

Analyzing Movie Viewers' Intention of Using Smartphones as Movie-viewing Media

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Abstract. This study examined movie viewers' intentions to use smartphones when they watched movies. We used the results of an interview to investigate movie viewers' behaviors and characteristics. We adopted the results of Q methodology that showed four different types of groups. We investigated movie viewers' intentions by employing the Technology Acceptance Model (TAM) and a Structural Equation Modeling (SEM). The results showed that the four categories had different characteristics.

Keywords: Smartphone, Q Methodology, Technology Acceptance Model

1 Introduction

The studies about users' motivation in media use acknowledge that one of the important factors in media selection and use is the individual's dispositional ones [1]. The purpose of this study is to present how different media user's intentions for watching movies are, and what significations their differences indicate. Therefore, this study is to analyze the user's intentions of adopting smartphones as the media devices for viewing movies by investigating user's media selection and use.

2 Literature Reviews

2.1 Dependent Variables in TAM

Davis et al. (1989) discovered that different external variables could exist according to characteristics of information technology or levels of analysis while presenting perceived ease of use and perceived usefulness as major variables of TAM [2]. The characteristics of consumers' innovativeness have been critical in determining the diffusion of new products or services [3]. Self-efficacy has been defined as one's capabilities to mobilize the motivation, cognitive resources, and course of action needed to meet given situational demands [4]. Compatibility is the degree to which an

innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters [5]. Service quality is an elusive and abstract construct that is difficult to explain and measure [6].

2.2 Independent Variables in TAM

TAM, proposed by Davis, is based on constructs and relationships in the theory of reasoned action [8]. It posits that behavioral intentions to use an IT are determined by an individual's attitude towards using the IT, as well as beliefs the user holds about its perceived usefulness. According to TAM, user's attitude towards using information technology is affected by two beliefs: perceived ease of use and perceived usefulness. Attitude, in turn, is determined by perceived usefulness and perceived ease of use [7].

Perceived usefulness is defined as the degree to which a person believes that use of a system would improve his or her performance [8]. Accordingly, perceived usefulness taps into the instrumental outcomes a user associates with technology use [7]. TAM posits that perceived usefulness will be influenced by perceived ease of use because, other things being equal, the easier a technology is to use, the more useful it can be [8].

Perceived ease of use refers to the degree to which a person believes that using a particular system would be effortless [8]. Even though both perceived ease of use and perceived usefulness are significantly correlated with intentions, Davis's findings suggest that perceived usefulness and attitude collectively mediate the effect of perceived ease of use on behavioral intentions [7]. The model has been shown to have good predictive validity for both initial adoption as well as continued use of a variety of information technologies [8] [9].

3 Research Model and Hypotheses

3.1 Research Model

This study focuses on analyzing users' intentions to use movie viewing devices by investigating their media uses. Using an expanded technical acceptance model, this study employed the perceived usefulness and perceived ease of use of TAM as parameters which have shown accumulative and consistent results (fig. 1). In order to examine users' intention, this study confirmed the external variables of TAM for interpreting usage intentions and compared the influence of those variables for each type.

3.2 Research Hypothesis

This study proposes the following hypotheses based on the results of previous researches.

- H1a: Movie viewer's innovativeness has positive effects on perceived usefulness of watching movies on various media devices.
- H1b: Movie viewer's innovativeness has positive effects on perceived usefulness of watching movies on various media devices.
- H2a: Movie viewer's self-efficacy has positive effects on perceived usefulness of watching movies on various media devices.
- H2b: Movie viewer's self-efficacy has positive effects on perceived usefulness of watching movies on various media devices.
- H3a: Movie viewer's compatibility has positive effects on perceived usefulness of watching movies on various media devices.
- H3b: Movie viewer's compatibility has positive effects on perceived usefulness of watching movies on various media devices.
- H4a: Movie viewer's perceived service quality has positive effects on perceived usefulness of watching movies on various media devices.
- H4b: Movie viewer's perceived service quality has positive effects on perceived usefulness of watching movies on various media devices.
- H5: Movie viewer's perceived usefulness has positive effects on intention to use various media devices.
- H6: Movie viewer's perceived ease of use has positive effects on intention to use various media devices.

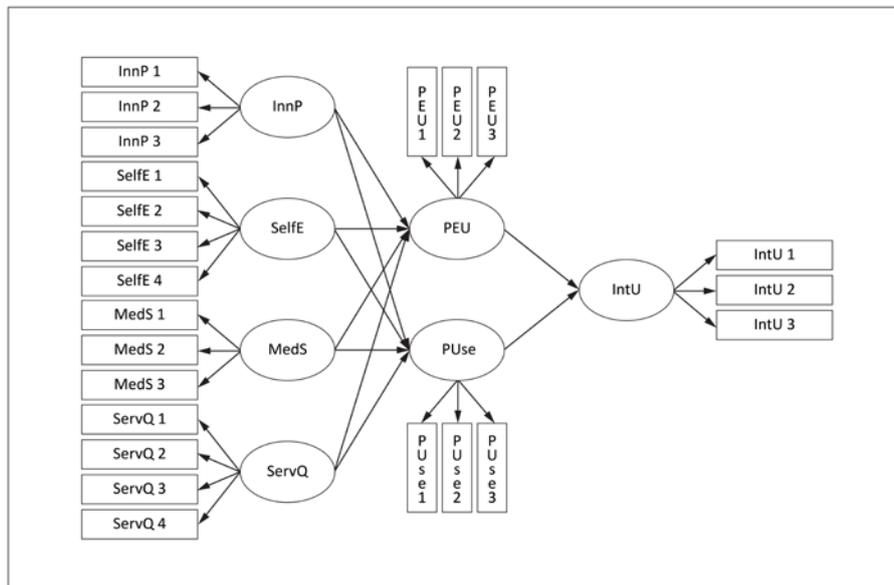


Fig. 1. Research Model

4 Method

Prior to the beginning of the survey, the validity and the reliability of questionnaires were confirmed by a pilot survey. The survey items which were not clear to respondents were modified through the survey referring to references. Users who had experiences in watching movies through various media devices including smartphones aged 15 or older residing in Korea were gathered for each type by a quota sampling method. In total, 899 respondents completed the survey until each type respectively became more than 100 respondents. Among them a total of 400 data coming from each of the 4 types were analyzed.

5 Results

This study examined the distribution of the users in each type produced by Q methodology in order to comprehend characteristics of users and how many users belong to each type. This study developed a theoretical model that explicated users' behavior employing an extended TAM in order to verify the results of each type. The partial least square (PLS) approach was employed to evaluate and validate the model hypothesized in this study.

6 Conclusion

This study examined intention to use various devices including smartphones as movie viewing media devices with the sample classified by users' perceptions and their experience. Verifying the differences by type, an extended TAM was employed and the model indicated that compatibility had an effect on perceived ease of use and service quality had effects on both of perceived usefulness and perceived ease of use. Perceived usefulness and perceived ease of use had respective effects on the intention to use showing statistical significances. Thus, the research model of this study supported the results of user classification by type, demonstrating that the users' intention could be accounted for structurally.

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