How Does Strategic Alignment Affect Firm Performance? The Roles of Information Technology Investment and Environmental Uncertainty

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Abstract

The alignment between a firm’s business and information technology (IT) strategies continues to be important for research and practice. Prior research investigating the performance consequences of strategic IT alignment (SITA) has produced inconsistent results. This paper distinguishes between two roles of SITA: (1) as a state of congruence between business and IT, which is the primary focus of empirical studies, and (2) as reflecting a capability that may enable or inhibit the leveraging of IT investments, as has been discussed theoretically but not examined empirically. Based on the resource-based view (RBV), IT investment (ITI) is explicitly included as the resource that SITA as a capability can inherently help leverage. Also based on RBV, we argue that environmental uncertainty, which is examined in terms of dynamism, complexity, and munificence, moderates the effect of SITA on the relationship between ITI and firm performance. The research model is tested through panel-data analyses of data from 1999–2008, including 758 firm-year observations from 242 firms. This study is the first to find that SITA as a state directly improves firm performance even when considering ITI and its interaction with SITA. Moreover, the effect of the interaction between SITA and ITI on firm performance increases with an increase in environmental dynamism or complexity and with a decrease in environmental munificence. We also find that the effect of the interaction between SITA and ITI can be negative under some environments. Specifically, the results suggest that (1) in dynamic, complex, and hostile environments, SITA does reflect a capability that enhances the positive effect of ITI on firm performance, but (2) in stable, simple, and munificent environments, SITA reflects a rigidity that reduces the positive effect of ITI on firm performance. The results are robust under a variety of statistical specifications and estimations.

Keywords: Strategic alignment, information technology investment, firm performance, environmental uncertainty, strategic planning, information technology strategy, panel data.