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Abstract

The focus of this study is to establish an institutional economics framework of interorganizational cooperation specific to supply chain management. In contrast to transaction cost economics, an institutional economics approach uses social institutions to explain transactions. This theory develops a framework using the causal relationships of interorganizational trust, individualism and collectivism, and JIT/TQM on interorganizational cooperation. Moreover, JIT/TQM is hypothesized to exert a superordinate goal effect over interorganizational trust and individualism and collectivism on interorganizational cooperation. This theory poses a new paradigm to explain the uneven adoption of interorganizational cooperation practices in the industrialized, newly industrialized, and post-communist societies.

Key words

Cooperation, institutions, individualism and collectivism, JIT, superordinate goal, TQM, trust.

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Introduction

Since their introduction to the European countries and the United States from Japan in the 1980s, interorganizational cooperation between buyers and suppliers has provided lower costs, shorter development and production cycles, higher quality, and other interorganizational synergies (e.g., Ansari & Modarress, 1986, Schonberger, 1982). Womack, Jones, and Roos (1990) identified the transition from adversarial supplier relations to interorganizational cooperation in the industrialized nations as a major improvement for organizational competitiveness. The principal purchasing philosophy change consisted of more cooperative, interdependent, and long-term relationships.
Interorganizational cooperation may also serve as a potential vehicle for economic development in post-communist societies in Central and Eastern Europe, such as Romania, as well as in less developed countries, such as Mexico and Argentina. According to Hirschman (1958), key industries support a nation's or region's economic development by forging links between suppliers and buyers. Little is known, however, of interorganizational cooperation in nationally owned and managed firms in post-communist and less developed countries. Interorganizational cooperation may be practiced in these countries largely by foreign firms only, and the expected synergies from a multilevel supply chain may not exist.

Some of the resistance to introducing interorganizational cooperation in post-communist countries may be due to cultural factors. Nishiguchi (1994) contended that Japanese culture had a major effect on the formation of interorganizational cooperation in Japan during the mid-1960s. Lewis (1995) stated that the evidence of a widespread interorganizational cooperation philosophy in Japan, however, might be illusory, because interorganizational cooperation may occur exclusively among members of the same kereitsu and traditional adversarial relationships practiced with non-kereitsu members. Lewis further affirmed that cultural factors in the United States and Western Europe might be more conducive to the formation of interorganizational cooperation than in Japan. He observed that Western organizations cooperate to a greater degree than do the Japanese.

As organization and development strategists in post-communist and less developed countries attempt to gain increased efficiency in their operations and attempt to introduce interorganizational cooperation relationships, the question concerning their causal factors arises. The probable causal factors consist of interorganizational trust, culture, and the need for reliable, high-quality, and efficient suppliers may provide partial answers. Research on these causal factors in post-communist and less developed countries, however, is limited. The principal question of this research, therefore, is to propose an organizational level theory of interorganizational cooperation that links the principal causal factors leading to the formation of interorganizational cooperation in post-communist and less developed countries.

The Search for an Organizational Level Theory of Interorganizational Cooperation

In the search for an organizational level theory to explain the phenomenon of interorganizational cooperation, a major quandary arises in the choice of the underlying theoretical framework. A framework that ignores social factors, such as trust and cultural norms, provides an inadequate explanation for interorganizational cooperation. A more systematic approach should include social forces (Fukuyama, 1995). Economic theory is incomplete without a social systems component (Parsons & Shils, 1951), and institutional economics provides a more complete view of organizational phenomena (Sjöstrand, 1993).

Transaction Cost Economics Theory
Transaction cost economics (TCE) theory (Williamson, 1981), is a common research framework used to study the interorganizational cooperation phenomenon. TCE theory deals with the relationship between transaction costs, governance structures, and exchange factors. Transaction costs refer to the costs assigned to the exchange of a good or a service between two parties. Governance structures relate to the principal modes of material acquisition, known as hierarchical and market structures. These structures correspond to the make and buy decisions, respectively.

Exchange factors relate to the frequency, level of uncertainty, and asset specificity inherent in a transaction. Generally, increased frequency of exchange and dedication of organizational assets between two parties, coupled with decreased uncertainty, lead to more cooperative market exchanges (Williamson, 1981). High-quality materials, for example, reduce transaction costs as the buyer’s quality inspection costs decrease. Based on these premises, interorganizational cooperation is characterized as a cooperative market structure in which frequent exchanges lead to higher asset specificity and subsequently to lower transaction costs.

The major theoretical problem with TCE lies in its omission of social factors to explain interorganizational cooperation. To partially accommodate social factors, TCE operates within a set of boundary assumptions concerning human nature. A major assumption underlying the Williamson (1981) thesis portrays all humans as untrustworthy. Under this thesis, trust is merely a calculative approach to securing cooperation. TCE ignores the altruistic nature of individuals and the shaping role that a society’s environment exerts on altruistic trust. Moreover, TCE is also based on other neoclassical economic assumptions wherein all economic actors are considered rational and opportunistic.

TCE is criticized for ignoring the governing role of social factors on transactions among individuals and organizations observed in the real world (Arrow, 1975; Elster, 1990; Mansbridge, 1990; Tversky & Kahneman, 1990). In other words, TCE, as a theory, performs an incomplete job of explaining interorganizational cooperation (Ghoshal & Moran, 1996).

**Institutional Economics Theory**

In the theoretical foundation of this research, institutional economics theory is proposed as a superior explanation of interorganizational cooperation. An analysis of institutions approach removes the assumption that individuals are calculative and motivated by a constant level of self-interest and opportunism. Institutional economics is based on the understanding of human motivation and behavior. According to North (1990), informal institutions, consisting of social values and behaviors, influence a society's organizational structures and their economic performance. In this section, institutions and institutional change are explained followed by an introduction the total costs of production equation.

**Institutions and Institutional Change**

North’s (1990) treatise on institutions and institutional change attempted to explain how institutions profoundly influence the structure of organizations. Institutions are analogous to the rules of a game. They provide the standards, constraints, and boundaries for human
interaction (Sjöstrand, 1993). Institutions may be informal or formal. Informal institutions consist of the values, beliefs, rituals, customs, and paradigms held by a group of people. These informal institutions are not codified but are taught and learned in informal situations. They are commonly held conventions, but specific measurements and enforcement rules are avoided (North, 1990).

Informal institutions used frequently over time eventually become codified as formal institutions. Frequent use by a large segment of a society leads to an awareness of their existence, and their subsequent formalization. Formal institutions consist of systematic laws and procedures used to facilitate transactions. Formal institutions often deal with compliance costs to increase certainty in transaction outcomes. Kiser and Ostrom (1982) posited that institutions, formal and informal, are most suited to controlling recurring behaviors.

Informal institutions represent social factors that are often unnoticed yet have a pervasive influence on exchange between humans. The focus of this thesis deals largely with the unwritten but commonly held values and behaviors in a society. In summary, institutions determine the structure and performance of organizations found in a society. It is within and among organizations that people conduct transactions. Furthermore, an organizational structure developed under one institutional framework or society may not be as efficient in the way it conducts transactions when transferred to a dissimilar.

Total Costs of Production Equation

North (1990) also provided a simple formula to illustrate the role of institutions on transaction efficiency. In this equation, he stated that the total costs of production is equal to the sum of transformation costs and transaction costs. In this symbolic representation, transformation costs are defined as the cost of processing the physical characteristics of inputs, such as labor, materials, capital, and energy and is concerned primarily with objective changes in size, shape, color, as well as other tangible aspects. North then defines transaction costs as the costs associated with defining, protecting, and enforcing property rights. Transaction costs are incurred, for example, when inspecting quality and enforcing contracts. North characterized this total costs of production method as the University of Washington methodology based on the work of Steven Cheung (1974) and others at the aforementioned school.

Transaction costs account for a large portion of the total costs of production. In their research of the U.S. economy, Wallis and North (1986) found that transaction costs accounted for 45 percent of national income in 1970, growing from a 25 percent share as measured in 1870. They defined organizational activities, such as wholesaling, trade, banking, and insurance, as well as by measuring individual careers, such as accountants, lawyers, and salesmen as measures of transaction costs. Moreover, North (1990) explained that a high degree of uncertainty, created by unfavorable institutions, increased the cost of transactions.

Organizational Level Institutional economics Framework
North (1990), however, did not elaborate on any specific institutional constructs in his framework. Kiser and Ostrom (1982) criticized institutionalism for failing to be more specific about institutions and the particular role an institution exerts on organizational structure. Coleman (1990) elaborated that institutionalism’s framework requires a microlevel explanation of how institutions actually work.

An Institutional Theory of Cooperation

Considering institutionalism’s macro view as one of its principal limitations, this research proposes the development of an organizational level institutional economics framework in which specific constructs are employed to predict interorganizational cooperation along the supply chain. The constructs used in this theoretical framework consist of interorganizational trust, individualism and collectivism, and the superordinate goal of just-in-time/total quality management (JIT/TQM).

Interorganizational Cooperation

Cooperation has been described by a variety of theorists. It represents the union of two or more entities, leading to a more complex combination, which has a greater chance of surviving environmental forces than as separate entities. Kropotkin (1902) extended Darwin’s theory of natural selection to include cooperation among living and social systems. Mead (1937), in studies of living primitive societies, found that cooperative social organization leads to higher affluence not found in a solely competitive social organization. In a political-historical analysis of civilizations, Eisler (1988) found variations between the social dominator model, in which societal exchange is carried out in hierarchical and competitive relationships, and the social partnership model, in which exchanges are made through cooperative relationships. Eisler’s framework is included in the biblia of women’s studies and provides an explanation of male-dominated versus male-female shared-power societies through history. Proponents of sociobiology, in a different approach, view cooperation as a genetic survival trait (Bateson, 1988). In the sociobiological paradigm, cooperation is found among relatives because extended family groups survived over individuals who did not cooperate with family and tribal members. In sociobiology, cooperation is also considered an evolved trait among humans and other life forms (Nowak, May, & Sigmund, 1995).

These approaches to cooperation are varied; they place cooperation in historical and ahistorical contexts, at macro- and microsocial settings, and as genetic and learned behaviors. This research approach specifically relies on what Campbell (1975) termed as a sociocultural explanation for cooperation. His framework rests on variation, selection, and retention of behaviors over time. In essence, variation provides the mutations or trials of behavior that provide for the adaptation of groups to new situations. Selection involves the process of evaluating one variation over another and selecting the better version. Retention involves the process of accumulating behaviors and values in a social system. Campbell’s theory functions at the social system level because individuals eventually die, but institutions and conduct are retained within social systems. Campbell further argued that urban social complexity has come about through social evolution rather than through sociobiological evolution.
Interorganizational cooperation, though, is a very specific form of cooperation found among organizations, many of which are industrial for-profit entities that transact to acquire resources. Interorganizational cooperation has only been scrutinized in the western academic literature over the last two decades. Schonberger (1982) first described to an English-speaking audience a Japanese cooperative relationship that linked buyers and suppliers. This new interorganizational cooperation form was a radical departure from the traditional adversarial form of industrial purchasing. The adversarial supplier relations’ model is based on the notion that suppliers should be treated as competitors. The change to interorganizational cooperation is a fundamental shift and is diametrically opposed to the traditional model of purchasing. The introduction of interorganizational cooperation into the industrialized countries in the last twenty years indicates transferability across borders.

**Interorganizational Trust**

Trust is considered a causal factor for cooperation and exists at a variety of theoretical levels (Worchel, 1979). Trust is generally defined as the positive expectation of outcomes when people and groups interact with others under conditions of risk (Boon & Holmes, 1991).

Understanding the influence of trust among organizations requires an understanding of social trust. Social trust is considered the accumulation of trust at a macrosocial level (Dasgupta, 1988). Social trust has no liquid value, but it permits value-added activities (Coleman, 1990) and is recognized throughout history as a major factor of social order (Shapin, 1994). Social trust facilitates the realization of objectives that, in its absence, are impossible. Social trust is created when human relationships are aligned to expedite performance.

Social level trust rests on several elements. These elements are comprised of the level of trustworthiness of the social system, the obligations held between individuals and groups in that society (Coleman, 1990), and the presence of a densely linked network of individuals and organizations (Marsden, 1992). Social level trust serves as a resource to arrange transactions in the future that cannot be enforced by law or formal sanctions alone. Social level trust is an institution that facilitates economic exchange and runs counter to the self-interested, rational, and utility-maximizing assumptions of neoclassical economics (Coleman, 1990).

Social level trust can be reduced and even destroyed. Lewis and Weigert (1985) referred to the reduction of social trust as regression from social holism to social atomism. In their discussion, social holism refers to an active network of individuals, organizations, and in-groups, whereas social atomism refers to a societal condition in which individuals belong, largely, to a few in-groups. Some of the factors that lead to the destruction of social trust are social instability, ideologies that exclude other social members, forced dependency of social members (Coleman, 1990), and the pervasive and unwarranted distrust of others (Barnes, 1981). Historical evidence provides an excellent example to demonstrate that the reduction of social trust can be effected on a society and that the ensuing condition can last for centuries (Gambetta, 1988).
Interorganizational cooperation depends on interorganizational trust (Ansari & Modarress, 1986; Lewis, 1995; Ring & Van de Ven, 1992; Smeltzer, 1997). As an example, for a buyer to engage in a close trade relationship with a supplier requires commitment beyond traditional contractual terms. The terms of agreement required in a close relationship cannot be listed in their entirety in a contract, and the desired relationship should be based on a high level of trustworthiness. According to Cummings and Bromiley (1996), interorganizational trust is comprised of the commitment to honor agreements, honesty in negotiations, and the abstention from overly opportunistic behaviors.

As part of an organizational level institutional framework, the following question is posed: Is interorganizational trust a significant predictor of interorganizational cooperation?

**Individualism and Collectivism**

The seminal work by Hofstede (1980) on various dimensions of culture provided an empirical introduction for the individualism and collectivism (indcol) construct. Indcol is a social-level construct in which societies are classified according to their relative ratio of individualist and collectivist tendencies.

Individualism is based on the notion of personal rights, pursuit of pleasure, and self-definition. Among individualists, there is less in-group attachment and in-group members have less influence in moderating the individual’s behavior, beliefs, and values. Individualists observe and expect universalistic rather than particularistic treatment from others. Universalism refers to the notion that individuals should be accorded equal treatment based on internalized and universally held norms and standards, with no regard to the individual’s quality or classification in society (Parson & Shils, 1951). Particularism refers to the idea that individuals should be treated differently, based on each individual’s quality or classification. Individualists tend to practice universalistic behaviors with both in-groups and out-groups. Hence, individualists are more likely to work with people from a variety of groups despite the superficial nature of their relationships. Triandis (1991) declared, as an example, that the cocktail party is an invention of individualistic societies.

Extending the effect of individualism into organizations provides relationships important to this research. The entrepreneurial organization is credited as a central factor in capitalistic development. Entrepreneurship is defined here simply as the set of risk-taking and cooperative skills required to bring resources together for economic activity. Hirschman (1958) recognized the role of entrepreneurial behaviors and the need for cooperation to develop backward linkage industries in developing countries. Fukuyama (1995) stated that collectivistic societies are unable to develop large, complex, and cooperative relationships among organizations. Individualism has been cited as a prerequisite for cooperative entrepreneurial activity (Durkheim, 1933; Kerr & Dunlop, 1964; Schumpeter, 1934). Some authors have suggested that an optimal combination of individualism and collectivism is a necessary prerequisite for entrepreneurial activity and interorganizational cooperation, more so than at the extremes of individualist or collectivist norms (Coleman, 1990; Hirschman, 1971; Moss-Kanter, 1994).

Hirschman (1958) cited various shortcomings of highly collectivist societies in regard to economic development. He stated that the lack of interdependence and linkage among entrepreneurs and managers is the most typical distinction of collectivist countries. These
distinctions are due to several factors: (a) Collectivists often prefer to maintain a static family business rather than bring in nonfamily professional managers, (b) organizations exhibit centralized decision making, (c) managers provide for little employee participation, and (d) few opportunities for initiative exist for subordinates. Thus, economic development and individualism are closely related.

In a collectivistic society, individuals tend to cooperate with in-group members and to avoid contact and even compete with out-groups. According to Triandis (1994), in-groups are defined as “sets of individuals with whom a person feels similar” (p. 43). Turner (1982) defined in-groups as two or more individuals who share a common perceived social identity. Membership in collectivist in-groups is generally by ascription, such as familial, tribal, and racial ties. Individualistic membership is awarded through achievement and common values, such as found in professional organizations and religious and political groups. Out-groups are sets of individuals to which a person does not belong. Further, out-groups may compete for resources or supremacy of ideology with an individual’s in-group.

Collectivists tend to sacrifice their own needs and desires if they are not in accordance with the needs and desires of the group. (Erez & Earley, 1987; Triandis et al., 1986; Wagner & Moch, 1986). Collectivists are more responsive to in-group members than to out-group members (Marin & Triandis, 1984). Collectivists stress in-group loyalty and cooperation. In a family context, collectivists favor large cohesive familial relations; children stay at home until they marry; group members depend on each other; nepotism is common in the workplace; and business is conducted with friends and family (Triandis, McCusker, & Hui, 1990).

At the organizational level, hierarchy among group members is the norm, and harmony is valued over competitiveness. Leaders consider employees from a benevolent and paternalistic relationship. The in-group sets normative values for group members. Behaviors with out-group members are characterized as competitive and distrustful. Out-groups are made up of individuals who do not share a common fate with members of an in-group (Eisenstadt & Roniger, 1984).

At the social level, Hart (1988) posed three forms of voluntary cooperation as influenced by collectivism: (a) kinship, based on extended family; (b) association, established on affection and shared experiences among friends; and (c) contract, based on the modern state and society. It is the transition from kinship and association to contract cooperation that characterizes the shift from collectivist to individualist cultures.

Although the transfer of Japanese manufacturing practices from Japan to the United States has been discussed in general cultural terms (1993; Nishiguchi, 1994; Womack et al., 1990; Young, 1992), few researchers have tested the role of indcol on interorganizational cooperation. As part of an interorganizational level institutional framework, the following question is posed: Is interorganizational trust a significant predictor of interorganizational cooperation?

Superordinate Goal of Just-In-Time/Total Quality Management
Superordinate goals increase cooperation between groups (Sherif, Harvey, White, Hood, & Sherif, 1961; Tajfel, 1982). Sherif et al., in a seminal study, reported their findings that illustrate the dynamics of cooperation and superordinate goals. In their field experiment, they randomly assigned 24 boys about the age of 12 of lower middle-class protestant background into two summer-camp groups. These groups carried out similar activities in isolation to develop in-group identity, values, and behaviors, as well as leadership and penalty systems.

Once in-group identity was established, the experimenters introduced the two groups to each other in competitive activities. These activities reinforced in-group solidarity and out-group competitiveness. The inter-group activities consisted of competitive play that extended into arguing and fighting. To conclude the experiment, the researchers introduced a superordinate goal to induce cooperation. Superordinate goals refer to objectives requiring cooperative activity such that (a) the combined efforts of the involved groups are required to reach the goal and (b) the goal is of such value that group members are motivated to reach the goal. The initial attempt to reach the goal in the Sherif et al. (1961) experiment was unsuccessful. The researchers subsequently replaced competitive leaders with ones who exhibited tendencies that were more cooperative. Thereafter, the two groups began to behave cooperatively, reached the superordinate goals, and were referred to as a superordinated group.

Superordinate goals also lead to greater communication, which further encourages cooperation. Key individuals who communicate between organizations are referred to as boundary spanners. The increased presence of boundary spanners in organizations increases communication and subsequent cooperation (Friedman & Podolny, 1992). Due to its symbolic nature, communication may also be considered as an element of cooperation (Sherif et al., 1961).

Contact and communication between organizations in the absence of superordinate goals, however, may not be sufficient to achieve cooperation. Factors such as equal status encounters among members of different organizations, intimate rather than casual exchanges, pleasurable exchange experiences, and interaction according to superordinate goals are required for interorganizational cooperation (Amir, 1969). The presence of a superordinate goal is necessary to induce cooperation among groups (Dawes & Thaler, 1988). Feger (1991) qualified the importance of a superordinate goal, which includes perceived interdependence, as the most important factor leading to cooperation.

In the context of this theory, JIT/TQM, an institution designed largely to improve quality and improve productivity, functions as the superordinating goal to foster interorganizational cooperation among buyer and supplier organizations. Smith, Carroll, and Ashford (1995), in a special research forum on intra- and interorganizational cooperation, stated, “a new market ethos, sometimes oriented toward new total quality management (TQM) philosophies, also underscores the need for cooperation throughout organizations” (p. 9). Ring and Van de Ven (1992) declared that organizations pursuing a group of diverse objectives require cooperation due to the reciprocal dependencies involved between firms. Singh (1997) declared that interorganizational cooperation brings organizations together to reduce the risk of failure in complex production.

Thus, buyer organizations faced with changing quality, delivery time, and cost performance requirements may demand that their suppliers cooperate more closely, such
that they become an extension of the buyer’s JIT/TQM capabilities. JIT/TQM refers here to a selection of organizational philosophies and practices consisting of just-in-time (JIT), total quality management (TQM), and their common infrastructure practices (CIP) for JIT/TQM (Flynn, Sakakibara, & Schroeder, 1995).

Just-in-time (JIT) is considered as both a philosophy and set of techniques to improve productivity by reducing waste and simplifying a firm’s processes (Goyal & Deshmukh, 1992). Total quality management (TQM) functions as a philosophy and system of practices to improve process and product quality. The common infrastructure practices (CIP) are associated with and support JIT and TQM. These practices provide (a) information feedback, (b) management support, (c) plant environment and cleanliness, and (d) workforce management.

Just-in-time/total quality management (JIT/TQM) has been described in the literature as a predictor of interorganizational cooperation and exerts a superordinate goal effect to bring the buyer and supplier into closer interorganizational cooperation relations. The use of JIT/TQM may also pose a contravening influence over low interorganizational trust or individualism/collectivism, if these work against closer interorganizational cooperation relations. The following research questions are posed: Is the superordinate goal of JIT/TQM, composed of just-in-time, total quality management, and their CIP for JIT/TQM, a significant predictor of interorganizational cooperation? Is the superordinate goal effect of JIT/TQM greater than the effect of interorganizational trust and indcol on the formation of interorganizational cooperation?

This research attempts to provide an organizational level institutional economics theoretical framework to explain interorganizational cooperation. The causal influences of interorganizational trust, indcol, and superordinate goal of JIT/TQM are hypothesized as predictors of interorganizational cooperation.

References


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