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The Effect of Factors Regarding Technology Acceptance and Use on Consumers' Behavioral Intention to Use Mobile Advertising

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Extensive Summary

Introduction

Ongoing developments in technology lead businesses to revise communication tools that they use in marketing communications. Businesses now use mobile devices due to increasing usage rates of mobile/smart phones in consumers' everyday life. Now mobile phones are the most popular and effective way to reach customers and build up sustainable relationships for businesses.

There are significant improvements in Turkey in terms of the number of mobile subscribers and mobile internet usage rates. Turkey Information and Communication Technologies Authority data indicates that the number of mobile subscribers has exceeded 75 million and the number of mobile internet subscribers has reached 51.7 million (BTK, 4. Quarter Market Report, March, 2017). Household information technology usage investigation reveals that by April 2016 96.9% of houses have mobile and/or smart phones (TUIK, 2017).

Mobile advertising defined as sending electronic advertisements to consumers that use mobile devices (Cleff, 2007: 226). Mobile advertising, conversely to the traditional advertising tools as newspapers, magazines, radios and televisions, provides the advantage of researching the right consumer anytime and anywhere will be one of the popular way of advertising in the near future (Wong, et.al., 2015). Mobile advertising expenditure will continue to increase and is expected to reach 166.628 million dollars in 2018 worldwide (e-marketer, 2016).

Mobile advertising, as a marketing communication tool, along with its very nature is directly related to technology. Determinants of the acceptance of technology and the factors affecting the usage of technological systems are found to be closely related to acceptance and the use of mobile advertising in literature. In this sense, the Unified Theory of Acceptance and the Use of Technology (UTAUT) is the basic theoretical framework in this study.

Unified Theory of Acceptance and the Use of Technology is suggested by Venkatesh, et. al. (2003), mainly by improving the Technology Acceptance Model (TAM). UTAUT as same with the previous technology acceptance models aims to analyze the intention and use of a particular technology. When compared to TAM, UTAUT provides wider identification with 70% acceptance ratio (Venkatesh, et.al., 2003).

UTAUT model consists of four dimensions that affect acceptance and the use of an information technology; performance expectancy, effort expectancy, social influence and facilitating conditions. Performance expectancy, effort expectancy and social influence are the three direct elements of behavioral intention. Behavioral intention and facilitating conditions are the direct determinants of usage behavior. According to the UTAUT model attitude towards technology use, self efficacy and anxiety are theorized not to be direct determinants of intention (Venkatesh, et al., 2003). This study is mainly based on UTAUT. However, as suggested by Wong, et. al. (2015), personal innovativeness in information technology, perceived enjoyment and mobile skillfulness factors are included in the research model.

One of the dimensions of the acceptance and the use of mobile advertising is personal innovativeness. Personal innovativeness defined as the willingness of an individual to try out any new information technology by Agarwal and Prasad (1998; 206). H_1 suggests a positive direct effect of personal innovativeness on intention to use mobile advertising. Social influence refers to the degree to which an individual perceives that important others believe he or she should use the new system (Venkatesh, et.al., 2003, p. 451) and expected to has a positive direct effect on intention to use mobile advertising (H_2). Perceived usefulness of TAM indicates performance expectancy of UTAUT and in this study H_3 seeks to a positive direct effect on performance expectancy and intention to use mobile advertising. Effort expectancy defined as the degree of ease associated with the use of the system (Vankatesh, et.al., 2003, p. 450). In this research effort expectancy is expected to has a positive direct influence on both intention to use mobile advertising (H_4) and performance expectancy (H_5). The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system called as facilitating conditions ((Vankatesh, et. al., 2003; p.453). Thus, H_6 is facilitating conditions have a positive direct effect on behavioral intention. Perceived enjoyment defined as "the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, apart from any performance consequences resulting from system use'' (Davis et al., 1992, p. 1113). A positive direct influence of perceived enjoyment on behavioral intention is expected (H_7). The last dimension in the model is mobile skillfulness and refers to the level of an individual to implement a specific task skillfully via a mobile phone (Lu and Su, 2009; Wong, et. al, 2015, p.724). Mobile skillfulness is expected to has a positive direct effect on performance expectancy (H_8), effort expectancy (H_9) and perceived enjoyment (H_{10}).

Methodology

Based on the Unified Theory of Acceptance and Use of Technology (UTAUT) that proposed in 2003, this study's aim is to determine the effect of factors regarding technology acceptance and use on consumers' intention to use mobile advertising. To accomplish this main purpose, survey conducted to 309 consumers. Structural equation

modeling was used to test research hypotheses which developed in accordance with research objective.

Findings and Conclusion

Structural equation modeling used to test research hypothesis. Research analysis indicate that H_2, H_4, H_5, H_7 and H_8 are accepted ($p<0,05$). On the other hand, H_1, H_3, H_6, H_9, and H_{10} are rejected ($p>0,05$).

Standardized regression coefficients reveal that perceived enjoyment has the greatest effect on intention to use mobile advertising. Effort expectancy ($\beta = 0,32$) and social influence ($\beta = 0,22$) are the two other factors that have positive effect on intention to use mobile advertising. Effort expectancy ($\beta = 0,74$) has a strong effect on performance expectancy whilst mobile skillfulness ($\beta = 0,23$) has a relatively weak influence on performance expectancy.

Chi-Square/ Df is one of the model fit indexes and is found to be 3.8299. This value should be under five (Yoon, Gürsoy ve Chen, 2001: 363) thus, 3.8299 is accepted in limits. NNFI and CFI values indicates a good fit between model and data (NNFI=0.91, CFI=0.92). SRMR value is 0.24 and it is between limits as value is smaller than 1 and near 0. Hence, according to the model fit statistics model is accepted. Results also claim that perceived enjoyment, personal innovativeness, social influence, performance expectancy, effort expectancy, facilitating conditions and mobile skillfulness are significantly explain more than a half of variance of intention to use mobile advertising ($R^2 = 0.56$). Mobile skillfulness and effort expectancy significantly explain 60% of variance in performance expectancy.

Results indicate that perceived enjoyment has the strongest effect on intention to use mobile advertising. Along with effort expectancy, social influence also has a positive impact on intention to use mobile advertising. Additionally, effort expectancy and mobile skillfulness have effect on performance expectancy. If consumers believe that the use of mobile advertising is easy then they perceive higher levels of usefulness which in turn leads to higher degree of acceptance of the system. Besides, if consumers can handle operations regarding the use of mobile advertising they will believe that they are skillful enough to use mobile advertising.

Research results do not support a positive direct influence of personal innovativeness on intention to use mobile advertising. This finding is in accordance with Tan, et.al (2014) and Wong, et.al. (2015). Similarly results regarding the effect of performance expectancy on mobile skillfulness, and intention to use mobile advertising are insignificant. Also, analysis proves an insignificant effect of mobile skillfulness on effort expectancy and perceived enjoyment. Majority of the respondents in this study are between 18 and 34 years old. This characteristic of the sample may be the possible explanation of afore mentioned findings. Because this age group includes mainly the students and young civil servants (due to the occupational groups of the research sample) and they mainly seek for enjoyment, ease of use and do really care about social interactions and pressure.

Research outcomes provide some insights to businesses regarding the implementation of mobile advertising. Findings points out the very importance of perceived enjoyment. Thus, businesses should use enjoyment contents in order to advertising efforts fulfill the expectations. Additionally, design of the mobile

advertising should consider the ease of use to increase behavioral intention. Another noteworthy result of the study is the influence of social environment. In other words, businesses should be aware of the effect of word of mouth. In this sense, marketers should take into consideration that in Turkey consumers highly engage in social media. Thus, they should attract attention to the advantages of using mobile advertising via SNSs like electronic channels.