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Strategic Approaches to Domination in Supply Chains

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1. Introduction

Dominance in the supply chain has shifted throughout history. Dominance or power in supply chains concern the extent of influence one participant in the chain has over one or more participants. The recognition of such dominance in any industry has long been recognized. Raven and French (1958) were among the first to explore inter-firm power. They developed five different bases of power which can still be useful to perceive reasons why one supply chain participant may hold authority over another. Emerson (1962) defined power as the ability of one firm (the source) to influence the intentions and actions of another firm (the target). Whilst Butaney and Wortzel (1988) related power to supply chains by demonstrating that distributors have power in supply chains when industry sales are approximately equally distributed among manufacturers and the overall competition within the industry is strong. Since these early days it appears that all participants along the supply chain including their second and third tier suppliers within a network, can hold some extent of dominance over some or all participants within the supply chain.

This chapter analyses the changing nature of such domination in supply chains and incorporates the supply chain management strategies that may encourage or inhibit domination of the dominant participants. There are various types of power that can be exercised in supply chains that impact on supply chain participants. These types will be delineated to show how some supply chain participants exert their power so successfully. Further power can extend to different parts of the supply chain. The main power centric types of supplier power, manufacturing power, and retail power will be explained. The fourth power centric regime is a recent addition to the domination in supply chain literature. It relates to distributor centric power which has recently evolved with the globalisation of supply chains.

The main purpose of this chapter is to address the various sorts of power that the dominant supply chain participant exerts on its followers. The strategies that the dominant player uses to expand its regime as well as the various strategies that it puts in place to retain its existing power base is provided. In conclusion the changing nature of the dominating influences in supply chains and their associated networks is emphasised.

2. Types of power in supply chains

This first section delineates the types of power that can occur with supply chains. Total supply chain dominance is rare but sections along the supply chain are regularly dominated by one participant whose influence extends upstream or downstream or in both directions to varying lengths along the supply chain and varying depths within the supply chain impacting on second and third tiered suppliers.

Mentzer in 2001 defined supply chains as consisting of a leader and two or more other participants operating upstream or downstream from the dominant member. These participants of the supply chain were directly integrated by flows of products, services, finance and information. They had common goals of giving a level of performance of operations that would provide benefits and profits to all members of the supply chain, not just the dominant participant.

According to Cox (1999) the relative use of resources needed in supply chain operations and exchanges between supply chain participants will determine the power base of the dominant player. Emerson (1962) began this research with the argument that the dependency of other market players is directly proportional to the motivational investment goals of a firm. Applying this concept to the total supply chain management the hypothesis would be that if the goals of firms along the total supply chain are similar then the dominant player can strongly support those goals and retain dominance. If the goals of the other participants along the supply chain are not similar then the level of dependency on the dominant player is fractured.

Buyer dependency is another way of interpreting the power regimes in supply chains. Cox (2004) classified power into buyer dominance with the buyer having an adversarial arm's length with suppliers' non adversarial arm's length compared with supplier dominance with the supplier having the adversarial role and the buyer the non adversarial role. At the other end of the spectrum Cox showed that there can be adversarial and non adversarial collaborative roles for both the buyer and supplier. The way certain players exert their power, whether it be collaborative or coercive, will in most instances impact on the retention of their domination. Similarly, the way the dominant player exerts power can determine the extent of market share. Types of power can extend the similar and consistent use of technology across different supply chain participants. The extent of product brand power along the total supply chain will depend on the type of power the dominant player exerts. The degree to which participants strategically collaborate with its partners and the extent of collaborative management of the intra and inter-organizational processes will depend on the collaborative or coercive use of power by dominant players.

A comprehensive review of buyer-supplier relationships from 1986 to 2005 by Terpend et al. (2008) found that research focused initially on operational improvements and later the focus shifted to financial performance of the participating firms. The four main improvements that buyers and suppliers typically seek from their collaborative relationships are: operational improvements; integration-based improvements; supplier capability-based improvements and financial performance. Their research indicated that the strategic approaches for integration in supply chains must incorporate their given operating environment and associated constrained resources. Their strategic approaches must consider wisely which relationships require greater attention and closeness. Furthermore their strategies must focus on the activities which are most likely to yield the greatest value.

Participants, according to Skjott-Larsen, (2006) can possess a dominant position either because of purchasing power, market power, access to proprietary technology and knowledge. Power can affect the elements (trust, co-operation, and commitment, conflict and conflict resolution) critical to effective supply chain integration. These findings support Maloni & Benton's (2000) contention that power plays a crucial role in the formation and maintenance of productive supply chain relationships.

The concept of total interdependence (total power) can indicate the intensity of the relationship and is often an indicator of a strong cooperative collaborative arrangement between participants in the supply chain. According to Caniels & Gelderman (2007) these relationships have mutual trust and commitment and are commonly characterized by healthy profits for both parties.

The role of the leader or holder of power in supply chains gained academic attention during the 1990s but only recently has any level of attention been directed to the followers in supply chains. Supply chain leaders and followers according to Defee et. al. (2009) can be identified by the behaviours they exhibit. Follower characteristics have been described as the style of the relationships, the scope of responsibilities, the desire for collaborative and integrative relationships and commitment orientation. The notion and importance of followers compared with leaders was expanded by Poirier, Swink & Quinn (2008) who further separated the supply chain participants into three sections, namely, leaders, followers and laggards. They found that the leaders aligned with corporate strategy well and that strategic customer integration was an integral part of their strategic plan. Followers consciously and deliberately followed the leadership whilst laggards did not explicitly integrate.

Thus in conclusion of this brief summary of the current literature on domination, for the purposes of this chapter, domination of supply chains will be measured in terms of net dependence of one participant compared with the dependence of another participant and how a participant influences the operations of the other participant/s. The balance of dependence and inter-dependence within supply chains are not in perfect symmetry and this chapter demonstrates how the levels of power fluctuate and change over time. The academic debate to date shows the changing uses of power and the changes to domination that occur depending on a number of different strategic approaches both from the dominant participant's perspective as well as from the following participants along the supply chain. These strategic approaches will be analysed to show that integration of the various participants operating along the total supply chain requires well developed strategic supply chain management skills.

3. Power centric regimes in supply chains

The analysis of domination is now further broken down into the four domination sections along the supply chain, namely, supplier, manufacturer, distributor and retail. Alliances along supply chains can become very strong. The supply chain participant can obtain a positional advantage by filling some critical resource or service linkage in the chain. The level of dependency of other members on this critical aspect will either lead to a dominant position or a level of independence for the participant holding the positional advantage. If there exists a level of interdependency between a few or large number of supply chain participants then the dominant player will hold a strong degree of domination. Some firms in positional advantage can hold an efficiency advantage by providing similar services at a

lower cost. Other firms in positional advantage can hold an effectiveness advantage by providing a better service at a similar or lower cost. The optimal advantage to be held in a supply chain occurs when a participating firm holds both an efficiency and effectiveness advantage. (Wittmann, Hunt & Arnett, 2009)

3.1 Manufacturer-centric dominance

Over a general time line manufacturers roles and dominance has grown and waned. Since the Henry Ford era of the 1920s the manufacturing sector entered a mass manufacturing age which was predominantly cost oriented. The supply chains aimed for economies of scale with the final products pushed forwards from the manufacturing stock piles to the customer. The aim was to achieve industrial integration and economies of scale to gain dominating power in the supply channels. The quality focused era emerged during the 1950s as manufacturers shifted their focus and resources to quality management embracing reliability, safety, durability and strict specifications of products. During this stage the Deming cycle gained prominence. The Japanese manufacturers gained from these quality control approaches substantially as their product image was rebuilt and consolidated. From the 1980s the manufacturing environment changed markedly and although still retaining cost and quality requirements it also entered the flexibility era. Three aspects were required for flexibility, namely;

- Production change requirements – different modifications or innovations of part configurations developed;
- Production system changes – different and new machinery, production methods and new computerized operating systems were added;
- Demand variations led to unexpected fluctuations which meant that manufacturers had to become flexible to adapt to these demand uncertainties.

Due to the volatile demand situations coupled with severe competition from Japanese manufacturers on the quality enhancement and innovation front, other global manufacturers reacted to 'best practice' situations where time became the competitive differentiator. JIT came into its real meaning and manufacturing entered a multi-dimensional stage that moved from economies of scale (mass production) to economies of scope (lean and flexible manufacturing) and economies of space and time (responsive to demand or time oriented). (Sethi & Sethi 1990)

Today's manufacturer is an agile player in supply chains relying on pull systems and postponement strategies to respond to variations in consumer demands. As manufacturers have overcome the trade-off of cost and quality efficiencies the various stages moved from cost, quality, assembly flexibility and time issues to total customer responsiveness and agility in production.

The 'lean' supply chain model indirectly advanced the concept of manufacturing dominance. Womack's examination (1990) of Toyota's supply chain showed how a powerful manufacturer can work closely with a limited set of suppliers to reduce waste and inefficiency. In the related sphere of supply chain 'networks', and building on resource dependency theory, Provan (1993) argued that interdependences, established through routine transactions and information sharing, provides a disincentive to opportunism, since sub-performance by one member of the network impacts on all members and prompts punishment. Although these theories are logically sound, they failed to recognise their hidden assumptions regarding the distribution of power within the supply chain. Toyota might be somewhat dependent on its suppliers to supply high quality products on time, but

those suppliers were almost certainly more dependent on Toyota, since the loss of this customer would probably spell financial ruin. It is thus difficult to see how such a supplier could realistically punish an opportunistic Toyota. The domination of manufacturers in the automobile industry is sustained by long term strong relationships with their suppliers.

In the mid-1990s, these assumptions of 'lean' and 'integrated' supply chain 'networks' began to be questioned, and increased focus was placed upon the operation of the manufacturer's power in supply chain relationships. Lamming (1996) (Lamming 1996) observed that crude commercial power – the 'buyers market' versus the 'sellers market' ultimately has more of an impact on relationships than possible benefits of more competitive final products. The 'win-win' models were questioned based on the findings of concealed unequal distribution of costs and benefits. Christopher's promotion of the 'agile' supply chain model with the example of Dell Computers, which continued the 'lean' conception of a dominant manufacturer, pushed the notion of achieving competitive advantage through cooperation and strong relationships with suppliers. (Christopher and Towill, 2000)

Cox (1999) argued that dominant manufacturers like Toyota achieved the benefits of lean supply models not through cooperation but rather through their ability to control the cost, quality and innovation of the product of its dependent 'supplicant' suppliers, i.e. the coercive approach to domination. Dominant firms can drive innovations in its suppliers, but more importantly, they can control the flow of added value arising from those innovations, whilst placing less powerful competitors on an 'innovation treadmill to oblivion.' (Cox, 1999, p.169).

Cousins and Menguc (2007) did not view the manufacturer as being in the middle of the supply chain and in a position of dominating the backward or downstream integration of suppliers to match the manufacturing scheduling requirements. They viewed the forward integration as the flow from the supplier through the manufacturer onwards to the customer. The backward type of integration involves the coordination of information from the customer to the manufacturer and through the various postponement stages. The traditional view of manufacturer dominance related to the traditional concept of material management from suppliers to manufacturers. Thus through the development of customer demands and postponement as a value adding service as well as the information technology enabling the coordination of information downstream from the customer or retailer through the manufacturer to the main suppliers; the manufacturers in some supply chain types lost their dominant position or changed their strategies and patterns of domination.

Indeed, mainly due to globalization, different manufacturing strategies such as postponement and make to order (MTO), and advanced information technologies, have changed the blends of power between manufacturers and suppliers. It appears that the combined strength of manufacturers and distributors are changing their domination patterns, not necessarily their level of domination.

Innes and Hamilton (2009) shows that dominant manufacturers can price competitors out of the market, tempering intra-brand business stealing and encouraging inter-brand business stealing, by using retail price maintenance (RPM) cross-market controls in retail contracts, to discourage retailers from discounting competitor products. It demonstrates that powerful manufacturers such as oil companies will sell weakly-substitutable products at below cost (loss-leading), in order to extract rents from competing supply chains, and also extract rebates when their dependent buyers' make profits on other items. This complex paper claimed that "a vertical restraint by a manufacturer of one good can be used to simultaneously control the retail pricing of another good, resulting in the extension of

monopoly power to a second market" (p.136) by the manufacturer. Brand power arising from manufacturers is seen in the automobile industry but a study by Lindblom and Olkkonen (2006) looked at the fast moving consumer goods industry. Their Finnish study showed that food manufacturers seem to have more control than non-food manufacturers over promotional activities but less influence over pricing where the retailer seems to be gaining dominance.

3.2 The retail-centric domination

A number of key debates occur in the contemporary literature concerning dominance of the retailers in supply chains. It is argued that retailers (operating in a pull supply chain) have now taken the power from the manufacturers who operated in push supply chains. These arguments are often based upon empirical examinations of 'big-box' retailers such as Wal-Mart, and related anxieties about market consolidation, and the loss of small and medium sized retailers.

During the 1990s it became evident that manufacturers, suppliers and retailers became more interdependent on each other. (Provan, 1993; Skjott-Larsen, 2006) In customer responsive supply chains the opportunistic behaviour of individual manufacturers and suppliers relative to dominant retailers declined with their increasing levels of embeddedness and dependency on their key retailers. Overall the total transaction costs dropped along the total supply chain. This was also due to the visibility that modern integrated technology provided for the information flows and the financial flows within the chain. In turn such visibility increased reliability of services and trust between collaborating participants.

The grocery industry in the United Kingdom was studied by Duke (1989) who undertook a structural analysis. His findings showed that the market was dominated by a small number of large retailers who were largely stocking the same branded products. In order to differentiate from their competitors these retailers sought to develop themselves by brand association. During the 1980s these grocery retailers had supplanted the manufacturers and their brands in the domination of the grocery supply chains. This analysis provided the foundations for a stream of further analyses in domination of supply chains. The original analysis was limited to providing insight of the major players. It covered the efforts of other supply chain participants such as the manufacturers who became vertically associated participants as well as the horizontal players. In this way they became the smaller niche grocery competitors, to counteract the growing domination of the larger retailers. This power in the supply chains of the grocery industry was further researched by Hogarth-Scott and Dapiran (1997, 1999) who explored the issues of trust in maintaining the power relationships in the grocery industry. Gassenheimer (1996) supported this work in the retailer centric grocery industry by analysing the impact of the use of power on long term supply chain relationships with a group of manufacturers. The work in this industry became substantial and the definition of a dominant player in supply chains took on a decided bias towards retail dominance. For example Govil (2002) defined a dominant player as: *"the partner in the supply chain that can understand the consumer demand and fulfil it in a timely and cost effective manner."* (Govil, 2002, p.55)

As consumers became less loyal to manufacturing branding and global consolidation and competition emerged from the late 1990s, the giant retailers such as Wal-Mart, Toys R Us, McDonalds and Home Depots became economically more powerful. Retailer dominance increased because they were closest to the consumers and they well understood the demands and requirements of consumers. Since the late 1990s the retail business merged

into large scale retail supermarkets and enterprises. The speed of the growth of the global retail industry was phenomenal. Furthermore the global reach and complexities of information networks enhanced their control backwards along their supply chains. (Wang, 2006; Wang & Lui, 2007; Wang & Lau, 2008)

Their competitive strategies are usually based on pricing and differentiation of products. Retailers began to rationalise logistics and distribution on a global scale. Coupled with the new sophisticated technologies the retailers became more dominant over their downstream partners. The retailers provided information to the downstream participants regarding the quantities of orders required. Strong interdependencies grew and more opportunistic behaviours emerged. (Choudhury, et. al., 2008)

Goval & Proth (2002) suggest that the dominant power is generally taken by the retailer or the manufacturer. The retailer will gain dominance and focus on standardised consumer products which are simplistic in design, high volume, reduced lead times and reduced manufacturing processes. They cited examples of Tesco, IKEA and Kmart. On the other hand heavy equipment manufacturers such as Caterpillar and John Deere gained global manufacturing dominance due to their focus on complex and lengthy manufacturing processes of their brand products and the long lead time requirements. Wang & Lau (2008) also suggested ways that the retailer can manipulate the manufacturer to produce according to the retailer-led strategic goals.

3.3 Supplier-centric dominance

The failure to manage suppliers or for suppliers to manages its own second or third tier suppliers can directly increase upstream costs. Supplier dominance can be a result of resource dependence, institutional aspects or cost factors. The ownership of critical resources, the limiting of the number of suppliers and the extent of outsourced suppliers in the industry will impact on supplier dominance. Suppliers can have dominance over raw materials; semi finished goods, components and parts as well as finished goods. Theoretically the identifying factors leading to supplier dominance are based on resource based theory; transactional cost theory and institutional aspects. From an institutional perspective there are the formal institutional laws and regulations as well as the informal institutional relationships. The electricity industry is a prime example of formal institutional arrangements determining the dominance of power along the supply chain. The transaction cost theory is based on the assumption that costs incurred by transactions among firms are significant and thus those firms designed to minimize transactions gain some dominance.

Overall where there are few competitive substitutes, lack of any threats of backward integration in supply chains and lack of threats from disintermediaries; suppliers tend to have power in supply chains. (Cox, 2001) Sources of supplier dominance according to Cox et. al. (2003) include: legal property rights, economies of scale, information impactedness, and reputation effects such as branding, buyer switching costs, buyer search costs and collusive cartels.

Attributes of supplier dominance indicate that there has to exist less suppliers than buyers, greater independence for supplier than buyers, more information control than buyers and less switching costs than buyers. When suppliers are small in numbers it indicates that there exist some relatively high barriers of entry. These barriers could be in the form of holders of scarce resources or geographic isolation. Regulations and/or government policies may also provide forms of protection to suppliers. Other forms of supplier dominance rest with knowledge and innovative abilities. When suppliers are in possession of critical technology

which is constantly improved and renewed the entry barriers are high for potential entrants. In strong pull supply chains the suppliers can hold dominant positions due to the dependence of their abilities to supply the right amount on demand.

From the supplier's perspective, a dominant position will give the supplier extensive powers that permit them to continuously improve the product quality. As their materials become scarce suppliers can also use or abuse their power to price the materials at higher levels which in turn will add to the cost structures all the way upstream along the chain. (Cox, 2004)

Supplier dominance can be unfavourable to upstream participants because they may experience higher purchasing costs, uncertainty or unpredictability of supply. This means that upstream participants need to hold higher inventory buffer stocks. Suppliers can also damage upstream competitive positions. Suppliers can misuse information relating to competitors orders and their demand information. Suppliers can enforce 'tied' sales and bundling of products. This means that sales will occur based on restrictive conditions made by suppliers to enforce other purchases to be made in conjunction with some product or material sales.

Industries where supplier dominance exists include the oil industries due to the oil reserves being restricted. Alternate energy sources such as natural gas, solar, hydrogen continue to weaken this oil dependency. The automotive industry was revolutionised with the famous keiretsu relationships of the Japanese Toyota manufacturer dependency on their component and part suppliers. In the computer industry the prevailing trend has been to reduce the supplier base leaving the remaining competitive suppliers with huge market shares. The aviation industry was deregulated in the United States in 1978 and since then forward and backward integration along the supply chains have accelerated. Synergistic networks developed in which new aircraft models are designed, built and sustained over the life of the aircraft with suppliers of parts upgrading the designs, assemblies and deliveries of fully tested components for the aircraft over a thirty year projection. (Trunick, 2007)

3.4 Distributor-centric dominance

Fisher (1997), one of the first of many authors to categorize supply chain types, based his dual classification on product type, namely functional and innovative. The innovative products use responsive supply chains and within this chain the distributors play a major role in getting the products to the customer in a quick and responsive manner. According to Selldin & Olgaher (2007) who followed on the work of Fisher a decade earlier, the responsive supply chain type can be viewed as similar to the agile supply chain type of categorized by Christopher and Towill (2000). Thus a perceived dominant role of distributors in agile, responsive supply chains emerged. Refinements to this general dichotomy of supply chain types developed. Distributors can provide the flexibility of delivery. The MTO approach combines well with rapid response distributions. Truss, using the automobile industry, showed how distributors can offer consolidation services and build strong relationships with their customer bases. (Truss et.al., 2006)

Distributors act like a semi mobile warehouse for the retailers. In the fast moving goods industries, distributors track products and their life cycle use by dates to provide tailored and quick response distribution services. Dedrick and Kraemer (2005) demonstrated distributor's importance in providing customer service requirements in the personal computer market. Value adding benefits that distributors can provide include tracking of stock, reducing retail inventory stock holdings, being a high tech information conduit and

gaining cost advantages via bulk purchases. They also provide geographic scope. Distributors play a vital role in short life products.

Geographic complexity is based on the complexities associated with the transactional costs involved in the linkages along the supply chain. The geographic distance, schedule integrating capabilities, security and risk, reliability of the transportation and related services as well as the probability of damage free flows impact on geographic complexity which in turn is related to the degree of the international buyer-supplier relationships. Distributors who position themselves to be indispensable to manufacturers to move their goods forwards through the supply chain or distributors who position themselves so that the retailers have a high degree of dependency on their services will hold some degree of dominance in supply chains. Global distributors who can perform efficiently and effectively in a geographically complex supply chain will also gain some degree of domination.

3.5 Reverse logistics dominance

A recent successfully emerged strategy in supply chain management is that of the green supply chain in which reverse logistic distributors play a dominant role. Their role is more important in the extended rather than the closed loop reverse cycles. The collection, testing, redistribution to product manufacturers or component and parts manufacturers and disposal and waste management are all done by distribution operators. Within reuse and remanufacturing cycles, distributors play a minor role but they play a dominant role in the recycling processes. Distributors control the material flow deciding on extraction, recycling and disposal of materials. The strategic position of the distributor adds value with the technical knowledge concerning the products so that they can undertake the process of inspection, testing, redistributing and even making the decisions relating to recycling within the closed loop system or to recycle only materials into an extended recycle loop. (Sangwan 2006)

4. Strategic supply chain management

Strategic approaches include the efficiency and effectiveness strategies which Christopher (2002) termed the 'lean' and 'agile' strategies. Strategies that differentiate a supply chain from its competitors were initially seen as the customer responsive or 'agile' strategic approach but the basic concept of differentiation strategies is for the supply chain capabilities to have distinguishing features to gain a competitive advantage. Differentiation strategies in supply chain management typically include time-based strategies, such as speed, timeliness, reductions in cycle times and other time reduction initiatives that technological collaborative can provide. Financial strategies are slightly different from the traditional economic based efficiencies strategies. Financial strategies include focusing on operational efficiency and performance metrics such as return on assets and investments. It also includes improving productivities in transportation and inventory management, facilities and equipment utilisation. Sourcing and outsourcing strategies are sometimes included with financial strategies. Technology based strategies focus on using the tools currently available to value add along the total supply chain. Global and relationship based strategies link the domination elements of the supply chain.

Strategies that extend beyond the competitive advantage strategies include growth, environmental, risk and security strategies. Growth strategic goals in supply chains can be achieved via partnering, mergers, takeovers, alliances, outsourcing, and geographic or

product expansions. Diversification, e-commerce and e-logistics are definitive strategies that assist growth. The ecological, 'green' or environmental strategies used in supply chain include packaging, recycling, reusing, reverse logistics and environmentally friendly waste management practices. The deliberate inclusions of environmentally friendly facilities, transportation, e-commerce, organisational culture are definitive strategies that assist the implementation of environmental strategies within supply chains. Some supply chains use environmental strategies to differentiate their product, for example, Body Shop. Risk strategies include both avoidance of risk by moving premises or moving away from high risk areas and transferring of risks where risks can be transferred up or down the supply chain to rest on the supply chain participant that is most capable of handling the particular risk. Transfer or sharing of risk is a well used risk strategy in supply chain management. Outsourcing is a form of transferring risks in supply chains as it means that the outsourced company is more capable and more efficient of handling the particular operation. All supply chain participants will implement their own risk mitigation strategies but the risk mitigation strategy that is prevalent along the total supply chain tends to incorporate security issues.

Strategic issues relevant to supply chain domination will depend on where the source of domination arises. As shown above domination can occur at the supplier end of a very complex network where its strategies reach upstream to the end consumers or it can be dominated by the retailers whose strategies can reach downstream to the tiered suppliers and manufacturers. Strategic reach will also depend on whether the supply chain is partially or totally dominated. Another approach to analysing the effectiveness of various strategies implemented by dominant firms will depend on the type of supply chain.

Fisher (1997) looked at functional and innovative product based supply chains which in turn led to the two main strategies of efficiency for the functional based chains and responsiveness strategies for the innovative product based chains. This was extended to the lean vs customer responsive supply chain typology of Christopher and Towill (2002). The lean and agile strategies were further developed by Christopher. It was initially thought that the agile strategies would be implemented by retail dominated firms in supply chains and that manufacturer dominated supply chains would implement the efficiency and lean strategies. The functional and innovative product typology was revisited a decade later by Selldin (2007) and combined the innovative product type supply chain with the agile and customer responsiveness strategies. It was argued that these types of supply chains had strong strategic alliances with upstream and downstream participants. Distributors, especially distributors involved in global supply chains, became the natural supply chain participant who could integrate these strategies effectively. Finally the competitiveness of supply networks led to participants using strategies that combined both the efficiency and responsiveness strategies, ie the le-agility strategies purported by Christopher.

Perhaps most importantly their extensive research led them to conclude that logistics strategy has been stable over the last few decades. This is very interesting given the dynamic supply chain business environment. They also found that logistics strategies focus on efficiencies, coordination within supply chain participating firms and between the participating firms and risk mitigation. Risk mitigation strategies focused on achieving efficiencies through managing the complexities of the total supply chain and the uncertainties that the participating firms face in doing normal business.

Year	Authors	Strategic Approach
1987	Bowersox & Daughtery	Process Strategy involved the traditional approach of controlling costs. Market Strategy involved reducing the complexities for customers Information Strategy (otherwise referred to as Channel Strategy) involved achieving coordination and collaboration along the supply chain.
2008	Autry, Zacharia & Lamb	Functional Logistic strategies Externally Oriented Logistics strategies

Table 1. McGinnis, Kohn and Spillan (2010) summarised the following logistics strategic orientations.

There are power imbalances in all supply chains as the buyer-supplier relationships change their dependence on each other upstream and downstream along the total supply chains. If the power imbalance is too extreme then the buyer-supplier relationship can erode into an unproductive partnership in the long term. Although it seems intuitively possible there is little evidence in the literature at present showing that imbalances of power automatically involve actual misuse of power. Indeed Maloni & Benton (2000) found power asymmetry can promote supply chain integration and provide incentives for higher levels of performance. In 2007 Crook and Coombs suggested that dominant participants would use their bargaining power to benefit their own profits. When domination was gained through task independences and contractual arrangements preventing locked in partners disrupting product flows dominant players could and would use their power for their own gain. Crook and Coombs classified the task independences into the three types, namely, pooled, sequential and reciprocal. They found that with sequential interdependencies the followers were permitted to retain their profits. The dominant firm used this profit retention as an incentive to maintain their followers’ co-operation. In situation of reciprocal task interdependences there would tend to be strong alignments of strategic goals. They concluded that in situations of pooled interdependencies the followers could hold different strategic goals; in sequential interdependencies limited strategic goal alignment would occur with weaker participants and in situations of reciprocal interdependencies there is stronger strategic alignments and closer working relationships and sharing of profits. When a dominant firm forms alliances with its immediate upstream or downstream participants the domination effect becomes stronger. This occurs where there are strong competitive issues between supply chains. For example there are strong alliances and partnerships with manufacturers and suppliers in the Boeing and Lockheed Martin aerospace supply chains. In the recent Joint Strike Fighter contracts both these entities and their partners are collaborating to develop a best of practice supply chain where both competitors are working together to build and maintain these super fighter jets over the total life cycle of these planes. In this instance the tight collaborative practices and interdependence has reduced the domination effect of any participant of the duopoly supply chain.

5. Dissipation of domination in supply chains

With the increasing customer demands, stronger competition and rising development costs faced by B2B (business to business), B2C (business direct to customer) and even C2C

(customer direct to customer) retailing over the internet could dissipate the dominant player roles in supply chains. Multinational firms are facing tightening lead times, higher customer expectations and reductions in design cycle times. These factors lead to closer collaborations along the supply chain which in turn lead to closer alignment of strategies.

Shifts in consumer demands arising from higher global disposable incomes and workforce reforms have led consumers to demand greater scope rather than scale in the production cycles. Customers are demanding more value adding items and products with greater complexity and more value added features. This implies that more complex supply networks are required to produce these sophisticated products. The growth of electronic commerce and internet and the variety of the goods plus the variety of customer demands will lead to tighter collaboration and higher dependency and thus a dominant player is crucial to the competitiveness of supply chains.

On the other hand the growth of electronic commerce and internet shopping are leading customers to eliminate the larger commercial retailers and in effect create dis-intermediaries in supply chains that include retailers, warehouses and distributors. Customers are dealing directly with manufacturer and thus perhaps the full cycle of domination has occurred. Although when the manufacturers regain their dominance they become very dependant on the distributors so the domination in supply chains will be bi polar more bi lateral and consequently stronger. The strategies of the manufacturers will also change to adapt to the customer responsiveness needs of dealing directly with consumers. Their competitive strategies will be both efficient and effective to gain the necessary competitive advantages in this dynamic trading genre. Some Original Equipment Manufacturers (OEMs) will gain greater control as the supplier parks shrink and the manufacturers control most of the supply chain.

The entire operations strategy of a supply chain will falter if they are not linked to the business strategies and marketing strategies of the product flows. Marketing and financial strategies of participants operating within a supply chain need to be linked as well. In global complex supply chains the relationship management strategies are vital to hold the power over the total supply chain to integrate all these strategic goals of the numerous supply chain participants. The firms within a supply chain may no longer compete with other firms in their industry but as a member of an entire supply chain will compete with other global supply chains. The entire supply chain strategy needs to aim for sustainable competitive advantage. It should also aim for a healthy resilience level. Consequently in these ever increasing uncertain times entire supply chains that do not have strong resilience strategies in place to enable them to speedily return to competitive operations after a disaster or a hazardous event has occurred somewhere along the global supply chain that disrupts operations significantly then that supply chain will falter.

Further dissipation of domination in supply chains has occurred with the recent introduction of sourcing strategies. The service level agreement (SLA) enables buyers to specify a minimum performance level from suppliers. It is a contractual arrangement that the supplier must meet to gain payment. Thus any dominant player in a supply chain has to meet a given quality of performance for a given price which dissipates the ability to dominate the upstream or downstream pricing arrangements as the contracts are based on quality. An extension of the SLAs is the Performance Based Logistics (PBL) systems which require strong collaborative and integrative supply chains to produce at a given set quality

of performance over the long term. The United States military introduced this system of logistical support from 2002-4 and it is now mandated for all major acquisitions of military equipment. The implementation of a sustainable and efficient PBL contract requires close collaboration and alignment of strategies of the supply chain participants. It creates a win-win position for the client and all logistics service providers involved and thus domination in supply chains by any participant must work to a win-win goal. The overall determination of the PBL agreement is based on the buyer's goals and objectives upon which the required performance metrics are based. The participants operating in the providing supply chain have a very proactive role in interacting with their client.

6. Conclusion

The current state of play in the academic debate on domination of power in supply chains and strategic supply chain management approaches has been reviewed. It shows there is still some confusion and robust debate on domination and power influencing various aspects of supply chain management and processes. It also shows that strategies in supply chain management have some overlapping elements. The debate highlights the need for leaders of supply chains to be innovative and dynamic and most importantly, lead as an agent for change to cope with increasing complexities and uncertainties through appropriate strategies. Sustainable strategic approaches occur via collaborative influence rather than dictatorial or enforcement. The overall roles of dominant participants may not have ostensibly changed but key aspects that have changed recently have been their self awareness and the means by which they exercise their dominance. Influence rather than enforcement, nurture rather than demand, common goal setting and shared visions and profits are now the necessary pre requisites for successful strategic domination in supply chains. Domination is now viewed as a means of achieving win-win solutions for all participants along the supply chain.

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Over the past few decades the rapid spread of information and knowledge, the increasing expectations of customers and stakeholders, intensified competition, and searching for superior performance and low costs at the same time have made supply chain a critical management area. Since supply chain is the network of organizations that are involved in moving materials, documents and information through on their journey from initial suppliers to final customers, it encompasses a number of key flows: physical flow of materials, flows of information, and tangible and intangible resources which enable supply chain members to operate effectively. This book gives an up-to-date view of supply chain, emphasizing current trends and developments in the area of supply chain management.

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