In particular storing data with external providers leads to a loss of control and increased vulnerability to potential privacy breaches (Lian et al., 2014; Alkhater et al., 2018). Alkhater et al. (2018) found in their research that security and privacy concerns continue to hinder the adoption of cloud services. Similarly, other studies (Stieninger et al., 2018; Priyadarshinee et al., 2017; AlBar & Hoque, 2019) highlight the impact of security and privacy concerns on CCA. Therefore,

H4. Security and privacy concerns will negatively affect the CCA.

2.1.5. Cost Savings

CC enables organisations to focus on core business processes and innovation rather than technological operations by reducing the burden of system maintenance and routine updates. This technology allows companies to achieve strategic cost savings by minimising infrastructure investments, energy consumption and maintenance costs (Oliveira et al., 2014; Guo et al., 2025). Among the most significant advantages presented by CC is cost reduction, a point consistently highlighted within scholarly literature (Lin & Chen, 2012; Khayer et al., 2020; Chen et al., 2022). Investigations (Amini & Bakri, 2015; Ming et al., 2018) have established the influence of cost savings on CCA. Therefore,

H5. Cost savings will positively affect the CCA.

2.1.6. Top Management Support

Top management support also increases the rate of innovation adoption by helping businesses overcome technological challenges (Yadegaridehkordi et al., 2020). Therefore, top management support is seen as an indispensable element for effective CC implementation (Ramdani & Kawalek, 2009; Alkhater et al., 2018). Numerous studies confirm the importance of this support (AlBar & Hoque, 2019; Lawan et al., 2021; Gui et al., 2021; Atuah et al., 2023). Hence,

H6. Top management support will positively affect the CCA.

2.1.7. Organizational Resources

Organizational resource designates a firm's capacity to facilitate new technology adoption regarding technology, finance, human capital and workforce (Powell & Dent-Micallef, 1997). CCA is frequently regarded as an expensive, intricate and extensive endeavour and the existence of organizational resources including adequate budget, skilled human capital, time and executive-level backing proves substantially important for successful process execution (Lian et al., 2014). Thus,

H7. Organizational Resources will positively affect the CCA.

2.1.8. Competitive Pressure

Competitive pressure refers to the level of pressure organisations perceive from their competitors (Alkhater et al., 2015) and has historically been recognised as a significant factor in technology adoption. For companies seeking to gain a competitive advantage in the market CCA has become a strategic imperative; early adopters gain advantages such as operational efficiency, market differentiation and real-time data access (Gamage, 2019; Amini & Bakri, 2015). Most research indicates that this relationship is robust and positive (Singh & Mansotra, 2019; AlBar & Hoque, 2019; Lawan et al., 2021). Therefore,

H8. Competitive pressure will positively affect the CCA.

2.1.9. External Support

Government agencies, society and suppliers play a critical role in identifying new technology requirements and providing the necessary resources for implementation (Albugmi et al., 2016). Service providers, in particular, facilitate the adoption process by guaranteeing uninterrupted data access (Gamage, 2019). External support such as government policies and regulatory frameworks are key factors determining the CCA; organisations actively leverage environmental factors such as government incentives to strategically justify their cloud investments (Yadegaridehkordi et al., 2020; Nosheen et al., 2025; Ali et al., 2026). Most studies have demonstrated the effectiveness of this factor (Gamage, 2019; Karim & Rampersad, 2017; Pathan et al., 2017). Hence,

H9. External support will positively affect the CCA computing.

2.1.10. Technological Readiness

Technological readiness refers to an organisation's existing technical infrastructure, such as hardware, software and networks, as well as the willingness and capacity of its human resources to effectively adopt and integrate new technologies (Alkhater et al., 2015; Nosheen et al., 2025). Most studies (Lawan et al., 2021; KardanMoghaddam et al., 2022; AlBar & Hoque, 2019) clearly demonstrate the positive effect of technological readiness on adoption. Hence,

H10. Technological readiness will positively affect the CCA.

2.1.11. Business Performance

CC plays a critical role in providing competitive advantage and superior performance by facilitating access to strategic resources (Chen et al., 2022). It also positively impacts financial indicators such as return on investment, profit margin, and market share (Rawashdeh and Rawashdeh, 2023), while increasing operational flexibility and innovation capacity (Chen et al., 2022). Therefore, the strategic and effective CCA creates a direct and positive impact on business performance by providing businesses with cost reduction, revenue growth, and competitive advantage (Chen et al., 2022; Khayer et al., 2020; Garrison et al., 2015; Rawashdeh & Rawashdeh, 2023; Hui & Mohammadi, 2024). Accordingly, the following hypothesis is proposed:

H11. The CCA will positively affect business performance.

2.2. Research Model

A theoretical model based on the integration of the DOI and the TOE frameworks has been developed to identify the key factors influencing CCA and its impact on business performance. The integrated research model is shown in Figure 1.

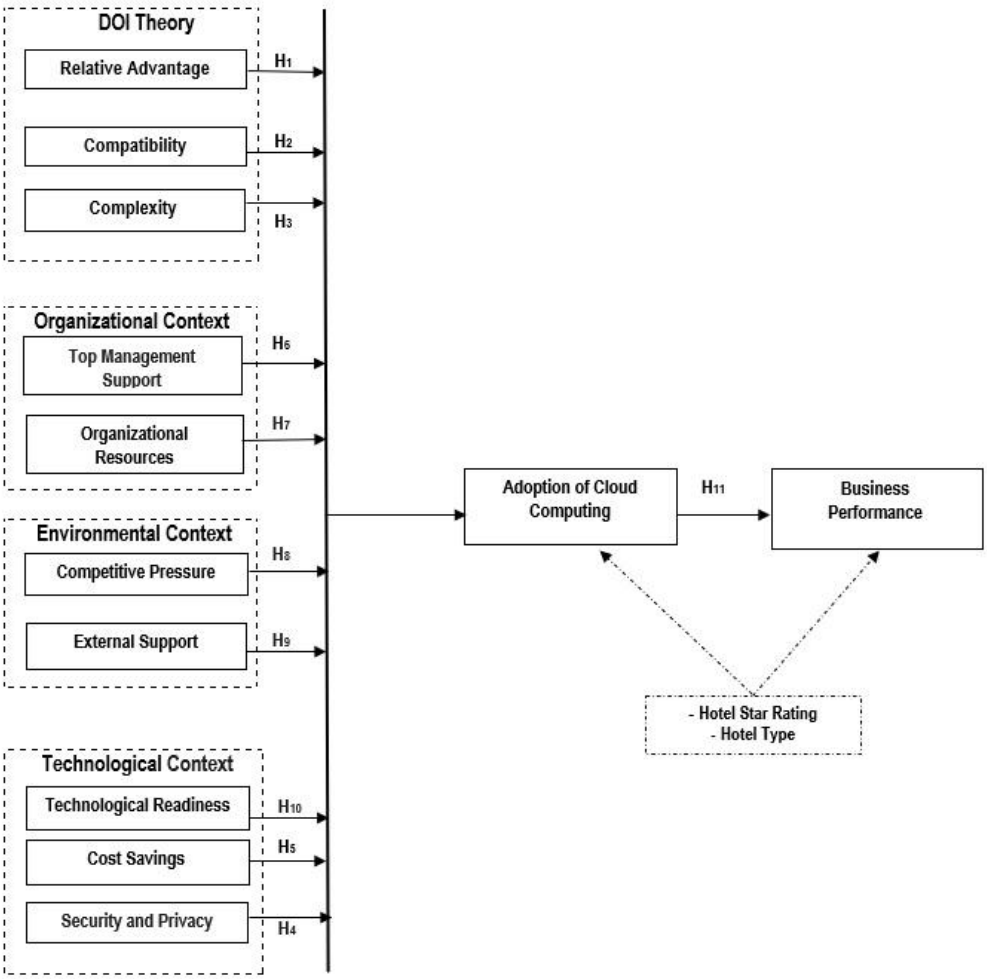


Figure 1 Research Model
Source: the authors

In this study, two control variables, the star rating of the establishment and the corporate structure of the enterprise, were included to reduce the variance in CCA and business performance that could potentially be influenced by these factors. Large hospitality enterprises are more likely to possess greater financial and human resources, which can lead to variances in both the CCA (Oliveira et al., 2014) and business performance (Khayer et al., 2020). Similarly, to address potential variances in adoption and performance arising from operational characteristics related to the corporate structure of the enterprise, the corporate structure was included in the model as another control variable.

3. Research Methodology

The questionnaire used in this study to collect data from senior managers and/or owners of businesses consists of two sections. The first section of the questionnaire covers socio-demographic variables relating to the businesses and participants. The second section consists of statements relating to the external and internal latent variables included in the research model. Within the scope of the research, items related to complexity, compatibility, relative advantage, cost savings, management support, organisational resources, competitive pressure, external support, security and privacy concerns, business performance and technological readiness were evaluated using a five-point Likert scale and participants were asked to express their opinions on a scale ranging from 'strongly disagree (1)' to 'strongly agree (5)'. The scale items used in the study were developed by drawing on previous studies in the relevant literature, and this 42-item scale is presented in detail in Appendix 1.

In quantitative research, the representativeness of the sample is critical to achieving valid and

reliable results (Neuman, 2014). Accordingly, data were collected using purposive random sampling from different accommodation establishments operating in Tükiye's seven geographical regions. This method allows for the selection of the subgroup that will contribute most to the research objective from within the randomly determined sample group, enabling the collection of more in-depth and rich data compared to standard random sampling (Baltacı, 2018). In particular, the inclusion of senior and middle managers directly responsible for information technology investments and operational decision-making processes in the research increased the suitability of the data obtained and the credibility of the research. The data collection process was conducted on a voluntary basis via email and corporate communication channels, with strict adherence to confidentiality and ethical principles. The 646 responses obtained from a total of 920 businesses (70% response rate) were reduced to a final sample of 609 valid surveys after excluding incomplete and invalid questionnaires. This sample size exceeds the limits considered sufficient in the literature for PLS-SEM modelling and allows for reliable analysis (Hair et al., 2021).

3.1. Data Analysis

The data obtained within the scope of the research were analysed using SPSS 25.0 and SmartPLS 4 software. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to reveal general trends regarding the participant profile and variables. The PLS-SEM approach was adopted to test the research model and hypotheses. The choice of this method was influenced by its ability to simultaneously assess the psychometric properties of measurement items, flexibly analyse complex models involving multiple latent variables and structural relationships, and not require strict normality assumptions (Urbach & Ahlemann, 2010; Sarstedt et al., 2022). Due to its estimation-focused structure and capacity to produce robust results, PLS-SEM is widely used in tourism and marketing literature (Hair et al., 2021; Yadegaridehkordi et al., 2020). It provides a suitable and reliable analytical framework for examining the determinants of CCA and its effects on business performance, particularly in models that integrate different theoretical frameworks, such as DOI and TOE, as in this study.

4. Findings and Interpretations

This section presents the findings obtained from the research and interprets them in light of the relevant literature.

4.1. Demographic Characteristics of Participants and Information on Hospitality Enterprises

An examination of the demographic profiles in Table 1 reveals that the majority of participants are in the middle-aged group (76.7%, aged 31-60). The gender distribution is relatively balanced. In terms of educational level, university graduates are in the majority (68.1%) and most participants hold critical positions in technology management and decision-making processes. Consequently, the participants' experience and educational level enhance the reliability of the findings obtained within the scope of the research and the representativeness of the assessments regarding technological innovations.

From the perspective of hospitality enterprises, the sample primarily consists of mid- and upper-segment hotels (59.6%) and encompasses establishments located in Türkiye's major tourist destinations and large cities (Istanbul, İzmir, Bursa, Muğla, Mersin, Antalya). The geographical distribution of the participants is diversified to include enterprises of various scales from different regions of Türkiye. This diversity enhances the generalizability of the obtained data across the country. In terms of operational tenure, the majority of the enterprises have been in business for many years (68.3%, 6 years and over), indicating their experience and maturity within the sector. Regarding corporate structure, independently owned enterprises predominate (75.2%) and their primary scope of operation is mostly at the local level (61.4%). These structural characteristics increase the sample's representativeness concerning the propensity for technology investment and innovation adoption, thereby strengthening the overall validity of the collected data. In conclusion, both the participant profile and the enterprise characteristics provide a solid foundation that supports the research's inferences regarding technology use and digital transformation processes.

Table 1 Numerical and Percentage Distributions of Information on Hospitality Enterprises and Demographic Variable

Individual Characteristics	Number (n)	%	Enterprise Characteristics	Number (n)	%		Number (n)	%
Age			**Enterprise Star Rating**			**Enterprise Service Years**		
18-30	107	17.6	1 Star	28	4.6	1-5 year	109	17.9
31-45	236	38.8	2 Star	66	10.8	6-9 year	198	32.5
46-60	231	37.9	3 Star	123	20.2	10-15 year	218	35.8
61 and over	35	5.7	4 Star	134	22.0	15 and over	84	13.8
Gender			5 Star	106	17.4	**Province of Enterprise**		
Male	328	53.9						
Female	281	46.1	Boutique Hotel	91	14.9	İstanbul	107	17.6
Education						İzmir	91	14.9
Middle School	27	4.4	Holiday Village	61	10.0	Bursa	67	11.0
High School	94	15.4	**Corporate Structure**			Muğla	53	8.7
Associate Degree	140	23.0	Chain Enterprise	151	24.8	Mersin	42	6.9
Bachelor's Degree	273	44.8	Independent Enterprise	458	75.2	Antalya	35	5.7
Postgraduate Degree	75	12.3	**Operation Type**			Gaziantep	30	4.9
Position						Adana	24	3.9
General Manager	92	15.1	National	123	20.2	Trabzon	21	3.4
Department Manager	116	19.0	International	112	18.4	Kayseri	17	2.8
						Balıkesir	18	3.0
IT Manager	190	31.2	Local	374	61.4	Ankara	16	2.6
Business Owner	177	29.1	**Total**	609	100.0	Samsun	13	2.1
						Rize	11	1.8
Other	34	5.6				Nevşehir	10	1.6
						Diğer	54	8.9
Total	609	100.0				**Total**	609	100.

Source: the authors

4.2. Analysis Results for the Research Scale

The reliability, convergent validity, and multicollinearity assessments of the measurement model are presented in Table 2. Internal consistency reliability was first evaluated using Cronbach's alpha and Composite Reliability (CR) values. For all constructs, Cronbach's alpha coefficients exceeded the recommended threshold of 0.70, indicating a high level of internal consistency (Nunnally, 1978; Hair et al., 2021). Similarly, CR values for all constructs were 0.90 or higher, further confirming the robustness of the measurement model in terms of internal reliability (Jöreskog, 1971; Gefen et al., 2000; Hair et al., 2021). Convergent validity was assessed through Average Variance Extracted (AVE) values, all of which exceeded the recommended minimum value of 0.50, indicating that each construct sufficiently explains the variance of its associated indicators (Hair et al., 2019). In addition, all standardized outer loadings were above 0.70, confirming strong relationships between the observed indicators and their respective latent constructs (Chin, 1998; Hair et al., 2021). Furthermore, skewness and kurtosis values fell within the acceptable range of ±2, indicating no severe deviations from normality (George & Mallery, 2010). To assess potential multicollinearity issues, Variance Inflation Factor (VIF) values were examined and found to range between 1.889 and 4.157, remaining below the critical thresholds and indicating no multicollinearity concerns within the model (O'Brien, 2007; Kline, 2011; Hair et al., 2019). Overall, these results demonstrate that the measurement model meets the recommended criteria for reliability and validity and is suitable for subsequent structural model analysis.

Table 2 Reliability, Validity, Factor Loadings, and Statistical Analysis Findings for the Research Variables

Variables	O	Std. Dev.	Skewness	Kurtosis	VIF	Factor Loadings	Cronbach's alpha	CR	AVE
Relative Advantage	3.33	0.96	-0.674	-0.557			0.967	0.967	0.936
Item1					2.287	0.853			
Item2					2.076	0.801			
Item3					2.367	0.831			
Item4					2.378	0.833			
Item5					2.245	0.843			
Compatibility	3.24	0.99	-0.648	-0.701			0.886	0.921	0.745
Item1					2.382	0.881			
Item2					2.104	0.837			
Item3					2.454	0.863			
Item4					2.455	0.871			
Complexity	2.99	1.12	-0.241	-1.305			0.911	0.925	0757
Item1					2.602	0.774			
Item2					2.663	0.858			
Item3					3.032	0.890			
Item4					3.006	0.949			
External Support	3.19	0.94	-0.601	-0.673			0.889	0.923	0.750
Item1					2.372	0.876			
Item2					1.975	0.823			
Item3					2.753	0.885			
Item4					2.648	0.879			
Organizational Resources	3.31	0.95	-0.702	-0.455			0.885	0.921	0.743
Item1					2.345	0.866			
Item2					2.059	0.832			
Item3					2.432	0.872			
Item4					2.579	0.879			
Competitive Pressure	3.23	0.96	-0.561	-0.537			0.862	0.915	0.783
Item1					2.150	0.896			
Item2					2.091	0.854			
Item3					2.457	0.903			
Top Management Support	3.27	0.97	-0.577	-0.602			0.854	0.910	0.772
Item1					2.004	0.890			
Item2					2.162	0.863			
Item3					2.178	0.882			
Technological Readiness	3.26	0.92	-0.663	-0.383			0.852	0.910	0.771
Item1					2.055	0.875			
Item2					1.957	0.859			
Item3					2.448	0.899			
Security and Privacy	2.97	1.15	-0.126	-1.291			0.890	0.929	0.814
Item1					2.364	0.843			
Item2					2.692	0.924			
Item3					2.919	0.936			
Cost Savings	3.23	1.01	-0.506	-0.862			0.852	0.910	0.772
Item1					1.907	0.865			
Item2					2.197	0.877			
Item3					2.278	0.893			
CCA	4.30	1.57	-0.933	-0.574			0.931	0.967	0.936
Item1					4.157	0.965			
Item2					4.157	0.970			
Business Performance	3.29	0.91	-0.653	-0.227			0.873	0.913	0.725
Item1					1.986	0.827			
Item2					1.889	0.813			
Item3					2.629	0.884			
Item4					2.537	0.880			

Mean (M) | Standard Deviation (SD) | Variance Inflation Factor (VIF) | Composite Reliability (CR) | Average Variance Extracted (AVE)

Source: the authors

According to the Fornell & Larcker (1981) criterion used in assessing discriminant validity, the square root of a construct's Averaged Variance Explained (AVE) value should be greater than that construct's correlation coefficients with other constructs; this indicates that the construct shares more variance with its own indicators and possesses sufficient discriminant validity (Fornell & Larcker, 1981; Hair et al., 2019). Upon examining the correlation matrix in Table 3, it is observed that the square root of AVE values written in bold on the diagonal are greater than the inter-construct correlation coefficients, thus satisfying the Fornell-Larcker criterion. This finding indicates that the measurement model is satisfactory in terms of discriminant validity.

Table 3 Fornell-Larcker Criterion Values

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1-CCA	0.967											
2-External Support	0.487	0.866										
3- Relative Advantage	0.529	0.608	0.832									
4-Security and Privacy Concerns	-0.078	0.217	0.067	0.902								
5-Complexity	-0.086	0.231	0.045	0.639	0.870							
6-Organizational Resources	0.507	0.745	0.673	0.182	0.169	0.862						
7-Cost Savings	0.480	0.609	0.663	0.162	0.144	0.707	0.879					
8-Competitive Pressure	0.340	0.664	0.503	0.309	0.264	0.611	0.496	0.885				
9-Technological Readiness	0.491	0.701	0.613	0.177	0.181	0.714	0.636	0.642	0.878			
10-Compatibility	0.585	0.650	0.831	0.071	0.065	0.717	0.673	0.536	0.681	0.863		
11-Top Management Support	0.457	0.660	0.608	0.167	0.189	0.712	0.640	0.570	0.658	0.661	0.879	
12-Business Performance	0.588	0.692	0.717	0.153	0.125	0.723	0.673	0.597	0.725	0.728	0.653	0.852

Source: the authors

In the study, the Heterotrait-Monotrait (HTMT) ratio analysis was applied to ensure discriminant validity; HTMT is more sensitive in detecting lack of discriminant validity compared to the traditional Fornell-Larcker criterion (Henseler et al., 2015). The generally recommended upper limit for HTMT in the literature is 0.90 and ratios below this value indicate insufficient discrimination between variables (Hair et al., 2019). When examining Table 4, ratios remain below 0.90. These findings indicate that the latent structures in the model are conceptually distinguishable from one another, that the measurement model preserves the conceptual integrity of each variable and that discriminant validity is therefore ensured.

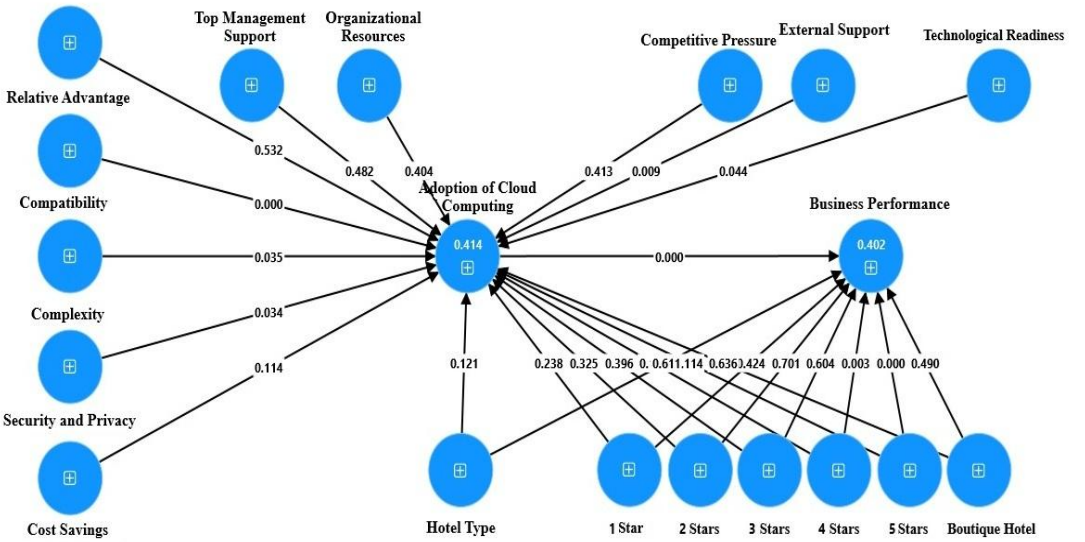
Table 4 HTMT for Research Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1- CCA												
2- External Support	0.533											
3- Relative Advantage	0.577	0.685										
4- Security and Privacy Concerns	0.080	0.247	0.093									
5- Complexity	0.065	0.275	0.090	0.718								
6- Organizational Resources	0.557	0.841	0.758	0.212	0.215							
7- Cost Savings	0.537	0.700	0.761	0.196	0.187	0.813						
8- Competitive Pressure	0.375	0.754	0.573	0.358	0.317	0.694	0.576					
9- Technological Readiness	0.550	0.805	0.705	0.210	0.224	0.823	0.747	0.744				
10- Compatibility	0.639	0.734	0.838	0.090	0.108	0.811	0.774	0.611	0.785			
11- Top Management Support	0.504	0.755	0.695	0.197	0.238	0.814	0.745	0.663	0.770	0.756		
12- Business Performance	0.651	0.786	0.813	0.182	0.167	0.823	0.780	0.686	0.841	0.827	0.755	

Source: the authors

4.4. Evaluation of the Research Model and Hypothesis Results

In this section of the research, the hypotheses of the developed research model are addressed in detail, and the findings obtained from the research conducted regarding these hypotheses are presented. First, Figure 2 shows the structural model obtained as a result of the SmartPLS analysis.



**The figure presents p-values and R^2*

Figure 2 Results of the Structural Model
Source: the authors

Table 5 Q^2 and R^2 Coefficients for the Research Model

Variables	Q^2	R^2	Adjusted R^2
CCA	0.320	0.414	0.397
Business Performance	0.442	0.402	0.393

Source: the authors

Upon examining Table 5, the R^2 values for the variables of CCA business performance in the model were found to be 0.414 and 0.402, respectively; this indicates that the model explains approximately 40% of the variance in these constructs. These ratios indicate a moderate level of explanatory power in the context of social sciences (Hair et al., 2017). On the other hand, the Q^2 values being greater than zero for both variables (0.320 and 0.442) demonstrates that the model possesses predictive relevance. This situation reveals that the model not only explains the available data but is also successful in out-of-sample predictions.

Table 6 Path Coefficients for the Control Variables of the Research

Path	Original Sample (O)	Sample Mean (M)	S.t.d.	t Statistics	p Values
1 Star → CCA	-0.243	-0.254	0.205	1.181	0.238
1 Star → Business Performance	-0.137	-0.142	0.171	0.799	0.424
2 Stars → CCA	-0.150	-0.155	0.153	0.985	0.325
2 Stars → Business Performance	-0.058	-0.059	0.150	0.384	0.701
3 Stars → CCA	-0.108	-0.109	0.127	0.849	0.396
3 Stars → Business Performance	0.064	0.061	0.124	0.519	0.604
4 Stars → CCA	-0.167	-0.170	0.127	1.324	0.186
4 Stars → Business Performance	0.391	0.391	0.131	2.971	**0.003***
5 Stars → CCA	-0.213	-0.214	0.135	1.581	0.114
5 Stars → Business Performance	0.563	0.562	0.139	4.051	**0.000***
Boutique Hotel → CCA	-0.063	-0.065	0.133	0.473	0.636
Business Type → Business Performance	-0.051	-0.052	0.101	0.508	0.611
Business Type → CCA	-0.130	-0.129	0.083	1.552	0.121
Boutique Hotel → Business Performance	0.086	0.085	0.125	0.691	0.490

*p<0.05, s.t.d.: standard deviation

Source: the authors

Within the scope of the structural model, categorical control variables were converted into dummy variables to enable analytical processing (Gujarati & Porter, 2009). In this process, one category of the categorical variable was designated as the reference category and was not directly

included in the model; other categories were included in the model comparatively relative to this reference category (Hair et al., 2021). In the research, the corporate structure of the enterprise and the enterprise class were added to the model as control variables; Holiday Village was designated as the reference category for enterprise class and Chain Enterprise was designated as the reference category for corporate structure. In this context, all other enterprise classes and independent enterprises were evaluated relative to their respective reference categories.

According to the structural model analysis presented in table 6, most control variables did not have a significant effect on the CCA and business performance ($p > 0.05$), indicating that lower-star hotels do not play a distinct role in technological adaptation and performance outcomes. However, the effect of "4-star" hotels on business performance was statistically significant ($\beta = 0.391$, $p = 0.003$) and the effect of "5-star" hotels was highly significant ($\beta = 0.563$, $p < 0.001$).

In the research model, the factors influencing the CCA and the effect of this adoption on business performance were analysed through path coefficients in the structural model. In this context, the obtained findings are presented in Table 7 and the evaluation was conducted by considering the magnitude of the relevant path coefficients, their levels of statistical significance and the direction of their effects. The findings derived from the Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis confirmed that 6 among the 11 hypotheses received support.

Table 7 Path Coefficients for the Research Variables

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation	t Statistics	p Values	Hypothesis
External Support → CCA	0.146	0.146	0.056	2.623	**0.009***	**H9: Accepted**
Relative Advantage → CCA	0.041	0.044	0.066	0.625	0.532	H1: Rejected
Security and Privacy Concerns → CCA	-0.088	-0.093	0.041	2.116	**0.034***	**H4: Accepted**
Complexity → CCA	-0.111	-0.106	0.053	2.104	**0.035***	**H3: Accepted**
Organizational Resources → CCA	0.054	0.053	0.064	0.835	0.404	H7: Rejected
Cost Savings → CCA	0.074	0.074	0.047	1.581	0.114	H5: Rejected
Competitive Pressure → CCA	-0.039	-0.038	0.048	0.819	0.413	H8: Rejected
Technological Readiness → CCA	0.114	0.113	0.057	2.013	**0.044***	**H10: Accepted**
Compatibility → CCA	0.289	0.287	0.067	4.305	**0.000***	**H2: Accepted**
Top Management Support → CCA	0.036	0.034	0.051	0.703	0.482	H6: Rejected
CCA → Business Performance	0.525	0.525	0.033	16.032	**0.000***	**H11: Accepted**

*p<0.05

Source: the authors

4.5. Discussion of Findings

A theoretical framework integrating DOI and TOE perspectives was constructed to identify principal factors shaping CCA within hospitality organizations and its influence on business performance, yielding 11 hypotheses. The findings derived from the Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis confirmed that 6 among the 11 hypotheses received support. Additionally, R^2 values for CCA and business performance variables within the framework were established as 0.414 and 0.401, respectively; this demonstrates that the framework accounts for approximately 40% of variance within these constructs.

According to the research findings, the compatibility variable has a strong, positive and statistically significant effect on the CCA (*H2*). This indicates that the extent to which CC are compatible with the existing business processes, infrastructure, and organisational structure of accommodation businesses plays a critical role in adoption decisions. In particular, the ability of systems such as reservation, customer management, payment, and reporting to work in an integrated manner with cloud-based solutions facilitates the adoption of this technology. This finding is supported by numerous previous studies (Athambawa et al., 2023; Phu et al., 2025; KardanMoghaddam et al., 2022; Al-Shura et al., 2018; Lawan et al., 2021; Atuah et al., 2023).

Conversely, the complexity variable negatively and significantly affects the CCA *(H3).* This result is also consistent with studies in the literature (Stieninger et al., 2018; Al Hadwer et al., 2021; AlBar & Hoque, 2019; Lawan et al., 2021; Sayginer & Ercan, 2020; Athambawa et al., 2023). Therefore, making their systems simpler, more user-friendly and easier to implement, along with

providing effective training and technical support to accommodation businesses, will be an important strategy for increasing adoption rates.

Correspondingly, security and privacy apprehensions similarly exert negative and statistically significant influence on CCA *(H4).* This outcome reveals that hospitality organizations demonstrate hesitant posture toward CC, contemplating customer data security alongside proprietary business information security, user privacy and information leakage vulnerabilities. Alternative investigations within scholarly literature (Phu et al., 2025; Stieninger et al., 2018; Priyadarshinee et al., 2017; AlBar & Hoque, 2019) similarly validate this adverse influence of security and privacy apprehensions on CCA. Within this framework, cloud service providers treating security and privacy apprehensions of hospitality organizations seriously, presenting reliable solutions will fulfil critical functions in elevating adoption rates.

The influence of the external support variable on CCA was established as positive and statistically significant *(H9).* This discovery demonstrates parallels with alternative investigations (Nosheen et al., 2025; Karim & Rampersad, 2017; Ali et al., 2026; Yadegaridehkordi et al., 2020). The CCA by accommodation businesses is facilitated by support from the external ecosystem, such as suppliers and regulatory bodies. This situation demonstrates that corporate ecosystem actors, such as government agencies and suppliers, serve as critical catalysts in technological adaptation. In summary, external environmental support plays an important role in enabling organisations to adopt innovative technologies more quickly.

Correspondingly, technological readiness level similarly exerts positive and significant influence on CCA *(H10).* This discovery proposes that the more advanced the prevailing technological infrastructure of hospitality organizations, the more straightforward their trajectory of adopting such innovative technologies can become. Numerous investigations within scholarly literature (Lawan et al., 2021; KardanMoghaddam et al., 2022; AlBar & Hoque, 2019; Al-Shura et al., 2018; Ayoobkhan & Kaldeen's 2020; Nosheen et al., 2025) validate this research discovery, unambiguously demonstrating that technological readiness fulfils critical functions in CCA.

Contrary to the prevailing view in the literature, this study found no statistically significant effect of relative advantage on CCA *(H1).* This finding differs from numerous studies suggesting that factors such as cost advantage, flexibility, and operational efficiency positively influence technology adoption (Al Hadwer et al., 2021; Atuah et al., 2023; Athambawa et al., 2023). This situation can be explained by the fact that decision-makers in Turkish hospitality enterprises do not yet perceive the benefits offered by CC as concrete and short-term gains. Particularly in the highly competitive Turkish tourism sector, operational priorities such as customer satisfaction, price competition, and occupancy rates may have taken precedence over technology investments, thereby weakening the perception of relative advantage. Furthermore, factors such as system adaptation requirements, hidden costs, and concerns about loss of control may overshadow the advantages offered by this technology (Oliveira et al., 2014). In this respect, the findings are consistent with the limited number of studies that reveal that relative advantage may not be a fundamental determinant in every context (Gutierrez et al., 2015; Ming et al., 2018).

This study diverges from a broad literature that treats cost savings as a fundamental determinant (Khayer et al., 2020; Ayoobkhan & Kaldeen, 2020; Chen et al., 2022; Ming et al., 2018). This unique finding in the Turkish context can be explained by macroeconomic factors such as exchange rate fluctuations and uncertain demand patterns overshadowing long-term savings expectations, and by decision-makers perceiving hidden costs associated with CC investments such as licensing, system adaptation, and integration as significant risk factors. This finding demonstrates that cost advantage is not an element that automatically triggers technology adoption in every sectoral and national context; rather, local economic dynamics and operational priorities significantly shape this perception.

Contrary to expectations, this study found no statistically significant effect of top management support on the CCA *(H6).* This finding diverges from a broad literature that considers top management support as one of the key determinants of technology adoption (AlBar & Hoque, 2019; Lawan et al., 2021; Atuah et al., 2023). Indeed, Ayoobkhan and Kaldeen's (2020) study on the Sri Lankan hospitality industry found that top management support had a significant and positive effect on CCA.

This study's different outcome can be explained by organisational and sectoral dynamics specific to the Turkish context. In Turkish hospitality

enterprises, decisions regarding technology are mostly taken at the operational level by IT departments or field managers; senior management is involved in the process indirectly, mainly through budget approval and the overall strategic framework. Particularly in Turkish accommodation businesses at the SME level, senior management's limited grasp of the technical details of technological infrastructure investments may lead to support being perceived as weak by employees and implementers. Furthermore, intense competition, seasonality, and cost pressures in the Turkish tourism sector cause technology investments to be viewed as a tool for daily operational efficiency rather than strategic transformation; this situation also limits the prominence of senior management support as a decisive factor in the adoption process. In this respect, the findings are consistent with recent studies showing that top management support may not be equally effective in every national and sectoral context (Amini & Bakri, 2015; Sithole & Ruhode, 2021; KardanMoghaddam et al., 2021; Aligarh et al., 2023).

Although the effect of organisational resources on CCA is positive, it is not statistically significant *(H7).* This indicates that the financial, human, and technological resources possessed by organisations do not, on their own, directly determine the CCA. For a successful technology implementation, it is not only the presence of these resources that is required, but also their strategic direction and continuous reinforcement with support (Aligarh et al., 2023). The findings reveal that resource adequacy has a limited effect on the adoption process in the hospitality sector, whereas technological readiness plays a more decisive role. This is because technological readiness encompasses not only the availability of resources but also the business's ability to manage its existing infrastructure and its capacity to use technology in a manner consistent with strategic objectives. Therefore, in an adaptation requiring technical expertise, such as CC, the level of technological readiness emerges as a more critical factor than general resource adequacy.

In academic literature, competitive pressure is generally considered a key determinant of technology adoption (Alkhater et al., 2015; Amini & Bakri, 2015) and even a strategic necessity in market competition (Gamage, 2019; Mokhtar & Mahomed, 2025). Numerous studies supporting this view have demonstrated that competitive pressure positively influences the CCA (Lawan et al., 2021; Atuah et al., 2023; Matias & Hernandez, 2021; Al Hadwer et al., 2021). However, the findings of this study indicate that competitive pressure does not have a statistically significant effect on CCA (H8). This result is consistent with some studies that do not view competitive pressure as one of the key determinants of CCA (Priyadarshinee et al., 2017; Job, 2016; Skafi et al., 2020). However, it diverges from the findings of Ayoobkhan and Kaldeen (2020), which reveal a significant effect of competitive pressure on CCA in the Sri Lankan hospitality sector. In the Turkish context, this difference can be explained by accommodation businesses perceiving competition more in terms of elements that directly affect the customer, such as customer experience, service quality and pricing, and not viewing technological investments that remain in the background, such as CC, as strategic tools that create a competitive advantage in the short term. This finding demonstrates that the impact of competitive pressure on technology adoption may vary depending on the national, sectoral, and organisational context.

Within the investigation's scope, the effect of CCA on business performance was identified as the strongest and most significant relationship *(H11).* This finding demonstrates that CC provide a significant and positive contribution to performance by optimising workflows. This result aligns with the general literature (Chen et al., 2022; Khayer et al., 2020; Garrison et al., 2015; Rawashdeh & Rawashdeh, 2023; Ahmad et al., 2025) and studies specific to the hospitality sector (Hui & Mohammadi, 2024; Mansour et al., 2020). For accommodation businesses, CC significantly enhances financial performance by providing benefits such as operational improvement, increased efficiency, data access, and accelerated decision-making processes (Ionescu & Andronie, 2021). Consequently, CCA offers cost-effectiveness, flexibility and time savings in critical areas such as reservation management, customer relations and inventory tracking, thereby enhancing service quality and customer satisfaction. This demonstrates that it is a strategic investment that supports competitiveness and sustainable growth.

Additionally, the effects of other control variables included in the framework (star rating, corporate structure) on CCA and business performance were not found to be statistically significant. This indicates that technological adaptation can be explained more comprehensively

not only by structural elements but also by contextual and organisational determinants. Among the control variables, only business classification (particularly 4- and 5-star hotels) had a positive and significant effect on business performance. This finding highlights the direct relationship between service quality and performance, suggesting that business performance improves as the classification level increases. This situation can be attributed to high-standard accommodation businesses having more advanced operational workflows and management practices. This observation is consistent with studies such as Chen et al. (2022) and Zhang et al. (2016), which show that business size affects performance.

5. Conclusion

This study examined the factors shaping the CCA in accommodation businesses operating in Türkiye. The findings reveal that compatibility has the strongest and most positive effect on adoption; conversely, perceived complexity and security and privacy concerns negatively affect adoption. Furthermore, while external support and technological readiness were found to increase adoption, factors frequently emphasised in the literature, such as relative advantage, top management support, organisational resources, and competitive pressure, were not found to be significant in this study. This indicates that technology adoption decisions in Turkish accommodation businesses are shaped more by operational feasibility and perceived risks. This situation is particularly evident in SME-scale businesses. Another important finding of the study is that CC has a positive and significant impact on business performance. The fact that this effect is stronger in four- and five-star hotels reveals that CC is a strategic tool for businesses with high digital maturity, while also showing that small-scale businesses need supportive mechanisms to benefit effectively from this technology.

When evaluated from an application perspective, the findings provide concrete and actionable recommendations for accommodation businesses, particularly SME-scale hotels. The findings indicate that CC strategies should be built not only on the premise of cost savings, but also on compatibility with existing business processes, ease of use, and the systematic development of employees' digital competencies. In this context, adopting gradual transition strategies rather than sudden and comprehensive shifts, implementing pilot applications, and implementing continuous training programmes targeting operational staff can significantly reduce perceived complexity and resistance to technology. Furthermore, managers need to approach the digital transformation process from a long-term perspective of increased efficiency and performance, rather than short-term operational pressures.

From the perspective of technology providers, the findings highlight the importance of solutions featuring user-friendly interfaces tailored to the hospitality sector's needs, high data security standards, and transparent and predictable pricing models. In particular, 24/7 technical support, trial versions, and scalable service packages can accelerate the adoption process by reducing the risks perceived by SMEs. For policymakers, the study shows that clear and reassuring legal regulations on data security and privacy, financial incentives for CC, and the development of digital transformation roadmaps specific to the accommodation sector are of critical importance. Such support mechanisms will facilitate the inclusion of small and medium-sized enterprises in the digital transformation process.

From an academic perspective, this study provides strong empirical evidence for the debate that technology adoption factors are not universal and context-independent, but rather shaped by national, cultural, and sectoral dynamics. The integration of the TOE framework with DOI theory and the testing of the model with data from 609 accommodation businesses has increased its analytical robustness. In this respect, the study offers a flexible, comparable, and context-sensitive analytical framework not only for CC but also for future research examining the adoption of other digital innovations. Overall, the research presents important theoretical and practical implications for managing digital transformation processes in Türkiye's accommodation sector in a more strategic, sustainable, and effective manner.

5.1. Limitations and Suggestions for Future Research

This study has certain limitations. Firstly, the fact that the research is limited to accommodation businesses in Türkiye indicates that the findings may have been shaped by national economic conditions, institutional structures and sectoral dynamics. Comparative or multi-group analyses conducted by applying the model in different countries could reveal how cultural and economic factors shape the determinants of technology

adoption. Secondly, the cross-sectional research design cannot reflect the adoption dynamics of CC over time. Future longitudinal studies could provide deeper theoretical insights into how adoption factors change as organisational learning and experience increase. Finally, due to the study's limitation to the DOI and TOE frameworks, the use of additional contextual variables such as organisational culture or macroeconomic uncertainty, along with qualitative methods, could enhance the explanatory power of future research.

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Appendix.1. Measurement items

Variable	References
Relative Advantage 1.Cloud computing allows us to manage business operations efficiently. 2.The use of cloud computing services improves the quality of operations. 3.Using cloud computing enables us to perform specific tasks more quickly. 4.The use of cloud computing offers new opportunities. 5.Using cloud computing enhances business productivity.	Oliveira vd., 2014; Pathan vd., 2017; Tashkandi ve Al-Jabri, 2015; Al-Jabri, 2015
Compatibility 1.The use of cloud computing is compatible with the way our hotel operates. 2.The use of cloud computing is fully compatible with our current business operations. 3.The use of cloud computing is consistent with our hotel's corporate culture and value system 4.The use of cloud computing is compatible with our hotel's existing hardware and software.	Oliveira vd., 2014; Alharbi vd., 2016; Yadegaridehkordi vd., 2020; Lian vd. 2014; Pathan vd., 2017; Tashkandi ve Al-Jabri, 2015
Complexity 1.Using cloud computing requires too much mental effort. 2.The use of cloud computing is too complex for business operations. 3.The skills required to adopt cloud computing are too complex for our hotel employees. 4.It is difficult to migrate our existing systems to cloud computing.	Lian vd. 2014; Oliveira vd., 2014; Yadegaridehkordi vd., 2020; Pathan vd., 2017; Tashkandi ve Al-Jabri, 2015
Security and Privacy Concerns 1.Our hotel has concerns about data security in cloud computing. 2.Our customers have concerns about data security in cloud computing. 3.There are concerns regarding privacy in cloud computing.	Oliveira vd., 2014
Cost Savings 1.The benefits gained from cloud computing outweigh the costs incurred. 2.The use of cloud computing reduces energy and environmental costs. 3.The maintenance costs of cloud computing are very low.	Oliveira vd., 2014
Top Management Support 1.Hotel management supports the adoption of cloud computing. 2.Hotel management believes this technology has potential strategic value. 3.Hotel management is willing to take financial and organizational risks related to the adoption of cloud computing.	Oliveira vd., 2014; Yadegaridehkordi vd., 2020; Pathan vd., 2017
Competitive Pressure 1.The adoption of cloud computing influences competition in the industry. 2.Our hotel feels pressure from competitors to adopt cloud computing. 3.Most of our competitors have adopted cloud computing.	Oliveira vd., 2014; Pathan vd., 2017; Al-Jabri, 2015
Organizational Resources 1.Our hotel has the technological resources to adopt cloud computing. 2.Our hotel has the financial resources to adopt cloud computing. 3.Our hotel does not face difficulties in obtaining the necessary resources to adopt cloud computing. 4.Our hotel has employees who can quickly learn and apply new information technologies.	Yadegaridehkordi vd., 2020
External Support 1.Suppliers encourage our hotel to adopt cloud computing by offering free training sessions. 2.Adequate technical support will be provided by suppliers for the adoption of cloud computing. 3.Suppliers and business partners actively promote the use of cloud computing. 4.Public policies established by the government encourage the adoption of cloud computing.	Alharbi vd., 2016; Yadegaridehkordi vd., 2020; Tashkandi ve Al-Jabri, 2015
Technological Readiness 1.Our hotel provides Internet access to all employees. 2.Our hotel understands how information technologies can be used to support business operations. 3.Our hotel makes good use of information technologies to achieve its goals.	Oliveira vd., 2014; Alharbi vd., 2016
Cloud Computing Adoption 1.At what stage is your hotel currently regarding the adoption of cloud computing? - We are not considering adoption. - We are currently evaluating it (e.g., in a pilot project). - Evaluated but not planning to adopt. - Evaluated and planning to adopt. - We have already adopted cloud computing services. 2.If you foresee your hotel adopting cloud computing in the future, when do you think it will happen? - We are not considering adoption.- In more than 5 years.- Between 2 and 5 years.- Between 1 and 2 years.- In less than 1 year.- We have already adopted cloud computing services.	Oliveira vd., 2014
Business Performance 1.I believe cloud computing can provide us with more accurate data. 2.I believe cloud computing can increase our hotel's profitability. 3.I believe cloud computing can improve our financial performance. 4.I believe cloud computing can enhance our hotel's operational performance.	Garrison vd., 2015; Yadegaridehkordi vd., 2020