

Gautam Ahuja
University of Michigan
Professor of Strategy

PRESENTATION: "RESOURCE INTERDEPENDENCE AND APPROPRIABILITY: A STUDY OF PRODUCT AND PROCESS INVENTIONS (with Puay Khoon Toh, University of Minnesota)"

ABSTRACT: We examine how building interdependence between a firm's activities enhances a firm's appropriation of returns to its inventions. The strategy literature has argued that higher levels of interdependence between a firm's activities can protect a firm from imitation and thereby enhance appropriability. We evaluate this argument recognizing that firms have access to multiple different mechanisms to enhance appropriability and increasing interdependence is just one of them. Specifically we examine three routes to appropriating value from your inventions described in the literature - building enhanced levels of interdependence between your activities, investing in substantial production capacity and building access to multiple markets. Using a new measure of interdependence based on textual coding of patent claims, we demonstrate that building increased interdependence between a firm's product and process inventions deters imitation and improves firm performance. However, this effect is most significant when the firm has more limited access to alternative scale-based mechanisms (production capacity, market access) for value appropriation. Further, firms systematically differ in their usage of these three different mechanisms in theoretically predictable ways and not all firms choose to use enhanced interdependence as a mechanism for increased appropriability. Thus, we develop a contingent model that identifies the limits to complexity and interdependence as a source of protection from imitation.