

## **Report of Independent Study**

**Abstract:** A click-stream data analysis of an archived Mass Online Open Course (MOOCs) is conducted at the first place, in which we propose a time-varying quantitative approach to differentiate students' online behavior patterns. By comparing social-related activities and content-related activities of different participants' groups, we noticed that participants focus more on content-related activities than social-related activities. In order to understand participants' intention behind such behavior, a follow-up study is conducted, adopting the framework of Technology Acceptance Model (TAM). Two streams of external variables (Content-Related variables and Social-Related variables) are set up as antecedents of intentions to use MOOCs. With the survey results of 143 participants, structural equation modeling (SEM) is conducted. The SEM results reveal that 1) Content-Related variables (Content Difficulty and Reputation) are important determinants of participants' intention to use MOOCs and 2) Social-Related variables (Social Influence and Interactivity) is less significant in contribution to participants' intention to use MOOCs.