Predicting empirical patterns in viewing Japanese TV dramas using case-based decision theory

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Abstract
This article empirically analyzes consumer behavior of viewing TV dramas via case-based decision theory. The theory deals with an economic situation with structural ignorance, in which characteristics of goods are not known a priori for consumers. In the theory, consumers make decisions based on subjective evaluations of previous purchases for similar goods. Our empirical analysis is concerned with getsuku, the Japanese TV dramas broadcasted at 9pm Monday by the Fuji Television Network. The regularity of the schedule and the long-sustained popularity of the program enable us to collect consumer data easily. Then, we conduct a web survey of individual audiences on subjective evaluations of previously watched dramas. For empirical analysis, we utilize a simple linear model of the case-based model that allows the incorporation of flexible inference techniques. Our results demonstrate better performance by the case-based models regarding both statistical model selection and one-step-ahead prediction than traditional probit models for expected utility. We also reveal that the good performance of the case-based model in our analysis depends on the availability of individual subjective evaluations and that it is difficult to replace the individual-specific information by demographic information and aggregate data.

Keywords: Case-based decision models; TV audience rate; Japanese getsuku drama; Web survey; Kimutaku