ABSTRACT

This paper aims to demonstrate the current status and potential of mobile services in the airline business. Mobile airline services, such as booking, check-in, boarding pass, gatecall, flight information and lost baggage information, have been increasingly used over the last years. A typology of mobile services, the airline companies that deliver these services and indicative references for each kind of service, are presented in this work. The growth in the use of mobile airline services is verified through the findings of a research in progress, conducted among Greek students at under and postgraduate level. Even though only booking and check-in are already supported through mobile phones in the Greek airline industry, the respondents in our survey identified the high importance of most of the aforementioned mobile services. According to their views, there is also a need for upgrading the existing services in the Greek market. As in many other businesses, the delivery of continuously improving mobile services in airlines seems to have significant benefits for both enterprises and customers.

Key Words: mobile services, airlines, mobile service typology

INTRODUCTION

The mobile Web offers new personalized services to consumers on their mobile devices-phones, PDAs and laptop computers. This requires the development of mobile applications, allowing for secure access to Web services. The following work is an analysis of mobile services used by airlines around the world, trying to demonstrate their potential in the airline industry. It presents the main findings of a research in progress conducted among under and postgraduate students, concerning their thoughts about the introduction of mobile services to the Greek airlines. The quality of mobile airline services is a matter of high importance. Therefore, a low-quality or an excellent service has a strong impact on its users, creating strong feelings about the company, its staff and services. In recent years, the airlines in their efforts to facilitate a user, have adopted the use of mobile phones and devices for some basic services. The mobile services provided include services through messages (SMS) and the Internet (WAP), the possibility of ticket reservation and check-in, and the receipt of information about flights and lost baggage.
MOBILE SERVICE TYPOLOGY

Mobile services constitute a very important step in the development and progress of the airline industry. More specifically, the services provided in recent years by foreign airlines are: mobile booking, mobile boarding pass, gatecaller, flight information service and lost baggage information service. These services, since their introduction until today, offer a very competitive advantage to the companies using them, attracting more and more customers. The Table 1 below summarizes the mobile airline services, giving their interpretation, the airlines that use them and some indicative references.

Table 1. Mobile airline services

<table>
<thead>
<tr>
<th>MOBILE SERVICES</th>
<th>AIRLINE COMPANIES</th>
<th>LITERATURE REVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOBILE BOOKING</td>
<td>Lufthansa Group, Qantas Airlines, Emirates Airlines, Singapore Airlines, Turkish Airlines, Southwest Airlines, Aeroflot, Easyjet, Ryanair, Hawaiian Airlines, Malaysia Airlines, Delta Airlines</td>
<td>Burmistrov (2010) – mobile air ticket booking; Herman Rao Chung- Hwa, Robin Chen Yih- Fam, Chang Di- Fa, Chen Ming- Feng (2001) - iMobile: a proxy-based platform for mobile services; IATA (2008)</td>
</tr>
<tr>
<td>MOBILE CHECK IN</td>
<td>Malaysia Airlines, Lufthansa Group, Qantas Airlines, Turkish Airlines, Delta Airlines, Southwest Airlines</td>
<td>Bouchard, Hemon, Gagnon, Gravel, Munger (2008) – mobile telephones as boarding passes; Herman Rao Chung- Hwa, Robin Chen Yih- Fam, Chang Di- Fa, Chen Ming- Feng (2001) - iMobile: a proxy-based platform for mobile services; IATA (2008) – mobiles enabling paperless travel; Wei, Ozok (2005) - web-based mobile airline ticketing model with usability features; Travel trade gazette (2004); IATA (2008)</td>
</tr>
<tr>
<td>GATECALLER</td>
<td>Copenhagen Airport</td>
<td>Hansen, Alapetite, Andersen, Malmborg, Thommesen (2009) - location-based services and privacy in airports (SPOPOS)</td>
</tr>
</tbody>
</table>
FLIGHT INFORMATION SERVICE
a context-aware system which uses specific framework to provide relevant information and services to users, such as instructions to the nearest available parking, instructions and time required for the departure gate, a map of their immediate vicinity, updates on progress of unaccompanied minors arriving

Lufthansa Group,
Southwest Airlines,
Emirates Airlines,
Malaysia Airlines

Freivalde, Lace (2008) - Improvement of passenger flow management in an airport terminal;

LOST BAGGAGE INFORMATION SERVICE
through the RFID technology it is possible to locate lost luggage and send the data and the location to the traveller’s device

Turkish Airlines,
Malaysia Airlines

DeVries (2008) – RFID for effective baggage tracking;
Ehrman et al. (2010) – mobile portal for RFID luggage handling;

RESEARCH
This research focuses on Greek students’ reaction to the introduction of mobile services to the Greek airline industry. At these critical times, it is very important to facilitate passengers to travel in order to maintain the use of online services. The objective was to investigate the preparedness of the Greek students against mobile services delivered by the Greek airlines, and their intention to use them. The students who participated in our survey were asked about all the mobile services widely used by major airlines in the world (according to IATA’s data). Based on Ghandour and Buhalís’s research and the literature study that was developed above, the questionnaire was drawn up in order to examine the use of mobile services in the Greek airline industry. The first part of the questionnaire consisted of closed-end questions with multiple choices about the demographic characteristics of the students. The second part examined issues concerning the current and future use of mobile airline services. Finally, the third part of the questionnaire aimed at investigating the significance of mobile services using the Likert scale. The sample comprised 209 randomly selected students at under and postgraduate level. The time period of the survey was a month and the statistical analysis of the findings was carried out using SPSS 15.0. It should be mentioned that the research is still in progress; this is why a rather small sample was used compared to the target population of this research.

RESULTS
Based on the research conducted, several conclusions can be drawn regarding the current and future use of the aforementioned mobile services. It can be concluded that Greek students are able to accept the introduction of mobile services in the area of airlines. More and more people consider the introduction of these services as important and believe that they can effectively replace the traditional way of delivering airline services. Moreover, the existing mobile services (mobile check-in, mobile booking) have already been supported in the Greek airline industry, although they have not been widely used. The respondents in this survey seem to have different opinions concerning the rest of the services. Regarding flight and lost baggage information service, the students stressed their importance and the desire to use them at a high rate. However, concerning gate caller, the respondents were negative to the necessity of its usage. In summary, it should be mentioned that Greek students seek for new services in the area of airlines, while they also want the renewal and upgrading of the existing services. More specifically, as seen in Table 2, the desire to use mobile services in the Greek airline industry reaches an average percentage of 65%. The percentage of using mobile booking is 75.1%, while the respective percentage of using gate caller and flight information service is 62.2%. Finally, the percentage for the desire to use lost baggage information service is 61.2%.
CONCLUSIONS

This work dealt with the issue of mobile services in the area of airlines and examined in detail some interesting aspects and characteristics of these services. It presented the mobile airline services which are currently delivered by foreign airlines (booking, check-in, boarding pass, gatecaller (system SPOPOS), flight information service, and lost baggage information service). The 20 largest airlines were studied according to the official list of IATA and were allocated on the basis of mobile services available to their customers. It should however be noted, that the lack of research work on the response and the receptivity of mobile services in the airline industry became the principal limitation of the work; hence, the current research is still in progress. The research was based on a survey of acceptability and usage of mobile services in the tourism sector in general (Ghandour and Buhalis, 2004). To conclude, this study was a first attempt to investigate the readiness of Greek students concerning the use of mobile airline services. It would be interesting to further explore the issue of acceptance and usage of mobile airline services to other categories of consumers. Also, this survey could be repeated in the future to see if there will be any changes in the preferences of students for specific mobile airline services. Finally, one could study how the importance of mobile services is related to the economic rewards of the respondents to evaluate the factors that primarily affect the use of mobile services in the area of airlines.
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