

SUPPLY CHAIN VERSUS SUPPLY CHAIN: THE HYPE & THE REALITY

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SC vs. SC (Supply Chain versus Supply Chain)

An increasingly vocal and popular sentiment holds that the nature of competition in the future will not be between companies, but rather between supply chains. If this does, in fact, represent the future, how will these chains actually compete against each other? And what can practitioners do now in anticipation of this future?

In contemplating the much-ballyhooed supply chain vs. supply chain proposition, we first sought examples of it in action. Yet for as many examples of SC vs. SC competition that we found, there are at least as many places where the model didn't fit. On the one hand, we see vivid examples where one company or a series of companies has designed their supply networks to act with singular focus against other unique companies or groups of companies--for example, Brax, Purdue, and Tyson. Yet more often we find a different kind of competitive scenario playing out as in the automotive, aerospace, and PC industries where many OEMs share common suppliers. (APPENDIX A gives more detail on these and other examples where supply chain vs. supply chain competition does—and does not—exist.)

Despite the fact that true SC vs. SC competition appears to apply to relatively few situations, that vision of the future continues to gain widespread acceptance. Why?

Recent business trends might offer part of the answer. Shrinking product life cycles and innovative information technology applications started a reaction that has raised the performance expectations of supply networks. Specifically, they need to deliver more value in new ways, to be faster to market, to become more flexible in responding to demand changes, and to lower costs. To achieve these higher service levels, many companies have turned to external suppliers to provide them with capabilities that they themselves could no longer provide. This increases the need for higher and deeper levels of coordination (alliances¹) among these companies.

In a similar way, companies have chosen to build their supply network depending on external suppliers to help them create a unique offering. By integrating capabilities of others in their supply network, a company can effectively create unique value. That value is maximized when the supply network acts in unison, almost as if it were one company in the marketplace. Given these trends toward outsourcing and integration, it's not surprising that so many few the nature of future competition as supply-chain based.²

Before examining the SC vs. SC vision in depth, a few words on terminology are in order. Although we use the terms "supply chain" and "supply network" throughout the article, "supply network" is probably a better a term because it more accurately describes the nature

¹ In this instance, we use the term alliance to connote a unique arrangement with a company that entails one or more of the following: a unique relationship, a unique product or service, a unique contract, or a unique combination of these three.

² Consider this quote from Rob Rodin, CEO of Marshall Industries: "It's a supply chain vs. supply chain world today. Companies don't only compete with each other but with an extended web of suppliers."

of supply relationships today (that is, non-linear flows, network-like systems, and webs of suppliers and customers).

A Delphi Study Examining ‘SC vs. SC’

To better understand the perceptions and expectations surrounding supply chain vs. supply chain competition, we conducted a Delphi study among more than 30 supply chain experts from industry, academia, and consulting. The study found that the great majority of respondents (70 percent) agreed that supply chain vs. supply chain accurately characterized the competitive future. (See Exhibit 1.) Yet probing into that majority viewpoint, we observed that the respondents interpreted the SC vs. SC concept in distinctly different ways. Specifically, when asked “What does ‘supply chain competing against supply chain’ mean to you?” they offered a broad range of interpretations. This lack of a common understanding and language can lead to potentially damaging impact on a business. It presumes alignment within an organization, but in reality reflects conflicting priorities that would likely undermine a supply network’s ability to align and coordinate.

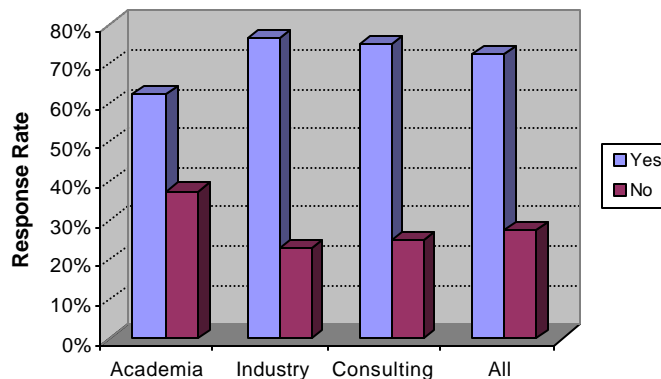


Exhibit 1 - Respondents Regarding Future of ‘Supply Network-based Competition’

We segmented the responses into three different interpretations regarding the nature of competition and the supply network. (See Exhibit 2 for a complete breakout of the responses³):

1. *Competing as SC vs. SC literally.* The nature of competition will be between groups of companies from across the supply network competing as one entity, formally or informally. (Forty-one percent of the respondents held this view.)
2. *Competing on Supply Network Capabilities.* The nature of competition will be between individual companies competing on their internal supply network capabilities (37 percent)

³ The data in Exhibit 2 represents the responses from the 70 percent of total respondents who agreed with the concept of “supply chain competing against supply chain.” Totals add to 101 percent due to rounding.

of the respondents). In this viewpoint, competition will be based largely on two capabilities:

- Internal supply network cost and/or service capabilities, which refers to the effectiveness, efficiency, and responsiveness of the supply network. An example of this capability is having the right configuration of products available.
- Internal supply network design, which refers to supply network design used. Examples would include either a vertically integrated or heavily outsourced design; build-to-stock, build-to-order, or postponement production; or retail or direct or distributor (or combination of the three) distribution channel. Dell competing against Apple in the personal computer market arena, for example, is based on competing supply network designs.

3. *Competing on Supply Network Capabilities Lead by a Channel Master.* The nature of competition will center on the single, most powerful company of a supply network, who will determine the terms of trade across the entire supply network. The single most powerful company is sometimes referred to as the channel master. (Twenty-three percent of the respondents held this view).

The data indicates that while just over 40 percent of the respondents describe the future in literal terms, that number is well below the 70 percent who concurred that the SC vs. SC characterized the future. (APPENDIX B discusses the literal interpretation of supply chain vs. supply chain.) Because the respondents described the future of SC vs. SC differently than a literal definition of SC vs. SC, we segmented the responses by their descriptions and arrived at set of scenarios to assess and consider. These scenarios refine the way SC vs. SC characterizes the nature of competition, leading us to question whether “SC vs. SC” is an accurate descriptor at all. “SC vs. SC” seems to make sense in only one scenario, leading us to believe that the way companies compete with their supply chains is a complex issue with multiple dimensions, not so simple as the concept of “SC vs. SC.”

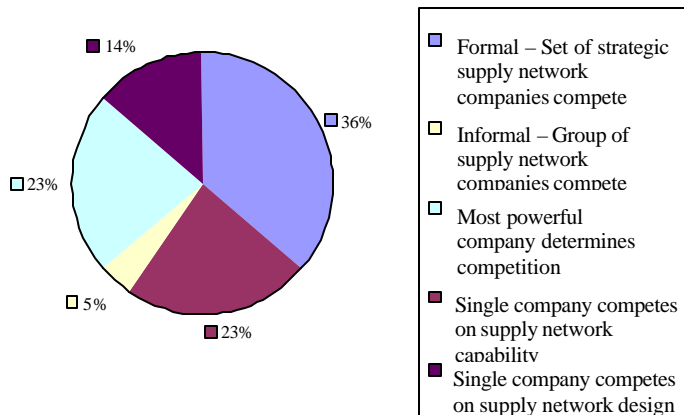


Exhibit 2 - Interpretation of Supply Network Competition

Three Scenarios for Supply Network Competition

While the respondents described three scenarios, it is not clear when these scenarios are valid, so we analyze these here to better understand their limitations and how they could be applied.

Analyzing the Three Scenarios

To better ascertain the validity of the three scenarios identified, we analyzed the feasibility of each and examined instances where they would—and would not—work.

Scenario 1: Competing as SC vs. SC Literally

The Limitations

Closer examination of the SC vs. SC proposition reveals some inherent limitations that help explain why it is not practical or valid for all conditions. In particular, certain realities challenge the validity of literal SC vs. SC competition. The first relates to the presence of common or overlapping suppliers, a condition that makes it difficult for a supply network to compete as a unit for several reasons:

- Common suppliers limit the ability to source unique capabilities (products or services). Some can argue that it is possible for a single supplier to provide unique value offerings to different customers. Yet at the very least, a common supplier is presented with a conflict of interest.
- Common suppliers limit the customer's ability to foster and develop unique capabilities within a particular supplier. Ultimately, any investment in a supplier will provide a "free" benefit for competitors using the same supplier.
- When common suppliers are used, it becomes difficult to compete without compromising other supply network participants. The existence of common or overlapping suppliers complicates the task of aligning business strategies and sharing intimate business intelligence. By responding to one customer's requirements or developing new capabilities for one customer, the supplier effectively signals that customer's proprietary business intelligence to all other customers.
- Common suppliers inherently pose a barrier to open information sharing with customers. The reason: information shared by one customer with a common supplier may be inadvertently disclosed to other customers despite the supplier's best efforts and intentions. It may be unrealistic to expect that an entire organization could completely protect its knowledge of one customer's activities from getting into the hands of other customers.

Another inherent limitation to the SC vs. SC model is that suppliers often compete with customers, making true collaboration extremely difficult. Two cases serve as illustrations. Siemens sells circuit breakers both to panel board OEMs and to an internal Siemens business that competes with those same OEMs. Dell and Intel collaborate to market their products, but they also compete to get the consumer to purchase a computer based on their respective brand

and value-add. Intel wants the customer to buy a PC for the Intel processor inside. Dell wants the customer to buy the PC for the convenience, fast service, and reasonable cost it can offer.

The benefit of coordinating across more than three tiers in the supply network is not clearly proven—one more reality that limits true SC vs. SC competition. (In fact, the only clearly demonstrable advantage relates to sole-source supplier-customer relationships.) Data is difficult to use beyond one tier upstream and one tier downstream for several reasons. Demand data needs to be aggregated, segmented for various suppliers, and then adjusted for the latest bill of material changes. Those supply networks that can use data beyond one tier by necessity have inflexible and complex systems. This limits customer procurement to a predetermined list of products from predetermined suppliers for a predetermined fixed bill of material. Given that each supplier will likely have a different product design and bill of material for each SKU, the complexity of making the demand data useful for suppliers and sub-suppliers exceeds the potential benefits from automating the data.

Yet another problem is that few supply networks have a central control point that can coordinate the competitive battle against another supply network. Further, in some cases, the industry structure may contribute to less-than-favorable conditions for supply network-based competition. In industries with consolidated supply bases, a handful of suppliers typically possess entrenched vested power. In such cases, these suppliers may have little incentive to coordinate with customers or with suppliers.

Finally, the high sunken costs and large investments in technology dedicated to one supply network pose a significant limitation to the SC vs. SC model. This is particularly true if high asset specificity is required to service one particular supply network. In many industries it is not uncommon for a customer to set integration requirements that require a substantial investment on the supplier's part (for example, Wal-Mart's RetailLink) or to require dedicated service (such as Dell requesting a supplier to build a distribution center next to a Dell plant).

The flexibility required for competitive supply networks today is inconsistent with the kind of commitment and complexity needed to utilize demand data across several tiers. The explicit coordination costs and implicit opportunity costs associated with this kind of complexity and inflexibility may exceed the potential benefits of utilizing demand data across several tiers. The conclusion: The SC vs. SC concept, taken literally, does not provide a universally valid characterization of future supply network and competition.

When SC vs. SC Applies

Despite the limitations noted, supply chain-based competition clearly takes place in certain limited instances. Here are some examples:

- When the supply chain is a vertically integrated company, either competing against another vertically integrated organization or against supply networks comprised of many companies. In some cases, the company may own most of the supply chain, outsourcing

only some of the needs. In this case, the critical factor is that there should be no common suppliers shared with any competitors.

- When the supply network is a highly integrated company with no common suppliers.
- When the supply network is comprised of companies that have sole-source relationships.
- When the industry is fragmented such that there are no common strategic suppliers represented in more than one supply network, and most strategic suppliers are dedicated to one supply network.

In some cases, these conditions will exist for one company or set of companies but not for others. This results in a situation where one group competes as a supply network and another group does not. A good example of this is Zara, the highly integrated fashion clothing designer, producer, and retailer. Zara competes against other companies that outsource their design and production activities and that clearly do not compete as a supply network. In these instances, the determining factor of whether a company will be successful may not depend on the degree of vertical integration, but on their respective business models (maintaining high control of the supply chain for fast response or decentralizing the supply chain for low cost and low capital investment requirement).

Will a vertically integrated producer always outperform the non-integrated supply network? No evidence exists to answer that question one way or the other. The best answer may be that it depends on the situation. For example, if the critical factor in a market were low cost, and if there were cost advantages of having integrated operations, then the vertically integrated company would have a distinct competitive advantage. If, on the other hand, fast cycle time and high product innovation were the key market drivers, a non-integrated supply network may hold the competitive edge. In short, there's no universal answer to the question of which supply chain model is always best.

Scenario 2: Competing on Supply Network Capabilities

As suggested by the respondents to our Delphi study, this scenario entails a single company or entity (this would include cooperatives, joint ventures and other legal entities) competing based on two factors: (1) on the cost and/or service capabilities of their internal supply network⁴ or (2) on internal supply network design. Increasingly, companies are competing on network capabilities. They are expanding the supply network by utilizing and integrating (not just adding) capabilities of other members of the supply network such as an upstream supplier or a downstream customer to offer a unique and compelling solution. This ability to integrate capabilities from other supply network participants often can be leveraged for competitive advantage.

Companies are integrating additional capabilities from their immediately adjacent upstream (suppliers) or downstream (customers) supply network companies via joint marketing arrangements, joint product development programs, and collaborative initiatives such as JIT,

⁴ We define the capabilities as being a company's internal capabilities + integrated capabilities (a set of unique products, services, and/or contractual agreements resulting from resulting relationships with supply network participants).

vendor-managed inventory, and CPFR (collaborative planning, forecasting and replenishment), among others. These are among the compelling advantages of integrating the capabilities:

- The benefits of one-to-one or next-tier coordination are quantifiable.
- Successful one-to-one relationships add value.
- Data and information sharing is more immediately useful.
- Relationships with adjacent upstream or downstream companies are more tangible, manageable, and controllable than those with more distant participants in the supply network.
- It may be possible to develop unique value-add by working closely with one supplier, developing a unique relationship, a unique product or service, a unique contract, or a unique combination of these. It is harder to do this with multiple companies in the supply network across multiple tiers.

Therefore, while it's useful to consider various methods of coordinating across multiple tiers of the supply network, the more practical view the future may be a single company or entity competing on its own supply network capabilities.

Our analysis further supports this practical picture of supply network capabilities being leveraged as a single company rather than as a group. This entails competing by focusing on your company's own capabilities (your "ecosystem" as one respondent explained it) rather than attempting to build extended relationships with distant members of the supply network. An important aspect of creating the ecosystem is that new capabilities should be more than just additions to capabilities that were outsourced or added.

We think it is important that the ecosystem is created not just by adding capabilities but also by 'integrating' them into the business. The difference is that 'integrated capabilities' are not readily copied, and they may provide some measure of competitive differentiation. Capabilities that are just 'added' offer little competitive differentiation. To illustrate with an example, there is little differentiation achieved when a company offers a capability such as 'package tracking' by directing its customers to use UPS or FedEx. In contrast, one could argue there is useful differentiation achieved when that same company seamlessly integrates UPS' or FedEx's tracking capability into its own system so that the customer enjoys a higher service level than if they had to go to UPS or FedEx on their own.

Instead of mere additions, the ecosystem capabilities need to be integral elements of the company's go-to-market efforts. Good examples of these kind of integrated capabilities can be seen in the following activities: early supplier engagement on product development; supplier and customer involvement in critical decisions; and the co-mingling of supply network operations between two adjacent-tier companies. (Exhibit 3 gives representative examples of supply network enhancements achieved via one-to-one company-to-company coordination.)

Supply Network Capabilities Enhanced	Company & Initiative
Supplier integration – Enhanced Bose’s ability to design new products faster at lower cost and at higher quality, enhanced Bose’s ability to produce at lower operating cost and at higher service levels, enhanced Bose’s effective work force via on-site supplier (‘in-plant’)	Bose Corporation & JIT II – Suppliers given purchasing responsibilities, given office ‘in-plant’ and operate as though a Bose employee
Supplier Co-location – Enhanced VW’s ability to reduce capital plant requirements, enhanced VW’s ability to engage suppliers in production	Volkswagen & Resende Plant (Brazil) – Plant designed for each supplier to operate one operation as vehicles move sequentially along production line
Dedicated and selective supplier outsourcing – Enhances Zara’s ability to customize production rapidly by using local small sewing operations, Enhances Zara’s ability to act as though vertically integrated through a dedicated set of sewing suppliers	Zara & sewing enclave ⁵ – Nearly vertically integrated, Zara outsources sewing operations while otherwise is vertically integrated (owning retail operations, product design, fabric cutting and dying, logistics)

Source: Authors

Exhibit 3 – Examples of Innovative Supply Network Capability Enhancement

Scenario 3: Competing on Supply Network Capabilities Lead by a Channel Master

Under this competitive scenario, the single most powerful company of a supply network will determine the terms of trade across the entire supply network. This dominant player is sometimes referred to as the channel master.

The channel master uses its market power to coordinate processes and activities among some of their suppliers and customers. Examples include the supply networks of Dell Computer, Procter & Gamble, and Wal-Mart⁶. These channel masters range from being benevolent and working to provide benefit to the entire network (the “Lord of the Chain,” as described by Christiaanse & Kumar⁷) to being entirely company-focused and transaction-oriented. In the latter case, the channel master acts solely for its own benefit, regardless of the potential detriment to the rest of the supply network.

In some cases, the company that is competing is a supplier to, or a customer of, the channel master. The nature of the channel master typically dictates the nature of that relationship. Yet

⁵ Sewing enclave is a description of the grouping of about 300 suppliers in No. Portugal and Spain that sew fabrics that Zara has designed, dyed and cut.

⁶ It is possible to have more than one channel master in a supply network. In these cases, the companies are not explicit competitors although there is clearly a competition for control of the supply network.

⁷ Ellen Christiaanse and Kuldeep Kumar, " ICT Enabled Co-ordination of Dynamic Supply Webs", *International Journal of Physical Distribution and Logistics Management*, 30:3/4, 2000, pp. 268-285.

the value added by the suppliers can somewhat offset the power exercised by the channel master.

Chrysler Corporation of the 1990s serves as a good example of a Lord of the Chain-type of channel master. The automaker considered suppliers to be an integral part of its “extended enterprise” and worked aggressively to integrate supplier capabilities into Chrysler’s business. While Chrysler did establish many of the rules of the game, its relationships with suppliers were far more constructive and collaborative than other relationships that the automotive industry had experienced in the past.

The channel master scenario is commonplace in today’s marketplace and will likely remain a viable competitive scenario for the future.

A Realistic Look at the Future

It’s clear that “SC vs. SC” does not universally characterize the nature of competition and the supply network of the future. Granted, it does describe some limited situations. But as our study data suggests, other competitive scenarios are likely be far more commonplace.

It’s important to note, too, that the three main competitive scenarios identified are not mutually exclusive. Even today, we find examples where a vertically integrated company (Zara) competes based on its supply network against a channel master (The Limited) and also against The Gap and other retailers that are parts of interconnected supply networks but that compete based on their own supply network capabilities.

In preparation for their competitive future, companies may find some value by recognizing the importance of language in describing their supply network and understanding the environment and dynamics in which they compete. Does your company compete as a supply network, as a channel master or under a channel master, or as lone company solely based on your supply network capabilities? What are the supply network capabilities that the company has and what unique set of capabilities are needed for success in the marketplace? How can you integrate the desired capabilities--through contracts, unique products and/or services or relationship? What new entities should the company explore in order to integrate the needed capabilities? What are the tradeoffs between explicit coordination costs and implicit opportunity costs required for the benefits of coordinating and integrating new capabilities? These are the kinds of questions that companies have to consider in developing their future supply chain strategy.

Looking ahead, we’re careful not to discount the possibility of new approaches being developed that would permit coordination across multiple tiers of the supply network. Many questions about governance across the entity including control, authority, ownership and benefits and cost sharing need to be answered. In fact, we are currently undertaking such a study.⁸

⁸ A recent study by MIT has explored structures and entities that could possibly provide necessary control and coordination of multiple tiers of the supply network. The researchers have introduced the concept of a “network

Much of the innovation affecting the nature of competition and the supply network that will occur in the future will relate to new and different entities that will coordinate across the supply network. These new entities will likely provide unique sets of capabilities, enabled by new governance methods that work equally well for each supply network participant. It's possible that the proliferation of collaboration initiatives and the blurring of company lines may indeed lead to this end. Ultimately, we still envision competition based on the individual company or entity and its assembled ecosystem of capabilities—but, to borrow from something that the Beatles once said, not without “a little help from their friends.”

master,” as an entity or entities that would coordinate the various information and material logistics flows and overall system benefits allocation.

APPENDIX A

SC vs. SC: Where it Does and Doesn't Work

For every example of supply chain vs. supply chain in action, you can find at least as many instances where that model does not fit.

Where it Works

- Fashion vs. fashion.** Apparel manufacturers use different supply networks to achieve different capabilities. Rather than depend on production operations in Asia-Pacific, Spanish apparel manufacturer and retailer Zara relies on a local supply network, which it largely owns and controls. That network that can design and replenish hot-selling fashion products in the stores within three weeks. Zara's supply network entails a near-vertically integrated company that owns retail operations, product design, dieing, and fabric cutting. Only the sewing operations are outsourced.
- Poultry vs. Poultry.** Purdue and Tyson pit their respective supply networks to compete against each other and others in the poultry market. Being vertically integrated to a large degree, they compete on their brand as well as on their ability to mass-produce quality chicken products. They also compete on their ability to trace product through the supply network.
- Wool vs. Wool.** Brax, the innovative German fashion manufacturer and retailer, developed a unique line of men's trousers made from Tasmanian wool that reinforced the company's image of selling products that "feel good." The products flow through an aligned and dedicated supply network of selected wool producers, bypassing the auction system and through to Brax for production. This network helps establish longer-term relationships. And this, in turn, results in higher predictability of supply and higher quality, which are integral parts of Brax' go-to-market approach.
- Chains of Success.** As part of the Chains of Success initiative sponsored by the Agriculture, Fisheries, Forestry-Australia (AFTA)⁹, several specialty food producers¹⁰ structurally realigned into "chains" with their distributors and retailers. Through information technology and collaboration, they were able to create aligned networks more responsive to customer requirements. This program is designed to promote Australian food producers.

⁹ Agriculture, Fisheries, Forestry – Australia, "Chains of success," Food and Fibre Chains Programme, www.supermarkettoasia.com.au.

¹⁰ Miandetta Pty Ltd (Australian specialty asparagus and pig meat producer), Wood Fisheries (fish trawling and export company), and Pacific Foods (supplier of primal and portion control meat cuts).

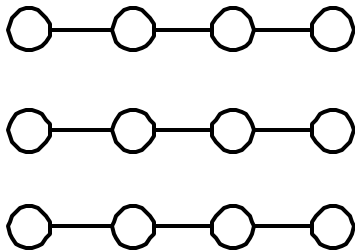
Where it Doesn't Work

- **U.S. automotive industry.** General Motor's supply network can't literally compete against Daimler-Chrysler's because the two companies share the same suppliers. This makes it difficult for both automakers to get unique value from a common supplier. It also prevents them from leveraging supplier capabilities to their sole advantage. (It should be noted that Chrysler did create considerable advantage over GM and Ford in the late 1980s and early 1990s through closer collaboration with its supply chain partners.)
- **Dell, Compaq, and other PC manufacturers.** The modularity and universality of personal computer components results in an overlapping of PC supply chains at multiple tiers. Every computer manufacturer uses pretty much the same components. They seek to differentiate themselves through cost and customization
- **Airbus and Boeing.** Both of these aerospace companies rely on the same suppliers for avionics, engines, tires, seats, and many other components. Therefore, the competition takes place not on their supply network capabilities, but on other capabilities—principally product design and the ability to cost efficiently assemble components.
- **Suppliers that are also competitors.** It is increasingly common to find suppliers competing with their customers, in two different scenarios. In one scenario a supplier serves both an internal customer as well as external customers that compete in the same marketplace. In another scenario, a retailer competes with a manufacturer for the customers' buying decision. One such example is when Dell and Intel compete to get the consumer to purchase a computer based on their respective product. (Dell the PC retailer hopes that the customer will buy a Dell computer because of Dell's product, price, and service. Intel the chip manufacturer hopes that the customer will buy the PC because of the specific Intel processor and its capabilities). Regardless of the scenario, the added competitive aspect of the relationship makes collaboration more difficult as the two companies may be working towards competing ends.

APPENDIX B

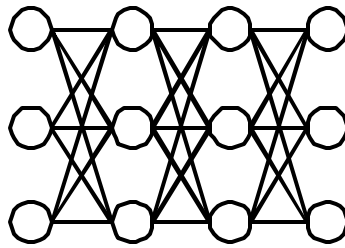
Supply Chain vs. Supply Chain: A Literal Look

To gain a better understanding of the nature of supply chain vs. supply chain competition, it's useful to examine the concept's literal meaning¹¹. By definition, supply networks (to use the preferred terminology) *do* compete against other supply networks to a certain extent. Unless a company is completely vertically integrated, it cannot successfully compete alone. It needs to be part of a broader supply network.¹² As illustrated in Exhibit B-1.1, if the companies competing in the networks (m) are completely disconnected (no overlaps) at each tier (n) in an industry, these networks *do* compete against each other.



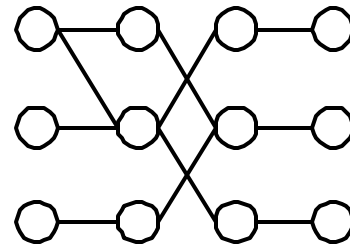
Note: M=3, N=4

Figure B-1.1 - Completely Disconnected Supply Networks



Note: M=3, N=4

Figure B-1.2 Completely Overlapping Supply Networks



Note: M=3, N=4

Figure B-1.3 Partially Overlapping Supply Networks

On the other hand, these networks *do not* compete against each other when all companies compete in each of the different supply networks. As seen in Exhibit B-1.2, each network (m) overlaps with each other, with each company at every tier (n) selling goods to every tier (n+1) company. An example of this would be modular and commodity products being procured efficiently from multiple members in an open market.

Competition in an industry is generally somewhere in between these two extremes, reflecting the distribution of flows and relationships as seen in Exhibit B-1.3. There are some overlaps and some completely disconnected tiers within the networks. In most cases, many of the potential links are eliminated since there are closer relationships with some companies, depending on the nature of the product, price, and capacity of the supply network.

Examples of supply networks in each category are shown here. Note that those under the heading “Completely Disconnected Supply Networks” are primarily vertically integrated, historically or geographically dispersed supply networks.

¹¹ This analysis uses concepts from a personal interview with Professor Thomas Malone of MIT

¹² Unless the company is completely vertically integrated, then the company is in fact the entire supply chain and it competes as such.

Completely Disconnected Supply Networks	Completely Overlapping Supply Networks	Partially Overlapping Supply Networks
Vertically integrated manufacturers like Perdue vs. Tyson Foods in poultry production.	Compaq vs. HP (modular product architecture and fragmented supplier base create significant overlap).	PC vs. Mac supply chains in the 1980s (overlap limited mostly to memory and software).
Highly vertically integrated manufacturers-retailers such as Zara in fashion apparel.	Private label apparel retailers that source from contract manufacturers in Southeast Asia.	The Limited vs. branded apparel products from Levis sold through retailers.
Automobile manufacturing supply chains of the U.S., Germany and Japan in 1970s.	Airbus vs. Boeing (overlap in engines, electronics, avionics, tires, seats, and others).	Automotive supply networks of the U.S. in 2000 with many OEMs sharing common suppliers.