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Mobile Applications Acceptance:
A Theoretical Model Proposal and Empirical Test

Naciye Güliz Uğur, Sakarya University, Adapazari, Turkey
Aykut Hamit Turan, Sakarya University, Adapazari, Turkey

ABSTRACT

Mobile apps are now an integral part of our daily life, with people spending an average of 30 hours per month with them. On the other hand, according to the existing literature, one in four installed apps is never been used and also there are thousands of rarely downloaded apps on mobile platforms. In this context, investigating the factors influencing the behavioral intentions to use mobile apps and finding out what make some apps popular are important research areas for scientists as well as practitioners. This study integrates constructs from the technology acceptance model (TAM), theory of planned behavior (TPB), unified theory of acceptance and use of technology model (UTAUT) and the uses and gratifications theory (UGT) into a new theoretical model and tests them. The study was conducted by using a structured questionnaire to collect data from 1654 student respondents from a large state university. The theoretical research model was tested with structural equation model (SEM).

KEYWORDS

Mobile Apps, Model Suggestion, Structural Equation Modeling (SEM), Technology Acceptance Model (TAM), Uses and Gratifications

INTRODUCTION

The demand for access to information and applications through mobile technologies is rising as time passes. Although some researchers are describing technology as a blessed phenomenon, since it makes our lives easier in many ways, pessimistic investigators are drawing attention to the technology production, transfer, and consumption issues. In this context, discussions on mobile applications (apps) have been intensified, as along with the usage of smartphones. At the beginning of mobile app revolution, academic studies were more about development issues and technological infrastructure; but today with the penetration of mobile apps and the changes they caused in our daily lives, researchers from social sciences also started to work on various perspectives of mobile app usage.

Understanding, especially for youngsters' mobile phone usage characteristics, plays an essential role in forming policies and regulations towards this segment of the general population. Mobile phone usage in Turkey has increased by 30% in the first quarter of 2018 in Turkey, and the acceptance rate among teenagers has also dropped even to 18 to 24 years of age group[1]. Fast increasing acceptance and usage rates among youngsters could cause a range of problems from health issues to traffic

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accidents. Hence, it is important to understand and even control teenage usage and acceptance of mobile equipment, especially phones by this group of society.

Mobile apps, which are specially developed for these devices, make smartphones and tablets more versatile, functional, convenient, and personal (Tractinsky and Lowengart, 2007). Due to the nature of the technology market, change is accelerating with each passing day, and this also increases the variety of technology applications integrated into daily lives. In order to become the leader in the mobile technology market, accurate detection of the target audience and functional analysis of prospects play an essential role.

Speed of change makes time management crucial for enterprises (Viardot, 2004). Enterprises are required to achieve faster market penetration to be the winner. On the other hand, the dynamic structure of the mobile communication market causes changes in the acceptance process of new goods; consumer behavior seems different than traditional product life cycle (Parasuraman and Colby, 2001).

Mobile applications initially developed for standard requirements, and most of them are intended to make life simpler and practical (Porat and Tractinsky, 2008). The fact that every user has unique expectations makes it so challenging to develop and deliver the "right" app to customers. As several reports and surveys show, mobile users have far higher expectations of mobile apps when compared to other software like browser applications. Correspondingly, the number of mobile apps is increasing as the consumer expectation of mobile apps enhances (Namlı, 2010).

These technological changes are taking place not only in terms of communication technology markets and production processes but also have significant effects on consumption processes. Especially, the rapid penetration of information and communication technologies (ICTs) creates a new generation and a consumer group born into this technology. Perceptions, experiences, and interactions of today's youth take place in cyberspace, and they take advantage of new technologies to express themselves and to reveal their identity (World Youth Report, 2003). Digital technologies are changing completely the way young people learn, think, share, communicate, and socialize (Ito et al., 2008). Young people play an essential role in technology diffusion and acceptance. Hence, successful mobile app developers should be aware of young people's expectations and the factors that facilitate their acceptance of new technologies. Therefore, this study is conducted on a large group of young college students.

It is thought that the research has important contributions both in theory and practice. The study results have the potential to contribute to the literature on mobile applications as well as on the acceptance of these innovations by young people. There are minimal number studies in Turkey on Uses and Gratifications Theory, Technology Acceptance and Theory of Planned Behavior (Girgin, 2003; Clean it and Yashin, 2009; Urai, 1992; Uzkurt, 2007; Özata, 2009). Therefore, in addition to guiding researchers who want to use the Uses and Gratifications Theory, Technology Acceptance and Planned Behavior Theories, this study will provide a theoretical basis for the acceptance of mobile applications in terms of their results and for the studies conducted with young people. The study reorganizes the Technology Acceptance Model thanks to the addition of variables that can be effective for university students to adopt mobile applications. A more in-depth understanding of youth-specific characteristics will be possible through a more detailed discussion of the variables for young people.

In the literature, it is seen that there is not a reliable and valid scale that can be used within the scope of usage studies for mobile applications. One of the most widely used scales in the field belongs to Davis (1986), but this scale was developed for the purpose of adopting technology devices. Mobile applications differ from technological devices in terms of cost-effectiveness, ease of ownership, or ease of removal. Within the scope of the study, valid and reliable scales that can be used for usage studies will be developed. These scales can be used directly or with some corrections in the studies to be carried out within the scope of acceptance of different mobile applications. Thus, the need for tools for measuring the perceived features of mobile applications will be met to some extent.

This study is important to determine the factors that are effective in the acceptance of mobile applications. The study evaluated a more general point of view, it is seen as necessary for understanding