IT-ENABLED ORGANIZATIONAL AGILITY AND FIRMS’ COMPETITIVE SUCCESS

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Abstract

Organizational agility has recently received a great deal of attention as it is seen as a significant business capability which allows firms to respond flexibly to today’s rapidly changing business environment. However, it is still unclear as to how and why specific information technology (IT) investments can enable organizational agility and thus lead to a firm’s long-term competitive success. This dissertation study aims to explain the underlying mechanisms of IT-enabled agility creation and its impact on a firm’s sustainable competitive advantage. The study tests a set of hypotheses developed from a specific theory-based model.

In particular, the study examines how firms can create organizational agility through their use of various IT resources. For this, drawing upon organizational rent-creation mechanisms and the theory of exploration and exploitation, the idea of organizational IT capability, a capability to deploy and utilize IT resources, was conceptualized in terms of its strategic focus, i.e., explorative IT capability versus exploitative IT capability. Various types of IT resources were also identified by adopting well-established IT resource classification schemes in the literature. Based on this conceptualization, specific relationships between different types of IT resources and IT capabilities were proposed. In addition, the study took into account specific complementary relationships between IT capabilities and operational capabilities within a firm as additive sources of organizational agility. Moreover, by reflecting on the polymorphous aspects of organizational strategic responses to environmental dynamics, the study differentiates two types of agility, namely, entrepreneurial agility (anticipating and proactive) and adaptive agility (sensing and reactive). In this light,
this dissertation study aims to understand how and under what situations specific complementary relationships between IT capabilities and operational capabilities can enable these two types of agility, thereby leading to a firm’s sustainable competitive advantage.

The proposed model was tested through a large-scale field survey with multiple respondents and secondary data collection. The results of structural equation model analyses indicate that specific IT resources are significant driving forces behind each type of IT capability. The results also indicate that specific complementary relationships are the significant driving forces behind each type of agility: (1) the complementary relationship between *explorative IT capability* and *operational innovation capability* enables *entrepreneurial agility*; and (2) the complementary relationship between *exploitative IT capability* and *operational excellence capability* enables *adaptive agility*. The two types of IT-enabled agility are found to be significant in leading to sustainable competitive advantage while their impacts on the three aspects of sustainable competitive advantage, i.e., *profitability*, *competitive position*, and *barriers to erosion*, differ. The environmental contingency model analyses further reveal that different types of agility may be required under different environmental dynamisms; while entrepreneurial agility is a better determinant of sustainable competitive advantage under a highly-dynamic environment, adaptive agility is a better determinant of sustainable competitive advantage under a moderately-dynamic environment.

Implications of the findings are discussed with several alternative explanations for some inconsistent and unexpected results.
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