## A CONFIRMATORY FACTOR ANALYSIS OF CUSTOMER SATISFACTION WITH INTERNET BANKING

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## **ABSTRACT**

While internet banking has become a necessary service in the competitive banking industry of Taiwan, customer satisfaction and retention of internet banking are critical issues for its success. Based on Doll and Torkzadeh's (1988) end-user computing satisfaction (EUCS) instrument and safety issues of Internet, Hwang et al. (2007) proposed a second-order factor model for measuring customer satisfaction with internet banking (IBCS) and that model consisted of six first-order factors (content, accuracy, format, ease of use, timeliness, and safety) which were measured by 18 items, where the second-order factor was interpreted as IBCS. The purpose of this study is to use confirmatory factor analysis for completing a research cycle in developing a standardized measurement for confirming IBCS proposed by Hwang et al. (2007). This research follows the procedures used by Doll et al's (1994) study in confirming EUCS measurement. According to theoretical foundations or empirical work of EUCS and IBCS, four feasible IBCS models, including one first model factor, six first-order factors (uncorrelated), six first-order factors (correlated), and six first-order factors and one second factor, were proposed.

A web survey on internet banking users of Taiwanese banks as the subjects was undertaken. A total of 213 valid questionnaires were obtained at a ninety-one percent response rate. The proposed alternative models were evaluated by the LISREL VIII with the collected data through several appropriate goodness-of-fit indexes. Then, the six first-order factors and one second factor was selected the most suitable model as the representing IBCS model and then its reliability and validity were evaluated. Coupled with this rigorous and systematic confirmatory study, this valid measurement can now be used as a standardized instrument of customer satisfaction with internet banking. This study reaffirms the EUCS instrument is still valid for internet banking in Taiwan and the IBCS instrument heavily depends on considerations of internet safety. Furthermore, the results also provide practical guidelines for the design and implementation of internet banking regarding the concerns with its content, accuracy, format, ease of use, timeliness, and safety.

**Keywords**: Confirmatory factor analysis, Customer satisfaction, Internet banking, Safety