

## Current Cloud-Based Software Services Used in Online Marketing of Hotels in Turkey

### Türkiye’de Otellerin Çevrimiçi Pazarlamasında Kullanılan Bulut Tabanlı Güncel Yazılım Hizmetleri

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*Abstract: Hotels need new technologies in order to spread their knowledge and establish superiority over their competitors by creating strategies in a fast, efficient, and secure manner in complex processes. Cloud-based software services are one of the major areas where these technologies are applied. Thanks to cloud-based software, the way hotels do their business has been significantly affected, and this effect continues to grow. The aim of this research is to identify the current cloud-based software services offered to hotel businesses in marketing activities and to contribute to the literature on this subject. Within the framework of the Quality Management Awards, which are held annually in the tourism sector in Türkiye, the companies that received awards in 2019 and provide cloud software services to hotels in online marketing were selected as research samples and content analysis was carried out on the websites of these companies. Based on the context of content analysis, it is found out that the cloud-based services offered to hotels in the field of online marketing are provided with nineteen service sizes in five different categories in terms of purpose and scope. Information about the types of services related to the detected categories are provided in the findings section of the research.*

*Keywords: Hotel Online Sales and Marketing, Hotel Cloud and Web-Based Services, Hotel Softwares*

*JEL Classification: M30, O32, Z32*

*Öz: Oteller, karmaşık süreçlerde hızlı, verimli ve güvenli bir şekilde stratejiler oluşturarak bilgilerini yaymak ve rakiplerine üstünlük sağlamak için yeni teknolojilere ihtiyaç duymaktadırlar. Bulut tabanlı yazılım servisleri bu teknolojilerin uygulandığı geniş çaplı teknolojik alanlardandır. Bulut tabanlı yazılımlar sayesinde otellerin işlerini yapma biçimleri önemli bir biçimde etkilenmiştir ve bu etkinin artarak gelişmeye devam ettiği görülmektedir. Bu araştırmanın amacı, otel işletmelerine pazarlama faaliyetlerinde sunulan bulut tabanlı güncel yazılım servislerinin neler olduğunu tespit etmek ve bu konuda literatüre katkı sağlamaktır. Araştırma kapsamında Türkiye turizm sektöründe her yıl düzenlenmekte olan Kalite Yönetimi Ödülleri (Quality Management Awards) çerçevesinde 2019 yılında ödül alan ve otellere online pazarlama konusunda bulut yazılım hizmeti sağlayan firmalar araştırma örneklemini oluşturarak ilgili firmaların web sitelerinde içerik analizi yapılmıştır. Yapılan içerik analizi çerçevesinde otellere online pazarlama konusunda bulut tabanlı sunulan hizmetlerin amaç ve kapsam yönünden beş ayrı kategoride on dokuz hizmet boyutuyla sağlanarak verildiği tespit edilmiştir. İlgili hizmetlere ilişkin bilgiler araştırmanın bulgular bölümünde sunulmaktadır.*

*Anahtar Kelimeler: Otel Çevrimiçi Satış ve Pazarlama, Otel Bulut ve Web Tabanlı Servisler, Otel Yazılımları*

*JEL Sınıflandırması: M30, O32, Z32*

## 1. Introduction

With the rapid development and expansion of the internet and mobile technologies, enterprises can reach their goals more efficiently by preferring the digitization path. Marketing distribution channels are one of the areas where hotel businesses use these technologies. Nowadays, when the importance of time concept is gradually increasing, hotels need new technologies in order to spread their knowledge and gain superiority to their competitors by forming their strategies in a complex, fast and effective way. Cloud-Based

### **Makale Geçmişi / Article History**

Başvuru Tarihi / Date of Application : 28 Eylül / September 2020

Kabul Tarihi / Acceptance Date : 9 Aralık / December 2020

software services are one of the major areas where these technologies are used. A study conducted by Tekin in 2019 concludes that cloud technologies facilitate management in hotels, reduce costs, increase the number of bookings by increasing promotion in the sectoral market and social media, increase success in reputation management and provide effective management opportunities in front-office processes. Thanks to cloud-based software, how hotels do their jobs has been significantly affected, and this effect appears to continue to evolve (Tekin, 2019).

Cloud computing technologies are defined as technology resources and services (Knorr & Gruman, 2008) that enable storing data with shared information on the internet using web services (Karabay & Ulaş, 2017), accessing to hardware, software applications, processing power and data (Ciğer & Kınay, 2018), offering in real-time (Yurtsever, 2019) with internet infrastructure in a server connection, quick addition of resources and easy extraction when not in use (Mell & Grance, 2011). The origin of the term “cloud” in the term cloud-based computing represents the internet (Velte, Velte, & Elsenpeter, 2009). The network elements within the network such as client and server computers, routers, switches and gateways, as well as other details, are enclosed in a cloud within the internet (Orka, 2017: 8). With the emergence of the internet in the ‘90s, businesses began to increase their efficiency in their operations by purchasing software according to their needs. With the development of Internet infrastructure in 1997-2000, the effectiveness of cloud technology in informatics circles started to increase. In these years, the concept of the necessity of having a web page for every business accepted by businesses has made the use of cloud computing widespread (Orka, 2017: 11).

Cloud-based applications, which have become common with emerging internet technologies, continue to be accepted and developed over time by creating effective, fast, and practical processes in the management of businesses in various sectors (Oliveira, Thomas, & Espadanal, 2014). One of the areas where cloud-based technologies are widely used is the online marketing distribution channels of hotels in the tourism sector (Nadda, Chaudhary & Arnott, 2020). In this context, this research aims to investigate what current cloud-based services are being implemented in online marketing in the hospitality industry.

## **2. Literature Review**


With the development of technology, it is not enough for enterprises to produce quality products, and therefore, new technology software services are needed to survive in an intensely competitive environment. Hotels operating in the tourism sector need new technological opportunities, especially cloud-based management services to reach their guest

potential with different requests and preferences. In addition, increasing guest value and managing guest satisfaction have become key elements in determining target strategies. It seems that it is not easy for hotels to develop effective strategies on this subject due to reasons such as the fact that today’s guests are tourists who are more expert, more educated and interested in global cultures closely. In addition to the various advantages of cloud computing services, it has been determined that they contribute significantly to the quality of service that has become one of the most important factors for businesses today (Yurtsever, 2019).

Cloud-based software services can provide hotels with a variety of opportunities and advantages on criteria such as cost, quality of service, and flexibility. With professional software providers providing cloud-based services, guests can access hotel applications from anywhere at lower costs. Moreover, they are able to outsource these jobs and implement them with better quality without employing more staff in the IT departments within the hotels (Seyrek, 2011).

Cloud computing systems perform their services with three basic service models. These service models are software (SaaS: Software as a Service), platform (PaaS: Platform as a Service), and infrastructure (IaaS: Infrastructure as a Service) service models (Mell & Grance, 2011). These service models are presented in Table 1.

Table 1. Cloud Technology Service Models

	<b>Cloud client</b> PC, Laptop, PDA, mobile phone, tablet etc.
	
<b>Software</b>	<b>SaaS (application-software )</b> CRM, E-mail, Communication, Virtual Desktop, Games
<b>Platform</b>	<b>PaaS (platform)</b> Google App. Engine, Azure Service Platform, Database, Web Server, Development Tools
<b>Infrastructure</b>	<b>IaaS (infrastructure)</b> Virtual Machines, Storage, Network, Amazon Web Services, GoGrid, 3Tera

*Source: Tekin, 2019*

In the Application/Software as a Service (SaaS) model, software providers install and operate software that will operate over the cloud. Hotels access software in the cloud through

software providers. In this model, hotels do not manage the cloud platform and infrastructure of the operating application. Thus, the need for the related software to be installed and run on the hotels' computer systems is eliminated. However, it is possible to access through a browser connected to the internet from anytime and anywhere. In addition, support and maintenance services become easier (Ramkhelawan, Cadarsaib, & Gobin, 2015).

In the Platform as a Service (PaaS) model, cloud service providers deploy a kind of information processing platform that hosts development, database, programming language execution environment, and test operations as well as web servers in the operating system that software needs. Software developers can develop on this platform by running their own software products without the need to manage their hardware and software divisions, without facing purchase costs and difficulties (Imhanwa, Greenhill, & Owraq, 2015). The equivalent of this in the hospitality sector is that the software providers can update their cloud-based services such as online channel manager, online reservation engine, and cloud PMS to increase efficiency within the framework of demands and developments (Yurtlu, 2020).

Infrastructure as a Service (IaaS) model is the most basic cloud service model. Cloud providers offer servers as virtual or physical machines over the internet. Infrastructure services such as server, network, and storage are provided in this model. Software providers who purchase this service to place the software in the cloud upload their operating software interfaces and applications to the cloud. Almost all of the internet-based sales and marketing information products offered to the hotels by software providers are uploaded to the cloud in order to be offered to the hotels in this model (Yangui, Glitho, & Wette, 2016).

Businesses can use their cloud-based services in their own cloud systems, as well as run them from public cloud systems by renting (Ciğer & Kınay, 2018). They can also benefit from application methods where private, community, public, and hybrid cloud systems can be used (Mell & Grance, 2011). In this respect, businesses can determine their choice of a private, community, public, or hybrid cloud system, described as distribution models, based on financial and technical opportunities and risk conditions (Pazowski & Pastuszak, 2013).

In the literature, there are significant studies that focus on the use and application of cloud-based information technologies in businesses (Gökalp & Eren, 2016; Schneider, 2012; Na, Xueyuan & Yulian, 2016), advantages and benefits to businesses (Etro, 2009; Marston, Li, Bandyopadhyay, Zhang & Ghalsasi, 2011), impact on the success of hotel enterprises (Tekin, 2019) and the advantages it provides in hotel management systems (Cloud PMS) (Gulmez, Ajanovic & Karayun, 2015). However, no research on the current cloud-based applications presented in the marketing activities of hotels in Türkiye has been found as a

result of the literature review. In this sense, the aim of this research is to identify the current cloud-based software services offered to hotel businesses in marketing activities and to contribute to the literature on this subject.

### **3. Data and Methodology**

The content analysis (Bayram & Yaylı, 2009: 359) method, which is one of the qualitative research methods, is used to collect data within the scope and purpose of this research for determining cloud-based software services used in online marketing of hotels in Türkiye. Content analysis is the systematic, detailed, and careful study of a certain amount of material and its interpretation in the form of themes, patterns, assumptions, and meanings (Berg & Lune, 2019: 344). In this research, reviews are made using a screening model on websites.

#### ***3.1. Research Context, Sampling and Data Collection***

When selecting a research context or universe, studies in a specific region or a limited area can usually only reveal the results in the environment where the sample is based on the research universe. In this context, the validity, reliability, consistency and credibility of research with many qualitative methods may also be problematic as a result of faulty method or sample selection (Baltacı, 2018: 231). For this reason, it is important that the results of the research universe selected for data collection are universal. Türkiye reached the sixth-highest number of tourists in the world in 2018, according to the World Tourism Organization's (WTO) September 2019 barometer (Culture and Tourism Ministry, 2019). Additionally, at the Global Tourism Forum (GTF) in 2019, former President of France Hollande highlighted that Türkiye's hospitality sector is among the best examples in the world (Finans Gudem, 2019). These developments show that Türkiye is among the countries that have a voice in tourism and hotel management throughout the world. Accordingly, it can be suggested that the activities implemented in the Turkish hospitality sector have universal characteristics.

In this study, within the framework of the Quality Management Awards, which are held annually in the tourism sector in Türkiye since last ten years, the companies that received awards in 2019 and provide cloud software services to hotels in online marketing were selected as research samples. Quality awards are known to be the most effective driving force in improving performance on the basis of national economies in general and businesses in particular (Beşkese, 2001). In addition, it has been determined that the operating performance of the companies that have received awards in the field of quality awards has increased and improved (Corredor & Goni, 2010; Hendricks & Singhal, 1997). In this context, Quality Management Awards are recognized by industry professionals as the most comprehensive

tourism awards given to local companies in the Turkish tourism sector and have been held annually for the last decade (GM Dergi, 2019; Turizm Gazetesi, 2019; Turizm Gunlugu, 2019). The most recent awards, which took place in December 2019, were attended by 105,254 people over the internet and awards were given in 65 categories, in a total of 9 branches. Within the framework of the awards, it was determined that companies were awarded in three categories for cloud software service in online hotel marketing, and three software companies were awarded. The awarded companies received awards in the categories “Turkiye’s Best Managed Digital Marketing Support Company”, “Turkiye’s Best Managed Online Sales Management Software Company,” and “Turkiye’s Best Hotel Management Software Company” (QM Awards, 2019). Within the scope of the research, content analysis was carried out using the screening model on the websites of the three companies that received the award to determine the current cloud-based software used in online marketing of these hotels.

#### 4. Findings

Content analysis of the websites of the three award-winning software companies in the research sample was conducted. Within the context of content analysis, it was determined that hotels were provided with nineteen types of cloud-based services in the field of online marketing. Related services are grouped into five different categories in terms of purpose and scope. These services and categories are given in Table 2. In Table 2, companies offering the corresponding cloud-based service are shown with the sign “+” and businesses that do not have the relevant service on their website are left blank.

Table 2. Cloud-Based Services Offered to Hotels in Online Marketing

Cloud-Based Service Categories	Cloud-Based Services	Turkiye’s Best Managed Digital Marketing Support Company	Turkiye’s Best Managed Online Sales Management Software Company	Turkiye’s Best Hotel Management Software Company
<b>Content Creation</b>	Website Creation and Design	+	+	
	Digital Production Management	+		
<b>Distribution Channels Management</b>	Channel Manager	+	+	+
	Online Reservation Module	+	+	+
	Search Engine Optimization (SEO) Service	+	+	+
	Mobile Compatible Services	+	+	+
	Competitor Price Tracking Software			+
	Detailed Analytical Reports	+	+	+
	Online Hotel	+		

	Advertising			
	Call Center Integration	+	+	+
	Third-Party Software Integration		+	+
<b>Activity Management</b>	Mobile Applications for Guests	+		+
	Artificial Intelligence (icibot) Application	+		
	Cloud-Based Hotel Management System (Cloud/Web PMS)			+
	Customer Relationship Management (CRM) System	+	+	+
<b>Social Network and Reputation Management</b>	Review Sites Integration	+	+	+
	Online Reputation Management	+		
	Social Media Management	+		
<b>Revenue Management</b>	Online Payment Systems	+	+	+

When the web sites of three companies that received Quality Management Awards and provided cloud-based services for hotels in online marketing are analyzed through it has been determined within the scope of cloud-based services offered to hotels in online marketing that nineteen cloud-based services are provided in five different categories including Content Creation, Distribution Channels Management, Activity Management, Social Network and Reputation Management, and Revenue Management. As seen in Table 2, among the cloud-based services that are used in the online marketing of the hotels, channel manager, online reservation module, customer relations management (CRM) system, review sites integration, online payment systems, search engine optimization (SEO) service, call center integration, mobile compatible services, and detailed analytical reporting service were found to as the services commonly provided by all three companies. It was also indicated that the two companies offer web site creation and design, third-party software integration, and mobile applications services for guests. In addition to these services, competitor price tracking software, online reputation management, social media management, digital production management, online hotel advertising, artificial intelligence (icibot) application, and cloud-based hotel management system (Cloud/Web PMS) were determined to be provided by only one company. In this section, the contents of the services of each category of service are presented in order with the information received from the companies' websites.

#### ***4.1. Content Creation***

It was determined that the service providers in the Content Creation category offer Website Creation and Design and Digital Production Management services.

##### **4.1.1. Website Creation and Design**

It was found out that cloud-based service providers create and design sales-oriented user-friendly websites that can be easily managed with content management systems, compatible with current search engines and mobile technologies, and designed for hotels (Webius Digital, 2020a). Within the scope of QM 2019 Quality Management Awards, it was determined that two companies providing cloud service for hotels in online marketing offer website creation and design services.

##### **4.1.2. Digital Production Management**

It was indicated that hotels were provided with services for establishing their digital visibility in the field of online marketing. This includes the management of social media and advertising video shoots, architecture, in-room and aerial photo and video shooting services, and the other related services on online distribution channels (Webius Digital, 2020b). As part of the QM 2019 Quality Management Awards, a firm providing cloud service for online marketing to hotels has been identified as offering digital production management service.

#### ***4.2. Distribution Channels Management***

In the distribution channels management category, it was discovered that service providers offer Channel Manager, Online Reservation Module, Search Engine Optimization (SEO) Service, Mobile Compatible Services, Competitor Price Tracking Software, Detailed Analytical Reports, and Online Hotel Advertising services.

##### **4.2.1. Channel Manager**

Efficiency management and revenue management, which is an important part of the management process of hospitality enterprises today, is the sales marketing approach that enables the service to reach the right consumers at the right price, at the right time and through the right channel (Ateş & Yurtlu, 2019). Hospitality businesses can control their prices and quotas quickly with the equal prices in online sales channels by using secure XML connections with channel manager software, connecting to online travel sites with a central and single cloud application, and minimizing the risks with central inventory (Hotel Runner, 2020a). Within the scope of QM 2019 Quality Management Awards, all three companies



providing cloud service for online marketing to hotels have been identified as offering Channel Manager service.

#### **4.2.2. Online Reservation Module**

It is seen that the hospitality enterprises that aim to benefit from the advancing technology and its facilities direct sales of the rooms within the corporate website services through the so-called online reservation module in sales marketing activities to reach potential consumers (Saçlı & Yurtlu, 2019). Thanks to the online booking modules, these companies can save time and increase their income by disabling intermediaries in room sales. In addition, depending on the sales policies, hotels can also apply special promotions to their guests through online booking modules (Webius Digital, 2020c). In terms of QM 2019 Quality Management Awards, it has been determined that all three companies providing online cloud service to hotels offer online reservation module service.

#### **4.2.3. Search Engine Optimization (SEO) Service**

With the website search engine optimization service, hotels' websites are optimized with search engines, and organic ads are created by making necessary improvements and maintenance. Thus, both the decrease in advertising budgets and higher visibility in search engines can be achieved. For this purpose, the search engine results of hotels' websites should be determined and analyzed. However, it may take some time to get the organic results of SEO services by experts. On the other hand, it is significant to use social media networks effectively. In addition, Google Custom Search Engine modules are used for the optimization of the pages in Google indexes (Webius Digital, 2020d). Within the scope of QM 2019 Quality Management Awards, it has been determined that all three companies providing cloud services for hotels in online marketing offer SEO services.

#### **4.2.4. Mobile Compatible Services**

With mobile-compatible services, hotels can offer their guests the promotion of their websites and online booking opportunities via mobile phones. Most last-minute bookings are made via mobile phones. Thanks to mobile compatible applications, guests can find the location features of the facilities and make reservations via mobile-compatible booking modules (Hotel Runner, 2020b). As part of the QM 2019 Quality Management Awards, all three companies providing cloud services for online marketing to hotels have been identified as offering mobile-compatible services.

#### **4.2.5. Competitor Price Tracking Software**

Price tracking software allows hotels to instantly track the online sales prices of the competing companies they have determined. Thus, hotels can analyze the prices of their competitors in online sales channels and determine the strategies to create the right price for maximizing their profitability and occupancy rates (Elektra, 2020a). In line with the QM 2019 Quality Management Awards, one company providing cloud services for online marketing to hotels has been found to offer competitor price tracking software services.

#### **4.2.6. Detailed Analytical Reports**

Software providers providing cloud-based services for online marketing to hotels enable detailed analysis of hotels' online visitor and booking traffic on a single platform. In this way, hotels can track all online activities by accessing all the information they need about website visitors through a single management panel. Thus, they can generate reports for each online sales channel and analyze the results. As a result, they are able to identify the best-selling and underperforming sales channels. In light of detailed reporting, hotels can use their marketing budgets in the best possible way to identify the factors that turn their visitors into guests (Hotel Runner, 2020c). As part of the QM 2019 Quality Management Awards, all three companies providing cloud services for online marketing to hotels have been found to offer detailed analytical reporting services.

#### **4.2.7. Online Hotel Advertising**

It was understood that effective advertising methods are used for online advertising solutions for hotels with the aim of providing direct traffic to the hotel website reservation module and call center. This service includes applications such as Google Adwords, Yandex Direct, Real-Time Bidding, and Social Media Ads. Through this service, hotels transfer their advertising targets to the relevant service provider to increase their turnover or brand awareness. In addition, hotels communicate their goals, target groups, and product dynamics. Accordingly, the service provider company offers online advertising solutions for hotels (Webius Digital, 2020e). In the context of the QM 2019 Quality Management Awards, one company providing cloud service for online marketing to hotels has been identified as offering online hotel advertising service.

### **4.3. Activity Management**

In the activity management category, it was determined that service providers offer Call Center Integration, Third-Party Software Integration, Mobile Applications for Guests,

Artificial Intelligence (icibot) Application, and Cloud-Based Hotel Management System (Cloud/Web PMS).

#### **4.3.1. Call Center Integration**

Through call center integration, all calls can be managed through a single program. In addition, this information can be matched with the information in customer relations management (CRM). With cloud-based call center integrations, hotels can match their calling phone numbers with calls registered to hotel guest cards. Detailed reports can be obtained according to the content of the calls. In addition, past profile information can be accessed immediately, and all detailed information such as previous stays, complaints and questionnaires can be displayed on a single screen. At the same time, the call center staff can perform the reservation process in a practical way by collecting the instant payments of the reservations and transmitting the reservation confirmations to the guests via the reservation module (Elektra, 2020b). With regards to QM 2019 Quality Management Awards, it has been determined that all three companies that provide cloud services in terms of online marketing to hotels offer call center integration services.

#### **4.3.2. Third-Party Software Integration**

As part of the QM 2019 Quality Management Awards, two companies providing cloud services for online marketing to hotels have been identified as offering third-party software integration. It has been determined that the hotel management software company of these companies provides integration services with third-party software such as door lock systems, energy systems, IP and Pay TV, and telephone operator in the hotel management systems (Elektra, 2020c). On the other hand, it has been found out that the hotel online sales management company provides integration with the hotel management systems (PMS), enabling past reservation and room information, availability and price updates, and reservation changes on a single platform (Hotel Runner, 2020d).

#### **4.3.3. Mobile Applications for Guests**

Thanks to mobile applications that can be developed specifically for hotels, a new communication channel is created between the guests and the hotels. With the help of the relevant applications that can be downloaded free of charge from the application markets, guests can access detailed information about the hotels before their arrival (Webius Digital, 2020a). In terms of QM 2019 Quality Management Awards, it has been determined that two companies that provide cloud services in terms of online marketing to hotels offer mobile applications for their guests.

#### **4.3.4. Artificial Intelligence (icibot) Application**

Icibot apps, which serve as a mobile personal holiday assistant that guests can access via Facebook Messenger without installing another app, have been found to be offered to hotels in online marketing. Icibots provide information services to hotel guests through their constantly evolving infrastructure with artificial intelligence support from the booking phase to the post-holiday stages. Thanks to Icibots, hotels can have a new sales channel, get the opportunity to manage all the requests of their guests in a practical way, can be informed about the expectations of all guests with central systems, reduce the disruptions and therefore negative comments, increase the frequency of arrival again by leading the guests to share their experiences, and have increased guest loyalty (Webius Digital, 2020f). In the context of the QM 2019 Quality Management Awards, one company providing cloud service for online marketing to hotels has been found to offer the artificial intelligence (icibot) application service.

#### **4.3.5. Cloud-Based Hotel Management System (Cloud/Web PMS)**

Hotel management system (PMS) service is also found to be offered within cloud-based services. There is no initial investment cost involved in the cloud-based PMS. The cloud-based PMS can be used via mobile devices and computers via internet connection. Additionally, there are no costs such as servers, server licenses, backup and virus programs that need to be renewed every few years. Almost every function in traditional hotel management systems is also observed in the cloud-based PMS (Elektra, 2020d). As part of the QM 2019 Quality Management Awards, one company providing cloud service for online marketing to hotels has been identified as offering cloud-based hotel management system (Cloud/Web PMS) service.

### ***4.4. Social Network and Reputation Management***

It is determined that the service providers in the Social Network and Reputation Management category offer the Customer Relationship Management (CRM) System, Review Sites Integration, Online Reputation Management, and Social Media Management services.

#### **4.4.1. Customer Relationship Management (CRM) System**

Customer relations management systems enable detailed and special services to be followed and offered in order to maximize guest satisfaction. Thanks to these systems, all kinds of guest information is archived, and work orders are automatically forwarded to all relevant departments. For example, orthopaedic bed request, preferred daily newspaper, allergic

condition of the guest or gifts to the guests who are constantly arriving can be provided with an effective service through the guest relations management system (Elektra, 2020e). With regards to the QM 2019 Quality Management Awards, it has been determined that all three companies providing cloud services for online marketing to hotels offer CRM management system service.

#### **4.4.2. Review Sites Integration**

Hotels can make guest comments and promotional articles about them visible on their own web pages through their review sites integration on the internet. For example, through this integration, hotels can offer comments on review sites such as TripAdvisor directly to their visitors on their own web pages. It is intended that visitors can complete the reservation on the hotel's own page and do not need any other web site for more information. Hotels can also integrate online booking modules with related review sites to increase the number of bookings made directly through their own booking channel (Elektra, 2020f). In terms of the QM 2019 Quality Management Awards, all three companies providing cloud services for online marketing to hotels have been identified as offering review sites integration services.

#### **4.4.3. Online Reputation Management**

Through online reputation management, it has been determined that revenue-raising services related to the presence of hotels in the online environment are provided. These services include ethical and fast online comment collection, offering practical survey solutions to guests, management and reporting of evaluation sites, and answering comments on behalf of hotels (Webius Digital, 2020g). With relation to the QM 2019 Quality Management Awards, one company providing cloud service for online marketing to hotels has been found to offer online reputation management service.

#### **4.4.4. Social Media Management**

By means of social media management service with a focus on hospitality, it has been found out that this service provides the creation and tracking of social media content in foreign languages that appeal to the markets of hotels every day (Webius Digital, 2020h). As part of the QM 2019 Quality Management Awards, one company providing cloud service on online marketing to hotels has been found to offer social media management service.

### **4.5. Revenue Management**

In the Revenue Management category, it has been determined that service providers offer Online Payment Systems Service.

#### **4.5.1. Online Payment Systems**

Online payment systems provide instant secure online payment collection through the hotels' own website, which is a direct booking channel. These systems are integrated with various online payment platforms, banks providing virtual pos and payment system and allowing payment through credit card and PayPal (Hotel Runner, 2020e). In the context of the QM 2019 Quality Management Awards, all three companies providing cloud service for online marketing to hotels have been identified as offering online payment systems service.

#### **5. Conclusion and Discussion**

In the light of technological developments in the hospitality sector in tourism, it has been determined in the content analysis that cloud based software systems are used in content creation, distribution channels management, in-hotel activity management, social networks and reputation management and revenue management. Within the scope of this research, cloud-based applications for online marketing of hotels were analyzed. The sample selected in terms of current and universal applications is cloud-based service providers in online marketing in the hospitality sector, which received awards at the Quality Management Awards held by tourism industry professionals in December 2019 in Türkiye. Within the scope of the QM Quality Management Awards, it was determined that the three software companies that received the award provided cloud-based software services in online marketing to hotels with nineteen service models in five different categories and what the content of these services was. In future research, it is recommended to conduct detailed research with software providers using qualitative methods. Digitalization in the hospitality sector may lead to new job opportunities and may lead to reductions in existing jobs. In this context, it is recommended that contemporary online marketing courses be included in the curriculum of tourism high schools and related departments of universities. In addition, it can be suggested that it will be beneficial to train staff in these branches by providing agreements and protocols with software companies providing online distribution services as well as hotels and travel agencies for internships and integration of schools.

In recent years, especially cloud-based hotel management systems have been introduced to the hospitality sector by software companies as quickly as in other cloud-based applications. In this context, it can be predicted that hotel departments will switch from desktop computers to internet-connected screens only. Moreover, this technological transformation can lead to significant changes in hotel receptions and even the removal of the use of reception desks. Although new technological developments provide great ease in the operation of hotels, one must keep in mind that the production of hotels are the services they

offer. It can be argued that changes in departments and business models transformed by digitalization will always continue. However, the hospitality industry will always need the human factor when it comes to quality, both in direct and indirect services. Therefore, it is important to carry out this and such research on specific periods and to carry these subjects into the academic literature to make strong ties with the sector sustainable.

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