

Impact of Technology Acceptance by Employees on Hotel Competitiveness

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Abstract

The main goal of the paper is to identify technology acceptance by employees of 5-star hotels located in Antalya region (Turkey), and to investigate its impact on hotel competitiveness. Selection of research area was determined by the fact that Antalya is one of the top Turkish tourist destinations, with international profile of the visitors, and intense hotel competition. The following types of hotels were investigated: (1) hotels affiliated to international chains, (2) hotels affiliated to national chains, and (3) independent hotel enterprises. 12 selected managers were interviewed regarding hotel types mentioned above. Thus, 4 IDIs were conducted with managers of selected hotels affiliated to international chains, 4 IDIs with managers of selected hotels affiliated to Turkish brands, and 4 IDIs with managers of selected independent entities.

Keywords: Information and Communication Technologies; Technology Acceptance Model; Hotel; Employees; Antalya.

1. Theoretical framework

Information and Communication Technologies (ICT) has a great impact on knowledge and behaviours of the tourists. At the same time the hotel industry experiences rising customer expectations, competition or globalisation (Sigala, 2005). The hospitality industry is expanding with new possibilities of ICT adoption. The hospitality industry needs to integrate new technological innovations and traditional service delivery process (Kaushik et al., 2015). Shin et al. (2019) noticed that understanding of the ICT innovations is a key strategic management concern in the hotel industry. The Technology Acceptance Model was introduced by Davis (1986). He underlined that attitude of people towards using the technology – and then real usage of technology – depends on their motivations: perceived usefulness of technology, and perceived ease of use. In tourism research there is significant focus on customers' technology acceptance (Ayeh, 2015; Usoro, Shoyelu, & Kuofie, 2010), while the studies on technology acceptance by employees are still missing. The goal of this enquiry is to fulfil this research niche by investigating the impact of technology acceptance by employees on competitiveness of 5-star hotels located in Antalya region.

It is hypothesized that technology acceptance by employees is related to chain affiliation of the hotel (Paraskevas & Buhalis, 2002). Hoontrakul & Sahadev (2004) found that large internationally affiliated hotels are highly advanced in terms of the adoption and use of ICTs. On the other hand, small independent hotels in general and majority of hotels operating in the developing countries are recognized as not experienced in ICTs' adoption and use. ICTs are recognized as a critical determinant of hotel guest satisfaction (Cobanoglu et al., 2011). However, there is no strict evidence for adoption and use of ICTs by hotel employees in particular. It is confirmed that the improvement of technological qualifications, skills and competencies of hotel employees requires permanent exchange of information between the management and employees, as well as between management and other hotel stakeholders, including customers (Jaremen, Jędrasik, & Rapacz, 2016).

ICTs used by hotel enterprises are related to various hotel divisions: 1) room division ICTs (e.g. telephone and fax system, website and email system, global distribution system, guest account management system, check-in/check-out system, central reservation system, room status and housekeeping management, customer database system, statistic and report system), 2) food and beverage division ICTs (e.g. electronic point of sale system, stock and inventory systems, conference and banqueting system, menu management system, table reservation system, order entry systems, statistics and report system), 3) general/back office ICTs (e.g. human resource management system, purchasing system, financial and accounting system, sales and catering system, generating report and update statistics system, management support system, teleconference system, decision support system, customer relationship management system, wireless internet connection area, security system, business center, ATM in hotel), and 4) in-room ICTs (e.g. in-room telephone system, electronic locking system, energy management systems, automated wake-up system, voice mail system, in-room internet access line/wireless, in-room entertainment system, in-room electronic safety boxes) (Sirirak, 2011).

Following research questions need to be asked: 1) what is the range of ICTs used by hotel enterprises?, 2) what is a perception of ICTs by hotel employees?, 3) what are the relations between human resource management and adoption of ICTs in the hotel enterprises?, and finally 4) what is the impact of ICTs on hotel competitiveness? The article is organised in the following way, firstly, based on the literature, the authors present the idea of ICT adoption in the hotel industry. Next, they discuss in detail the methodology and when presenting the results, they refer to a number

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of significant issues. Based on the results of the desk study, the authors present a general description of the hotels in Antalya region. The micro-scale cartographic inventory enabled them to indicate 5-star hotels in Antalya with division for international chain, Turkish chain and independent. Finally, due to individual, in-depth, structured interviews, it was possible to define the problems, challenges and benefits by implementing ICT in 5-star hotels.

2. Methods and Research Area

The main goal of the paper is to identify technology acceptance by employees of 5-star hotels located in Antalya region (Turkey), and to investigate its impact on hotel competitiveness. Selection of research area was determined by the fact that Antalya is one of the top Turkish tourist destinations, with international profile of the visitors, and intense hotel competition. It is argued that all mentioned factors have a strong impact on the ICTs adoption (Hoontrakul & Sahadev, 2004). Antalya has been chosen as the study area for this research because it is the most globally-connected and dense tourism area of Turkey.

The research was carried out by the following methods: 1) desk research concerning the hotels; 2) a cartographic inventory of categorized 5-star hotels functioning in Antalya; 3) structured individual in-depth interviews with the owners and managers of the hotels. All the research project should start with a desk study (Leśniewska-Napierała & Napierała, 2017; Makowska & Boguszewski 2013). It enables researchers to collect and analyse existing data and thus establish the current state of knowledge concerning a specific topic - using ICT in the hotel industry in this case. The following types of hotels were investigated: (1) hotels affiliated to international chains, (2) hotels affiliated to national chains, and (3) independent hotel enterprises. List of available 5-star hotels operating in Antalya region was obtained from Mediterranean Touristic Hoteliers Association, AKTOB. Cartographic data on administrative division of Turkey in shape files were gained from the Humanitarian Data Exchange (HDX).

The in-depth interviews (IDIs) were used as a basic, qualitative method to achieve the goal of the studies (Minichiello et al., 2004). The IDIs were conducted in Turkish based on the scenario (Table 1). The language was related to the preference of the hotel manager. Than the interviews were transcribed, and additionally translated into English. 12 selected managers (M1 to M12) were interviewed regarding hotel types mentioned above. Thus, 4 IDIs were conducted with managers of selected hotels affiliated to international chains (M1 - M4), 4 IDIs with managers of selected hotels affiliated to Turkish brands (M9 - M12), and 4 IDIs with managers of selected independent entities (M5 - M8). All hotels which are the subject of this researched, work in "All inclusive" system. Empirical research (desk studies, cartographic inventory and interview) was carried out in summer 2019.

Tab. 1: The scenario of an in-depth interview with the representatives of 5-star hotels in Antalya

| Research questions | Individual questions |
|---|--|
| What is the range of ICTs used by hotel enterprises? | <ul style="list-style-type: none"> • What kind of ICTs are used in the hotel entity, in particular room division, food and beverage division, general and back office, in-room ICTs? • What and when was your last investment in ICT in your hotel? |
| What is a perception of ICTs by hotel employees? | <ul style="list-style-type: none"> • What are the expectations of hotel employees regarding the use of ICTs? • Which hotel employees are expected to use ICTs, in particular line-level employees, supervisors? • What is the willingness to use ICTs by hotel employees? • What are the ability, skills and competencies to use ICTs by hotel employees? |
| What are the relations between human resource management and adoption of ICTs in the hotel enterprises? | <ul style="list-style-type: none"> • What are the tools that hotel manager use to make employees familiar with ICTs and eager to use ICTs? • How do you motivate your employees to use ICTs? • How do your employees improve their skills and competencies to use ICTs? |
| What is the impact of ICTs on hotel competitiveness? | <ul style="list-style-type: none"> • Do hotel guests use ICTs? What are the expectations of hotel guests about ICTs in hotel? • What are the advantages, disadvantages, challenges and achievements of using ICTs by hotel entity? • Does using ICTs allow hotel to decrease costs, e.g. by decrease number of employees, energy saving? • How competitive hotels are advanced in using ICTs? • Do you recognize the new business opportunities emerging through ICTs? If so, what kind of opportunities are enabled by ICTs? |

Source: own elaboration.

Antalya as a tourism region has already been examined by many researchers (e.g. Akis, 2011; Albayrak et al., 2018; Erkuş-Öztürk, 2009; Köksal & Aksu, 2004; Oktay, 2017, Yüzbaşıoğlu et al., 2014). Antalya is located on

southern Turkish Mediterranean coast and it is the leading tourism destination of the country, especially for foreign tourists (Erkuş-Öztürk & Eraydin, 2010; 2011). Investigated region has a long coastline with many attractions like ancient cities, harbors, natural attractions as well as lots of cultural attraction centers (Arsezen-Otamisa & Yuzbasioglu, 2013). Moreover Antalya is the largest 'sun-sea-sand' mass-tourism city in Turkey (Erkuş-Öztürk & Terhorst, 2016). In Antalya region 286 5-star hotels are located, including 157 affiliated by Turkish chains, 37 affiliated by international chains and 92 independent entities (Fig. 1).

Hotel affiliation:

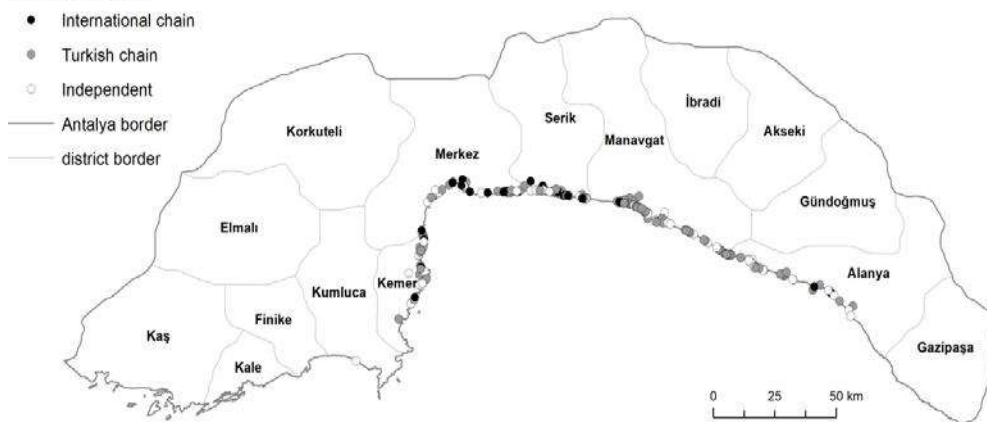


Fig. 1: Spatial distribution of hotels in Antalya region.

Source: own elaboration.

4.Results and Discussion

The adoption of ICTs in hotel industry has begun in the early 70s in 20th century. The new technologies in hotels can affect e.g. competitiveness, financial performance or guest satisfaction (Cobanoglu et al., 2011; Collins & Cobanoglu, 2013). During the last 2 decades, hotels in Antalya region have made significant progress in terms of quality, service or services standards (Oktay, 2017). As Sigala (2005) emphasized, Customer Relationship Management (CRM) became a strategic necessity for attracting and increasing guests number in hotels. Hence, all the investigated hotel used an applications for electronic customer relations management (e-CRM) like Electra, Protell, Asyasoft, Sedna or Athena software. Sigala (2003) noticed that ICT investments in tourism have been increasing very fast and they are necessary nowadays. Hotels frequently invest in ICT development by upgrading Wi-Fi systems, installation digital screens etc.

The expectations of hotels employees regarding the usage of ICTs is very diverse. Mainly they expect that technology should speed up and simplify their work. On the other hand the managers expect that thanks to ICTs the number of employees in a hotel can be reduced. The hotel employees forced to use technologies are mainly people who work in front office or accounting department. Rather less often ICTs is used by housekeeping employees or technical service. In managers' opinion their employees are willing to use ICTs. However as one of the managers noticed *"Y and Z generations employees are able to use ICTs, but generation X employees are a bit not talented to use the technology"* [M5]. All the managers of international chain affiliated hotels emphasized that they provide regular trainings for their employees. In case of independent hotels job-trainings are used only when it is needed or even never e.g. *"Nothing is done. They have to do use ICTs, otherwise they will fail to do their jobs"* [M4]. It is worth to notice that in some cases using ICTs could be profitable, e.g. *"Employees who are skilled in using ICTs will have priority for promotion"* [M12]. It is also common that employees with long work experience teach the newones.

Using ICTs by hotel guests is very differentiated, however the main expectation in fast Wi-Fi system which is available in all the parts of the hotel. The managers of chain affiliated hotels noticed that special application for communication are welcome by the guests, e.g. *"Guests can chat among themselves with the BLUE app. Guests can do all reservations (spa reservation, a la carte restaurants reservations etc.), taxi calls, technical service, everything through this app"* [M8] or *"Guests are using the questionnaire in our CRM program. They expect to approach the managers directly with these technologies"* [M6].

The main advantages of using ICTs in hotels are: a) easier and faster communication (e.g. *"the guest can be reached more quickly within the hotel"* [M2]); b) the correctness of tasks done by the employees (e.g. *"the job can be done correctly"* [M3]); c) the ability to collect and store statistical data (e.g. *"it provides very accurate and clear statistical data (providing accurate information instantly according to room type, age, nationality). With these statistics, budgeting and investment decisions can be made better"* [M6]). On the other hand managers emphasized some disadvantages of using ICTs in the hotels. One of the managers noticed that *"it is possible to experience unfair sharing of hotel on social media by taking photos of places that are not for guests (only for employees)"* [M2]. The quick changes of using technologies could be a challenge for the hotel, e.g. *"technology is moving fast, some of the software we bought previously cannot be adapted to new technologies"*[M11].

Findings from the in-depth interviews shows that using ICTs decrease costs, reduces the number of employees, provides energy saving, and increased guest satisfaction, e.g. “You can fulfil the guest’s requests immediately. ICT increases profitability and occupancy by using own reservation system. ICT reduces cost and increases sales advantage” [M1]. Moreover, ICTs could increase the competitive of the hotel, e.g. “The trend of guests can be followed by ICTs. With knowing what the guest wants and their trends, the hotel can be competitive among their rivals” [M6].

5. Conclusions

In this paper we have focused on the increasing role of ICTs in hotel industry. In this respect, this paper attempts to challenge previous tourism literature by discussing ICT impact on competitiveness of luxury hotels or the range of ICT use in hotels. It was found that the understanding and awareness of using ICT by the hotel managers in Antalya is insufficient. Our research reveals that managers of investigated 5-star hotels in Antalya know only basic room division, back office and in-room ICTs, like CRM applications or wireless internet connection area. However, the focus of managers of international affiliated hotels on increase of employees’ skills and competencies was evidenced.

Hotel managers noticed that ICT might be effectively used to improve the quality of business analytics, including market forecasting, and revenue management support. However to implement that, the job trainings for employees are requested and this brings new costs for the hotel. On the contrary, in the opinion of managers, the cost reduction is one of the main benefits of using ICTs in hotels.

All investigated hotels work in "All inclusive" system. Main philosophy of "All inclusive" system is providing services with less qualified personnel. Because of the high cost pressure on managers, they focus more on food and beverage operations instead of ICT issues. To be able to broaden the scope of this research, the same study should also be applied to other 5 star hotels that are not operating in “All inclusive” system. By doing that, it will be possible to determine the perspective of the manager and personnel to the ICT technologies and find out similarities or differences.

Like any other research, this example has several limitations which provide a basis for future research. The major limitation is that it is focused only on the managerial approach. It would be interesting to do more investigation on the question whether the employees have a need to use more advanced ICTs in their daily work. Moreover longitudinal research would provide a more precise understanding of how ICTs are operationalized in hotel industry. The results of this study may be used to conduct further studies on employees’ attitude to use ICTs.

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