Scale development and long-term and short-term performance effects of knowledge management with information technology: Examining industry-level and firm-level effects

## **ABSTRACT**

The relationship between knowledge management (KM) and firm performance has been the subject of some discussion in information systems literature. However, direct links from KM to firm performance have been hard to find. This lack of linkage between KM and firm performance resulted in some further research into the intermediate organizational variables through which KM could influence firm performance. However, the results of these researches were ambiguous. Some researches found a significant link between KM and firm performance while others did not. Therefore, in order to better understand the effect of KM on firm performance, the present study focuses on the performance effects of KM with information technology (IT) support.

The goal of this study is to examine the long-term and short-term performance impact of KM with IT support (KMIT) on firm performance. In addition it interprets the performance effects of KMIT regarding the impact of industry-level and firm-level factors on sustainable competitive advantage. We explore this issue by referring to the respective assertions of three major theories: the knowledge-based view of the firm, Spanos and Lioukas's model, and strategic alignment model. We propose a composite framework based on the causal logic of these theories, and explicitly modeled the mechanisms of rent generation. We apply this composite framework to guide our research for developing the model and hypotheses, and to examine the performance effects of KMIT. Data from Taiwan's manufacturing firms provide empirical support for these hypotheses. The SPSS, AMOS, and PLS software solution will select to validate the measurements and the structural properties of the proposed research model.

**Keywords:** Information technology; Knowledge management with information technology support; Industry characteristics; Competitive strategy