Chapter 1

INTRODUCTION

Research in business relationships have been instrumental in providing evidences that established the strong associations in business and subsequent networks that are diverse and complicated in nature. The complexity provides each individual relationship with specific objectives to achieve the performance parameters designed for the partnership. The evaluation of these objectives is necessary to assess the appropriate relationship strategy for its sustenance (de Lurdes Veludo et al., 2006).

The arms-length relationships which instituted short-term transaction specific investments between the partnership firms were characterized by the following attributes: (i) investments in non-specific assets; (ii) pricing based information exchange; (iii) non-synchronized operational and technological systems within the individual firms; and (iv) low costs of transaction and negligible investments in the governance related mechanisms (Dyer & Singh, 1998).

However, literature in supply chain management coupled with the practices in recent periods have provided instances towards a gradual shift from the transaction-specific perspective to the development of partnerships based on a relational perspective as was observed in the situation of General Motors (Daugherty et al., 2006). In 1991, the auto-manufacturer did not profit from its existent processes due to the individualistic sourcing decisions prevalent within its plants and divisions, since it hindered hauling of the capacity to gain economies of scale as well as mismanaged asset utilization for the logistics services. Core competencies identified were related to assembly of vehicles and global logistics, though flow of materials within the supply chain
was observed as the inhibitor. Therefore General Motors established a collaboration based relationship with Con-way Inc. (now XPO Logistics) to form a joint-venture named Vector Supply Chain Management which was responsible to design, implement and manage the supply chains of the auto-manufacturer with regard to the automotive components, work-in-process and finished vehicles inventory. Consequently General Motors flourished through their relationship based initiative with Vector since the former focused on their core competencies while the latter provided supply chain support.

The relationship-focused strategy in supply chain management was defined as the aggregation of a sequentially-designed network operational through inter-dependent relationships and promoted through contractual and informal partnerships (Chen & Paulraj, 2004). The collaborative perspective was thus defined through the presence of these inter-firm informal partnerships which was based on relational factors rather than the transaction-based parameters. This paradigm reinstated the concept of supply chain collaboration, defined as a combination of process-focus and relationship-focus parameters in which partners within a supply chain designed their processes in accordance with their mutual requirements and shared resources (tangible and intangible) towards the achievement of a desired performance outcome mutually beneficial to the partnering firms.

Ellram & Cooper (1990) were the foremost pioneers in the introduction of supply chain collaboration as a valid supply chain strategy. Fawcett et al. (2015) and Mentzer et al. (2008) proposed that collaboration would improve supply chain effectiveness and augment existent performance levels through the better utilization of resources, personnel skills and capabilities, streamlined processes and defined routines within individual partnering firms.
Additionally, technological developments, globalized business locations and competition have augmented the requirement for inter-organizational relationships since the firms have to optimally devise production related efficiencies in the processes related to distribution, sourcing, production and in related supply chain functionalities. Coupled with changes in the demand distribution of the consumers, the abovementioned factors have induced the condition of uncertainty within the partnering firm towards the sustenance of inter-organizational relationships for short periods in time. Therefore, Tokman et al. (2007) suggested that at higher levels of uncertainty, the focal firms would implement long-term relationship-based strategies in the form of supply chain collaboration to ensure control and sustenance of related activities.

For example, Woolworths, Australia leader in grocery retail was interested in investments related to the development of collaborative activities to facilitate integration of its extant processes and therefore augment operational efficiencies. The reasons were attributed to their “everyday-low-price” policy which necessitated the value-added activities to be streamlined, along with their competition with analogous competitor Coles. Walmart, USA, the global retail chain was comparatively prone to impel flexibility in its existent processes through collaboration, since the firm was involved in globalization and therefore required economical stability in terms of the costs incurred. This diversification into unfamiliar regions with unknown demand patterns portrayed challenges in the identification and delivery of industry and customer expectations since the latter were based on the economical preferences. Therefore Walmart derived adaptability to new market environments through collaborative activities which consequently developed agility for its supply chain.

In the literature supply chain collaboration was observed to produce substantial benefits to the partnering firms in the form of higher economic performance, equity in outcomes and
responsibilities, capability development through efficient consumer response (Corsten & Kumar, 2005); enhanced integration levels (Tsanos et al., 2014); accrued effectiveness and higher market share (Min et al., 2005); collaborative advantages derived through faster innovation levels, enhanced quality and flexibility, synchronized strategic and operational perspective, and increased process performance efficiency (Cao & Zhang, 2011); and higher competitive positioning (Allred et al., 2011; Doh, 2000; Dyer & Singh, 1998).

Supply chain competitiveness or the perceived competitive positioning of the firm was defined by Matevz & Maja (2013) as the competitive advantage derived by the partners within the supply chain through the implementation and sustenance of various relational or collaborative parameters such as inter-organizational trust, relationship flexibility and relationship specific information sharing. The importance of competitiveness was suggested through the fact that it provided assessment to the individual firm as well as to the entire supply chain with regard to their position amongst related competitors in the industry, since it also facilitated inimitability of the relationship.

Cao & Zhang (2011) suggested supply chain collaborative advantage as the performance related outcome of collaborative activities and defined the same as the mutual benefits derived by the partnering firms through the sharing of knowledge and tangible resources. The advantages were majorly related to the internal process consistency of the partnering firms through the exchange of inter-firm knowledge and skilled resources.

Literature in supply chain management developed measurement instruments in separate contexts to assess the constructs related to supply chain collaboration, supply chain competitiveness, supply chain collaborative advantage, and the performance outcomes related to satisfaction with
results, satisfaction with relationship and supply chain responsiveness. Supply chain collaboration was modeled as a valid second order construct (Kumar & Banerjee, 2012; Cao et al., 2010; Simatupang & Sridharan, 2005b) with the underlying indicator variables acting as facilitators to collaboration. However in the supply chain relationship literature, the importance of the study of the inhibitor or rather relationship-based variables such as conflicts and uncertainty have been suggested as important due to their perceived theoretical influence over psychological variables such as trust and commitment.

Supply chain collaboration have been defined in the supply chain literature from a relational perspective; two essential parameters to induce collaboration within the partners in a supply chain were posited as trust and commitment; however the parameters were defined as intrinsically developed within the supply chain partners through their investments in physical and human assets to strengthen the relationship. In the presence of parameters which posed potential hindrances to the relationship, the degree of collaboration achieved would also be amended, which would result in suppressed performance outcomes. Therefore, it was considered essential that supply chain collaboration should be modeled with facilitator as well as the inhibitor variables in a single measurement instrument to determine the influence of the inhibitor variables over supply chain collaboration as well as over the other facilitator first-order constructs.

Supply chain competitiveness was modeled as a higher-order formative construct in the relationship-market literature and the underlying first-order variables comprised relationship-based variables such as inter-organizational trust, inter-personal trust, and relationship-specific-investment-in-assets to mention few. The perception of competitiveness highlighted the position of the firm within the industry, with their investments in relationship-based parameters which also provided the opportunities for better collaboration. Therefore it was essential to study the
interaction of the two relationship-specific higher order constructs namely supply chain collaboration and supply chain competitiveness and to determine their influence over the performance related outcomes for the partnering firms as an individual and the supply chain as a whole.

Supply chain collaborative advantage was defined as the outcome of the successful collaboration process which detailed the intrinsic process related benefits which were derived through enhanced quality, faster innovation, and higher levels of flexibility. However collaborative advantage was never modeled in the literature as an antecedent to assess the financial and non-financial performance of the collaborating firms, and the responsiveness of the supply chain.

Moreover, majority of the measurement instruments developed and the hypothesized relationships studied earlier, involved the responses of a focal firm and their perceptions about the supply chain. Perception recorded through a questionnaire from a single focal firm within the supply chain was deemed inadequate to optimally define the relationship which existed amongst the players within the supply chain. Therefore, the requirement of responses from multiple member firms within a particular collaborative relationship was deemed as essential.

The present study was carried out to provide insights into the following sets of propositions:

1. Development of a measurement instrument which adequately captured the essence of supply chain collaboration, and involved the presence of the facilitator and the inhibitor variables;

2. Introduction of supply chain competitiveness as a valid relational construct in the supply chain collaboration literature and to empirically test whether competitiveness mediated
the relationship between collaboration and collaborative advantage, as was suggested through theoretical underpinnings;

3. Establishment of the relationship between supply chain collaborative advantage and the performance parameters to provide perceptivities into the influence of collaborative advantage over the economic and non-economic performance of the individual firms within the relationship, and the responsiveness of the supply chain as a whole.

4. Empirical test of the modeled constructs and their hypothesized relationship with data collected from two different samples, i.e. the buyer group and the supplier group, to determine whether there existed any difference in the perceptions of the group related to the constructs or the relationships between the constructs.

The results of the study would contribute in the development of an updated and better modeled measurement instrument for supply chain collaboration and would reflect the individual concern areas for the buyer and the supplier firms, and which parameters should be concentrated upon to enhance the relationship. Also, along with the degree of collaboration, the level of actual competitiveness achieved and perceived in future by the partnering firm would determine the investment-specific requirements and the subsequent processes to be re-engineered. The study results would also assist in determining the financial and moral goodwill of the partnering firms, and the turnaround flexibilities of the supply chain.

The forthcoming chapters have been organized as detailed here. A thorough literature review related to supply chain relationships, supply chain collaboration, supply chain collaborative advantage, and the three performance outcomes is presented in Chapter 2. The theoretical justification with regard to the importance of relationship-specific variables is provided in
Chapter 3. Development of the theoretical model and the subsequent hypothesized relationships is defined in Chapter 4. Questionnaire design through Q-Sort followed by the identification of the sampling frame, data collection methodology and the survey details are provided in Chapter 5. The demographics of the sampled buyer and supplier firms, the reliability and validity results of the measurement and the structural models and the path analysis results of the hypothesized relationships is presented in Chapter 6. In Chapter 7, the findings of the path analysis and other relevant observations in the research are discussed. Further, academic and managerial contributions are discussed followed by the limitations of the present study, and lastly the scopes of future research are indicated.