

Chapter 60

Trust and Transaction Cost in Supply Chain Cost Optimization: An Exploratory Study

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ABSTRACT

The foundation of efficient and effective supply chain management rests on collaborative efforts by all parties involved in executing the supply chain optimization process. Every partner in the chain has to exercise its best effort to achieve the most efficient and effective results.

Research indicates that transaction cost can be reduced if partners practice trust-based collaborative supply chain operations. Studies also show that cooperation among and between potential supply chain partners sometimes can lead to collaboration if partners see an opportunity for mutual value creation. Collaboration may foster an environment conducive to building trust and form the basis for the first step toward making a tangible business commitment. As the level of trust within and outside an organization increases, speed of decision making increases, and subsequently, transaction costs decrease. The inverse is also true. Accordingly, trust and information sharing are central tenets of supply chains in reducing the transaction cost. As transaction cost decreases, total supply chain cost may also decrease making operations more competitive in the global market.

This chapter describes the relationship between trust and transaction cost in supply chain operations. Empirical findings from several research studies on trust and transaction cost in supply chain operations will be presented in support of the argument for managing transaction cost in supply chain management. A suggested future research agenda on this topic is also provided.

DOI: 10.4018/978-1-4666-2625-6.ch060

CONCEPT OF TRANSACTION COST THEORY

The tenet of transaction cost theory originally advanced by Coase (1937) is how the final price of goods and services is determined in the market. The theory argues that the final (optimum) price is determined in the market by “total cost.” Labor, materials and other related costs such as administrative cost, search for better information, etc. constitute “total cost.” In some cases, the transaction cost is sizeable. Indeed, North (1990) estimates that transaction costs may represent as much as 35-40% of the costs associated with economic activity. One recent study (Woolhandler, Campbell and Himmelstein, 2003) estimates that the average U.S. hospital devoted 23.4% of spending to administration.

Transaction costs, therefore, involve all of the costs associated with conducting exchanges between firms and can be decomposed into *ex ante* transaction costs (search and contracting costs), and *ex post* contracting costs (monitoring and enforcement costs) (Cheung, 1987; Williamson, 1981 and 2008; Hennart, 1993; North, 1990; Tadelis, 2007). Search costs include the costs of locating a desirable trading partner and then negotiating and writing a mutually acceptable contract. Monitoring and enforcement costs refer to the costs associated with monitoring the contract implementation and the procedures necessary to ensure that each party fulfills the predetermined set of obligations in the contracts. It is argued that if partners spend more time up front negotiating a mutually acceptable agreement, it is possible that this may reduce monitoring and enforcement costs because all of the expectations and obligations will have been clearly specified during the contracting phase (Dyer and Chu, 2003). Accordingly, they argue that any investigation into transaction cost should separate these types of transaction costs.

Many authors spend a considerable amount of time developing the transaction cost theory using external factors (e.g., Dyer and Chu, 2003, Williamson, 1981). Porter (1996), however, makes

a significant contribution to internal transaction cost determination through his work on value chain analysis. Value chain analysis enables a firm to determine their core competencies and those that provide the lowest cost. Value chain analysis provides valuable insight for the firm to determine how it can lower internal transaction costs and thereby reduce the total transaction cost of goods and services.

A key absence in transaction cost theory related to supply chain management is a unified concept that integrates transaction cost theory into supply chain principles (information sharing and sharing rewards and risks) This paper will add to the body of knowledge of transaction cost theory by closing the gap by linking the transaction cost theory to supply chain management.

ATTRIBUTES FOR LOWERING TRANSACTION COST

Above studies seem to recognize the roles of transaction cost in determining the optimum prices of goods and services in the market. Tasks to locate and develop appropriate tools to achieve such goal (reducing transaction cost) are challenging and complex. Two approaches will be highlighted in this paper; information technology (IT) and the collaborative working relationship among and between business partners.

Information Technology (IT) and Transaction Cost

IT has enhanced our ability to search for information to reduce the transaction cost. Searching for reliable information and monitoring for the negotiation processes using information technology such as the internet, website, EDI and other means of communications has considerably reduced the total transaction cost more than Coase (1937) never envisioned at the time he developed transaction cost theory.

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