Supply Chain Collaboration (SCC): A Theoretical Outlook and Case Study Synopsis

Rusiri T. Wijeyaratne
Doctoral Student, Faculty of Graduate Studies, University of Kelaniya, Sri Lanka.
Email: rusiritw@gmail.com

ABSTRACT
Supply chain collaboration is critical to achieving the integration of partners for performance impact. A firm attempts to seek economic and social benefits through supply chain collaboration. Successful collaboration is predicted not only to strengthen a firm’s performance but also to reduce transaction costs. Establishment of an appropriate governance is of a great help in stabilizing a relationship and strengthening performance. Therefore, this study aims to identify underlying theories that explains collaboration and transaction cost advantage, to explore effects of supply chain collaboration on firm performance and transaction cost advantage, and to examine few cases in the industry on supply chain collaboration which are more specific to supplier-buyer relationships. This study integrates and explores as a theoretical outlook, Transaction Cost Economics, Resource Based View, Relational View and Social Capital Theory to examine their ability to explain on supply chain collaboration and in turn, realized firm performance. Findings indicate a positive relationship between collaboration and performance. This implies that buyers and suppliers should create a positive-sum situation which buyers and suppliers can jointly benefit from. Supply chain members should be aware that, if they pursue their own interests, a whole benefit can be shrunk and the relationship no longer lasts. Long-term relationships can not only produce mutual benefits but also eventually facilitate value of co-creation. Firms are thus required to design appropriate collaborative activities to safeguard exchanges.

Keywords: Resource Based View, Relational View, Supply Chain Collaboration, Supplier – Buyer Relationship, Social Capital Theory, Transaction Cost Economics

1 INTRODUCTION
2.1 Background of the study

Over the last two decades, firms have relied heavily on collaboration with partners to seize internal and external opportunities (Wallenburg and Schäffler, 2014). Collaboration refers to more than two parties’ working together with the pursuit of completing tasks and eventually achieving joint goals (Liao, Kuo & Ding, 2017). Firms have strategically recognized the importance of supply chain collaboration (SCC) (Chen, Zhao & Tang 2017) to seek higher efficiencies in sourcing, planning, production, distributing and other supply chain related activities (Soosay and Hyland, 2015). SCC enables firms to share gains and losses, greatly extend their resources and capabilities beyond their boundaries, and exchange key information, thus eventually resulting in better performance and overall cost reduction (Chen et al., 2017). Many a global company such as Unilever, Nestle, Samsung, Sony, Apple, and IBM have relied heavily on close collaboration with their partners for sustainable competitive advantage. Supply chains are now being exposed to more dynamic environments, caused by globalization and competition, rapid growth in technologies, and fluctuations in customer demand, and therefore focus firms more on collaborative efforts (Soosay and Hyland, 2015). Despite the history and benefits of SCC, many partnerships suffer from unwanted outcomes (Fawcett, McCarter, Fawcett, Webb and Magnan, 2015). Those poor outcomes may result from uncertainty (Katsikeas, Skarmeas and Bello, 2009) and goal incongruence (Prosmán et al., 2016).

Inter organizational relationships have been empirically examined within various social science disciplines (e.g., operations, marketing, strategic management, sociology, and supply chain management) for several decades, with specific attention often given to the performance implications of participation in a strong relationship. Of particular interest to many researchers and managers is vertical Supplier-Buyer Relationship (SBR). A number of studies have argued that a primary motivation for constructing and strengthening (SBR) is the likelihood that they will lead to improved operational performance outcomes and/or competitive advantage for the involved parties (Krause, Handfield, and Tyler, 2007; Morgan and Hunt, 1994). Yet, other research has adopted a different view of the linkage between relationship strength and performance, arguing that some firms will not strengthen a relationship with a customer or supplier until there is some history of positive relational outcomes (Doney and Cannon, 1997) associated with participation.
Existing theories have provided support for the development of SCC and SBR. For instance, the Resource Based View (RBV) theory argues that firms can achieve sustainable advantages by combining resources (e.g., core competence, dynamic capability, absorptive capacity) in a unique way (Barney, 1991). According to the theory developed by sociologist Homans (1958), Social Exchange Theory (SET) proposes that social behavior is the consequence of an exchange process. The drive of this exchange is to maximize benefits and minimize costs. Hence people weigh the potential benefits and risks of social relationships. When the risks outweigh the rewards, people will terminate or abandon that relationship. Therefore, in a study on SCC, there are tangential theories applicable and can be explored. Also in the industries there are lot of cases with regards to SCC and specific to Supplier- Buyer relationship, and many global giants in FMCG industry who have a string presence in Sri Lanka like Unilever (Partner to win), Nestle (Virtuous Circle) and Procter and Gamble are advocating program on these lines. This paper will aim to review the literature on SCC specific to SBR and present the summaries of case studies and theoretical outlook including both academic and managerial implications, and future research considerations in Sri Lankan context.

1.2 Methodology

This paper adopts deductive approach in which arguments and explanations are mainly supported by empirical evidences and associated theoretical contents. Alongside, journal articles and industry publications have been reviewed to examine the concepts and their application on how supply chain collaborations mostly specific to SBR are influenced by various factors and actual applications in the industry. Accordingly, literature review was employed as the main research tool. Paper attempts to discuss few theories associated with SCC and cases found in the industry, relation to supply chain collaborations positively and negatively and related insights and factors causing the relationships. Paper is organized as a synopsis in two parts, one being the theoretical outlook and the other being the case study synopsis supported by literature. Finally, author discusses and concludes the paper by articulating directions in line with the synthesized discussions for future research.

2 THEORETICAL REVIEW

2.1 Transaction Cost Economics (TCE)

Relationships among the organizations (firms) can be explained to a greater extend using a very powerful theory, Transaction Cost Economics (TCE) which was developed by Williamson in 1975. According to Williamson (1975) hierarchies and markets are two methods to organize relationships among firms. Kaufman, Wood, and Theyel, (2000) argues the decision to use either market mechanisms or hierarchies (Vertical Integration) depend on the monitoring costs arising from bounded rationality and also Self-interest and opportunistic behavior driven uncertainties. Also further Williamson, (1975) states frequency, specificity, uncertainty, limited rationality and opportunistic behavior as determinants of transaction costs. Out of these, uncertainty is widely considered to be a critical attribute and frequency being least likely. To illustrate, if a supplier is bidding in a very competitive environment with a customer to supply a component and to make the component if suppliers is required to invest on specialized machinery and tooling, which cannot be easily redeployed to make alternative products. Post the contract is awarded to the supplier the environment in which the relationship operating will change to a competitive to a monopoly/monopsony relationship. In these kind of scenarios the customer has greater leverage over supplier in negotiations afterwards, in this event supplier to avoid or to mitigate such potential issues attempts to hedge or take hostages. These actions could include partial ownership of the factory, profit sharing. So economically TCE can be used as a theoretical framework to explain a supplier buyer relationship in a SCC. Further SCC emerges as the best alternative to help eliminate such risks and problems arising from both hierarchies and markets (Koh and Venkatraman, 1991). Reducing cost of opportunism and building mutual trust through process integration which are common considerations in market transactions are also seen as added advantages of SCC, thus increasing the probability that partners behave in the best interest of the partnership (Croom, 2001).

2.2 Resource Based View (RBV)

The literature presents many views of the concept Resource Based View (RBV), however the core idea of the said theory is that firms resources such as financial, legal, human, organizational, informational, and relational are heterogeneous and imperfectly mobile and the key task of the management is to understand and organize resources for sustainable competitive advantage. (Barney, 1991; Prahalad and Hamel, 1990). Fundamentally the resources to hold potential as sources of sustainable competitive advantage, they should possess the following, Valuable, Rare, Inimitable and Not Substitutable also generally known as VRIN criteria in short form. This concept of RBV gives indications to management (strategists) how to evaluate potential factors that can be organized to achieve competitive edge. Another key insight arise from the RBV is that all resources are not of equal importance nor have the capability to become a source of sustainable competitive advantage. Sustainability depend on how much these resources are irreplaceable and substitutable (Lawson, 2008). However Barney, (1991) also affirms and argues that determining the relationship (causal) between sources of advantage and successful strategies can be very difficult in practice. In the RBV even though many scholars are interested on internal resources for a competitive strategy/position of a firm it received much attention in explaining a collaboration/relationship in a supply chain. Resources, capabilities and strategic assets being the key concepts of RBV(Barney,1991) it argues the deviation of a firms performance can be explained by its capabilities(Dynamic), resources(STRATEGIC) and capacity(absorptive) (Prahalad and
Hamel, 1990: Cohen and Levinthal, 1990). Firms who can formulate and combine resources in a unique way can enjoy a competitive edge over the other firms who are unable to do so. (Dyer and Singh, 1988). Firms can reach sustained advantage in markets by owning scarce resources and excelling in core competencies and capabilities. RBV claims that investing in relation-specific assets such as SBR enables partnering firms associated with the relationship can build competitive advantage because of their rare valuable non-substitutable and inimitable in nature (Barney,1991). Alongside, (Jap, 2001) argues the complexity of the relationship attributes, which has in a firm to firm relationship makes other firms almost impossible to imitate the same, hence the retention of the competitive position. In the meantime SCC allows a firm to focus on their core activities which can be specific to firm’s relational assets and develop them so that it can improve their competitive positions (Park, Mezias, and Song2004).

2.3 Relational View (RV)

Scholars in the strategy field are concerned fundamentally with explaining differential firm performance through search of competitive advantage, as explained above one prominent views has emerged as the RBV arguing differential firm performance is primarily firm heterogeneity rather than industry structure (Barney, 1991), firms that are able to accumulate resources and capabilities that are rare, valuable, non-substitutable and difficult to imitate will achieve a competitive advantage over competing firms (Barney, 1991). Thus RBV theory view the firm as the primary unit if analysis. Although RBV have contributed greatly to understand firms achieving above normal returns, they overlook the important fact that the (dis)advantages of an individual firm are often linked to (dis)advantages of the network of relationships in the firm is embedded. Dyer and Singh (1998), argues the critical resources may span firm boundaries and Relation View will complement RBV. In a firm relations rents and internal rents both can be earned. The super normal profits which a firm in isolated cannot create and can be created only through joint contributions of the partners in collaboration is called relational rent (Dyer and Singh, 1998; Lavie, 2006). Combining idiosyncratic assets, knowledge and capabilities through relation specific investments, inter-firm knowledge-sharing routines, complementary resource endowments, and through driving effective governance mechanisms results in creation of relational rents. The relational view stresses common profits that collaborative partners cannot generate independently within social units (Sykes, Venkatesh, & Gosain, 2009; Lee, Kim, & Kim, 2014). Min, Kim, and Chen (2008) defined social capital in supply chain as a set of social resources embedded in the relationships in a supply chain network. Researchers have highlighted that social capital reduces the likelihood of conflicts and promotes cooperative behavior in terms of its association with shared vision, trust belief, and social tie (Lawson, Tyler, and Cousins, 2008). Collaborative behaviors would be stimulated for partners when social capital is well built in the supply chain (Min et al., 2008). Specifically, social capital theory defines a three-capital structure, structural, cognitive, and relational (Li, Ye, & Sheu, 2014). Structural capital is related to impersonal configuration of linkages among the network of relations as a whole (Lionel, Dennis, & Ahuja, 2008). It is like an entire network of suitable relations between supply chain partners. Therefore, it is regarded as the overall pattern of connections between supply chain partners, which could be measured by network ties between actors and network configuration (Autry and Griffis, 2008). If the networks are denser, more individuals are in a regular contact with others and they are more likely to work collectively (Marwell, Oliver, & Prahl, 1988). Cognitive capital defines the resources providing shared meaning and understanding between the network members that help individuals share their interactions, common visions, and language over time (Wasko & Faraj, 2005). There are two facets of the capital, shared culture and shared goals (Inkpen & Tsang, 2005). Shared culture refers to the degree to which norms of behaviors govern the relationships of members. Partners often list the shared rules in formal contract within the network. These rules and norms provide a peaceful atmosphere and reduce the possibility of opportunistic behaviors, leading to lower monitoring costs and higher commitment. Supply chain members will work under a distinct corporate culture to comply with their common goals (Gulati & Sytch, 2007). A shared goal represents the degree to which network members share a common understanding and approach to achieve their task and goals. Supply chain partners usually work toward a common goal set by the focal firm, even though they have different goals in mind (Krause et al., 2007). In sum, if supply chain partners lack cultural similarities and common goals, it may trigger conflicts and negatively affect performance. Relational capital is a relation indicating the degree of emotional intensity, commitment, and trust connecting the individuals (Min et al., 2008). Relational capital is developed when individuals have a strong identification, trust others, and perceive an obligation to participate in collective actions (Lewick & Bunker, 1996). Relational capital is an important joint resource available to help an organization communicate with their partners, which also reflects the goodwill, collective bonds, and expectation of prosocial behavior that characterize relations (Adler & Kwon, 2002).

2.4 Social Capital Theory

Social capital refers to the resources embedded within the network of human relationships (Nahapiet & Ghoshal, 1998). Human relationships are like social communities and the social network draws on the patterns of interactions and exchanges A supply chain, in essence, is not a chain of businesses with one-to-one between participants (Luo, 2007). SCC offers opportunities to capture the synergy of intra- or inter-firm integration and the management to create common advantages (Peteresen, Handfield, Lawson, & Cousins, 2008). The above four theories attempt to explain the nature behaviors of these integrations.
(relationships) in terms of economic and social spheres with respect the SCC. Next, few case studies on supply chain collaboration aims to explore the effect SCC has on potential performance improvements specifically focusing on supplier buyer relationships.

3 Case Study Review

3.1 Case 01- Volkswagen (VW)

In August 2016, Volkswagen, the world’s largest car maker by sales, announced it would have to halt production at six of its plants due to an ongoing dispute with two of its component suppliers (CarTrim and ES Automobilguss). The origins of the dispute can be traced back to June 2016, when VW Procurement Chief Francisco Javier Garcia Sanz wrote to their suppliers, warning the company would be seeking new ways to cut costs. He justified these measures by asserting that VW faced ‘epochal change’, driven in part by new technologies and customer requirements. In reality, in the aftermath of its diesel emissions scandal, VW had no choice but to begin cutting costs to recover from the subsequent €1.6 billion loss. VW proceeded to cancel a series of deals with its suppliers, including a €500 million order for special parts from Car Trim. Outraged by the abrupt cancellation, Car Trim retaliated by immediately halting all deliveries to VW. The carmaker’s just-in-time approach meant that its production lines were quickly affected due to lack of parts. After several weeks of wrangling agreements were reached, including compensation terms and the drawing up of a series of rules to protect both sides, should disputes arise again. The exact terms of the agreement were not made public but analysts estimate the dispute cost VW over €100 million (Handelblatt, 2016; McGee, 2016; Sloat, 2016). More importantly, the longer-term relationship between manufacturer and suppliers remained problematic. Though the consequence was negative the case amplifies the importance of supplier buyer relationships and how it can impact the performance of supply chains and how detrimental it can be to a business not having good supplier buyer relationship.

3.2 Case 02- Rwanda Coffee – Starbucks

Rwanda today is a sought after source for supplying specialty coffee to Starbucks and other premium coffee buyers throughout Europe and United States. Prior to 2001, Rwanda was an unknown name for specialty/high value coffee sector. The success of the transformation was due to the combine efforts of local producers with Rwanda government, USAID donors and the international buyers working together in collaboration. The foundation stone for this commendable supplier buyer relationship was laid down in year 2000 between USAID and the Rwanda government and they systematically upgraded the supply of Rwandan coffee and positioning in worldwide markets competitive with higher end markets like Kenya, Guatemala and Ethiopia.

Starbucks was among their key customers and they did not engage directly in coffee washing stations in Rwanda. All the coffee sold to Starbucks went through intermediary buyers who deal with specialty coffee. The turning point being in 2005, three coffee producers were sponsored to attend Specialty Coffee Association of America and Exhibition in Seattle. In November 2005, Starbucks selected two privately owned wet milling facilities to a program and awarded $ 7500 to these two washing stations. In February 2006, Alfredo Nuno from Starbucks Trading Department visited Rwanda to congratulate the two farmers and the washing stations for their increased quality. After which from spring 2006, Starbucks started successfully marketing Rwandan coffee under their ultra-premium “Black Apron”. The coffee sold out faster than their previous offerings. Finally in June 2006, Kerengera washing station became the first to be certified under C.A.F.E. (Coffee and Farmer Equity) program of Starbucks. All certified washing station requires verification by a third party involving a rigorous scrutiny. To date nine coffee washing stations are certified under CAFE. Being certified by CAFE gives you lot of benefits such as external verification system which is very rigorous and exhaustive, help to increase quality, strategic support to manage the washing centers and support from Starbucks to manage commercial risk by providing a stable intermediary buyer with a full time representative on site. Once the washing centers was gaining momentum with the help of Starbucks they continually met the demand with a growth and maintain the same high quality levels not only for Starbucks but even other buyers which enabled growth for them.

This case emerging as a best practice case for coordinated efforts of suppliers and buyer and also in this case government and USAID also as stakeholder was successful in getting combined benefits by collaborating by being transparent, aligning needs and expectations and driving better supply chain collaboration to derive advantages for both supplier and buyer.

3.3 Case 03- Smurfit Kappa - Nestlé

Nestlé’s Virtuous Circle program is a program which drives performance through innovation and sustainable practices year on year. Smurfit Kappa is a supplier who has being working with Nestlé to support the same. They were focusing on cereal portfolio to identify cost reductions and minimize wastage, which Smurfit has expertise built up from its supply smart service. Changing packaging material, streamlining logistics and increasing efficiency of the goods receipt process are some of the improvements they embarked on. With these efforts of collaboration Nestle and Smurfit has delivered excellent savings. At the Nestle UK and Ireland supplier awards held in London, this initiative of collaboration impressed the judges and awarded the top award of Nestles for collaboration to Smurfit for optimizing the food giant nestles cereal supply chain.

Speaking about the award, Clive Bowers, Chief Executive Officer, Smurfit Kappa UK said: “Nestlé is a valued customer so we are delighted to get this recognition. The award is another example of how working closely together and truly understanding all aspects of a customer’s business can lead to a rewarding partnership.”
4 Discussion and Future Research Directions

Supply chain collaboration is embedded in a paradigm of collaborative advantage (Kanter, 1994; Dyer, 2000) rather than competitive advantage (Porter, 1985). According to the collaborative paradigm, a supply chain is composed of a sequence or network of interdependent relationships fostered through strategic alliances and collaboration (Chen and Paulraj, 2004). It is a relational view of joint competitive advantage (Dyer and Singh, 1998). Collaborative advantage comes from relational rents that produce common benefits for bilateral rent-seeking behaviors while competitive advantage encourages individual rent-seeking behaviors that maximize a firm’s own benefits (Lavie, 2006). The perspective of collaborative advantage enables supply chain partners to view supply chain collaboration as a positive-sum game rather than a zero-sum game where partners strive to appropriate more relational rents for their own competitive advantage. The literature on supply chain collaboration represents multiple perspectives. This study examines supply chain collaboration from four perspectives: (1) Transaction Cost Economics, (2) Resource Based View, (3) Relational View, and (4) Social Capital Theory and as future research these theories can be expanded to explain SCC in specific industries.

Future research might be fruitfully identified which work attitudes need to be shared to promote particular relationship management activities, or might follow the lead of Palmer and Bejou (1995). Additionally, the nature of trust and its antecedents in international businesses relations, issues and strategies can be recognized in future researches. Moving into a broader levels of research, techniques in understanding and aligning commercial incentives in a buyer-supplier relationship, third party logistics service providers’ performance evaluation including trust, recognizing specific needs for different types of suppliers and how the facilitation needs of each supplier differ by size, type of business, market, etc., recognizing and managing the supplier buyer distrust and mitigating the risks of the relationship, how does success in the first relationship contribute to the ability of the supplier to other buyers in the future, also how supplier-customer relationships are different as per participants’ demographic factors for example age, gender, education level and etc. would be discussed in future researches. Conclusively, considering above it is crystal clear that there is a rigorous requisite from academia to research and develop a clear industry specific models/concepts on relationships and organization may engage in as part of a dyad or part of a network of complex multi-dimensional collaborations, driving sustainable relationships especially SBR’s and how they are impacting supply chain performance also identifying the relevant antecedents of such SBR specific to industries like in a FMCG & retail.

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