

Creating a Value Managed Enterprise

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Many businesses around the world have been working on supply chain in an effort to reduce costs to a bare minimum. The results present a mixture of achievements. Some firms have made progress and can point to significant savings in procurement and sourcing costs. Manufacturing costs have been reduced, cycle times are down and inventories have been pushed onto obliging suppliers. Logistics systems have been improved and transportation and warehousing costs reduced. Order processing has moved beyond electronic data interchange (EDI) to electronic commerce, although order entry for some businesses is still done through the mail, over the telephone or facsimile machine, with a fair amount of errors and the need for much expediting and reconciliation of the billings. New product introductions are getting to market sooner and with a somewhat higher acceptance rate. The information technology (IT) department has become a useful part of the effort, by providing enabling software and systems. So goes the early accomplishments.

From another perspective, available-to-promise capability and online visibility of materials and finished products are on the radar screen, but not quite fully operational in most cases. Effective customer relationship management (CRM) is still right around the corner. Supply bases have been reduced and costs wrung out of the remaining vendors, but it's getting difficult to secure anywhere near the same level of year-over-year savings. As supply chain efforts have matured, most firms have developed metrics to document the savings, and can point to measures showing how the business is somewhat better at pleasing the most important customers. A small number of companies have broken down the internal walls restricting sharing of best practices

between business units and a few functions are cooperating once in a while. With the leveling off of the cost savings, the questions have turned to: where do we go to get more savings? What's the next level of improvement? How do you guide a successful effort to more progress? The answers come from a transition to the mindset driving the firm, from an internal only improvement perspective to transforming the firm and its closest business allies into a ***value managed enterprise***. To do so, the firm and its closest business allies need to adopt a new lifestyle.

Leaders Move to an External Environment and Build a Network Relationship

As supply chain matures as a powerful business process improvement technique and firms reach a leveling off point in progress, there appears to be a dichotomy among the practitioners – from low performers to high achievers. Many firms seem to have dipped their toes in the supply chain waters with most having some degree of improvement to show for the effort. When we review overall results, we find companies that managed to add at least a percent or two of profit to the bottom line, after all the costs and expenses are deducted from the savings. These firms tend to remain stuck in the lower level achievement area. At the same time, we find firms that added five to eight percentage points to net profits, the apparent upper limit to gains from better supply chain processing. The difference in results is directly related to how well the firm worked the total assets and resources across an extended enterprise – and not just its internal organization. The mindset regarding use of external resources is central to the resulting dichotomy, with those capable of making the external transition gaining the high ground on the laggards. Consumer goods and retailing offer a clear example of this phenomenon.

Although most firms in these industries have been working hard at supply chain for a decade or longer, the results are extremely mixed. Grocers, department store chains, cataloguers, and specialty retailers can point to enhancements that derived from working hard at reducing supply chain costs; but figures from annual reports show most still work on thin margins. Perhaps,

they gave most of the savings to their consumers. A check of the annual reports from the consumer goods suppliers generally shows larger percentage profits. Maybe these constituents kept some of the savings for themselves. In either event, when we check the figures for Procter & Gamble and Wal-Mart, we see the kind of disparity we're referencing. There's an extra three to five points of profit over the laggards, and both firms indicate supply chain was at the heart of the improvement.

What's the difference for these firms? It has to do with a mindset that led to collaboration between two powerful businesses. For almost a decade, these two companies have been working together to pursue improvement in their collective supply chains. Using some common sense, shared resources, and a dedication to enhancing a specific inter-enterprise system, these firms stand out in terms of accomplishment. P&G and Wal-Mart started by analyzing together the flow charts describing their supply chains and set out to find mutual benefits. In one area, they paid attention to the number and types of products being processed through their collective network. The firms decided together that the number of SKUs could be reduced to those the consumers wanted and the ones on which both companies could make money, while reducing the complexity of the buying decision in the eyes of the consumers. They then developed a precedent-setting arrangement that took advantage of the collective delivery capabilities and collaborated on the enabling technology to create a world-class advanced supply chain management system.

Joint teams have worked on every aspect of their collective supply chains and the results are an example of a leading effort. Today, P&G knows by cash register the sales of their products that have gone through the Wal-Mart system. The replenishment is based on actual consumption. P&G delivers the replacement goods and, through its vendor-managed inventory system, re-stocks shelves and floor spaces. Promotions are developed jointly and information on how well the event is going is transferred back to key P&G suppliers. It's a model of how two proud and successful firms can work together for mutual benefit. It's a model of the new business reality – the value managed enterprise.

Similar progress and documented achievement have been recorded by Intel in the high-technology sector, by Boeing in aerospace, Dell in computers, Toyota in automotive, Disney in entertainment, Colgate in consumer products, and John Deere in industrial products. Others are forging commanding leads in their industries by working beyond the limits of the typical business blinders that counsel only ideas generated within the firm are any good. It's time to take those blinders off and view the world from a global perspective and begin construction of your value managed enterprise. That's where the future lies, with linked organizations working for mutual benefit, applying the best ideas and practices that can derive from collaboration and enabling technologies.

Enterprise Efforts exceed Individual Action

As supply chain efforts mature, one distinction is becoming apparent. Firms that embrace the inherent concepts as part of a total enterprise optimization effort have made the greater progress. The leaders have used advanced techniques to focus first on internal operational excellence, and then move toward customer satisfaction with the aid of external resources, to open a serious gap between less able competitors. These leaders have discovered the advantages offered by moving their supply chains into a position of having superior capabilities, gained through greater access to knowledge across what becomes an enterprise-wide intelligent value chain network, or what we are calling the value managed enterprise. When that knowledge is combined with an effort to develop greater customer intimacy with the most important customers, the advantage becomes an ultimate distinction in most industries and markets.

For those unsure of the potential benefits, surveys conducted for the last three years by CSC, in conjunction with Supply Chain Management Review magazine, clearly document that savings and improvements are real for serious supply chain efforts, reaching three to eight points of new profits. These studies, as well as ones conducted by AMR Research and other major consultancies, also show that the major savings (particularly those related to revenue increase)

are eluding many firms, which are still bogged down in the early levels of a supply chain effort and not inclined to work with external business partners. We see an enormous possibility in such a context. The opportunity to use supply chain as a driving force behind further performance enhancement, and to move a firm into a position where the distinguishing feature is being solidly linked in a value managed enterprise, has become the means to reap the greatest return from an end-to-end supply chain improvement effort. Internal obstacles and cultural conflicts tend to be the greatest inhibitors to achieving such a position.

Now distancing an individual business from its competitors in areas of importance in a market has long been the goal of most enterprises. The chance to extend market leadership, however, and to gain a dominant position through the application of collaboration and technology focused on customer satisfaction, the key ingredients of the value managed enterprise, have never been greater – for those businesses willing to overcome normal cultural barriers and the traditional unwillingness to work cooperatively with external resources to cope with process problems.

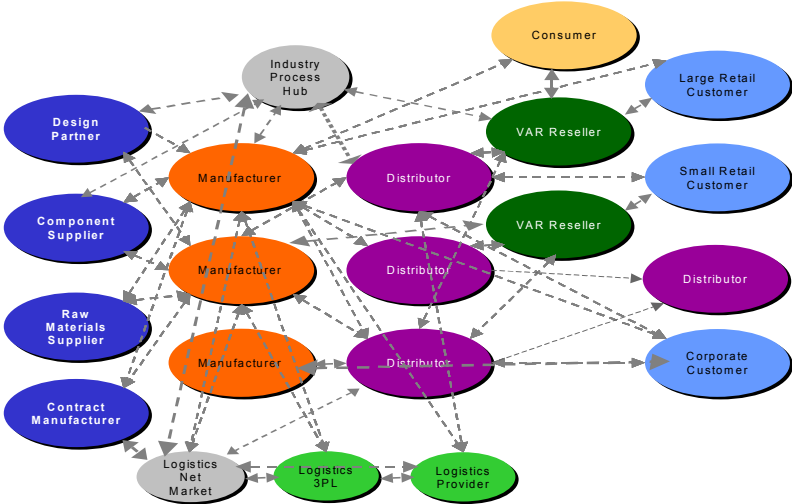
The purpose of this paper is to explain this opportunity by linking together four topics of importance to today's businesses: Advanced Supply Chain Management (ASCM), Customer Relationship Management (CRM), Technology Application – particularly business process management (BPM), and Customer Intelligence (CI) with a framework for achieving total enterprise optimization (TEO) within a business network. CI is our terminology for the acquisition, management, and integration of customer knowledge in order to create a differentiating customer value proposition. By looking holistically at these usually disparate topics, companies can develop integrated strategies and solutions for delivering products and services to key customers better than any competitors. When the effort is extended through BPM techniques to include willing and trusted business allies, working across an extended enterprise for the same purposes, the advantages are unmatched. BPM systems (BPMS) become the means to easily and safely transfer critical knowledge between collaborating members of the value managed enterprise.

Collaboration and Technology Move to New Levels

Cooperation between constituents in a supply chain isn't a new phenomenon, nor is the application of technology. These tools have been around for centuries, but they've become the means of differentiation between groups working competitively to gain an advantage in an industry. New Internet-based technologies have made the achievement of profitable growth, as well as continued cost enhancement, feasible through the collaboration of customers, suppliers, distributors, enablers and partners in an extended-enterprise value chain that goes beyond normal supply chain processing. BPMS becomes the enabling methodology. The goal becomes efficient process execution across the total network of firms, and success is defined in terms of new revenues, lower costs, and highest quality and customer satisfaction.

Before moving to technology enablement, however, any discussion on the possibilities of achieving total enterprise optimization must begin with an understanding of just how complex an extended enterprise supply chain has become and why inter-enterprise communication is so important. The original supply chain efforts were directed towards achieving optimum operating conditions across a linear set of tightly linked internal process steps – from beginning raw materials to final delivery and acceptance of products and services. Exhibit 1 shows that most supply chains are becoming complex business systems. Any analysis that is limited to internal processing is doomed to operate with sub-optimized conditions. There are simply too many players in a typical business network and weakness anywhere along the chain limits the possibilities for achieving optimized conditions. The end-to-end processing that has come under modern scrutiny now includes a multitude of business partners. Concurrently, the necessary flow of information and knowledge within a business network has become as important as the physical flow of goods and transfer of money across what is clearly an extended business enterprise. The lack of crucial data at an important point in the processing can bring the whole system to its knees. Supply chain optimization (SCO) now requires the collaboration of a host of business partners working in concert for the same objectives, sharing and not restricting vital knowledge.

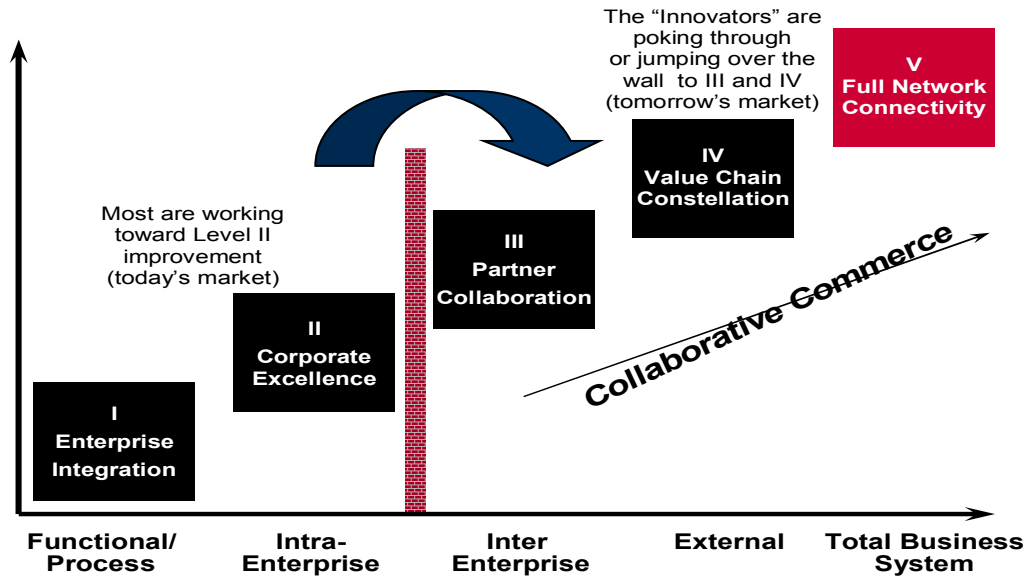
Exhibit 1: Supply Chains are Becoming Collaborative Networks



It becomes imperative in such an environment that the firm seeking optimized conditions makes a passage from an internal-only perspective, in terms of generating process improvement and operational excellence, to one in which willing and trusted business allies are made a part of the process improvement effort, with the end result focused on customer satisfaction. To accomplish this objective, the leading firms are merging their advanced supply chain management (ASCM) concepts with their customer relationship management (CRM) efforts, yielding a framework and roadmap for progressing through a series of levels until attaining the highest possible return on the effort, in terms of value for the customer and benefits for the providing firm and its allies. Along the way, a concurrent effort must be made to balance supply chain progress with the firm’s CRM capabilities, and synchronize the results of the two efforts.

Exhibit 2

Evolution to industry networks and collaborative commerce is inhibited by a lack of customer focused processes and organization alignment



Using a model to describe the maturity process of supply chain efforts, shown in Exhibit 2, we see that such efforts progress through five distinct levels. The first two are internal only and bring focus to functional improvement and operational excellence to internal operations. The cultural wall standing between levels 2 and 3 represents all of the collective inhibitions and obstacles to taking an external view of the processing and working collaboratively with willing business allies to build network improvements, which distinguish the supply chain in the eyes of the most important customers. Levels 3 and 4 represent the positions achieved by market leaders, while level 5 is intended to indicate the presence of full network connectivity or the highest processing capabilities.

The Five Levels of Supply Chain Management Calibrate Progress

A business enterprise moves through these five levels of evolution on its way to the most advanced positions of supply chain progress. Before embarking on a supply chain effort, there is typically some other improvement

process already underway, possibly focused on total quality management, business process reengineering, continuous improvement processing, or transportation and logistics. Most firms do not cast away the benefits from such efforts as they have gained some measure of success, and those who made the gains will feel cheated if their work is not merged with new efforts under the supply chain umbrella. Rather, they bring forward the better practices and enhancements to help further improve performance and profits. These practices are harmonized under an end-to-end effort that becomes known as supply chain. Now the firm enters the first level of the maturity model.

In level 1, the firm focuses on functional and process improvement. The effort is internal to the organization and oriented around enterprise integration, to find the best means of conducting specific supply chain process steps. With process maps illustrating the linked steps to guide the effort, teams are established to determine where current conditions are not at acceptable standards and find means to improve the associated processing. Many firms use the SCORE model supplied by the Supply Chain Council to guide their efforts.

In virtually every instance of such efforts, the beginning emphasis is placed in two major areas – sourcing and logistics, as these are the functions involving the greatest amount of overall business costs. Beginning with sourcing as the biggest target for reduction, the total buy for a business unit or a company is determined, the number of suppliers is reduced dramatically, product offerings are rationalized, parts reduced, and the buying volume is leveraged over the smaller supply base for more attractive pricing and features. Substantial gains are typically made in this area, often resulting in a reduction to buying costs of 5 to 8 percent, or a point or more of new profit.

In the logistics area, the amount of warehousing or distribution center space is analyzed, and usually rationalized to that which is absolutely necessary. Transportation costs are thoroughly reviewed to determine how the cost of outbound freight can be reduced, often cutting the cost per mile by 10 %

to 20%. Many firms spread their contracts over fewer carriers or give up management of trucking fleets to more qualified logistics providers. Internal warehouse and transportation operations are brought to reasonable standards for the products being stored and the demands in the market. Typical savings add a half point to full point of new profit.

The unfortunate part of level 1 is that most firms strongly resist internal cooperation and do not leverage the buying scale and other capabilities across the full organization. Content to find savings on a functional or business unit basis, most level 1 firms are characterized by a silo or stovepipe mentality that schools people to believe there is no advantage in centralizing any function or effort or sharing supply chain improvements across the business. Collaboration between functions or business units is resisted and communication systems that could facilitate processing throughout the organization are non-existent. This condition is unfortunate, as we have seen too many examples of companies not sharing what is clearly a better practice by industry standards with other business units within their own company.

Level 2 Requires Internal Sharing

In level 2, the effort continues on an intra-enterprise basis, as the firm begins to recognize the savings being generated, and seeks a state of corporate excellence in its overall supply chain processing. A focus on using the right techniques to find optimized conditions begins to permeate the organization, with a requirement that the silos and stovepipes begin to disintegrate, so the firm can develop best efforts across the total organization. Now the company's full purchases are leveraged, as the best category buyers are used to make the purchases for the total business. Total logistics systems are considered with best practices applied throughout what amounts to the total transportation network. Total asset utilization starts to take on real meaning.

The use of assets is evaluated, with portions of the assets being turned over to third-party providers more adept at handling the full ramifications of

storage and distribution. Selective outsourcing across the supply chain map is considered, meaning if the firm is not the best at a particular step, it looks for an external partner that can perform the same processing with high quality at lower delivered cost. Some form of shared services begins to appear in large, multi-unit organizations.

Order entry, order processing, and order management become important areas to be improved. Most firms embark on creating a better and standardized customer order management (COM) system. A communication intranet begins to come into existence, as the Information Technology (I/T) function starts to play an ever-increasing role of importance in SCM, providing the technology features needed to enhance the newly designed process steps. As firms analyze their order systems, most find an inordinate amount of errors in the processing. Firms determined to get better create new systems to eliminate those mistakes and the need for much of the reconciliation that takes place.

Those in purchasing and procurement, having transitioned to roles in strategic sourcing and now having responsibility for the total buy (usually split by categories over those buyers with the greatest expertise), begin to move to a higher level of buyer-seller relationship. Further savings are approached, but more in a sharing atmosphere. The elements of electronic purchasing also appear to handle the lower value sourcing categories.

Logistics accepts the new conditions, as that function moves to focusing on asset utilization and effectiveness of the overall delivery system, and determining that the best provider is taking responsibility for the process steps that assure accurate and timely delivery. Better flow of information through internal automation of transactional activities aids the loaders, shippers, and warehouse personnel in meeting customer demands. Improvements begin to show up in inbound and outbound freight, on-time deliveries and fill rates. Load utilization tends to rise as well, as return loads are found to fill the returning transportation equipment.

Demand management becomes an important factor, as the firm begins to realize that forecast accuracy can be a major inhibitor to accurate planning and manufacturing. With sales forecast accuracy often being as low as 40%, the firm begins to emphasize the need to get better incoming information on orders and predicted supply needs. Teams are set up to consider the areas of capacity planning and inventory management, with a view toward introducing improved techniques that include better matching of actual customer needs with sensible manufacturing schedules and better COM, without an overload of inventory. Most firms concentrate on moving beyond fundamental planning processes and embark on enterprise-wide resource planning (ERP) systems.

Near the completion of level 2, some form of sales and operation planning (S&OP) is in effect, with the various functions having an impact on demand management involved in regularly scheduled meetings and interactions to better define the demand signals and matching them with production capacity – in effect blending demand chain with supply chain planning. Service levels rise, often reaching highs of 95 to 98% for key customers. Inventory turns improve as the need for safety stocks and excess goods is reduced, typically from lows of two to three per year, to as high as 15 to 25 or more. At this point, the internal house is getting in order to begin external collaboration.

Cultural Inhibitors Slow the Progression

As indicated in exhibit 2, there is a cultural wall inhibiting further progress by most businesses. This wall counsels that external advice is something to be avoided, at least in public. All good ideas must be generated internally. If we need external help we should fire the people we have; and if we can get good outside information take it, but don't share any of our secrets, are all syndromes that restrict the ability to find help from willing supply chain business partners. Usually, one business unit surmounts this wall with a visionary leader, by conducting successful pilots that prove the value of the external environment, so others can follow.

Once over the wall and into the external environment characterizing level 3, the firm embarks on inter-enterprise activities and what becomes the formation of a business network, with the help of a ***few, carefully selected*** business allies. Through collaboration with these partners, the focus is brought to finding mutual benefits and a higher level of mutual savings. Emphasis is placed on the words few and carefully selected, because many firms try to move forward with too many suppliers, distributors and customers and invariably bog down the effort. The greatest successes start with a small number of one-on-one relationships to build a framework for external partnering that leads to the formation of a value managed enterprise.

Now firms begin to work collaboratively to find the means of distinguishing the network from competing groups, in the eyes of the targeted customers. In this level, the strategic sourcing group, for example, brings extremely important suppliers into the internal evaluation, often inviting them to participate in the S&OP sessions, working on collaborative designs, and being involved closely to match supply with demand, so safety stocks are not excessive and are at the point of need.

The logistics, transportation, and warehousing functions move to establishing relations with qualified supply chain providers, introducing warehouse management systems (WMS) and transportation management systems (TMS), linked with better demand signals and key customer needs, and providing the flow of information that helps all supply chain partners. The whole business becomes more collaborative, as these functions and others gain access to customer data to better drive forecasting accuracy, reduce lead times, delivery cycles and the need for inventory, and better satisfy the key customers. Many firms begin to establish vendor managed inventory (VMI) systems with their most important customers, and assume responsibility for specific categories of supply.

Marketing and sales enter the supply chain picture, as these functions bring key customers into the picture, to self-configure products and services

through an interactive system, which often includes an electronic portal through which the selected partners can access vital knowledge. Customized, closed-loop processes, supported with automated workflow tools begin to appear – as features intended to distinguish the firm in the eyes of the really important customers. Feed back from these customers is given to the design and manufacturing groups, to aid their planning and delivery efforts. Customer service starts to become very specific to the actual needs of the customers and is provided in a manner to match service with want, from direct help to self-help.

Design and development take a decided leap forward in the third level, as leading-edge communication tools – based on Internet technology and accomplished through a carefully designed communication extranet – are used to dramatically shorten the time from new concept to commercial acceptance. Key partners are directly involved early to co-design and rationalize capabilities, costs and application of knowledge. Shared data repositories appear, to reduce version control and eliminate errors. S&OP moves to Advanced Planning and Scheduling (APS) to manage volatility in scheduling and processing and to become more flexible in the ability to respond to market conditions. Advance Shipping Notices (ASN) begin to tell customers what is being forwarded and from what source.

Available-to-promise (ATP) characteristics appear to show what is actually in inventory and partners work together to determine what delivery cycles are absolutely necessary to meet needs. While many industries are moving from years to months of cycle time, some consumer products companies have become so lean and responsive that they are providing 72-hour to next day deliveries tied directly to actual consumption and what is needed, so stocks do not languish in storage. The key becomes keeping whatever commitments are made, so planning can proceed appropriately.

ASCM Becomes the Differentiator in the Higher Levels

Supplier and customer collaboration blossom in level 4, as the company moves forward with its positions in one or more networks or **value chain constellations**, the precursor to the value managed enterprise. In this advanced external environment, the firm has conducted a clear and defining supplier and customer segmentation, and begins working in earnest with a small base of upstream and downstream partners to apply best supply chain practices and techniques to move into the arena of ASCM, particularly those involving electronic transfer of business knowledge.

Now the focus is placed on how to establish a position of dominance in an industry for a particular network with the aid of the key end-to-end constituents. Suppliers will undoubtedly be a part of multiple networks, as they will be bringing customized features to those of most importance. Where distributors are important to reach special market segments or customer groups, they begin to play an equally active role in working on optimized solutions and conditions that distinguish the network in the eyes of customers.

In this level, new metrics appear to gauge the results. These measures bring attention to the importance of satisfying customers, and on-time deliveries, fill rates, returns and loss time due to product supply show up on the score card. Network partners begin to use activity based costing and balanced scorecards to turn the supply chain into a value chain of allies working for the same strategies. With information being shared electronically, network members start to realize exactly where the opportunities to achieve higher levels of improvement exist, and joint teams are established to find solutions to specific customer problems. The value managed enterprise begins to blossom.

On the supply side, supplier relationship management (SRM) becomes a feature of advanced efforts. Now the firm shares better practices with key suppliers to find higher values for both parties. Working together, they focus on the categories of most importance in the buy and look at the total cost of ownership, to find the hidden values that have eluded the relationship. Balanced scorecards appear in earnest to define the areas where both partners

can contribute to the next level of improvement. A similar tact is taken on the customer side, as customer relationship management (CRM) develops as a business feature, involving serious data sharing and the development of joint strategies and business goals aimed at increasing revenues for both parties.

Crucial to level 4 progress is the application of e-commerce and e-business communication techniques through BPMS, so there is end-to-end visibility of what is occurring across the value managed enterprise. Two special features appear in this level, collaborative design and manufacturing (CDM), and collaborative planning, forecasting, and replenishment (CPFR). In the first case, selective supplier assistance is used to greatly reduce cycle time for new and innovative development and to improve the likelihood of market success. Product life cycle management becomes a joint effort. Aerospace, automotive and defense groups are well along in these areas. The drive in automotive, for example, is to deliver a car to a consumer in less than ten days after selection.

In the case of CPFR, channel partner cooperation leads to applying technology together and using the online visibility to actually match consumption with replenishment. CPFR is a registered trademark of the Voluntary Interindustry Commerce Standards (VICS) Association. Using their guidelines, some firms are extending features from their technology investment to trading partners and are reducing out-of-stock conditions, creating sales lifts by better matching availability with consumer demand, and reducing the need for safety stocks.

Level Five – Worth the Pain?

Level 5 is more theoretical than actual at this stage. This level is characterized by what we call full network connectivity, through which conditions of optimized total business systems are achieved across the enterprise. This is the world of full network collaboration and the use of BPM technology to gain positions of market dominance. Only a few organizations per industry have reached this level, but those that do introduce unprecedented accuracy and

cycle times across the value managed enterprises that are now totally electronically enabled.

Business at the Process Automation Level

As we consider progress along the maturity model, it becomes clear that the simplest supply chains are becoming more complex, as firms look seriously at core competencies, the ability to outsource part or all of their process steps to better-able partners, and procurement is extended to global suppliers, sub-assembly manufacturers and contract operators. Distribution becomes more complicated rather than simpler as multiple channels are used to reach all customers and beyond to get to the targeted consumers. Service firms are drawn into the game, as they must respond electronically on both the buying and selling side of their operations.

It's become business @ the process automation level, and it's fast becoming the required way to operate and maintain competitive parity. Those who do it best tend to dominate a particular industry or market segment. Industry leaders that have embraced collaborative commerce use the emerging and proven technologies to form and enhance a networked enterprise. They're the new pathfinders. Working with suppliers, customers, competitors, partners, and various enablers, all focused on meeting the needs of specific business customers or end consumers, they're establishing the new benchmarks for performance.

Intel now handles over 85 percent of its order transactions electronically. Its network is clearly global and a paragon of efficiency. Boeing created the 777 airplane in virtual cyber space, as suppliers, designers, engineers, sub-assembly manufacturers, maintenance personnel, key customers, and others were linked over a virtual extranet, so no blueprints were necessary. Time from concept to delivery of product was reduced to industry best levels. Prada, the Milan-based manufacturer and retailer has created the store of the future in Manhattan, where virtual cyber space extends to special dressing rooms, in

which customers can create a video of themselves wearing new clothing and accessories, and view it at their convenience before entering an electronic order.

It's also business @ the knowledge level, and the way a firm and its allies can gain and sustain competitive advantage in the digital economy. In the networked enterprise, business partners share people, best practices, innovative ideas and knowledge; and they work together to create the new products and services most likely to be successful in ever-changing markets. They lead other entities in terms of customer and consumer satisfaction. Results are superior to industry standards and are defined by customer-focused innovation, a steady stream of new products and services that gain rapid and profitable market acceptance. The leaders are those businesses that provide the insight and concepts needed to guide a value managed enterprise to market dominance.

A virtual value chain is what we're considering; a value managed enterprise with a linked network of companies providing the connections and technology to support the many ways in which cooperating businesses plan, design, buy, sell, distribute and support the delivery of goods and services across an end-to-end supply chain headed toward a designated market. A chain that starts with basic chemicals to Du Pont, moves fiber to Milliken and on to Mohawk Carpets, and finally to the company that installs new carpet in your house is one example. The underlying premise is that most businesses have reached the limits of their individual ability to reduce costs or improve their responsiveness across such an extended enterprise. In a virtual value chain, the focus for process improvement expands and the results move to a new, higher level.

It's no longer how do we keep pursuing excellence within our four walls, but how do we collaborate with other companies in the value chain, of which we're just one segment. Often it requires firms to put aside old animosities and allow people from within the newly linked firms to talk to each other, share ideas, test new thinking, and discover how to work together to reach the next plateau in performance. The secret is to make the vertical interface as large as possible. That means you go beyond the normal conversation between buyers and

sellers, which often becomes contentious. You allow and encourage people from supply chain, logistics, design, engineering, operations, IT, planning and so forth, to come together and seek out mutual benefits for all constituents. The following steps are most often involved as the pursuit is for improving business at the process automation level.

➤ **Evolving toward “make to order” or final step customization.**

The objective is to get as close as possible to a situation where you make the product or service match the perceived customer or consumer need, and do it at the last possible stage in the processing – where the customer order triggers production, delivery and payment. Dell Computer pioneered this idea and it’s being copied in many industries. Reduced inventory, better satisfaction, fewer returned goods, no out-of-stocks, and less goods that languish unsold all help reduce costs throughout the value chain. Achieving these conditions requires all members of the network to cooperate and reflect capabilities of advanced supply chain management, so they don’t become a constraint to the overall processing. Linking planning systems across the network is just one of the absolute requirements for success. There’s no way the automobile industry is going to deliver cars from dealer order to the customer’s home in something like the targeted ten days without the level of collaboration and kind of system being considered.

- **Automating good processing.** A virtual value chain reduces the cost of goods and services purchased by improving and automating the process steps used to select and order from suppliers, get delivery of goods, track transfers, and pay for orders. This effort goes way beyond efficient sourcing. Utilizing cheaper Internet technology, in place of more complex electronic data interchange (EDI) or an inefficient facsimile or telephone order system, reduces the level of effort and increases the completeness and accuracy of information. It sharply curtails rogue buying, lowers the cost of operations, and increases the numbers of suppliers and customers

that can participate in the automated processing. It also leads to the creation of error-free order and inventory management systems that have online visibility, so value chain constituents can view what's happening and make real-time promises and changes that match current market needs. Hewlett-Packard has spent considerable time and effort to create such a world-class system that links its suppliers around the globe on a 24/7 basis. Through this extended extranet, planning of new products is also conducted so the firm stays on top of changing demands that obsolete some products in less than a year.

- **Designing processes to business rules.** The goal is not just to automate processes, but to build a virtual business where activities are designed and implemented according to negotiated business rules, usually defined in a formal contract among the network constituents. Collaborative commerce is conducted by exchanging messages and vital information (such as orders, invoices, payments, schedules, shipping requests, delivery diversions, and advance shipping notices). Each company in the value managed enterprise may evoke its private processes to respond to messages. They may also agree to use common technical standards or an accepted ontology, such as Rosetta Net.

The richer the functionality of the collaboration, the more business processes can be automated, further reducing costs and cycle times for all value chain constituents. Establishing a virtual logistics system, in which the network members access hundreds of carriers with open capacity on multiple transportation modes to satisfy their delivery needs, is just one example of advanced efforts. General Mills and a dozen or so other firms have created just such a network, as they access hundreds of carriers, with trucks and railroad car capacities, moving between points of pick up and delivery important to the network constituents.

Business @ the Knowledge Level

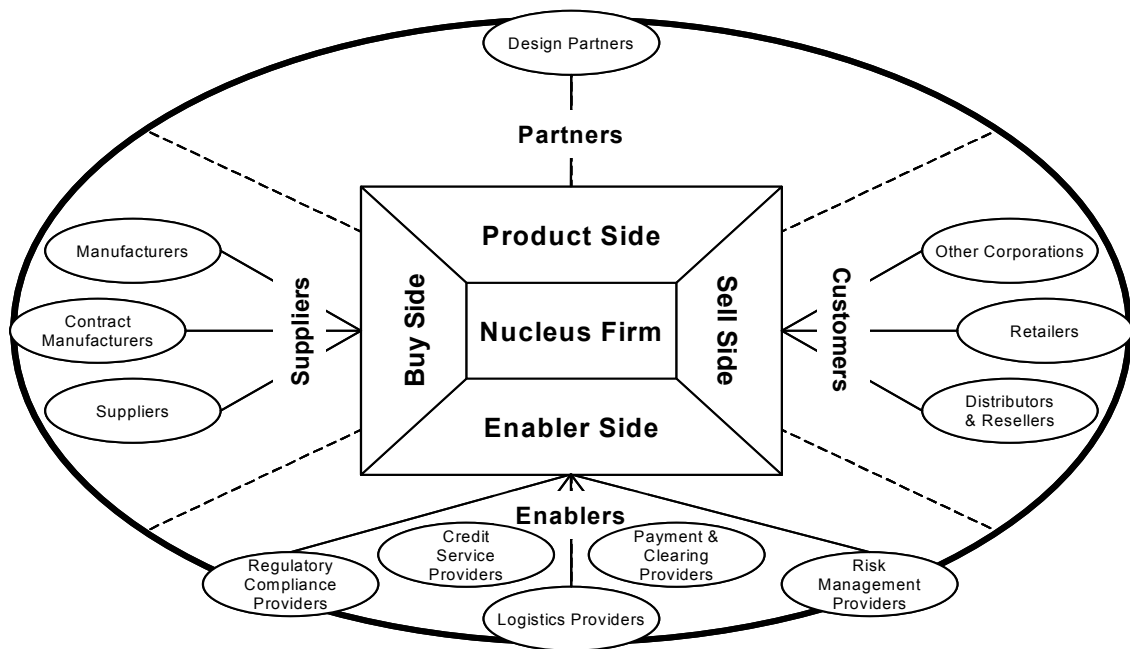


Exhibit 3 – Advanced Supply Chain Capabilities

A networked enterprise is made up of customers, suppliers, competitors (where appropriate to make something better than a normal partner), and enablers, which deliver customer-focused innovation as well as provide services such as logistics, finance, marketing, customer care and design. Typically, the most successful efforts are driven by a nucleus firm, as depicted in exhibit 3. This is a large, often branded, firm that takes a central role in forming the network and guiding the initial strategy and execution processing. Intel, Du Pont, General Motors, Kraft Food, and others have successfully played this role as they expand externally with their supply chains.

The linked constituents also build together the basic infrastructure services such as information systems, human resources, and accounting. There's nothing static about this environment. A business in a networked enterprise frequently changes roles – customer, competitor, supplier, or enabler – reflecting changes in the market and its own strategy. Dow Chemical may be a supplier, a manufacturer or an enabler, and can certainly play the role of the

nucleus firm. At any point in time, firms might play multiple roles in relationship to each other and be a part of multiple networks. Knowledge and its application become the key ingredients binding the constituents with the nucleus firm.

Conventional thinking holds that knowledge and intellectual property are where a business adds value. Yet it's rarely knowledge alone that generates lasting business success. The ability to anticipate a customer's needs and design products and services that address those needs are the important differentiating factors for a value chain. Using innovative skills and fresh techniques to bring those products and services to market is another factor, and one that benefits greatly from access to better knowledge of the market, customers, and consumer preferences. For years, Frito-Lay has stayed ahead of the competition by working a networked system that is considered industry best at accessing and using knowledge across its value chain. The key attributes of a successful value managed enterprise using knowledge in such a fashion include:

- **Developing shared business models.** The goal is not to automate existing processes as much as it is to help people bring together their unique skills and experiences, to make sense of the vast array of information available, and to create innovative solutions for specific customers and consumers. The collaborative platform used in a network effort must not just transmit information or messages, but should enable teams of people drawn from several different firms and cultures to develop shared models. These models will be strategically focused on the business, market, and products and services that should be created and delivered. The P&G/Wal-Mart alliance typifies this set of conditions.

Another function of the value managed enterprise is to design and deploy new business processes, which support the new models while optimizing the inherent processing. This activity requires new technologies to help the business staff (with assistance from IT) to select the best business partners to meet customer needs and

deploy or modify the business processes necessary to deliver the value proposition to those customers. The U.S. Department of Defense is hard at work establishing these kinds of collaborative technologies with its supply base. Bringing new weapon systems and support, which often includes suppliers on ships and close to battlefields, is just one aspect of the new cooperation involved.

- **Harmonizing work styles.** When deploying technology for collaboration among people, cultures, and business organizations, the differences between them will be important to success. Collaboration tools, or even shared work efforts, and work spaces will only be used if the participating organizations pay careful attention to the tasks to be accomplished and the work styles of the individual team members. In most cases, the technology is neutral. It's the work styles of the participants and their skills, practices, and experiences that must be harmonized, not by agreement to specific process steps, but through joint objectives, acceptable work practices, and realistic time frames.
- **Forging unique collective value propositions.** Valued managed enterprises rely on partnerships to forge unique value propositions for customers. You may need new partnerships or discover how to work with old partners in new ways. The economic promise of collaborative commerce is that it breaks down the cultural, organizational and technical barriers among firms, which become allied in extended enterprises and virtual value chains. The value managed enterprise becomes a true network as the participants agree to share information and work together to understand customer needs and create new products and services matching those needs.

Often problems or opportunities are addressed at the industry level as competitors work together to reduce costs or to find world-class sources for products and services. Each business assesses its core

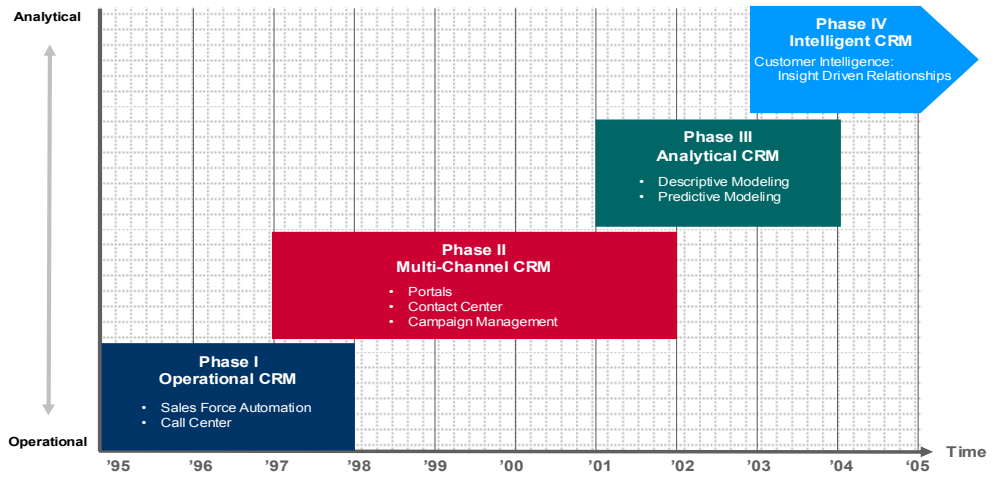
capabilities and its systems and processes in order to establish best practices across the end-to-end chain of connection. No longer is it more costly or more risky to outsource an activity to another partner. Indeed, continuing to take on an activity in which you're not world class restricts your ability to compete on both cost and quality with another business network that's more adept at partnering. The result of using best capabilities is a value chain constellation where each business partner does what it does best and works with others for everything else.

- **Achieving real creative collaboration.** Even for businesses with some experience in an early type of partnering, the most difficult transition will be to establish real creative collaboration – working together to transform how the value chain operates, or enhancing the goods and services provided to customers. This form of partnering is still rare, even between units within a single firm. It calls for new management skills and metrics. At the team level, management must define the goal as creating new value for a specified customer or market segment, and establish metrics and rewards linked to achieving the defined objectives. The agreement must remain flexible and recognize that one or more of the businesses may add value to the product or service designed by the team.

Attention to the Customer builds new Revenues

Moving from a focus on cost reduction and bottom-line improvement, as Exhibit 4 illustrates, customer relationship management (CRM) progress can be matched with the normal supply chain evolutionary levels, as a business moves from the early points of enterprise integration (where the firm gets its house in order), to a position of analytical CRM (where the firm becomes a viable part of a superior value chain constellation), and on to development of the intelligent CRM position (where the firm and its allies dominate an industry).

Exhibit 4 Customer Intelligence is Driven by the Convergence of Data, Marketing and CRM Applications Capabilities



Beginning in the mid 90s, most firms progressed through the first levels of the supply chain evolution, moving from enterprise integration, where early savings were made through concentrated sourcing and logistics efforts, to corporate excellence, where internal obstacles were conquered and planning, order management, manufacturing skills, and inventory management became serious parts of the effort. During this time, many companies also progressed into a form of operational CRM. Sales force automation became a factor, as companies learned they could use data to enhance the ability of sales representatives to help customers find extra values and build more revenues. Call centers came into vogue as contact centers were established to match the needed services with what would truly help the key customers and work into multi-channel customer service hubs. Toward the end of that period, while in the second phase of the effort, campaign management became a factor, as firms learned they could ally themselves with key suppliers and customers to improve the results of special sales efforts.

At the beginning of the new century, those firms that maintained a dedication to the supply chain effort moved into level 3, and began collaborating in earnest with their key partners to find the hidden values in the linkage that eluded those firms bogged down in an internal-only focus. During this period,

these firms typically advanced to a form of collaborative CRM, applying technology to increase the knowledge available to business allies having the same purposes. Using the Internet as the major tool of communication, these companies began to share valuable information with selected and trusted business allies, so they could further improve their abilities to create and sustain new revenues. Partner relationship management became the tool of choice, as these allies learned they could share previously sacrosanct and private information to build revenues together, without risking the future of their organizations. Customer data integration became a vital technique to assemble and use important knowledge on customers, consumers, and markets to introduce customized solutions and offerings that were clearly better than any competing business network.

As a few businesses managed to progress into level 4 and became part of a value chain constellation, the more advanced firms moved further with analytical CRM and began to reap the benefits of a true customer intelligence environment. Here the nucleus firm in the center of the supply chain network would join forces with key supply chain partners and drive the network partners to analyze customer knowledge together. Using business process management (BPM) as the linking tool and BPM systems to transfer the important knowledge between disparate communication systems, these firms found the means to quickly transfer valuable data among supply chain partners. One important output became demand chain management, where the actual needs of the end consumers and customers were matched with the capability to meet those needs. Essentially, demand chain and supply chain converged, and the intelligent value networks which emerged from this level of progress were best able to respond to what the market truly wanted in the most effective manner.

The requirements supporting this evolution are not exactly novel. Improving profitable revenues with targeted customers and retaining their loyalty have been central tenets of business strategy for a long time. With access to helpful knowledge buried in the burgeoning databases most businesses are building, it becomes a modern art, enhanced through technology applications. When the effort is extended to integrating CRM systems with ASCM efforts and

access to customer intelligence, a chance to differentiate a firm and its closest business allies appears. Unfortunately, after almost two decades of trying, the concept of applying CRM in an enhanced supply chain to create new business is well understood, but the practical application appears to be very limited. The opportunity to make greater use of this capability looms as one of the most important challenges facing business today.

Customer Relationship Management – A Contemporary View

An analysis of the current state of CRM reveals most markets are under serious scrutiny to show actual value for the necessary investments – in time, resources, and capital. Because of the many stories related to inadequate returns for the investment, CRM suffers from a poor reputation, in spite of the many successes that have been recorded. There is a high degree of complexity associated with these efforts and a naturally high cost of integration across an organization and its end-to-end network. As a result, current views of the potential values are tempered by a need to bring focus to immediate process improvement and bottom line returns. When executed as part of a deployment of strategies, with enhanced processes and enabling technology applications that are used to acquire, develop, and retain an organization's best customers, CRM becomes a powerful tool for increasing revenue and profit.

In essence, a contemporary CRM operating model will serve to improve the characteristics and performance of a customer intimate organization. The inherent characteristics for customer intimate organizations (courtesy of Fred Wiersema and Michael Treacy) will include:

- Creation of the best business solutions for the key customers
- Introduction of customized products and services to meet these customers' unique needs
- Presentation of a unique range of superior services, so customers can get the most value from the delivered products

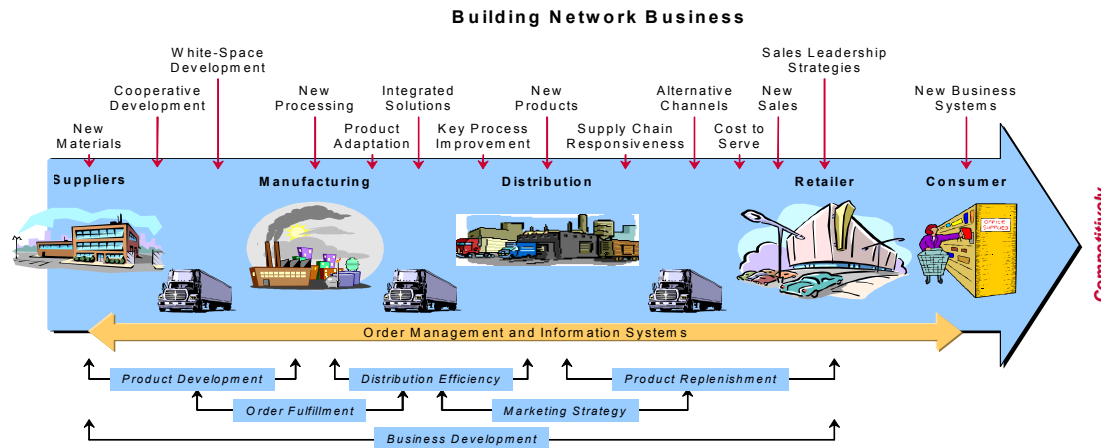
- Establishment of the most flexible and responsive system of supply and delivery possible with current technology

The operating model benchmarks will include:

- Management systems geared toward creating superior results for carefully selected strategic customers
- A culture that embraces specific rather than general customer solutions and thrives on deep and lasting relationships
- Deep customer knowledge and breakthrough insights about the customer's underlying processes
- Decision making delegated to employees close to the customer

Reaching these conditions requires a lot of concerted effort and nurturing a cultural imperative that is often hard for firms accustomed to working within an internal-only focus. CRM has its roots in the idea that as a firm's supply chain moves toward maturity, it becomes more effective at both internal and external processing; i.e., it improves its ability to process within its four walls, and then extends its learning, with the help of useful business allies to constructing a network of delivery that has superior features from the viewpoint of the most important customers and consumers. That means it progresses from making the most of the best practices necessary to achieve parity or better against competing firms, to the point where it is engaged in advanced techniques of value to the customer not found in any competing group. Since most of these techniques will require enabling technology and the sharing of vital knowledge with key external resources, Exhibit 5 depicts some of the features of such an Intelligent Value Chain, which becomes the end product of a successful ASCM/CRM technology enabled effort.

Exhibit 4: The Intelligent Value Chain



Within the intelligent value chain, business allies are working together from a right-to-left perspective. They begin with what it takes to have a competitively advantaged value network in the eyes of the end customer or consumer, and then work backwards toward what the upstream side of the value chain should be doing across the enterprise processes to achieve the desired superior conditions. Together, the linked parties are working to find the best solutions and practices for all of the key process steps. Beginning with improved forecasting and moving through the necessary linking processes, the network partners expend their best resources to find greater results with product development and introduction, the ultimate distribution efficiency, the best methods for product replenishment, jointly developed marketing strategies and the best possible order fulfillment system. Along the way, they work collaboratively to find the best enterprise processes and become extremely effective at any point of hand off between supply chain constituents. In short, they are working in concert to develop business in a manner that enhances profitability for all of the contributing allies.

Two requirements must be met as this intelligent value chain is constructed and nurtured. First, each participant or major constituent of what becomes the network of delivery must have attained a high level of capability in the supply chain maturity model (level 3 or beyond), an important element of which will be the ability to use BPM and its enabling business language BPML, to enter and access parts of disparate databases so valuable knowledge can be

extracted without compromising the security of the various systems. Second, the enabling technology applications must be selected collaboratively and be functioning successfully across the end-to-end network processing. That means the collaborating business allies are working in concert, with each making valuable contributions toward finding the enhanced state in which ASCM and CRM converge to create the desired differentiation in the eyes of the most coveted customers. They are doing this with the help of enabling BPM technology and superior systems across the end-to-end processing linking them into an intelligent value network.

The Value of Customer Intelligence

There is an important purpose behind the effort to establish greater customer intelligence. Bringing together a single view of the customer with high-value analytics can serve to optimize customer interactions, reduce operational costs, and enhance revenue-generating opportunities. To begin, most organizations have multiple records and accounting for the same customer, with no consistent information transfer across business units, within the same organization. This condition prevents the ability to have a single view of the customer and leads to inconsistent customer experiences. Much time and effort is wasted collating reports and gathering information, rather than focusing valuable resources on analyzing high-value information and knowledge. Much of the marketing effort, which is intended to build a demand, is focused on mass-market techniques, rather than the preferred targeted segments, which offer the most lucrative returns on the effort. Unable to target the right customer at the right time, with no predictive modeling capabilities, exacerbates the problem and leads to the expending of corporate energies on low versus high level customers and a total lack of optimized service levels.

Solutions to these complications can add dramatically to the firm's performance, including such features as:

- Data management personnel savings
- Faster call handling of inbound inquiries

- Prospect and customer solicitation savings
- Reduction in returned communications
- Improved data quality in critical operational systems
- Improved targeting for cross-sell, up-sell, retention, and acquisition campaigns
- Lower customer attrition or churn rates

More importantly, attaining such conditions puts the internal house in order and brings the firm to the point of being able to approach customer intelligence in a more contemporary manner. By today's standards, CRM has become the deployment of strategies, processes and enabling technologies that are used to acquire, develop, and retain an organization's best customers. It includes understanding customer needs, the relative importance of each customer segment and the best, most economical means to meet those needs. Within an environment focused on this view of CRM, strategy, processes, organization and culture begin to revolve around a central focus dedicated to satisfying customers in the most appropriate manner, and sustaining those with most strategic value indefinitely. Businesses adopting such an environment recognize that performing the end-to-end process steps in the most effective manner becomes the hallmark of network distinction, but it cannot be achieved without the knowledge necessary to optimize the important process steps.

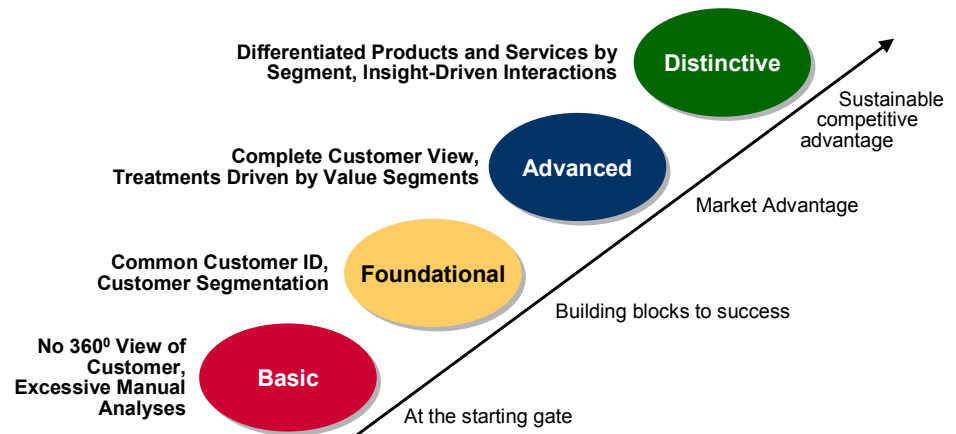
Process orientation has never had more meaning in this environment. Organizations that remain fragmented and operate in a stovepipe manner will never achieve the advantages being cited. They will be doomed to local optimizations within some business units and be prevented from achieving network, process, and systems optimization. Such systems as enterprise resource planning (ERP), CRM, and collaborative planning forecasting and replenishment (CPFR) will simply never be achieved in an optimal manner due to the process inefficiencies that will occur. Process design and enablement with new technologies and methodologies and tools are what will provide the greatest opportunity to increase corporate performance in the modern era. The drivers behind this return to a process focus, moreover, will be an enhanced customer controlled environment, where customer satisfaction is the real end

objective, and use of the Internet to create and control the sharing of valuable knowledge.

When ASCM and CRM converge in this advanced level of the evolution, some important characteristics will be apparent:

- Demand management and forecasting will be at improved levels, with actual need matched with capability to supply.
- Sales and Operations Planning (S&OP) will move to Advanced Planning and Scheduling (APS), where key suppliers and customers are participating in diagnostics and planning sessions to bring a reality to the planning and supply processing.
- Inventory management will be a network effort, in which the linked allies work to delivery the right goods to the point of need in the right quantities at the right time.
- Visibility into the end-to-end processing will be online, real time, allowing the constituents to view what is taking place, track important events, and adapt the supply chain to ever-changing market conditions faster and more accurately than the competition.
- Event management will be at the highest possible level of effectiveness, as the reactions to any planned sales effort will be instantly relayed back to the important upstream partners, so they can react appropriately to actual event conditions and results.

Exhibit 5: Customer Intelligence Maturity Model



In short, the voice of the customer will be driving the supply chain, based on the segmentation that has determined the level of response necessary to satisfy the customers being served. This condition requires the firm to move through the four levels of the customer intelligence maturity model, as illustrated in Exhibit 5.

Beginning in the first level, or the starting gate, the basic requirements must be met. The firm adopts a 360-degree view of the customer, and deals with the fact that most processing involves excessive manual analysis and handling of the data. Use of the intranet or internal communication system has to be improved so there are no cultural inhibitors to building the most accurate, accessible knowledge on the most strategic customers.

High	For-The-Moment Buyers <ul style="list-style-type: none"> · Returns diminish as service costs escalate · Sport buys can be lucrative, but spread over many suppliers · Firms show some willingness to pay for added values · Limited advancement possibilities · High cost to retain loyalty 	Winners – To Die For <ul style="list-style-type: none"> · Returns high relative to cost-to-serve · Focus is on total value; Balanced Scorecard analyses to prove benefits · Firms provide resources to seek joint savings; offer help with joint selling efforts · History of mutual partnering, sharing in risk · Low cost to retain loyalty
	Usual Suspects <ul style="list-style-type: none"> · Spot buyers; pricing is crucial to decisions · Will switch for any perceived, momentary lower cost · Will leverage volume frequently; apply auction techniques · Very limited advancement possibilities · Potential for 3rd party fulfillment, sales automation 	Wannabes <ul style="list-style-type: none"> · Lengthy relationships; have shown signs of loyalty while insisting on special servicing for which they are reluctant to pay · Low probability for increasing profits without innovative selling approach · Show some elements of partnership for joint profits · Have fit with firm's capabilities, value offerings but tend to have high cost-to-serve
Low	Low	High

In the second foundational level, where the firm begins to erect the building blocks to success, a common customer identification system is installed and customer segmentation is used to group customers by strategic value to the firm and profit to the firm. The matrix presented above has been used as a guide for such segmentation. It progresses from the low value, low profit or usual suspects, to the high value, strategic customers that are “to die for.” Within each block of the grid are comments intended to help the selection process.

Two types of analytics are then used to identify and target the highest potential customers. A profiling tool is used to determine who and where the best customers are and what they really need. In this “descriptive modeling”

area, focus is brought to such elements as: lifetime value, demographics, behavioral trends and consumption analysis. A targeting tool is used to determine how the firm identifies the right offer to the right customer at the right time. In this “predictive modeling” area, focus goes to propensity to churn, chances for cross selling and up selling, and the propensity to buy.

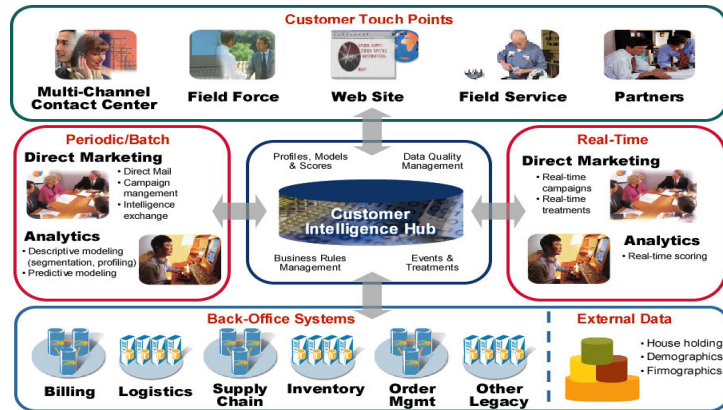
Returning to the maturity model framework, as a firm moves into the “advanced” level three of the progression, it begins to build a market advantage, through ASCM/CRM. Now the organization is working selectively with business allies and develops a complete customer view, with treatments and services matched with the value segments from the segmentation grid. Together, these allies apply BPM technologies to link those components of the various databases that contain valuable customer information in a manner that protects internal security. Now the involved parties have agreed to what knowledge will be made available and for what purposes, and they have established the means of access.

In the “distinctive” level, a sustainable competitive advantage is the objective. Here, the nucleus firm in the extended enterprise and its allies are offering differentiated products and services matched to the needs of the various segments in the grid. Through the sharing and analysis of mutually provided information, insight-driven interactions are a part of the scheme. The joint analysis of the data being transferred over the BPM-enabled extranet connecting the value chain constituents is providing knowledge unavailable to competing networks. As this model is considered, it is imperative that a firm desiring such an advanced position evaluates itself and determines where the organization and its network partners fall on the maturity scale. Then a determination can be made of where the firm needs to be and the business partners can begin building a plan to achieve that position.

Responding to the Customer Experience

The intelligent value chain that evolves will have many facets, but it will remain focused on customer satisfaction. The architecture that makes such a value chain possible is described in Exhibit 6. It progresses from the back office systems, necessary to meet the needs of the customers, to the customer touch points so critical to the provision of value-added services. At the center of the architecture is a customer intelligence hub that provides the consolidated customer profile and enables rules management and events and treatments to enhance the ASCM/CRM Systems.

Exhibit 6: The Intelligent Value Chain Business Architecture



New definitions are then brought to the benefits and values being delivered to the most strategic customers. Differentiated (often customized) answers to members of a particular segment's business problems are part of the delivery. Points of view are specific to each market segment. Solutions are comprised of a mix of tools, competencies, and offerings matched to actual needs. Specific solutions are packaged and delivered with a defined and quantifiable business value. The customer intelligence system at work synthesizes data consolidation and analytics so a single view of the customer emerges, as well as individual customer analytics, which are used in profiling, evaluation, and modeling for success. A single, up-to-date, integrated view of the customer relationship is maintained, along with robust customer insights to tailor the correct treatment to the right customer at the right time.

There are three dimensions to customer intelligence with specific features and advantages.

1. Customer Information Integration

- Integration and rationalization of disparate customer data, to provide a persistent cross-channel data store to serve as a focal point for analytic processing and as a clearing house for multiple disparate touch points
- Establishment of relationships in the data to support analysis at the customer, prospect, and segment levels
- Development of an operations format for use of customer knowledge through all customer interaction points
- Development of event-based or delta-based sensing mechanisms to identify changes in front-end CRM systems, such as customer behavior or profile
- Transfer of information on event or delta to the hub-based repository for integration and consolidation
- Utilization of Enterprise Application Integration (EAI) or low latency tools to move data from front-end systems to operational data storage

2. Customer Insights: Segmentation and Modeling

- Ability to analyze cleansed and consolidated customer data to develop descriptive and/or predictive models
- Understanding of the economic or lifetime value of each individual customer
- Customer segmentation based on value, demographics, and behavioral information
- Quantification of each customer's responsiveness to marketing and other stimuli
- Identification of the appropriate treatment or offer for each customer and delivery of this insight to front-end application
- Mining of vast amounts of data to identify hidden customer insights
- Capture and codification of analytical best practices in a business rules engine, to create intelligent recommendations in a near real-time environment

3. Customer Insights: Operationalization

- Ability to offer insights at the point of contact

- Products and services matched to individual customers
- Rules-driven customer interactions
- Differentiated service treatments for valuable customers

The Roadway to Optimized Processing and Profitable Revenue Growth

So how do we bring all of this information and technique into a coherent business roadmap for the future? How do we align business partners around what we have described as a superior plan for optimizing enterprise resources? The answer lies in an understanding of what is appearing on the business horizon, in accepting the tenets of a contemporary business model to guide further progress. Portions of this model have already been applied by many firms to achieve greater earnings and return on invested capital. Drawing on the principles we have discussed, and adding ingredients from lean manufacturing, introducing a quality discipline to assure high performance and sustain the benefits gained, applying careful outsourcing of processes to trusted business allies, and then sharing customer intelligence, this model brings a strong focus to both bottom line (costs) and top line (revenue) improvement. The essence of this new business approach is grounded in the creation of a ***value managed enterprise***, supported by an ***integrated network business strategy***.

Such a strategy demands a unified approach, lead by the central partner in the enterprise and its key suppliers, distributors, and customers, to the design, implementation and active management of a business network, which is technology enabled and eventually focused on satisfaction of the end business customer or consumer. This strategy should link the business allies together, with full process visibility and sharing of important knowledge to enable a single view of demand and supply – from primary materials and services to consumption and satisfaction of the customer, including handling of any returns in the system. The result can be an optimized flow of materials, knowledge and cash throughout the network, resulting in shortened lead times and performance cycles, and lowest total cost. Advantages gained through such an effort can be used, moreover, by the business network to secure new and profitable

revenues. New earnings come from increased sales, superior inventory management and material handling, better asset utilization, values added by the supply base, more efficient manufacturing, lower transportation and warehousing costs, and less general, sales, and administrative costs.

Finding these higher level savings, beyond what has already been achieved, and sustaining them into the future is the new business challenge, one requiring a shift in the traditional business model from heavy-handed leveraging of supply chain partners, stove-pipe thinking restricting internal collaboration, and an internal-only focus on process improvement; to a more collaborative approach based on finding and sharing additional and often hidden savings. It requires the business partners to continually assess the dynamics of the enterprise and to adjust network designs, business processes and operations, and move forward with the help of carefully selected business allies following a compelling business strategy.

The result is a contemporary business model based on getting each internal house in order and then adding value at each step in the processing, yielding something for everyone in the effort. Such a model must have a compelling vision and an integrated network business strategy to drive its implementation. This strategy should guide the decision making throughout the network and the processing that takes place, as even small changes to any key driver can have significant impacts on the costs and service capabilities of the entire business system.

Leaders are creating such value managed enterprises and actively pursuing an end-to-end focus on customer satisfaction and efficiency – reaching optimized conditions. Following the framework of the supply chain maturity model, they calibrate and substantiate positions gained as they continue to progress to higher levels of sophistication and share the improved characteristics so network advantages are derived. Laggards do not collaborate, even on an internal basis, as they focus on point solutions for independent business units and functions, and receive but never share

improved practices even with critical supply partners. They tend to accept current performance as best possible with existing capital investment. Leaders operate consistently, and continually move best practices across the enterprise, as they assess activities and adjust network designs, business processes and operating techniques to sustain an edge over competing networks. It becomes a matter of having a superior strategy with optimized tactics.

A Roadmap to the Contemporary Business Model

To reach the higher levels of the evolution, companies find themselves as part of one or more value managed enterprises, with a focus on a dual theme; sharing of best operating practices to reach optimized processes, and then using the advantages gained to differentiate the network in the eyes of the most important customers to build new revenues – the essence of the contemporary business model. Accomplishing those objectives is achieved by accepting and implementing a strategy in two parts, as show in the following exhibit.

A Strategic Framework for the Future

COSTS

- Lean Manufacturing plus
- Selective Outsourcing plus
- Quality,
 - Six Sigma
 - ISO Capability, plus
- Advanced Supply Chain Management
- Yields Total Enterprise Optimization (TEO)
- With Business Process Management (BPM) as the technology catalyst

REVENUES

- Advanced Supply Chain Management plus
- Customer Relationship Management plus
- Technology Collaboration yields
- Customer Intelligence, which becomes the heart of
- The Intelligent Value Network
- With Business Process Management as the business catalyst

Inherent in this framework is the necessity to discover the route to a best total cost or enterprise optimized state, by finding and sharing the best combination of the ingredients shown in the exhibit. That cannot be done without collaboration and technology; and the transfer of knowledge between members of the value managed enterprise, via a business process management (BPM) system. With so much data residing in so many different and disparate systems, only a BPM system can extract what is needed and transfer it securely to the intended enterprise partners.

When the network gains the potential advantages from pursuing what becomes best supply chain practices, the emphasis shifts to the right hand side of the strategy, where the advantages of TEO are brought to bear on the marketing and sales efforts. Now the shortened cycle times, full visibility into the network processes, and superior matching of supply with demand have a positive impact on revenues. Customer intelligence is used to transfer information, interpret trends and needs, and determine appropriate future direction and responses. The resultant agile and responsive network provides what is needed at the point of need at the right time in the right quantities, without excess inventory. Again using BPM to transfer this knowledge among business partners needing to co-analyze such knowledge, make joint decisions, and to track the actual processing, the collaborating business partners optimize the top and bottom lines of their financial statements.

A series of improved conditions results, based on the important drivers behind the enterprise effort:

- Technological drivers – The need to connect business allies and share vital information is accomplished by virtue of the connectivity created through joint sponsorship and deployment of BPM systems. Optimized solutions, based on gaining internal efficiency and sharing best practices to satisfy key customers becomes a hallmark of this sharing. Radio Frequency Identification (RFID) mandates are met and that technology used to gain a reasonable ROI for investing, as one example.
- Competitive drivers – The joint ventures and partnerships created by the collaboration result in greater cost effectiveness. Asset utilization becomes one of these joint ventures, as the network members work to gain the greatest advantage from capital, not necessarily being the owner of the capital equipment. Market effectiveness reaches new highs and competing networks cannot match the differentiating characteristics – lead times, cycles of performance, flexibility and responsiveness – gained through the collaboration and knowledge sharing.

- Growth drivers – The time to move new products and innovations to successful market acceptance is dramatically reduced and product offerings are matched to what the customers really want, as old and tired SKUs and offerings are eliminated with network approval. Geographic expansion is calculated in terms of network advantage and mergers and acquisitions are completed to augment the core strategy.
- Channel drivers – The changing channel economics are evaluated as a network opportunity and alterations made to the supply network to take greatest advantage of costs and delivery. The roles and status of key players change as the best constituent takes the responsibility for each process step in the delivery system.
- Customer drivers – Expanded offerings, process capabilities, and unprecedented response now distinguish the network. The increased visibility into what is available or capable of being promised is added to the increased presence of the most demanded products and services, without excess safety stocks or inventory. Customer satisfaction ratings reach new highs as the responses and values added exceed the expectations of the most demanding customers.

Applying the strategy results in a holistic approach to the design, implementation and active management of a value managed enterprise. Participants discover the advantages of such an enterprise that links the customers, distributors, and suppliers to a nucleus firm together with optimized end-to-end supply chain processes, enhanced by a single view of demand and supply. The flow of materials, information and cash throughout the network is optimized to reduce lead times, cycles of performance, and total costs. A distinction of the effort is the combining of the disciplines of advanced supply chain management across the contemporary business model including forecasting, planning, inventory management, transportation and warehousing, to provide breakthrough results – for the supply chain network members and the most important customers.

Based on actual client results, substantial benefits can be confirmed from following the strategy across the full value managed network. Collaborative cross-enterprise business efforts have proven they can increase revenues by 5 percent, create order management and inventory savings of 40 percent, while reducing inventories by 15 percent. Inbound freight costs can be reduced by 4 to 8 percent, with overall transportation costs going down 10.5 percent. Some clients have also seen backorders reduced by 70 percent with service commitments met at a 99 percent level. If you need substantiation of these claims, consider this quotation by AMR Research:

“Supply Chain leaders deliver better with lower inventory and costs ...

- Deliver 5% to 10% more perfect orders
- Hold one-third less days of supply
- Have 60 % to 66% of the cash-to-cash cycle time
- Save 7% to 8% of revenue in total supply chain costs.

These leaders actively pursue the integrated business network strategy and consistently present a unified view across business and channels of supply. They achieve operational excellence throughout the network, as they carefully outsource non-core functions and processes, collaborate effectively with customers, distributors, and suppliers. In short, they optimize network processing, not just point efforts, individual channel operations, and nodes of attention.

Firms need to Adopt the New Business View

The biggest challenge confronting formation of a value managed enterprise may be learning to work with old partners in new ways. Many firms in a supply chain have a history that exceeds a quarter of a century, but one that still contains contentious negotiations and a lack of trust, inhibiting a true collaborative environment. In collaborative commerce, a business will have multiple types of relationships and a variety of allies, often with the same people

in the same partner companies. These arrangements require careful selection, a high degree of trust, and the mental discipline to understand the type of partnering you're evoking at a particular time. New roles must be learned and old behavior patterns changed. Most importantly, the partners need to apply mutual resources and ideas to create the differentiating systems that will distinguish the network.

But remember, it's a dynamic game. The infrastructure and technology needed for successful collaboration are likely to become a commodity – the “dial tone” of network operations. Businesses will be able to choose from a growing pool of collaborative commerce platforms, as they now choose and change telephone and power companies. Where businesses once competed on their ability to design and manage complex processes, they'll find that carefully honed best practices can be downloaded from a Web site, and their expensive technology systems can be rented by the week from third parties. Only by working across the extended enterprise to define the best technology and systems and keeping the applications ahead of the competition is there hope of being distinguished.

The leaders cited and many others are already at work, fine-tuning the networked enterprises they created. The gap between their progress and that of others still in the consideration phase is now measured in years and not months. The good news is that it's a large playing field and you can make up ground fast, if you carefully select the right allies and build a value chain that is discernibly different in the eyes of the targeted customers or end consumers. Collaboration and technology are the new tools of business competition and they're right in front of you. If you're looking for the next level of improvement to your supply chain, why don't you call a few key partners and begin a serious discussion on building a joint business model. See if you can teach some new tricks to some industry veterans. That's where the value managed enterprise is headed.

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