

Park, JongHyun; Kim, MoonKoo

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The factors influencing the non-usage of smart TV services by Korean buyers

JongHyun Park, MoonKoo Kim

Electronics and Technology Research Institute, 218 Gajeongno, Yuseong-gu, Daejeon, 305-700, Korea.

E-mail: [stephanos, mkkim]@etri.re.kr

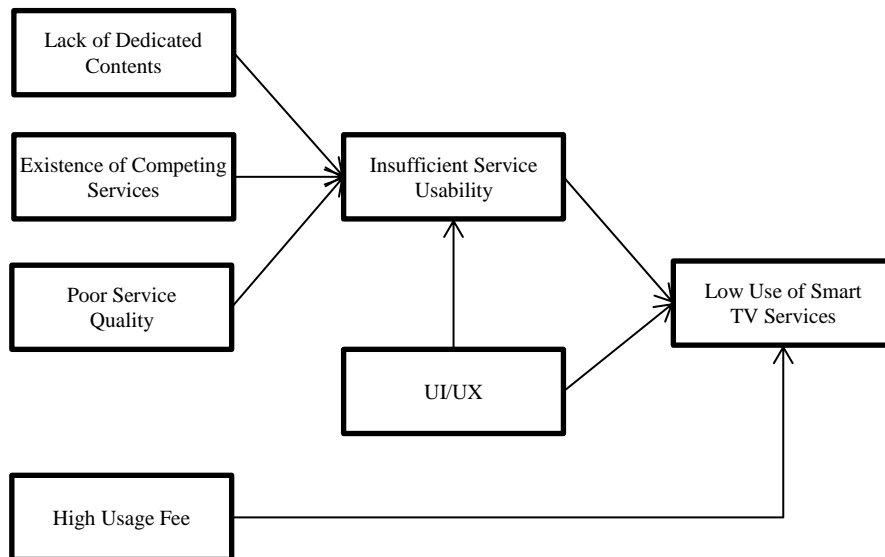
1. Research Background and Problems

The sales of smart TV's, which provide various applications, such as being able to browse the Internet, access multimedia, and play games, by combining the TV and Internet, have been rapidly growing since the early 2010's (Bae and Chang, 2012). According to reports by major global research organizations and market survey agencies, most TV sets are expected to provide smart TV functions by the 2020's (Kim and Park, 2011). In Korea, the distribution of TV terminals is fast accelerating as indicated by more than 50% of TV sets sold recently included the smart TV functions (*Electronic Times*, 2013). The quick dissemination of smart TV sets is mostly attributed to the manufacturers' strategy of building in the essential smart TV functions and the rapid price decline of smart TV sets.

However, a study by the Electronics and Telecommunications Research Institute (ETRI) in 2013 indicated that fewer than 10% of smart TV owners in Korea used the smart TV service once or more per month. Although many consumers purchase the smart TV sets, fewer than 30% actually used the service once or more (ETRI, 2013). In other words, although the smart TV sets are quickly disseminated, the use of the smart TV services remains very low. As such, this study focused on the research problem of, "Why do people not use the smart TV services even after purchasing the smart TV sets?"

2. Research Model and Method

This study established the research model show below in order to investigate the influence factors of not using the smart TV services in Korea.



(Research Model)

To set up the research model, this study intended to applying the information technology acceptance model (TAM) first (Davis, 1989). Its purpose was to confirm that the insufficient service usability and lack of UI/UX were the primary reason for low service usage. Based on that, the lack of dedicated contents, the existence of competing services, and poor service quality were set up as the research construct to influence the insufficient service usability. Moreover, the study wanted to understand the relationship between the smart TV service usage fee and the intention to use the service. This research model referred to the earlier study of factors affecting non-acceptance of another service (Kim et al., 2013).

For this study, 700 people aged 15-49 who are residing in metropolitan cities in Korea were surveyed in the second half of 2013. The survey was conducted through face-to-face interviews by a survey agency. SPSS and S-PLS were used to statistically analyze the survey results and to develop the structural equation model.

3. Research Results

The basic statistical analysis indicated that the primary reasons for low smart TV usage in Korea were the ① insufficient usability and ② poor user friendliness. Moreover, the insufficient usability was caused by the ① insufficient dedicated contents, ② the existence of competing services, and ③ poor service quality. In Korea, the service fee was not a factor for the low usage of smart TV services. The demographic statistical analysis showed that the insufficient dedicated contents were the particularly more significant factor of insufficient usability for the younger generation, while the existence of competing services was the case for the older generation. The study indicated that the development of contents that are specialized for smart TV, strengthening the differentiation from IPTVs and mobile TVs, and providing stable service quality were the most important factors for promoting the usage of smart TV services.

The result of this study is significant in that it identified the influencing factors to promote smart TV usage in Korea and other countries as well, as it presented the implication that there are hardly any preceding studies concerning the proliferation and usage of smart TVs.

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