Technological Uncertainty, Buyer Preferences and Supplier Assurances: An Examination of Pacific Rim Purchasing Arrangements

Kirti Sawhney Celly*
UNIVERSITY OF CALIFORNIA—IRVINE

Robert E. Spekman**
UNIVERSITY OF VIRGINIA

John W. Kamauff***
PRICEWATERHOUSE COOPERS CONSULTING

We use the metaphor of the mutual assurance game to develop the notion that overseas suppliers may proactively manage uncertainty by making customized investments to serve their buyers. Using this game-theoretic conceptualization as a complement to the transactions cost analysis notion of credible commitments, we argue that such investments serve as assurances of commitment to the international buyer. The hypotheses are tested using data collected in a survey of U.S. purchasing managers regarding their relationships with their Pacific Rim suppliers. Consistent with our hypotheses, our primary results indicate that suppliers’ relationship-specific investments are greater when technological uncertainty is high and buyers value supplier responsiveness. Further, our results suggest that relationship stability and buyer information sharing are greater when supplier relationship-specific investments are greater. These results provide some support for our argument that in the face of technological uncertainty, overseas suppliers may unilaterally commit to their buyers in attempts to obtain reciprocal benefits that help them manage external uncertainty.

BACKGROUND

The rapid proliferation of international sourcing arrangements as companies search for cost and technical advantages in the Pacific Rim countries has captured the interest of both the academic literature and the business press. Research focused on reasons for
global sourcing (James and Weidenbaum, 1993; Moxon, 1975; Swamidass, 1993) suggests that mature U.S. multinationals use foreign affiliates for technology development (Mansfield and Romeo, 1984), and source from multiple locations (Kotabe, 1990). Research on the organizational contribution of sourcing strategies (e.g., Spekman, Kamauff and Salmond, 1994) has demonstrated a positive relationship between international sourcing and performance (Kotabe, 1990; Kotabe and Swan, 1994).

Besides its increasing incidence, substantial anecdotal evidence attests to the changing scope of international buyer-supplier relationships. Many companies have reduced their supplier base, shifting from a purchasing philosophy of multiple, arms-length, price-based transactional supply relationships to a few, relational, strategic supply relationships in which suppliers are integral to the firm’s overall competitive posture (Spekman, 1988; Watts, Kim and Hahn, 1992). The scope has changed to reflect enhanced supplier involvement in all phases of the production process, performance of functions historically considered too close to the buyer’s core business to be subcontracted, increased mutual interdependence (Lyons, Krachennburg and Henke, 1990), and enhanced information flows (Leenders and Blenkhorn, 1988).

The global competitive environment — with increasing product complexity, accelerating product life-cycles, and rapid technological change — heightens the importance of understanding why the scope of such international purchasing relationships has changed, and how such relationships are structured and managed (Fagan, 1991; Davis, 1993). One key set of issues involves assessing the impact of uncertainty on these relationships. Researchers have used transactions cost analysis (TCA) theory extensively, suggesting that buyers, when faced with uncertainty, will internalize supply, reasoning that the specialized investments required to support many supply relationships expose the partner making the investment to opportunistic behavior of the other partner. Such researchers also provide an argument for a viable alternative to internalization: Supply relationships may be stabilized by investments in specific assets made by both partners as mutual safeguards against opportunism (Contractor and Lorange, 1988). TCA implicitly views such relationships as prisoners’ dilemmas (Williamson, 1983), as do researchers who address

* Kirti Sawhney Celly is on the faculty at the Graduate School of Management at the University of California, Irvine. She will be an Associate Professor of Marketing at the College of Business Administration, California State University, Long Beach in the Fall of 1999. Her research interests are in international interorganizational relations and corporate citizenship issues.

** Robert E. Spekman is the Taylor Murphy Professor of Business at the Darden Graduate School of Business, University of Virginia. His research interests range from business-to-business marketing strategy, to alliance and partnership management, to procurement strategy and supply chain management.

*** John Kamauff is a partner with PriceWaterhouse Coopers, where he is part of their supply chain management practice. His interests include supply chain management, procurement strategy, and the impact of early supplier involvement on the new product development process.