

A contingency theory of representational complexity in organizations

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Abstract

A long-standing question in the organizations literature is whether firms are better-off by using simple or complex representations of their task environment. We address this question by developing a formal model of how firm performance depends on the process by which firms learn and use representations. Building on ideas from cognitive psychology, our model conceptualizes this process in terms of how firms construct a representation of the environment and then use that representation when making decisions. Our model identifies the optimal level of representational complexity as a function of (a) the environment's complexity and uncertainty and (b) the manager's experience and knowledge about the environment's deep structure. We use this model to delineate the conditions under which firms should use simple versus complex representations; in doing so, we provide a coherent framework that integrates previous conflicting results on which type of representation leaves firms better-off. Among other results, we show that the optimal representational complexity depends more on the manager's knowledge about the environment than it does on the environment's actual complexity. We also show that there are more conditions under which simple representations outperform complex representations than vice versa.