

## Analysis of Airline Mobile Marketing Implementations' Perception As Per Passengers' Demographic Traits

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### Extensive Summary

#### 1. Introduction

Information and communication technologies (ICTs) have greatly influenced the accommodation and tourism industry since its emergence in the early 1990s (Buhalis and Law, 2008). The effects of ICTs are mainly based on web sites, social media and mobile technologies (Leung, Law, van Hoof and Buhalis, 2013; Sotiriadis, 2017), which are key channels for industrial practitioners to reach their customers. The mobility of combining and the virtues of mobile technologies such as BITs, smartphones, tablets and mobile applications have become the primary devices for users to access the internets and become an indispensable part of consumers' daily lives (Wang, Park, and Fesenmaier, 2012). According to Statista (2017), the number of smartphone users will exceed 2.8 billion worldwide by 2020, representing more than a third of the world's population. Mobile marketing is the marketing of products and services over a mobile communication channel. It is a personal, time- and space-sensitive channel that can reach immediate, interactive, or targeted communication with the target audience (Gardlund, 2005, p.11).

This marketing method is called activities that are necessary for communication with customers through the use of mobile devices to increase the sales of products, services and information about these products / services (Karaca and Ateşoğlu, 2006). Recent technological developments in the service sector have led to the transformation of service delivery into face-to-face and self-serving constructs (Lu et al., 2009). By using self-service technologies such as the internet, passengers can use services on their own instead of directly interacting with the employees in the airline industry (Ku and Chen, 2013; Beatson et al., 2006; Elliott et al., 2012; Lim, 2012; Other, 2009, 2011, Tam and Lam, 2004). Most passengers (87%) use mobile technology for reservations, and more than half (54%) opt for self-service technologies for worldwide check-in services (Airline IT Survey, 2017; [www.sita.aero](http://www.sita.aero)). Airlines offer a range of mobile

applications and tools that provide various functions throughout the travel process (Pagiavlas et al., 2005). In Turkey, all airlines, especially Turkish Airlines, Pegasus, Atlas, Sun-Express, Honor, have been following mobile marketing applications at certain levels. Mobile marketing applications are expected to become more and more extensive utilization in the airline industry. For this reason, this study which is analysis of airline's mobile marketing perception in terms of its customer's demographic traits, should be carried out.

## 2. Data Collection and Methodology

The research hypothesis has been stated as follows:

H<sub>1</sub> : Airline passenger's mobile perception is being changed as per gender type

H<sub>2</sub> : Airline passenger's mobile perception is being changed as per marital status

H<sub>3</sub> : Airline passenger's mobile perception is being changed as per age group

H<sub>4</sub> : Airline passenger's mobile perception is being changed as per education status

H<sub>5</sub> : Airline passenger's mobile perception is being changed as per income group

H<sub>6</sub> : Airline passenger's mobile perception is being changed as per frequency of receiving mobile message.

There are positive and significant correlations in terms of customer demographic traits, receiving mobile message, usage frequency, buying from mobile web sites and mobile expenditures.

The research was conducted in İstanbul by airline passengers who previously purchased ticket and flew. The face to face survey performed by 419 passenger as convenience sampling method then 400 of them found acceptable. In the study Aalkaya's mobile marketing scales which is Likert Type (1= strongly agreed, 5= strongly disagreed) is used.

## 3. Findings and Discussions

As a result of the factor analysis, the KMO value was 0,77; For factor analysis, the Bartlett's test, which showed the existence of an adequate relationship between the variables, showed a result of 0,000, which is significant at  $p < .001$ . As a result of the factor analysis 4 questions were omitted from the related scale. The mobile marketing scale has reached a level that accounts for 69% of the total variance in 4 dimensions. In this context, number 1 dimension is called mobile marketing influences on purchasing decisions, number 2 dimension is personal permission and satisfaction perception, number 3 dimension is an overview of mobile marketing activities, and number 4 dimension is called attitude towards mobile marketing applications.

According to the analysis of the independent "t" test conducted, only the attitude towards mobile marketing showed that it is significant at the 95% confidence level ( $p = 0,027 < 0,05$ ) according to the genders of the participants. In the study conducted, it was determined that the interest in mobile marketing for female consumers was higher than that for men, and the relevant H<sub>1</sub> hypothesis was accepted only at this dimension. According to the results of the one-way analysis of variance, the statistical significance values of the dimensions are; ( $p = 0,40; 0,25; 0,53; 0,48$ ), and since these significance values are greater than 0.05 in the 95% confidence interval, the relevant H<sub>2</sub> hypothesis

was rejected and the airline passengers and customers marketing perceptions have not changed. According to the results of one way variance analysis for age groups, statistical significance values in mobile marketing dimensions are; ( $p = 0,54; 0,06; 0,11; 0,76$ ) In the 95% confidence interval, the significance values are greater than 0,05 the relevant H<sub>3</sub> hypothesis was rejected and the airline passengers and customers marketing perceptions have not changed. The mean values and standard deviations obtained in all dimensions in the one-way variance analysis according to the education groups are shown and statistical significance is determined in all dimensions in terms of the whole education factor and the related H<sub>4</sub> hypothesis is accepted. A statistical significance difference of  $F = 4,912$ , ( $p = 0,01 < 0,05$ ) was found as a result of the variance analysis for effecting the purchasing decisions of mobile marketing. The Tukey test was used in Post Hoc tests to determine the source of the difference. The mean values and standard deviations of all dimensions in one way analysis of variance according to income groups are shown in Table 11. The statistical significance of  $F = 4,240$  ( $p = 0,00 < 0,05$ ) was determined as the result of the variance analysis for the effect of the mobile marketing only on the purchasing decisions in the analysis made. Only the related H<sub>5</sub> hypothesis was accepted at this dimension. In the one-way ANOVA analysis, the mean values, standard deviations obtained in all dimensions are shown in Table 12 and statistical significance was determined in all other dimensions except for the personal permission and satisfaction perception dimension, and the related H<sub>6</sub> hypothesis was determined for the other three dimensions It is accepted. As a result of the variance analysis, the statistical significance was determined as  $F = 6,107$  ( $p = 0,00 < 0,05$ ) for the effect of mobile marketing on purchasing decisions. The Tukey test was used in Post Hoc tests to determine the source of the difference. As a result of the analysis made, it was determined that there is no significant difference in customers' mobile marketing perceptions according to gender status and age groups. In the analysis made according to the educational status, it was determined that mobile marketing perception was perceived differently in all dimensions, according to the income groups; it was seen that there was a significant difference only in the effect of mobile marketing on purchasing decisions, according to the frequency of receiving messages, there were statistically significant differences in the dimensions of the impact of mobile marketing on purchasing decisions, the interest in mobile marketing and the overall view of mobile marketing activities. In generally summarized, it is determined that mobile marketing perception has changed more than one demographic traits.

There was a negative correlation between the tendency of airline customers to make online purchases with the frequency of receiving mobile messages ( $r = -, 31 **$ ). A significant and positive correlation was found between the amount of shopping made by the customers and the average amount of money spent on this exchange ( $r =, 519 **$ ). A significant and positive relationship was found between the income and the age of the customers ( $r =, 348 **$ ), the average amount of money spent on the bookings and the customers' income ( $r =, 392 **$ ). A positive and significant relationship was found between the amount of shopping made and the average time spent by the consumers on the internet ( $r =, 144 **$ ). A significant positive correlation was found between the average amount of money the customer spent on the internet and the amount of money they spent on shopping ( $r =, 109 **$ ). According to these results, it is found that there are significant and positive correlations between purchased items and customer expenditures, between customers incomes and customers expenditures; between

customers ages and customers incomes; between average internet usage duration and customers expenditures.