

# WHEN DO INFORMATION TECHNOLOGY CAPABILITIES LEAD TO ORGANIZATIONAL AGILITY?

## Abstract

As agility becomes a significant organizational capability, the role of information technology (IT) in creating this high-level capability has become a critical issue of interest to both academics and practitioners. This research examines how and under what situation firms can achieve organizational agility through their use of IT. For this, organizational IT capability, a capability to deliver IT services and products through IT deployment and utilization, was conceptualized and differentiated in terms of its strategic focus, i.e., explorative IT capability versus exploitative IT capability. Their distinctive roles in creating organizational agility are examined in conjunction with environmental contingency. This research also identifies various types of IT resources that are associated with this IT-enabled agility creation. Data from a large-scale field survey with multiple respondents supplemented with secondary data are utilized to test a model of the relationships among IT resources, IT capabilities, organizational agility, and environmental dynamism. The results of a structural equation model analysis indicate that while both types of IT capability enable organizational agility, their impacts vary under different levels of environmental dynamism. Moreover, while the results also indicate that the two types of IT capability are formed by individual IT resources, our further post-hoc analysis reveals that each IT resource has a specific role in forming the two types of IT capability under different levels of environmental dynamism. These findings provide a better understanding of the strategic role of IT in contemporary businesses.