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The antecedent factors on trust and commitment in supply chain relationships

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ABSTRACT

The primary purpose of this study is to investigate the role of information sharing, information quality, and information availability in the development of trust and commitment in supply chain relationships. Samples were gathered in Taiwan and Canada using a field questionnaire. Multiple regression and ANOVA were used to analyze the data. It was found that there is a positive relationship between the level of quality, and availability, and the level of trust; information sharing and commitment. Additionally, results revealed that country moderates the relationship between information sharing and trust.

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1. Introduction

In today's global business environment, successful supply chain integration with information management has attracted much attention from both practitioners and researchers. Supply chain integration attempts to minimize operational costs and enhance stakeholder value, by sharing information between partners. Shared information, commitment and trust between and among partners has become an essential element for supply chain integration [3,68], performance [13] and successful supply chain implementation [36].

Information technology enables organizations to share information efficiently and securely [39]. Information technology and webbased applications have created the infrastructure for sharing information about demand levels and patterns, inventory positions, and other events that could have significant impact on cost reductions and plans for upstream and downstream members of the supply chain [1]. Technology alone is not sufficient; companies need to share vital and often proprietary decision making information, for trust and commitment to develop [15].

While some have found that the presence of trust results in higher levels of information sharing, as well as a higher quality of shared information [39], others have suggested that information sharing leads to higher levels of trust [36,72]. Indeed, Fawcett and Magnan [14] suggest that while open communication requires trust, open communication is also required to develop trust.

Commitment involves continuity or a long-term orientation with both parties cooperating to maintain the relationship [51]. Commitment to ongoing relationships among supply chain members helps increase efficiency and effectiveness [28,61,63]. Commitment is highly related to trust [34]. Both trust and commitment stimulate a relational bond between suppliers and customers that facilitates the establishment of productive collaborations [20]. Both commitment and trust are essential to promote efficiency, productivity and effectiveness in outcomes [53]. Successful supply chain performance is based on a high level of trust and a strong commitment among supply chain partners [35].

The objective of this paper is to provide a clearer understanding of how information availability, as well as inter-organizational information sharing, and the quality of the information shared/available affect the level of trust and commitment in supply chain relationships. While a number of other antecedents for trust and commitment in supply chain relationships undoubtedly exist, the aim of this research is to investigate the role of information availability, sharing, and quality in the development of trust and commitment. In addition, this study aims to determine whether or not behavioral uncertainty plays a moderating role between the levels of information availability,

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information sharing, and information quality within the supply chain and the level of trust between supply chain partners.

2. Theoretical framework

2.1. Trust

Trust has been identified as one of the key factors contributing to a strategic alliance success [33,62]. Trust is defined as a willingness to rely on an exchange partner [52], and characterized by the belief that the partner will not indulge in opportunistic behavior [55]. Morgan and Hunt [53] suggest that the confidence on the part of the trusting party results from the belief that the trustworthy party is both reliable and has high integrity. Both reliability and integrity are associated with a number of sub-dimensional constructs including honesty, benevolence, and competence [12,29,34,44]. Trust results in a belief that a partner company will perform actions that will result in positive outcomes for the firm, as well as that the partner company will not take unexpected risks that result in negative outcomes [2].

Trust reduces the perception of risk associated with opportunistic behavior [33,51], diminishes the fear of information disclosure [39], encourages information flow and strengthens the belief in the content of the information that is received. Studies also show that trust is related to relationship success [57], stability [23], and performance [73] in supply chain partnerships.

A leading cause for unsuccessful relationships is the lack of trust between the partners [66]. A lack of trust among trading partners creates a condition where every transaction has to be scrutinized and verified, increasing the transaction costs. These transaction costs often arise out of an emphasis on complex contracts, detailed confidentiality agreements, and specific continuous improvement clauses [14]. Therefore, in the absence of trust, companies essentially try to mediate cooperation. Trust enables members of the supply chain team to rely on one another [45].

2.2. Commitment

For an enduring relationship to develop, commitment and joint-action of the involved parties is required to support the recurring exchanges [24]. Commitment refers to an exchange partner's belief that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship endures indefinitely [53]. A commitment between trading partners refers to the willingness of buyers and suppliers to exert effort on behalf of the relationship [50,64].

Commitment is an important variable for long-term success because supply chain partners are willing to invest resources, sacrifice short-term benefits for long-term success [46,47]. Organizations build and maintain long-term relationships if they perceive mutually beneficial outcomes accruing from such a commitment [53]. Wilson and Vlosky [70] identify commitment as the variable that discriminates between relationships that continue and those that break down. Kwon and Suh [36] suggest that "any enduring business transactions among supply chain partners require commitment by two parties in order to achieve their common supply chain goals." Commitment that a trading partner has to the relationship is the key to achieving desired outcomes for both firms, and has a direct and positive impact on performance [60].

Fig. 1 presents a visual summary of the concepts used in this study.

2.3. Conceptual model

The key objective of this study is to explore the factors that affect the level of trust and commitment in supply chain relationships. Conceptually, the study tests the linkage between the information available, information shared and the quality of information in the

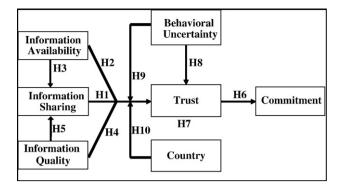


Fig. 1. Research model.

supply chain with the level of trust and commitment. Additionally, this study postulates that the lower the level of behavior uncertainly, the higher the level of trust among supply chain partners. In addition, country is introduced as a possible moderating variable, moderating the effects of information sharing, information quality, and information availability on trust.

3. Testable hypothesis

3.1. Information sharing

Information sharing is an important component of cooperation in supply chain management [5], and at the core of collaborative, supply chain based business models [15]. Information sharing plays a key role in matching supply with demand to reduce the cost of excess inventory and loss of profits from stock outs [41]. Supply and demand mismatch in the supply chain is often caused by uncertainty from lack of information sharing in forecasting [36]. Information asymmetries can be reduced by sharing inventory, production, and sales data, along with planning and forecasting information [59]. Transaction risks can also be reduced by sharing, monitoring, and controlling, information, such as performance metrics, and production and delivery schedules [31]

Using a multi-organizational case study, Ghosh and Fedorowicz [19] conclude that an information sharing relationship between retailers and suppliers helps to build up trust over time. Effective inter-firm communications is a key part of information sharing that increases understanding of both parties and contributes positively to better partnership quality [37]. Information sharing is essential to the trust-building process as the sharing of information enables each firm to understand each other's routines better, and develop conflict resolution mechanisms [35,57]. When members hesitate to provide and share information with other parties in the supply chain, it can hinder the trust-building process [8]. Greater sharing of information reduces uncertainty and increases the level of trust in the relationship [36,50,57]. Based on the above arguments, we hypothesize that:

H1. There is a positive relationship between the perceived level of information sharing and the level of trust.

3.2. Information availability

Information availability in the current study is defined as the perceived availability of information in the supply chain as a whole. In other words, it refers to the extent to which relevant information is available to all participants within a supply chain equally, beyond the information which is actively shared between partners within the supply chain. Uzzi and Lancaster [67] differentiate between public and private information in the supply chain. Public information such as audited financial statements, prices, contractual stipulations, and

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