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ADOPTION OF SOFTWARE AS A SERVICE (SaaS) IN SMALL AND MEDIUM-SIZED HOTELS IN TIRANA

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ABSTRACT

Technology moves with a rapid pace and it has touched every aspect of the hospitality industry. Nowadays, this huge industry is facing significant technological changes especially in the hotel sector. With the continuing growth of modern technologies in hotel management (e.g. SaaS, PMS, CRM, smart devices, Internet of things), and other aspects of industry 4.0, readiness of sector representatives to adopt such new technological advancements appears as a worthy research topic. This research aimed to identify the adoption of SaaS (Software as a Service) technology in small and medium-sized hotels in Tirana, Albania and measure hotel owners/managers' willingness to implement this

technology in their properties. As part of the data collection process, a structured interview was conducted with 75 hotel owners and managers. Results show that SaaS technology implementation is very limited in the sampled hotels. Majority of the sampled hotels extensively rely on traditional property management systems. Nevertheless, other findings of the study show that hotel managements demonstrate high willingness to implement SaaS system in their hotel management. This willingness was found to be more prevalent among newly hired, more educated, younger managers as compared to older age hotel owners.

A number of implications are discussed for local authorities, SaaS marketers and hotel managements to implement SaaS system in small and medium-sized hotels in Tirana.

KEYWORDS

Software as a Service; Property Management System; Hotel Management; Hospitality Industry; Service Dominant Logic; Tirana.

ECONLIT KEYS

L860; L830.

1. INTRODUCTION

Tourism remains a critical economic activity for many countries (Phillips & Moutinho, 2014). Similarly, it is an important sector for Albanian economy (DMO, 2014). This industry constitutes 26.2% of Albania's GDP and this figure is forecasted to rise by 4.4% during next two years (WTTC, 2018). This growth majorly depends on the successful operations of hospitality businesses since hospitality is a key component of tourism industry serving as a catalyst to its development (Ottenbacher, Harrington, & Parsa, 2009). Hospitality sector in Albania enjoys steady development following the turbulent times of 1990s. However, it lacks planning and, hence, direction due to lack of research on the dynamics of the sector in the country. Current research study tackles an important aspect of hospitality sector and aims to raise questions on the productivity of sector operations. The purpose is to identify current status of the use and adaption of latest technologies in this sector by the industry leaders. Considering the fact that majority of hotels in the country are small and medium-sized hotels (SMHs), the focus is on this category of businesses. The capital city of Tirana was selected as the study context since this city houses largest number of SMHs in the country.

Impact of technology in tourism has been a long-studied subject where researchers try to understand how the technology adoption in tourism businesses shapes service processes, and whether such enactment improves customer satisfaction (Melián-González, & Bulchand-Gidumal, 2016; Law et al., 2014; Sari et al., 2006). Overall, researchers agree that technology use has positive effects on service efficiency and

enhanced customer experiences (Piccoli, Lui & Grün, 2017). In this research, we tap on a specific area of technology use in hotel management and try to understand the prevalence of software as a service (SaaS) technology in SMHs. Studies regarding the willingness of owners/managers for adopting SaaS operation system in hotels are almost neglected. When it comes to Albania, they are totally missing. Hence, to fulfil this research gap, this research aims to identify the intentions of hotel owners/managers to use SaaS system in their properties. Current research is an exploratory research in this area and attempts to fill the information gap specifically for developing city destinations such as Tirana.

One of the main factors of progress in hospitality industry is the technology factor. As hospitality industry becomes more technology-dependent, Albanian hospitality sector is known to stay slow in adapting new technologies into its service systems. The role of technology in Albanian hospitality sector becomes even clearer in a time of exponential growth in the number of hotels in the country. Based on data coming from the Institute of Statistics of Albania (INSTAT), as disclosed by Invest in Albania (2018), the number of hotels and accommodation facilities in 2016 expanded by 36 percent compared to 2015. 336 new hotels entered the market in 2016 thus reaching a total of 1,242 accommodation facilities. Moreover, the number of hotel rooms is about 18,000 while the number of beds is 41,000. Such a fast growth translates into the fact that reservations must be effortlessly made through online systems, guestrooms and other facilities must provide environments of quality service with technological tools and systems.

Schwab's (2017) report on Global Competitiveness for 2017-2018 still classifies Albania as an efficiency-driven economy, which needs to invest in business sophistication and innovation to become an innovation-driven one. Berwick (2003) sees the "diffusion of innovations is a major challenge in all industries". This research analyzes this important sector a from technology adaption perspective with a purpose to contribute to scientific understanding and policy development in the country.

2. PURPOSE OF RESEARCH, RESEARCH QUESTIONS AND HYPOTHESES

Technological advancements in hotel management in recent history can be categorized into three stages: Use of basic computing systems such as word processors, which indicated a passage from anachronistic paper and pen methodology to these simple systems; use of on-premise property management systems (PMSs), which called for on-premise IT system installation and software license purchasing; and finally the use of

cloud based systems which represents the latest technology of conducting all aspects of hotel management through cloud-based applications (Piccoli et al., 2017; Chathoth, 2007). The latest technology is based on a pay as you go system (i.e. all system operation is on cloud for a fix monthly fee) whereas previous systems require on-site installation of PMSs with external service and installation support. In this research, we focus on the application and use of the latest cloud-based technologies (i.e. Software as a Service – SaaS) and try to find out their prominence in SMHs in a city destination, namely, Tirana, Albania with a case study. We took an Albania-origin start-up SaaS system as a case and analyzed the viability and adaption of such a system in the city's SMHs.

SaaS technologies offer a number of advantages over the other ones (van de Veerd et al., 2016). First of all, SaaS systems do not require any on site IT investment therefore providing access to the system through the Internet. Because of this property, use of the system is based on a permanent fee structure (e.g. a monthly service fee per user) and all financial transactions are through the Internet systems (i.e. banking). This aspect helps hotel managers to get away from all on-site financial recordings. Another advantage of online operations is the elimination of on-site IT investments which require equipment and staff costs. SaaS service providers convey this property as the “value” aspect of the service to the users. SaaS solutions are becoming common in all business areas such as email (e.g. Gmail, ERP (e.g. Netsuite), business to business CRM (Salesforce.com) and hotel PMS (Softmogul.com) (van de Veerd et al., 2016; Benlian & Hess, 2011; Venters & Whitley, 2012).

In this research, our purpose was to identify the willingness of hotel owners and managers to use this technology in their hotels. Based on this objective, we sought answers to the following research questions and hypotheses:

Research questions:

R1: To what extent do the small and medium-sized hotels in Tirana adopt SaaS services in managing properties?

R2: How willing are hotel owners and managers to adopt SaaS system in their hotels?

Research Hypotheses:

H1. There is a significant difference between the percentages of hotel owners / managers who are willing to implement SaaS services in their hotels.

H2 (a & b). There are significant differences between the percentages of hotel owners/managers with respect to their perceptions of SaaS as a check-in simplifier (H2a) and a time saver (H2b).

3. LITERATURE REVIEW

3.1) *HOSPITALITY INDUSTRY AND TECHNOLOGY*

Hospitality is one of the earliest occupations in the world and is a dominant economic act that embraces many aspects of people's lives. According to Robinson, Luck & Smith (2013), hospitality is a crucial component of the domestic and inbound leisure market. Increasing occupancy rates and revenue by improving customer experience is the aim of modern hospitality organizations (Minghetti, 2003). With the highly speeded globalization process and the people frequently traveling abroad, the hotelier industry confronts various challenges to host vast number of visitors (Ferizi & Kruja, 2018). In today's competitive environments, hospitality businesses are looking for ways to enhance their service processes and maximize their revenues through satisfied repeat customers.

Performance of a business is related to efficient service delivery and growing profits through customer satisfaction. Mullins (2007) draws attention to the innovation as the long-term key success in hospitality businesses. Lewrick et al. (2010, p.1) emphasize innovation as "the production, diffusion, and use of new and economically useful knowledge, a key factor for competitiveness and growth". Sebel (2004), mentions about innovation and technology to be among the most frequently examined internal strategic factors besides human resources; product development; customer service; and marketing strategies. Technology is a facilitator in this process. It assists to communicate more efficiently, to take businesses to the next level and build and maintain firm and long-lasting relationships with customers. Within the hospitality industry, technology has been moving along smoothly and rapidly, and it seems that this trend is not aiming to slow down.

Adding value to services for customers has become a central theme in strategic management for hospitality companies (Kim & Oh, 2004). Technology has the potential to add value to service in hotels through more effective use of database systems for customer profiling, guest recognition and loyalty programs (Jones, 1999; Gambarov et al., 2017; Polese et al., 2018). Prior research has already predicted technology and innovation to reshape the hospitality industry by being the most important components for ensuring the competitive advantage (Sebel, 2004; Connolly & Olsen, 2001). In fact, innovation is a paradigm shift in terms of production, diffusion, and use of new and economically useful

knowledge in order to speed-up business performance and sustainable competitive advantage (Mullins, 2007; Lewrick et al., 2010).

Technology has turned out to be a crucial factor to draw attention of the guests to hospitality businesses and retain them in time. Systemagic (2017) reports that, for hoteliers, keeping up with the growing client expectations (i.e. service benefits arising from technology use) is the number one challenge which is a difficult task considering narrow IT budgets. According to Systemagic report (2017), when asked regarding what they would most likely use their smart phones or tablets for, 73% of the guests responded that they would use it for automated check in to avoid the front desk. Today, almost all service aspects of hospitality businesses are designed with technology. Therefore, adaptation and use of modern technologies for both customers and service providers can be expected as a de facto behavior.

Although it sounds natural to have a technological orientation in service access and processing, research still emphasizes that human role is still centric and only partially replaceable by the technology (Kattara, & El-Said, 2013; Dzia-Uddin, Hashim, & Isa, 2018). This is a quite normal evidence as human beings cannot be totally trustful to machines. Otherwise, this would lead to a paradox since machines are a human creation and cannot replace humans, besides helpful attributes they may possess. Nevertheless, the self-service orientation is present in every corner of hospitality, starting from airports first that are the primary contact point for international voyagers. With the progress of peer-to-peer (P2P) economy, self-service and decentralization is becoming more typical. However, technological smartness plays a crucial role in this context. A recent study found Airbnb to be more popular in countries where the population is technologically savvy (Heo & Blengini, 2019).

Recent research indicates that enhanced customer services are directly correlated with the use current technologies in service businesses (Piccoli et al., 2017). Functional implementation of technology in hospitality businesses has numerous advantages to both service providers and users. On one side of the mirror, service providers offer their services more efficiently by cutting back from costs and offering better value to customers, on the other side, customers enjoy satisfactory service experiences through the practically and safety offered by these services.

In a very competitive market, where there is an infinite range of hotels to select for accommodation, technology becomes an important factor to reach out guests and manage their service experiences. The occupancy rate of a hotel determines the accomplishment

of the business and thus hotels call for a mechanism which could assist the guest to book their reservations ahead in time. With the increasing expectations, surprise and contentment have been taken over by anticipated and assumed. The reservations must be effortlessly made through the means of any smart gadget, guestrooms must provide any kind of content, networks and bandwidth must be inexhaustible and data has turned out to be a hotel's most intangible asset. The tablet offers an unparalleled opportunity for the hotel's staff to get carried away from the front desk, associate with the guests and offer paperless check-in experience rather than making it a lousy process. Despite investing in appliances, guest facilities and workforce, hotel owners must make a significant investment in a hotel PMS in order to administer the operations of the hotel. Most of them focus actions and research primarily on transaction-centric solutions, to improve the efficiency of internal operations and administrative procedures (PMS), the core being the delivery of the guest folio (Minghetti, 2003). Besides, it offers an arranged system, which supervises and integrates the rapport of the customer and services. Generally speaking, PMS is fundamental in data management by making meaningful data related with employees or customers available to all hotel staff in real time by making use also of cloud technology (Moyeenudin et al., 2018). In addition, the hotel PMS software allows for reservations made online and a booking mechanism. This system authorizes the guests to make a reservation and booking for their rooms ahead of the time of the arrival. The system of reservations and bookings updates the client with a booking confirmation in minutes and in the meantime updates the property system with the exact number of available rooms since it is an automated mechanism. The automated system makes sure that errors do not occur regarding double booking or over booking which can harm the hotel's name.

PMS is regarded to be the heart of the hotel since it implements each of the hotel mechanisms to work as one, deal with the guest room inventory and centralize all guest expenditures. Besides its paramount importance, PMS has an implementation cost as well as maintenance cost, server cost, antivirus cost, channel manager etc., which makes it very difficult for hotel owners to make such a huge investment in their hotels.

While actual PMS dealers are only starting to offer tablet solutions, most of them are using a transactional approach. This means that they have just changed their compound PC screens into the tablet. This limits the engagement between the receptionist and the guest since it would still require the receptionist to deal with all the undertaking. There are small number of dealers that have turned into their priority to the provision of an innovative

and special check in experience which would engage both the receptionist and the guest with a much easier user interface. Instead of being simply a transaction, the tablet is operated to facilitate the guest by scanning the ID card and optimizing the check-in time or reviewing his/her accommodation package all with the guidance of the hotel receptionist.

Researchers and industry practitioners agree that hospitality industry is at crossroads to provide its guests with unprecedented levels of efficient service processes through technology use. For both service providers and customers, current technologies have simplified the service processes in such a way that both parties manage the whole experience with the touch of a button. Effects of these developments in service science and theory can be investigated through the lens of service dominant logic and its theoretical reflections.

3.2) SOFTWARE AS A SERVICE (SAAS) THROUGH THE LENS OF S-D LOGIC

In the capitalistic system, the focal component behind its evolution – including markets, societies, businesses, NGOs, social enterprises, etc. – is the human being. Humans with their capability to manipulate information have evolved from Homo Sapiens to Homo Economicus (i.e. the rational man or the “calculus”) until the current version of Homo Interneticus (i.e. the interconnected man). Thus, keywords like Internet of Things (IoT), Industry 4.0, service and knowledge economy etc., are dominant in everyday exchanges among market actors. This evolution would not be possible without the business of hardware and software. This dichotomist perspective recalls a dualistic view of entities that take the shape of structure (e.g. hardware, brain, organizational chart, and so on) and system (e.g. software, mind, process, etc.) going from static representations to dynamic interactions (Golinelli, 2010; Barile & Saviano, 2011). Once, corporations like IBM focused on the business of hardware (e.g. the well-known mainframes), until almost abandoning the “hard” part and shifting the attentiveness on software able to process real time and multiple-actor data. The IBM’s philosophy emerged with key terms like “smart cities” and “service science” as a necessity for managing complex service systems where hotels and other touristic service systems are included as well (Barile & Polese, 2010; Polese et al., 2018). Today, the hospitality industry – that is embraced by smart and sustainable tourism (Vargas-Sánchez, 2016; Caputo, Perano & Mamuti, 2017) – cannot escape from this reality and hotels are already equipped with specific software to manage people, operations, and customers. Such software, better known as SaaS, is providing huge

benefits to the sector. To unfold these benefits and to explain the word “service” behind the software, new emerging marketing paradigms such as Service-dominant (S-D) logic might be helpful (Chathoth, 2007).

The S-D logic, which is the overcoming of the Good-dominant logic, stresses that market actors are concerned for the exchange of service. That is, service is exchanged for service; all firms are service firms; all markets are centered on the exchange of service, and all economies and societies are service based. Consequently, marketing thought, and practice should be grounded in service logic, principles and theories (Vargo & Lusch, 2019). Goods do exist only as transit points between service and service. Thus, any product is produced by the rendered service of the labor force which apply operant resources (i.e. skills and knowledge) for transforming the operant ones (e.g. raw materials) into a service/utility for the consumer.

In the same way, the SaaS is a tool created to render a service to multiple actors (from which it derives the name software as a service). Although SaaS is directly linked with S-D logic, both conceptually and practically, scholars have not put much emphasis on this linkage. There are very few studies dealing directly or indirectly with the topic. Based on a bibliometric analysis, it resulted only one direct study which analysis the performance of SaaS through the lens of S-D logic (Chou, Chang & Hsieh, 2014). The authors combine the relational view into the Service-dominant logic to deepen understanding about how SaaS performance is affected by the provided service and how S-D logic increases the benefits and reduces the uncertainty of outsourcing. According to this view, the service providers’ ability to reduce uncertainty relies on the relationship-specific service, or the collaboration between the value proposer and the value receiver. Hence, value becomes the basic of exchange and value co-creation becomes the integration of resources among service provider and consumer (McColl-Kennedy et al., 2009).

Recent studies related with the hotel sector, have revealed the role of value co-creation by using hotel interactive technologies (HINT) in consumer-firm interactions, where findings show that consumers’ information system habit and hedonic motivations influenced their participation in consumer–firm interactions when using HINT (Morosan & DeFranco, 2019). Other studies show how hoteliers engage customers through ICT-facilitated service by relying on S-D logic and value co-creation (Lei, 2018). In other terms, providing accessible resources to allow customers to create their unique experiences through interacting with the service provider and consequently achieving the value co-creation. The SaaS, and especially the latest generation, apply a similar logic by making

the customer part of process, revealing real-time preferences and real-time responses. In this way, technology transforms hospitality structures into smart systems. According to Xu (2018, p.2), “smart service is the core service for smart hotels and is also the main objective for the development of smart hotels. The smart hotel service refers to using the combination of electronic information technology and hotel service project, to improve the hotel service quality, reinforce customer experience, meet customers’ demand, and improve the overall image of hotels”. The adoption of SaaS by relying on S-D logic opens the door for the Hotel Industry 4.0 where the interconnection becomes an infrastructure for value co-creation.

3.3) TECHNOLOGY ADOPTION and SaaS USE IN SMALL AND MID-SIZED HOTELS

The effects of the recent developments in information and communication technologies are seen as a double-edged sword for hospitality managements (Lam & Law, 2019). While the customers have been benefiting from the advantages of technology use in service consumption, service providers must fight with the costs of technology adoption as they try to meet customer expectations arising from customers’ personalized service demands (Piccoli et al., 2017). Technology application can bear a number of positive results for hospitality businesses. Past research shows that hotels can benefit from new technologies to achieve better operational and employee productivity, enhanced customer service levels, and more functional systems operations and measurement (Melian-Gonzales et al., 2016). Despite benefits, it is also known that adaptation to new technologies is costly and the transition may influence established customer hotel relationships if it is not implemented well in time (Lam & Low, 2019).

Technology has given customers great power to manage their service processes and turned them into real value seekers. Due to this technology-induced service expectation effect and the pressures coming from stiff competition, hospitality managements have found themselves in a position to respond these effects by providing better quality services with the help of modern technologies. Although keeping up to date technologies in hospitality sector sounds as a reasonable conclusion due to the mentioned pressures, findings from research do not implicate such a straightforward conclusion.

The scientific literature on technology implementation in different sectors provides explanations for the research questions in this area. Two main theories prevail in explaining the process of technology adoption (Cobos et al., 2016). One of these theories

is Diffusion of Innovation Theory (DOI) (Rogers, 1962) and the other is Technology-Organization-Environment Framework (TOE) (Tornatzky & Fleischer, 1990). The difference between these two theories is that the DOI explains innovations' implementation from a process perspective taking more of an individual or organizational decision-making approach to this process, whereas the TOE sees technology adoption as an end result arising from the effects of a number of factors. The TOE approach is more relevant for the purposes of this study because the TOE model questions the role of the technological, organizational and, environmental contexts in explaining technology adoption in institutions. As for the technological content, Tornatzky & Fleischer (1990) argued that technology adoption can be explained by understanding the roles of complexity (i.e. the difficulty to adapt to new technologies), relative advantage (i.e. the extent to which new technology provides better solutions to technological problems in the organization as compared to the current one) and compatibility (i.e. whether the new technology is compatible with values, norms and practices in the organization) in the technological environment (Cobos et al., 2016; Oliveira et al., 2014). The organizational and environmental contexts on the other hand question the roles of factors as company size, organizational structure, employee technology expertise, communication patterns, resource allocation, and competition, customer and governmental pressures respectively (Cobos et al., 2016).

Past research on technological applications investigating the TOE assumptions in hospitality and other services sectors brings about mixed results. Overall, hotels are known to be among the late majority category businesses in new product adaptation process; they are data-aware but not data savvy in their technology use behaviors (Lam and Low, 2019, p. 67).

A general conclusion from studies is that firm size is positively correlated with technology adoption. van de Weerd, Mangula & Brinkkemper (2016) analyzed SaaS adoption in 18 companies from health care, education, banking, tourism, media, IT and retail sectors in Indonesia and concluded that small and medium-sized enterprises are more likely to install SaaS system as compared to larger scale service companies. Similarly, in this research, findings indicated that top management support is an important factor for SaaS system implementation. In another study, Wang, Li, Li & Zhang (2015) investigated the level of mobile hotel reservation system in 140 hotels in Taiwan and found that firm size serves as a facilitator to technology adoption. In other words, larger firms were found more adaptive to the usage of mobile hotel reservation system. Wang et al.'s

findings further corroborated the hypothesis that compatibility of mobile hotel reservation system to hotels' values, information structure management practice increases the likelihood of such a technology in these hotels.

Research regarding connection to SaaS services in SMHs is still quite limited. van de Weerd et al. (2016) indicates that adoption levels to SaaS technology in service sectors are very low in emerging markets as compared to western markets. There may be a number of reasons for this low adoption rate for emerging markets; technology infrastructure being one and other reasons identified in technology adoption models being others (Mangula et al., 2014). Van de Weerd et al. (2016) found in their research that presence of sufficient financial resources, skilled IT employees, good IT infrastructure (i.e. sufficient organizational readiness) does not have positive effects on SaaS implementation in studied service businesses. In Wang et al.'s (2016) study, technological complexity of the new system was found as an insignificant factor for the implementation of mobile hotel reservation system.

In the current research context (Albania), research on technology adoption in hospitality sector is significantly scant. There are few scientific studies about technology and innovation in hospitality industry and on the adoption of hospitality operating systems in the hotel sector. These studies show a statistical relationship between the implementation of information systems and hotelier performance, as for hotels owners/managers in Albania is emerging a positive attitude towards information technology (Noti, 2014). Furthermore, Ferizi & Kruja (2018) found technological innovation as one of the six success factors critical on the performance of hoteliers in Durres seaside of Albania. Presently, from the practice perspective, sophisticated software labelled as HOS (hospitality operating systems) or SaaS (software as a service) are populating Albanian market as well. Since the mobile technology is conquering hospitality and tourism (Law, Chan, & Wang, 2018), new emerging apps are available online for hotel operators. For instance, Softmogul Inc. provides via App Store or Google Play a HOS which gets rid of the traditional POS (Point of Sale), scanning in few seconds the credit/debit cards in order to make a payment. Softmogul builds powerful solutions that maximize efficiency and increase revenues through a cloud-based platform and mobile products designed for hotels of all sizes. Suite of products includes a Property Management System, Point-of-Sale, Housekeeping, Event Management, Booking Engine, Channel Manager and Payment Getaway that work seamlessly together to help hotels build an emotional experience for their guests.

4. METHODOLOGY

The main focus of this research is to identify perceptions of hotel owners/managers in Tirana with respect to their intentions to implement cloud-based PMS systems in their hotels. We identified one of the cloud-based PMS providers in the country, Softmogul (<https://www.softmogul.com/>), and used this service as a case study to identify respondents' perceptions toward implementing such a service in their hotels. Softmogul is a cloud-based PMS which uses SaaS operational model in the industry. In many respects, SaaS system revolutionizes hotel operations due to its practicality. This is especially true for SMHs because majority of these hotels are still using anachronistic methods in their operations. Softmogul's mission is to remove front desks from the hotels by enabling the owner/manager to manage the hotel through a tablet on the go. The software that this company offers is mobile and being on the cloud means that the hotel does not have to set up any IT infrastructure including employing IT staff members to run operations. Moreover, the company requires no setup fees or upfront payments, making it a viable choice for every hotel. Lastly, its user-friendly Interface and the innovative set of features make this system an appealing choice for every hotel. Softmogul SaaS system is known to lower the operational costs as compared to other PMS systems significantly such as Oracle, Fidelio and Opera to mention a few. Hence, Softmogul's tablet platform assists in managing not only the processes of guest check in and check out, but it also enables the receptionist to edit guest details later from the data repository. The system is automatically connected to all online sales channels and financial systems (e.g. banks) providing smooth operation of guest experience from initial contact to after-service needs.

Taking SaaS model and its provider Softmogul as the case study, this exploratory research intends to identify readiness of hotel managers and owners in Tirana to adapt the system in their hotels. Although the case study is mostly recognized among the array of qualitative research choices (Creswell, 2009), it is important to underline that "case studies can include, and even be limited to, quantitative evidence" (Yin, 2009, p. 19). The present is a single-case study that analyzed the use of a new generation category of SaaS (software as a service) in hotel operations.

The questionnaire has been designed with the sole purpose of getting data-based evidence for understanding the attitudes of hotel owners/managers towards the implementation of hospitality operating systems. Inside the case method, the most

appropriate instrument to gather data was the structured questionnaire. As previously explained, the case study method does not exclude the structured questionnaire and the quantitative data. Compared to other quantitative instruments, the questionnaire is the most widely used in the fields of economics and business, often being labeled as the “heart” of survey operations (Kothari, 2004, p. 101). When it comes to generate data within organizational settings, the structured questionnaire is the most frequently used technique for gathering the data (Jonker & Peninik, 2010, p. 73). For these reasons, the present study is part of that “normal distribution” of cases using the questionnaire as a supporting technique to enrich the case with facts and evidence.

4.1) RESEARCH INSTRUMENT

As a data collection instrument, a structured questionnaire was in the study. The questionnaire comprised three main sections: (1) demographic section, (2) internal hotel management section and, (3) Softmogul implementation impact section.

The questionnaire started with the demographic section aiming to gather data related to respondents' age, gender, education, position, experience in the hotel and hotel star rating. The second section of the survey included questions on the current situation of hotel management practices being implemented by the hotels under study. The hotel owners/managers were asked questions related to the extent of using traditional methods and PMSs and whether they were able to perform the guests' check-in processes in seven minutes with their current systems. Additionally, this section included questions as storing ability of physical, online and social media documents. The last section intended to investigate the implementation impact of Softmogul. After introducing the software features, respondents were asked to evaluate what would be Softmogul's impact on their hotel's internal management process as a check-in simplifier; time saver and their willingness towards adopting it.

The questionnaire for the study was prepared and distributed in Albanian language. Content validity of the items in the questionnaire was assured by comparing items similar to those used in previous hospitality research. Before the implementation of the survey, data instrument was filled and controlled by a team of academic and industry experts. Further, the questionnaire content was checked with five hotel managers for clarity, and content relevancy. Following the final decision for implementation, it was used for further distribution.

4.2) SAMPLE & DATA COLLECTION

The data collected from active hotel managers and owners during a one-month period from April 2017 to May 2017. The questionnaires were delivered to the hotels with the help of interns of the “Professional School of Hospitality and Tourism” in Tirana. The interns were instructed on how to conduct the questionnaire and how the Softmogul software operates in a training session.

Hotel owners/managers were personally contacted or in some instances indirectly instructed (with a kind request) through receptionists to personally fill out the questionnaire. The questionnaire was delivered to a sample of 85 SMHs and 75 of them were collected back, with a response rate of 88%. Regarding the universe of hospitality structures in Albania, the most updated data are of 2018 that report a number of 1,242 accommodations facilities, including hotels, motels, camps, guesthouses, mountain shelters and other structures for short-term stays (INSTAT, 2018). As for SMHs, official statistics in Albania do not indicate any specific categorization. More reliable data on such a categorization can be found in Business Registry Office where pulling out certain category of hotel properties in Tirana is a challenging task. Researchers’ contact with Business Registry Office and Ministry of Tourism officials indicated that official statistics include general business categorizations rather than sector specific categorizations. As a more simplified methodology, researchers analyzed Booking.com page and identified a universe of 133 hotels in Tirana. These hotels are categorized as having 1 to 4-star ratings. 5-star hotels were left out purposefully since 5 star hotel number is a few and they are out of study purpose. With these evaluations, 75 hotels make up 56% of the population of SMHs in Tirana. In other words, current research can be said to reach perceptions of majority of SMHs in Tirana.

5. RESULTS

5.1) RESPONDENT CHARACTERISTICS

The demographic information gathered from the 75 respondents is reported in Table 1 below. Majority of the hotel owners/managers (61.4%) were males and only 38.6 % were females. Most of them (66.7%) have a long experience in the hospitality industry (more

than 10 years of experience). The dominant age range is 41-50 (38.6%), followed by (25.3%) the age group 51-60. The majority of the hotels are managed by professional managers (42.7%) and 93.4% of the hotels are 3 to 4-star hotels. From the total sample, only few of them (28%) have a high school degree, while 46.7% have a bachelor and 25.3% have a master's degree.

Gender	Male	61.4%	Position	Manager	42.7%
	Female	38.6%		Owner	33.3%
Age	21-30	18.6%	Owner & Manager	24%	
	31-40	17.3%	< 5 years	17.3%	
	41-50	38.6%	5-10 years	16%	
	51-60	25.3%	10-15 years	32%	
Education	High school	28%	15-20 years	34.7%	
	Bachelor	46.7%	2 stars	6.6%	
	Master	25.3%	3 stars	50.7%	
			4 stars	42.7%	

Table 1. Sample characteristics.

5.2) HOTEL MANAGEMENT SYSTEM CHARACTERISTICS

The internal management functionalities of the 75 hotels under this study are presented in Table 2. 77% of the sampled hotels still use traditional methods (e.g. pen and paper method, basic software, etc.). The rest 23% are more advanced and have gotten rid of the old school and use different PMSs in their management processes like Trinity PMS (64.7%), Fidelio PMS (17.6%), Oracle PMS (11.8%), and Opera PMS (5.9%). 78.6% of the hotels are present in OTA (Online Travel Agencies), such as booking.com (69.5%), expedia.com (23.8%) and venere.com (6.7%). Majority of sampled hotels have presence on online travel agency (OTA) systems (78.6%) and active on social media (89.3%). Surprisingly, majority of hotels responded that their check-in time exceeds 7 minutes (68%). Finally, majority has proper physical archival systems (82.6) whereas the rest archives documents as needed.

Traditional methods	Yes	77%
	No	23%
PMS implementation	Yes	23%
	No	77%
OTA presence	Yes	78.6%
	No	21.4%
Social media presence	Yes	89.3%
	No	10.7%
7-minute check in	Yes	32%
	No	68%
Documentation storage	Yes	82.6%
	No	17.4%

Table 2. Hotel management.

5.3) **LEVEL OF SaaS IMPLEMENTATION WILLINGNESS AND THE TEST OF RESEARCH HYPOTHESES**

This section of the questionnaire investigated whether Softmogul would simplify the check-in process, save time of the owner/manager in hotel operations and whether its implementation would be welcomed by the owners/managers of the hotels under study.

As reported in Table 3, responses are overly positive indicating general willingness to implement such a system their hotels (82.6). After presenting the managers/owners the details of Softmogul hospitality operating system, respondents agreed that the system can simplify check-in processes (81.3%) and save management significant time in its implementation (88%).

Implementation willingness	Yes	82.6%
	No	17.4%
Check in simplifier	Yes	81.3%
	No	17.7%
Time saver	Yes	88%
	No	12%

Table 3. Softmogul impact.

A two-sample t-test was performed to determine the difference between reported proportions in Table 3. The two-sample t-test identifies whether sampled means can be considered equal (i.e. null hypothesis) or different from each other (i.e. alternative hypothesis) (Snedecor and Cochran, 1989). The test was applied on the following two hypotheses:

H1. There is a significant difference between the percentages of hotel owners/managers who are willing to implement SaaS services in their hotels.

H2 (a & b). There are significant differences between the percentages of hotel owners/managers with respect to their perceptions of SaaS as a check-in simplifier (H2a) and a time saver (H2b).

As expected from large percentage differences, all three hypotheses are confirmed indicating significant positive responses on the implementation of SaaS services in SMHs in Tirana.

	Mean	SD	T-value	t-test	Sig. (2-tailed)	Mean difference
H1	.75	.438	0	14.768	.000	.745
H2(a)	.67	.475	0	12.166	.000	.667
H2(b)	.67	.475	0	12.166	.000	.667

Table 4. Two-sample t-test results.

Of very importance to the research was to conduct a further analysis on the tested hypotheses. Respondents who indicated willingness to implement SaaS services were separated from the sample and their demographic characteristics are reported in Table 5.

As seen in the table, overwhelming majority of managers indicate willingness toward system implementation (90.6%) whereas a much smaller percentage among owners indicate such willingness (32%). This is an important finding since it may have implications for SaaS service marketers and policy developers. Demographically, by looking at percentages, we can say that younger age categories and higher education categories indicate stronger willingness toward system implementation. This finding seems to be related to the experience of the respondents since respondents with less experience (i.e. newly hired managers) show more willingness. Finally, hotels in higher star category indicate stronger willingness indicating that their expectations from the system are higher due to their operational capabilities and needs.

Gender	Male	76%	Position	Manager	90.6%
	Female	72.4%		Owner	32%
Age	21-30	92.9%	Experience	Owner & Manager	50%
	31-40	84.6%		< 5 years	76.9%
	41-50	44.8%		5-10 years	75%
	51-60	25.3%		10-15 years	50%
Education	High school	76.2%	Star rating	15-20 years	45.8%
	Bachelor	88.6%		2 stars	40.0%
	Master	94.7%		3 stars	76.3%
				4 stars	93.8%

Table 5. Percentages of respondents who indicated willingness to implement SaaS services in their hotels within demographic characteristics.

6. DISCUSSION

As technology has turned out to be crucial factor to draw attention of the guests, this factor has outdistanced the performance of hotels in Albania as compared to their competitors in the world markets. Accordingly, SaaS implementation becomes mandatory in a time of exponential growth in the number of hotels in Albania. Through this research, we aimed to explore the current situation of SaaS system usage in SMHs in Tirana and identify the willingness of hotel owners/managers to adopt this technology in their properties. Findings indicate that SaaS technology is a very new concept for such category of hotels, but managements understand the benefits of such a technology.

Overall, sampled hotels characterize businesses that are operated with traditional methods and technological systems. In previous research, Lam & Low (2019) found that hotels are data-aware but not data savvy in their technology usage. The same behavior was also seen in the sample study of the hotels in Tirana. 77% of them still used traditional methods of property management even though most of them are present in OTAs and social media accounts. On the other hand, it can be noted that hotel size and capacity are associated with technology use in that larger hotels use more recent technologies (e.g. hotel PMSs). Despite the use of more advance technologies in larger hotels, findings indicate that none of the sampled hotels were found yet to have adapted SaaS technology in their systems. Previous research corroborates these findings. van de Weerd et al. (2016) points out that SaaS technology adoption levels in emerging markets are very low compared to western markets.

When a specific SaaS service (Softmogul) was presented to SMHs, majority of respondents replied back with positive views on the advantages of the system indicating a general acceptance towards the system. Statistically, findings confirm that managements of SMHs in Tirana show strong willingness toward implementing such a service in their properties and understand that this new system can significantly enhance their operations by check-in and time saving advantages.

Findings further indicate that hotel managers as compared to owners are more positive in implementing this technology in their hotels. Based on TOE framework developed by Tornatyky & Fleischer (1990), we analyzed sample characteristics of the hotels willing to adapt Softmogul SaaS. The conducted analysis suggested that hotel managers are more willing towards technology adoption than hotel owners. Age of hotel owner/managers, as well as their hotel property management experience were seen to be an effect on the

acceptance of SaaS technology demonstrating that newly experienced and younger managers are more open to the system change. Older age owners on the other hand seem to be more distanced towards change and technology innovations. One reason for this finding can be the costs associated with system change since SMHs struggle with costs and they can be expected to be reluctant on system change. More specifically, younger hotel manager/owners and with higher educational levels are more willing to adopt to the latest technologies. van de Weerd et al.'s (2016) research findings in 18 Indonesian small and medium-sized enterprises indicated that top management support is an important factor for SaaS system implementation.

Star rating is another indicator of the technology adoption willingness of SMHs in Tirana. Higher rated hotels seem to be more open to technology adoption. This finding corresponds to Wang, Li, Li & Zhang (2015) research on the level of mobile hotel reservation system in 140 hotels in Taiwan, where they found that firm size serves as a facilitator to technology adoption. Noti (2014) emphasized that in an earlier research that, in Albania, a statistical relationship exists between the implementation of information systems and hotelier performance. Larger hotels with more performance can be expected to be more open to technological adaptations. This is also supported by Ferizi & Kruja's (2018) research on 80 hoteliers in Durres seaside of Albania. They found technological innovation to be one of the six success factors critical on hotelier performance.

7. CONCLUSIONS

Tourism is an important sector with great relevance to the Albanian economy. Albania offers the opportunity for every kind of tourism and the hospitality sector is growing as one of the most promising industries in the country. Being an efficiency-driven economy prospering to become an innovation-driven one, the country needs to invest in business sophistication and innovation. This paper aimed to explore whether the hotel owners/managers in Tirana are willing to implement a new technology in hotel management, SaaS, which would outdate the traditional pen and paper method, or the current PMSs.

Research findings offer three main implications. One is towards policy makers, destination management organizations and local authorities. The second set of implications is toward SaaS system providers such as Softmogul and marketers of

hospitality technology systems. Finally, a third set of implications are toward owners and managers of SMHs.

Firstly, research findings point to an advantage at the aggregate level that Tirana destination offer can be enhanced with efficient hospitality services through technology use. Such an enhancement is possible through commitment of policy makers, destination management organization leaders and local authorities by working with hotel owners and managers to implement such technologies. One policy implementation can be to enhance internet infrastructure and support hotels with their internet using capabilities. Findings indicate willingness of hotels in implementing such technologies. However, local authorities should communicate with especially hotel owners to identify reasons of their objection to implement such a technology. Among the options of action toward this end can be to organize seminars and educational programs to train owners to learn more about the benefits of the system.

Secondly, marketers of SaaS systems should work more closely with small and medium-sized hotel managements to market these systems to this category hotels. System marketers can identify more-educated newly hired hotel managers as their target groups and try to reach decision makers (i.e. owners) through them. Such technology providers usually try to reach their target groups using online systems. However, for this category of hotels, a personal selling methodology can be a better option. The lack of SaaS system use in SMHs can be seen as a market opportunity; however, marketing such a revolutionary system will have its own difficulties. Hence, market specific marketing methodologies are necessary to induce implementation this system in SMHs. Marketers of SaaS system usually depend on the uniqueness of the technology and expect that potential users understand the value they will get from using this system. Conversely, they should develop arguments and publications that will tangibly show the gains of users by adapting this technology to the hotels. Cost comparison schemes and similar value demonstration tools can enhance marketing of these systems to a greater extent in environments like Tirana.

Final implications are for hotel owners and managers. SaaS system offers benefits in terms of managing employees, customers and processes in general. This is possible through service areas such as reservations and payments, check-in, scheduling, housekeeping and all other operational aspects. Since research findings indicated that younger and educated managers are more open to SaaS system implementation, they can learn more about the system's functionalities and pass these advantages to higher

level managers and property owners. Such an inclination will trigger a change in perceptions toward the systems use and adaptability.

SaaS system offers a number of operational advantages to hotel managements. In terms of reception functionalities, the system can simplify check-in and check-out procedures by optimizing time and adding flexibility to the payment methods. Regarding cashier features, orders, bills, receipts, tips, cash payments, taxes and other related functions can be automated by the functionality of SaaS features. Scheduling, as a dynamic solution, may help managers and owners to plan the distribution of all hotel's facilities efficiently. Housekeeping is another powerful tool to increase efficiency and reduce costs. Thus, once the hotel implements the system, the owner, manager, team leader and team members are equipped with smart devices that exchange real time data in order to provide an automated room maintenance. For example, managers can check room status and mark rooms as ready (cleaned), in progress, or to be cleaned. In addition, the maintenance team can diagnose room damages and send real-time information to reception and managers. Through the channel manager tool, the system ensures the hospitality structure to manage availability, rates, inventory and restrictions across channels. Similarly, overbooking and cancellation policies can be identified in a more efficient way. Finally, payments can be made easily with SaaS system, guaranteeing transparent pricing. The payment system of this kind safeguards fraud prevention and notifications of suspicious activities. This can be very helpful to hotel owners, banks, and government institutions.

Apart from its theoretical and practical contributions, this study has some limitations and weaknesses such as being implemented with 75 hotels located in only one city of Albania. The study represents majority of SMHs in Tirana but it needs to be replicated in the context of the whole country to get a better insight into to the research problem. Another limitation is the choice of a single case rather than a comparative case method. More than a study limitation, this is an Albanian market limitation, as Softmogul is a pioneer in the market for the features that represents and cannot be scientifically compared with other SaaS systems.

References

Antonio, N.; Serra, F. Software as a Service: An effective platform to deliver holistic Hotel Performance Management systems. *Tourism & Management Studies*, Vol. 14, No 1, 2018, pp. 25-35.

Barile, S.; Saviano, M. Foundations of systems thinking: the structure-system paradigm. In: Various Authors. *Contributions to Theoretical and Practical Advances in Management. A Viable Systems Approach (VSA)*. ASVSA, Associazione per la Ricerca sui Sistemi Vitali. Avellino: International Printing, 2011, pp. 1-24.

Barile, S.; Polese, F. Smart service systems and viable service systems: Applying systems theory to service science. *Service Science*, Vol. 2, No 1-2, 2010, pp. 21-40.

Berwick, D.M. Disseminating innovations in health care. *JAMA*, Vol. 289, No 15, 2003, pp. 1969-1975.

Benlian, A.; Hess, T. Opportunities and risks of software as a service: Findings from a survey of IT executives. *Decision Support Systems*, Vol. 52, No 1, 2011, pp. 232-246.

Caputo, F.; Perano, M.; Mamuti, A. A macro-level view of tourism sector between smartness and sustainability. *Enlightening Tourism. A Pathmaking Journal*, Vol. 7, No 1, 2017, pp. 36-61.

Chathoth, P.K. The impact of information technology on hotel operations, service management and transaction costs: A conceptual framework for full-service hotel firms. *International Journal of Hospitality Management*, Vol. 26, No 2, 2007, pp. 395-408.

Chou, S.W.; Chang, Y.C.; Hsieh, P.H. Understanding the performance of software-as-a-service based on service-dominant logic. *The Service Industries Journal*, Vol. 34, No 7, 2014, pp. 645-658.

Cobos, L.M.; Mejia, C.; Ozturk, A.B.; Wang, Y. A technology adoption and implementation process in an independent hotel chain. *International Journal of Hospitality Management*, Vol. 57, 2016, No August, pp. 93-105.

Connolly, D.; Olsen, M. An environmental assessment of how technology is reshaping the hospitality industry. *Tourism and Hospitality Research*, Vol. 3, No 1, 2001, pp. 73-93.

Creswell, J.H. *Research Design: Qualitative, quantitative, and mixed methods approaches, 3rd Ed.* California: Sage Publications, 2009.

DMO. *Tourism sector in Albania and business constraints to growth.* Tirana: RisiAlbania, 2014.

Dzia-Uddin, D.N.; Hashim, S.A.; Isa, Z.M. Self-service technologies influencing guest satisfaction in hotel industry. *Journal of Hospitality and Networks*, Vol. 1, No 1, 2018, pp. 25-31.

Ferizi, V.; Kruja, A.D. Coastline Hospitality Industry Performance, Challenges and Opportunities: Evidence From Durres Coastline. In: D. Batabyal (Ed.). *Managing Sustainable Tourism Resources.* Hershey, PA: IGI Global, 2018, pp. 14-38.

Gambarov, V.; Sarno, D.; Hysa, X.; Calabrese, M.; Bilotta, A. The role of loyalty programs in healthcare service ecosystems. *The TQM Journal*, Vol. 29, No 6, 2017, pp. 899-919.

Gastwirth, J.L.; Rubin, H. Effect of dependence on the level of some one-sample tests. *Journal of the American Statistical Association*, Vol. 66, No 360, 1971, pp. 816-820.

Golinelli, G.M. *Viable Systems Approach (VSA): Governing Business Dynamics*. CEDAM: Padova, 2010.

Heo, C.Y.; Blengini, I. A macroeconomic perspective on Airbnb's global presence. *International Journal of Hospitality Management*, Vol. 78, No April, 2019, pp. 47-49.

Hsu, C. Understanding Post-Adoption Intention of Hospitality Information System Based on Software-as-a-Service (Saas). In: C. Cobanoglu; L.M. Thanh; A. Corbaci (Eds.). *Advances in Business, Hospitality, and Tourism Research: Volume 1*. FL, USA: Anahei Publishing, 2018, pp. 335-342.

Invest in Albania. *The Albanian Hotel Industry Grew by 36% during 2016, February 26, 2018* [online]. Retrieve from: <https://invest-in-albania.org/albanian-hotel-industry-grew-36-2016/> [accessed 23 March 2019].

INSTAT. *Tourism in figures: Albania 2018* [online]. Retrieved from: <http://www.instat.gov.al/media/4609/tourism-in-figures-2018.pdf> [accessed 14 May 2019].

Jones, P. Operational issues and trends in the hospitality industry. *International Journal of Hospitality Management*, Vol. 18, No 4, 1999, pp. 427-442.

Jonker, J.; Pennink, B. *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science*. Heidelberg: Springer-Verlag, 2010.

Kattara, H.; El-Said, O. Customers' preferences for new technology-based self-services versus human interaction services in hotels. *Tourism and Hospitality Research*, Vol. 13, No 2, 2013, pp. 67-82.

Kim, B.Y.; Oh, H. How do hotel firms obtain a competitive advantage? *International Journal of Contemporary Hospitality Management*, Vol. 16, No1, 2004, pp. 65-71.

Kothari, C.R. *Research Methodology: Methods and techniques, 2nd Ed.* New Delhi: New Age International, 2004.

Law, R.; Buhalis, D.; Cobanoglu, C. Progress on information and communication technologies in hospitality and tourism. *International Journal of Contemporary Hospitality Management*, Vol. 26, No 5, 2014, pp. 727-750.

Law, R.; Chan, I.C.C.; Wang, L. A comprehensive review of mobile technology use in hospitality and tourism. *Journal of Hospitality Marketing & Management*, Vol. 27, No 6, 2018, pp. 626-648.

Lam, C.; Law, R. Readiness of upscale and luxury-branded hotels for digital transformation. *International Journal of Hospitality Management*, Vol. 79, No May, 2019, pp. 60-69.

Leavitt, H.; Whisler, T. *Management in the 1980's*. *Harvard Business Review*, No November-December 1958.

Lei, S.I. *Value co-creation through ICT-facilitated service in hotels*. Doctoral dissertation, The Hong Kong Polytechnic University, 2018.

Lewrick, M.; Omar, M.; Raeside, R.; Saier, K. Education for entrepreneurship and innovation: Management capabilities for sustainable growth and success. *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol. 6, No 1/2, 2010, pp. 1-18.

Mangula, I.S.; Van de Weerd, I.; Brinkkemper, S. The adoption of Software-as-a-Service: An Indonesian case study. In: *Proceeding of PACIS 2014*, paper 385. AIS Electronic Library (AISeL), 2014.

McColl-Kennedy, J.R.; Vargo, S.L.; Dagger, T.; Sweeney, J.C. Customers as resource integrators: Styles of customer co-creation. In: *Naples Forum on Services*, Vol. 24, No. 1, 2009, pp. 1-24.

Melián-González, S.; Bulchand-Gidumal, J. A model that connects information technology and hotel performance. *Tourism Management*, Vol. 53, No. April, 2016, pp. 30–37.

Minghetti, V. Building customer value in the hospitality industry: towards the definition of a customer-centric information system. *Information Technology and Tourism*, Vol. 6, No 2, 2003, pp. 141-152.

Morosan, C.; DeFranco, A. Co-creation of value using hotel interactive technologies: examining intentions and conversion. *International Journal of Contemporary Hospitality Management*, Vol. 31, No. 3, 2019, pp. 1183-1204.

Moyeenudin, H.M.; Parvez, S.J.; Anandan, R.; Narayanan, K. Data management with PMS in hotel industry. *International Journal of Engineering & Technology*, Vol. 7, No 2.21, 2018, pp. 327-330.

Mullins, L.J. *Management and Organizational Behaviour*. Edinburgh: Pearson Education, 2007.

Noti, E. *Ndikimi i teknologjise se informacionit ne sipermarrjet turistike ne Shqiperi*. Tirana: Tirana University, 2014.

Oliveira, T.; Thomas, M.; Espadanal, M. Assessing the determinants of cloud computing adoption: An analysis of the manufacturing and services sectors. *Information & Management*, Vol. 51, No 5, 2014, pp. 497-510.

Ottenbacher, M.; Harrington, R.; Parsa, H. Defining the Hospitality Discipline: a Discussion of Pedagogical and Research Implications. *Journal of Hospitality & Tourism Research*, Vol. 33, No 3, 2009, pp. 263-283.

Phillips, P.; Moutinho, L. Critical review of strategic planning research in hospitality and tourism. *Annals of Tourism Research*, Vol. 48, No September, 2014, pp. 96-120.

Piccoli, G.; Lui, T.W.; Grün, B. The impact of IT-enabled customer service systems on service personalization, customer service perceptions, and hotel performance. *Tourism Management*, Vol. 59, No April, 2017, pp. 349-362.

Polese, F.; Carrubbo, L.; Caputo, F.; Sarno, D. Managing Healthcare Service Ecosystems: Abstracting a Sustainability-Based View from Hospitalization at Home (HaH) Practices. *Sustainability*, Vol. 10, No 11, 2018, pp. 3951-.

Polese, F.; Barile, S.; Caputo, F.; Carrubbo, L.; Waletzky, L. Determinants for Value Cocreation and Collaborative Paths in Complex Service Systems: A Focus on (Smart) Cities. *Service Science*, Vol. 10, No 4, 2018, pp. 397-407.

Robinson, P.; Lück, M.; Smith, S. *Tourism*. Oxfordshire: Cabi, 2013.

Rogers, E.M. *The Diffusion of Innovations*, 1st ed. Glencoe: Free Press, 1962.

Sarı, Y.; Kozak, M.; Duman, T. A Historical Perspective on the Development of Information Technology in Tourism. In: M. Kozak; L. Andreu (Eds.). *Progress in Tourism Marketing*. Oxford, UK: Elsevier, 2006, pp. 33-44.

Schwab, K. *The global competitiveness report 2017-2018*. Geneva: World Economic Forum, 2017.

Sebel, M.H. *Nine success factors*. Executive Excellence, 2004.

Snedecor, G.W.; Cochran, W.G. *Statistical Methods, Eighth Edition*. Ames: Iowa State University Press, 1989.

Systemagic. *Hospitality Tech Report 2017*. Systemagic, 2017.

Tornatzky, L.G.; Fleischer, M. *The Process of Technological Innovation*. Lexington, MA: Lexington Books, 1990.

Wang, Y.S.; Li, H.T.; Li, C.R.; Zhang, D.Z. Factors affecting hotels' adoption of mobile reservation systems: A technology-organization-environment framework. *Tourism Management*, Vol. 53, No April, 2016, pp. 163-172.

WTTC. *Travel & Tourism Economic Impact 2018: Albania*. World Travel & Tourism Council, 2018.

Van de Weerd, I.; Mangula, I.S.; Brinkkemper, S. Adoption of software as a service in Indonesia: Examining the influence of organizational factors. *Information & Management*, Vol. 53, No 7, 2016, pp. 915-928.

Vargo, S.L.; Lusch, R.F. (Eds.). *The SAGE Handbook of Service-Dominant Logic*. London: SAGE Publications Ltd, 2019.

Vargas-Sánchez, A. Exploring the concept of smart tourist destination. *Enlightening Tourism. A Pathmaking Journal*, Vol. 6, No 2, 2016, pp. 178-196.

Venters, W.; Whitley, E.A. A Critical Review of Cloud Computing: Researching Desires and Realities. *Journal of Information Technology*, Vol. 27, No 3, 2012, pp. 179-197.

Whitehead, A.N.; Russell, B. The theory of logical types. In: *Principia Mathematica to *56*. Cambridge: Cambridge University Press, 1997, pp. 37-65.

Xu, X. Research on the Construction and Development of Smart Hotel from the Perspective of Serving Customers. In: *Proceedings of the 2nd International Conference on Education Science and Economic Management (ICESEM 2018)*. Atlantis Press, 2018.

Yin, R.K. *Case study research design and methods, 4th Ed*. Thousand Oaks, CA: SAGE publications, 2009.

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