Simultaneous Use Probability of Mobile Internet and Other Media by Multivariate Probit Model

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According to a report of 2008 Japanese government, the percentage of the contracts of mobile phones in Japan has reached 85.6%, which shows a popularity of accessing to information anytime, anywhere by Japanese people. Under these circumstances, marketing vehicle to approach consumers via multiple media such as a combination of TV and mobile Internet is getting very popular in Japan.

The purpose of our research is to find out factors to influence on simultaneous use of mobile Internet with 11 kinds of media especially focusing on "amusement services" and "study information services" that were chosen among 21 kinds of mobile information services. Those services have mostly penetration rates of around 70% except "E-mail with pictures" and there are still possibilities of further market expansion in the near future. A simultaneous use probability of mobile Internet and other media is estimated by using Bayesian Multivariate Probit Model that is suitable for the analysis on individual users' behavioral patterns.

The results provide efficient approaches to the consumers of mobile information services and will contribute to further expansion of mobile information service market. The results of our research have shown which explanatory variables of potential customers have influence on which simultaneous use of mobile Internet with other medium in which direction. By using appropriate pair-wise advertisement vehicles, improvements of accessibility to potential customers can be achieved. Moreover, since it became obvious that customers have a variety of information service needs and diversities of simultaneous use of a pair of media among customers were observed, customer segmentation by needs as well as by simultaneous media uses appears to be necessary.

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