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INFORMATIC SYSTEM FOR TRACKING GUESTS ACCESS TO THE HOTEL SERVICES AND RESOURCE PLANNING IN “ALL INCLUSIVE” TOURISM RESORTS Abstract The competitiveness in the tourist services domain is expressed both through the offer quality, of its diversity and through an efficient management of the costs, that will lead to increasing the offer attractiveness also through the prices proposed for the tourist packs. Throughout this article we propose an informatical solution which can bring competitive advantages concerning the costs associated to the human resources within the tourist complexes. Also, the proposed system, which is based on the RFID technology, allows to the management of the tourist unities to know better the customers’ behaviour and offer them an increase of the security degree. Key words: tourists monitoring; RFID; all-inclusive resorts; innovation; information system. JEL Classification: L83; M15 I. INTRODUCTION The all-inclusive system represents putting into practice a system of marketing and of fixing prices,

1**in which all** the **services,** like: **breakfast, lunch, dinner, room**

service, relaxing activities, sometimes even the transport, are included in a pack with a fixed price. Some authors define the All-inclusive tourist packs as being standard offers, of a controlled quality, repeatable, that include two or more elements of transport, accommodation, meals, access to the tourist objectives,

1**other facilities and services** (for instance the **travel** insurances) **(Bowen, 2001).**
Practically, all **the**

activities are covered by a tourist pack with a unique price and, thus, the family members, who travel together using this system, can spend their holiday having a rigorous planning of the expenses budget. One of the important factors regarding adopting such a system is the dimension of the tourist unities. It is possible to be applied, usually, only within the unities of big dimensions, because the significant discounts in buying the food, drinks and other products are offered for great quantities.

1 **According to Valhouli (2003), the popularity of the all-inclusive system** is based **on two**

basical aspects, more exactly: the time and the reached value. Valhouli, in virtue of the results of a survey realised by the Anderson Consulting company, has pointed out that the institutions that apply the all-inclusive system can get a series of discounts of the labor force costs, but also the increase of some other categories of expenses. However, the research results indicated that the profitability line of these tourist unities varied from 35% to 40% while, in the case of the unities that had implemented other systems, the profitability indicator was situated around the 25% value. According to a survey, presented by Çiftçi (2007), 52% of the tourists originar form USA prefer to go in holiday using the

1 **all-inclusive system. The main reason for this** practice **is the tourists'** desire **to**

eliminate stress regarding the organizational part of a holiday, especially regarding the detail aspects.

1 **In other words, the** reasons **for** which they prefer **the all- inclusive system is the guarantee** offered **to obtain everything** to **a fixed price.** More exactly, **this system eliminates** the **unexpected** expenses from **the** trip **budget of a family.**

In general, the expenses for any type of food or drinks, relaxing activities, sports activities and other similar expenses are included into a fixed price. II. THE PROBLEM OF TRACKING TOURISTS From different reasons, the government of some countries decided to track the tourists entering the country, by tagging them. This happens in countries where the crime rate is high and where tourists are prone to being involved in criminal activities (Daily Mirror, Sri Lanka, 2013). In this system, the tourists are notified that they are being followed and the records may be used against them, if necessary. Countries with undemocratic regimes usually track tourists without them being warned. Both systems involve large scale monitoring and the usage of different methods and technologies that are more or less legal. In contrast to these debatable practices, there are concerns for determining the behaviour of tourists through less invasive methods. Knowing tourists' behaviour is important for tour operators and for local and central authorities, because this enables the optimization of existing services and the introduction of new services. Recent research proposes GPS as an instrument for determining the tourists behaviour (Edwards D. 2013), (Hallo J.C, 2012), (McKercher, B, 2012). The systems, based on GPS (Global Positioning System), are suitable for monitoring tourists in wide areas and, as all automated systems, are less nagging for tourists which must not fill forms requested by those interested. For small areas, such as hotels and tourism resorts, GPS systems may not be suitable, due to the high costs of the system, to the discomfort caused by the size and the weight of the devices which the tourists must wear. Managers of hotels and resorts which adopted all-inclusive services are rather interested in how the services are used by the guests, how many times they access the services and how the services can be tailored to the tourists' requests and keeping the costs under control. For such situations we consider that a system based on passive RFID (Radio-frequency identification) tags is more suitable. RFID object location, a brief presentation RFID object location is a technology that allows the location and the identification of targets based on RFID tags. The targets are either objects or living beings, in our case, human beings. RFID

identification represents an improvement of the UPC bar code system and is based on certain electronic devices named RFID tags. There are mainly two types of RFID tags: active and passive, see figure 1. Passive RFID tags can only be read by the RFID readers and, since they do not include power sources and the electronics is minimal, they are very cheap - under 15 USD cents each (RFID Journal). Usually, the passive RFID tags are not writeable and the amount of data that can be stored is under 128 Bytes. Because this type of RIFD is not self-powered, it can only be read in the proximity of the RFID reader, where the energy harvested by the tag from the radiant electromagnetic field of the RFID reader is high enough to enable data transmission from the tag to the reader. Currently,

13**in order to** enable **the reading of the** RFID **tag,** the distance between **the**

reader and the RFID tag must be under 3, 5 meters. Some types of passive RFID tags are writable (Want R., 2006), thus allowing users to add extra information and, thus, increase their flexibility and their range of applications. Among these, a subtype called WORM (Write Once Read More) includes RFID tags that can be written once and subsequently become “Read Only”. Figure 1 – RFID tags. Passive (left) and active (right) In contrast to passive RFID tags, active RFID tags are energetic autonomous, they include a long life battery, more electronics and are able to store more information - up to 128 Kbytes. The distance at which they can be read by the RFID reader is greater, up to 100 meters, and the information stored by the tags can be rewritten. In addition, the energy requested from the RFID reader is significantly lower because the tag has its own energy source. Unfortunately, at this time, the price of active RFID tags is considerably higher than the price of the passive tags, from $20 to $100. Regardless of the tag type, the RFID tags can store a unique identifier that is remotely readable by RFID readers. A target with an attached RFID tag can be identified by reading the identifier memorized into the tag. Using a spatial distributed RFID tag readers system, the target can also be located within a certain area. The applications of RFID cover a wide range of activities, such as production process control, inventory management, Automatic Guided Vehicles Routing, transportation safety, healthcare and so on. In time, several location and tracking methods based on RFID, providing real-time location, have been proposed, (Zhou J, 2009), (Lionel M, 2006), (Bahl P., 2000). Conventional method for tracking tourists In many resorts that apply the all-inclusive system, on the first day, the guests receive a bracelet that they must wear during their stay. The bracelet helps the resort's staff to establish whether a person wearing it belongs to the resort or not. Some bracelet particularities, like color or pattern, provide additional information, for instance on which particular services from the whole range of services can be accessed by the guest. This is a difficult task and often fails. For this reason, in many resorts, the staff sometimes “chases” the guests, asking them about the room and the hotel where they are accommodated and writes down the answers in a register. This can be both embarrassing and distressing. This kind of information gathering is weak in terms of details, it doesn't give any information about how often a guest enters the restaurant during lunch time or how many cakes s/he takes during the same interval. Moreover, processing data from the register is time-consuming and, we can say, almost useless as long the data are poor and incomplete. Proposed system The method for tracking tourists we propose is an offline one because the goal is to find out how the services of the resort are used by guests and not to determine where a tourist is located at a certain moment. However, some functions may be available online, such as warning if the tourist tries to accesses services he is not entitled to or after the stay ends. Due to the small amount of information needed to be transferred between RFID tags and readers and the very low cost, we opt for using writable passive RFID tags, of the WORM type. These tags may be customized in the shape of wristbands (rfid-in- china.com) and can be handed to the tourists in she same manner as the classical ones. Before being handed to the tourist, the RFID tag is written at the Reception with some pieces of information about the person who will

wear it. In order to be useful, the system needs an infrastructure, consisting in a number of gates endowed with RFID readers, a communication subsystem between the gates and the central unit, figure 2. Figure 2 – Tracking system infrastructure The gateways are placed at the entrance of spaces in which specific services are provided (restaurant, bar, sport field, etc). The gates are connected to the central unit by means of a communication subsystem that can be either wired or wireless. The wired solution is less flexible and entails some difficulties if the modification of the gateways' position is required, but is better protected from the radio interferences and less affected by physical obstacles. Each time a tourist enters an area through a gateway, the information stored in the RFID tag embedded into the wristband is read by the gateway and is sent to the central unit. The same happens when the tourist leaves an area through the gateway. The central unit determines whether the tourist belongs to the resort, which service he uses as well as how long or how often. Based on this information, the management of the resort can develop an image of individual behaviour as well as one of global behaviour, within a certain time interval. The information added to the RFID tag at the resort Reception desk consists in the resort ID, the registration number from the Reception registry, the room number, the ID of the service package that can be accessed and the period of staying. The amount of data to be stored in the RFID tag is 38 bytes, see table 1. Along with data about tourists, stored in the information system of the resort, the data stored in the RFID tag allows for a precise identification of each person passing through a gateway. Table 1 The structure of data stored by the RFID tag Field name Resort ID Record number Room number Service package ID Begin date End date Length (B) 6 6 4 2 10 10 At first sight, this approach may seem redundant, because a lot of this information is III. CONCLUSIONS available in the information system of the resort. The reason for storing this information in the bracelet is to reduce as much as possible the interaction between the Having as outset the desire to minimize the central unit of tourist tracing systems and the contact of the hotel staff with the tourists in the areas information system of the resort. Only when where the latter ones ask for intimacy, in general, we additional information about a certain person is propose to the managers of the tourism branch an needed (such as name, address, gender etc.), the two electronic system that allows the analysis of the routes systems collaborate and produce the requested report. followed by the tourists within the tourist complex, without being necessary to detach the staff in this aim. Ethical issues We considered opportune the implementation of such a system within the tourist unities that offer all- The solution we proposed may raise some inclusive services. Generally, this tariff system of the ethical issue concerning the privacy of the people tourist services is efficient to be implemented within entering the resort. In our opinion, that is not entirely the unities of big dimensions and, consequently, the true because this is already happening, in one way or tourists' supervising would also suppose a high another. On the contrary, this method is less invasive number of staff able to accomplish this activity. and prevents tourists being annoyed by the resort staff. The proposed system is based on the RFID that What is important is that tourists must be informed at allows, by means of some bracelets, worn by the the reception desk that the bracelet they will wear tourists, the transmission of identification information enables their identification within the resort. The data by a series of RFID readers. structure stored in the bracelet memory doesn't allow Because of security reasons the information the nominal identification of the tourist in real-time, stocked within the bracelets is minimal, but, of course, but only whether the tourist accesses a certain service it can be connected to a series of other data stocked by or not and whether he is entitled to access it. The the hotel on a secured informatics platform. offline analysis allows the full identification of the The collected information can be used to: tourist but this situation may occur very seldom and • Signal the unauthorized entry of the tourists only in exceptional cases. in areas for which the access was not permitted previously or for which the access period has expired, • Signal the unauthorized entry in spaces of the complex of some people with whom the hotel does not have contractual relations, • Identify the followed routes within the tourist complex, for a person whose disappearance has been signaled (especially for old people or children) Also, knowing the data related to the tourists' behaviour during the

stay in that tourist unity, we can conceive promoting campaigns for specific categories of customers, segmented on age, gender, nationality, etc. IV.

1 **REFERENCES 1. Aichholzer Georg; Martin Spitzenberger; Roman Winkler (2003). Prisma Strategic Guideline 6 eTourism, http ://www.prisma-eu.org/deliverables/SG6tourism.pdf, April 2003. 2.**

4 **Bowen, D. (2001). Antecedents of consumer satisfaction and** dissatisfaction **(CS/D) on longhaul inclusive tours – a reality check on theoretical considerations. Tourism Management, 22, 49-61.**

3.

1 **Hakkı Çiftçi, Erkut Düzakın, Yıldırım B. Önal (2007),**

8 **All Inclusive System and Its Effects on the Turkish Tourism Sector, Problems and Perspectives in Management / Volume 5, Issue 3,**

4.

1 **Master, H. & Prideaux, B. (2000). Culture and vacation satisfaction: a study of Taiwanese tourists in Sought East Queensland. Tourism Management, 21, 445-449**

5.

1 **Valhouli, Christina, (2003). Best All-Inclusive Resorts, http://www.forbes.com/2003/10/16/cx_cv_1016feat.html, 16.10.2003**

6.

5 **Wong, C.S. & Kwong, W.Y. (2004). Outbound tourists' selection criteria for choosing all inclusive package tours. Tourism Management, 25, 581-592 7.**

6 **Edwards, D, Griffin, T. Understanding tourists' spatial behaviour: GPS**

tracking as an aid to sustainable destination management. JOURNAL OF SUSTAINABLE TOURISM, Volume: 21, **Issue:**

4, 2013. Special Issue, ISSN: 0966-9582, Pp.580-595. 8. Hallo J.C

7**et al. GPS as a Method for Assessing Spatial and Temporal Use Distributions of Nature- Based Tourists. JOURNAL OF TRAVEL RESEARCH,**

Volume: 51, Issue: 5, Sept. 2012. ISSN: 0047- 2875. Pp: 591-606 9. McKercher, B. et al.

9**First and Repeat Visitor Behaviour: GPS Tracking and GIS Analysis in Hong Kong. TOURISM GEOGRAPHIES, Volume: 14, Issue: 1,**

2012. ISSN: 1461-6688. Pp: 147-161 10. FRID Journal, http://www.rfidjournal.com/faq/show?85 11.

10**Roy Want. RFID Explained: A Primer on Radio Frequency Identification Technologies. Morgan & Claypool Publishers, 2006,**

pp.63-67. 12.

12**Junyi Zhou, Jing Shi.** RFID **localization algorithms and applications - a review. Journal of Intelligent Manufacturing**

(2009), pp.695-707.

14**DOI: 10.1007/s10845-008-0158-5**

13. Lionel

11**M. NI et al. LANDMARC: Indoor Location Sensing Using Active RFID. Wireless Networks** No **.10,**

2004, pp.701–710, 14. Paramir Bahl, Venkata N. Padmanabahn.

2**RADAR: An in-building RF-based user location and tracking system, Proceedings of IEEE INFOCOM, 2000, Tel-Aviv, Israel** (March **2000), pp. 775-**

784. 15. **http://www.** rfid-in-china **.com/**

rfid-wristbands-21.html 16. http://www.b1.ro/stiri/eveniment/sistemul-all-inclusive-de-pe-litoral-romanesc-este-la-mare-cautare- 62495.html 17. http://www.incont.ro/lifestyle/hotelierii-romani-se-adapteaza-cerintelor-pietei-peste-60-000-de-turisti- vor-petrece-vacanta-pe-litoral.html 18. http://www.adevarul.ro/news/societate/ce-sanse-sistemul--all-inclusive-romania-1_50aeb6267c42d5a6639f6d6f/index.html 19. http://timp-liber.acasa.ro/vacante-calatorii-291/tentatia-all-inclusive-7058.html#ixzz2vGON9ma0 20. Tracking tourist, Daily Mirror [Colombo] 20 Apr

3**2013. Journal of tourism [Issue XXX] Journal of tourism [Issue XXX] Journal of tourism [Issue XXX] Journal of tourism [Issue XXX] Journal of tourism [Issue XXX]**