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Supply Chain Alliances & Value Networks

Chapter 22 in World Class Supply Management

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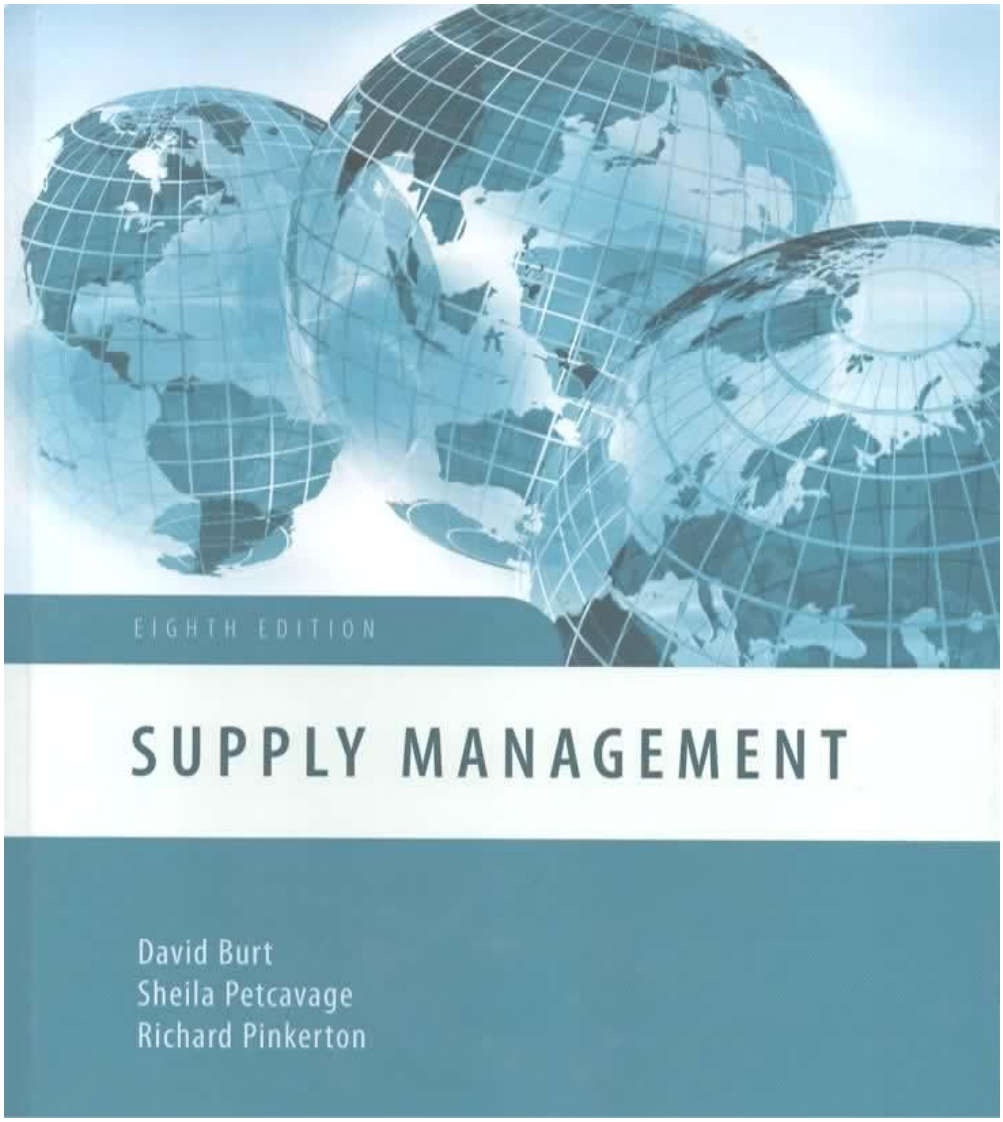

The following chapter in World Class Supply Chain Management (McGraw Hill, 2011) describes the unique nature of Value Networks, Supply Alliances, Innovation, and Gaining Competitive Advantage

SUPPLY MANAGEMENT'S ULTIMATE OBJECTIVE: ACHIEVING COMPETITIVE ADVANTAGE[1]

The future of Supply Management is one of excitement, challenge and opportunities. Many forces are converging to bring about the recognition that supply is/or should be a major contributor to the organization's competitive advantage, especially in the following crucial areas:

- Innovation (the source of profitable new products and streamlined processes)
- Quality (as much as 90% of field failures come from purchased materials)
- Time to Market (the first to market will hold over half the market!)
- Spend (30-80% of the organization's expenditures)
- Continuity of supply
- Outsourcing (protect your core competencies!)
- Strategic Leadership for finding new sources of competitive advantage
- The Entire Value Chain including layers of suppliers and customers

In the past, Supply Management's responsibility has been basically tactical – finding a source of products at the right quality and price.

Companies with foresight – such as: Toyota, Honda, Procter & Gamble, IBM, Cisco Systems, Eli Lilly, and Rolls Royce – have seen something more powerful. Because Supply Management often controls 50% or more of the entire corporate spend, its function is more than tactical, it is *strategic*. This means a powerful shift in thinking has occurred in these companies – Supply Management is responsible for creating an enormous competitive advantage for their company. Other organizations will either embrace this role of providing competitive advantage or quickly loose their competitiveness and disappear.

In the Fall of 2010, Andy Grove, former chief executive of Intel addressed an audience at Stanford University saying that we need a renaissance of manufacturing in America. He pointed out that manufacturing pays some $22 per hour, approximately twice what is received in the services industries. And new manufacturing jobs will help our futile efforts to reduce our current intractable level of unemployment.

In order for manufacturing to achieve this impact, it must be combined with an approach to supply which harnesses its potential strategic power, principally in the areas of: innovation, cost (at the total cost of ownership level, not merely purchase price), time to market, a synergistic approach to R&D, continuity of supply and leadership.

Thus, we are comfortable writing "For the well being of our nation and the survival and success of our firm, supply chain management MUST focus on its potential strategic contributions.

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[1] Appreciation is expressed to colleagues Robert Porter Lynch, Steve Rogers and David Stuart for their invaluable assistance with this Chapter.

OVERVIEW

In this chapter we will address several relevant examples of supply management excellence. We will then examine the essential role of leadership in achieving this excellence, citing examples of Chief Procurement Officers and Champions.

We will look deep into what might have seemed a cloudy crystal ball and see that supply chains are being replaced by value networks, which will be more commonplace in the near future. And trust will play an essential enabling role in generating the innovation and speed necessary to keep these networks vibrant.

We conclude our thoughts on the future with some suggestions on how to transition from where your organization is on the tactical-strategic spectrum to enable a real shift to truly strategic, value-creating decisions. Your role as a champion of this strategic shift is described. Challenges, opportunities and fulfillment all in one!

Over the years, a few companies have taken a strategic view of their supply base, seeing it as a vital asset in their efforts to improve corporate performance and gain a competitive advantage. Several examples below illustrate such a competitive advantage. While individual companies have recognized the strategic nature of their supply base and sought to leverage it, unfortunately, this approach has not been broadly embraced across the supply management field.

Many followed the lead of the now vilified Sr. Ignacio Lopez at G.M. in squeezing profits out of their suppliers' hides. They were often mistakenly recognized as leaders in the field. The truth be told, it didn't make G.M. any money, it damaged their suppliers, and, in the long run, G.M. was left with a lack-luster supply base. Their warranty costs exceeded their profits year after year.

Creating hundreds of small innovative ideas every week with suppliers, building trust that focuses on solving problems together, getting people to think creatively across corporate and departmental boundaries have one major advantage: these are almost by definition, unique and hard for competitors to copy – key components of competitive advantage.

At the same time, these kinds of efforts are difficult to sustain - some of the examples we will describe involve companies that rose to the occasion, only to later lose their way as personnel, business circumstances and corporate and supply and/or business strategies changed over time on both sides of the table - buyer and seller. Nevertheless, these examples provide real world role models for what can and needs to be done as well as cautionary "watch outs" for how easily complex supplier relationships can be lost or disassembled as people and business change - resulting in a loss of competitive edge.

We begin our tour of firms enjoying the competitive advantage brought about by supply management with the most significant advantage: innovation.

INNOVATION

Toyota

How did Toyota emerge as the world's largest automotive company? Certainly it wasn't by making high-margin autos, that came later. Toyota beat other large companies like Ford and General Motors, the former leaders, by recognizing that innovation flow would create superior competitive advantage. Over twenty five years ago Toyota launched innovation methods, like lean processes which made every employee a source of creative problem solving. Every year, Toyota receives nearly a million suggestions from its employees in its North American operations alone, and implements nearly 90% of them.

Over the years, these innovations add up to an enormous competitive advantage. But there's more. Toyota demonstrates the critical importance of innovation to its success in its supply chain as well. Interestingly enough, some 65% of Toyota's innovations come from its supply base! Year after year suppliers provide millions of new ideas for improving the Toyota end product. To us, this year after year pattern of success alone is the strongest of all possible arguments favoring procurement's responsibility to develop collaborative innovation producing relationships with suppliers.

Procter & Gamble

In 2003, P&G's CEO, A.G. Lafley, mandated that 50% of its new products be based on technology obtained from outside the corporation.[2] Supply Management (called "Purchases" at P&G) was responsible for a major proportion of those innovation flows, many of which ended up in the hands of the ultimate consumer. The "Connect and Develop" strategy at P&G embraced the importance of innovation, the strategic nature of supply, and the importance of wide-scale collaboration. These required Purchases to work closely in a co-creative and trusting manner both *externally* with suppliers and *internally* with R&D, operations/manufacturing and marketing.

By the end of 2007, P&G achieved its goal, which manifested in a profusion of new product revenues, streamlined production, cost reduction, and profit increases, while delighting investors and challenging its competition.

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[2] Upon his retirement, his successor, Bob McDonald, reaffirmed the goal to seek out and use extensive external innovation beyond the 50% level.

How did P&G make this shift? One important change was to reinforce Purchase's *external* strategic thinking about suppliers throughout the company. (see Table 1: Comparing Supply Strategies). As early as the 1990's Purchases had developed an *internal* strategy which linked the procurement function with R&D (providing dedicated resources to "developmental R&D purchases groups) to seek out and contract for supplier technologies that enhanced P&G product innovations.

Traditional Competitor's Thinking— All Suppliers are merely a Commodity	P&G's Advanced Thinking – Key Suppliers are a Strategic Asset
◆ **Beat them Up! –** Focus on Price ➢ Play "Torque-Master" with Prices ➢ Play the Short Term Game – then Switch Suppliers to show who is in ultimate control ➢ Winning in negotiations is a power game. It is essential for me to win, what happens to you is your problem.	◆ **Fortify your Strategic Supplier –** Focus on Value ➢ Improve Supplier's Capacity & Capability ➢ Create Better Margins for everyone ➢ A Win-Win is essential for both of us if we are to continue to be competitive and produce continual innovation streams

Table 1: Comparing Supply Strategies

To reflect this new thinking, P&G established a clear set of objectives for its new supplier relationships (See Figure 1: P&G's Supplier Objectives & Principles)

Key Objective:

Plan, leverage and influence supplier relationships to deliver sustained results to enhance P&G's competitive position.

Principles:

1. Supplier Relationship Management's goal is to deliver value to P&G.
2. Supplier relationships are about people.
3. Supplier relationships are about companies.
4. Supplier relationships are <u>mutual</u>.
5. Supplier Relationship Management is <u>not</u> monolithic and inflexible.
6. Supplier Relationships require leadership involvement and ownership.
7. Supplier Relationship Management is multifunctional.
8. Supplier Relationship Management takes resources.
9. Sourcing Strategy and Supplier Relationship Management are separate interlocking work processes.

P&G also realized that its entire supply base, even suppliers not providing the new technologies, needed to be capable of supporting rapid expansion of new products. This required flexibility and agility to manage change, control material inventories to minimize waste when new products replaced old, and the ability to change over and start up production lines efficiently and effectively. To do this required relationship management across the entire supply base (See Figure 2: P&G Supplier Guidelines) that acknowledged the value of suppliers as something far more than just "vendor."

General Interaction Guidelines with Suppliers

- Develop profound supplier and market knowledge.
- Develop a personal relationship with key contacts**.**
- Build corporate institutional relationships.
- Set clear expectations on what both parties require.
- Focus on short-term trust building and long term relationship development.
- Relationship operational skills include:
  - Match what you hear with what you see
  - Make transparent and timely choices
  - Manage hierarchical involvement
  - Reward and recognize excellence
- Employ productive conflict resolution

Figure 2: P&G Supplier Guidelines

To begin implementing this program, P&G needed to change thinking inside the supply base as well. To do this, it implemented a supplier engagement program which focused on the shift from tactical to strategic value. (see

Supplier Engagement Program

- Hold supplier conferences/technology reviews
- Identify key areas for innovation and new products
- Link suppliers into networks
- Provide shared learning
- Transfer tacit and explicit knowledge
- Key factors to guide the shift
  1. Ultimate goal: satisfy final customer
  2. Alignment of vision and goals
  3. Fundamental level of cooperation, commitment, and trust
  4. Open and effective communications
  5. Maximize competencies and knowledge in supply chain
  6. Long term mutual benefit
  7. Mutual measures of success
  8. All Parties recognize and deal realistically with competitive pressures and changes in the business environment

Figure 3: P&G Supplier Engagement Principles

COST

(Note: Since the data capturing systems at most firms do NOT capture total cost of ownership data, the following figures are based on savings measured in terms of purchase price.)

Honda.

During the 1980's Honda and Toyota began a revolution in the way suppliers were regarded – not as commodity vendors to beat up, but as valued suppliers of a strategic asset to provide competitive advantage. In the late 1980s, Honda reframed the strategic game by involving suppliers inside the product development process.

In Honda's eyes, suppliers were not lowly vendors providing a commodity, (as rival General Motors believed) but a valued partner in the game. More than 65% of the American-made Honda was produced by suppliers; thus their early involvement and creative talents could benefit Honda immensely. Innovation flows (including process improvements) were just as important as reductions in cost. If suppliers suggested a cost improvement, they were rewarded:

> *"When we receive a suggestion from our suppliers, we split the savings 50/50. However, if a supplier is not making its profit numbers, we give them a larger percentage of the savings (in the short term), sometimes up to 100%. It helps them out."*
>
> -- Dave Nelson, Sr. V.P. of Procurement, Honda[3]

Nelson was acutely aware that Ford and General Motors were absorbing major costs because of costly design changes after a car was already in manufacturing. The cost

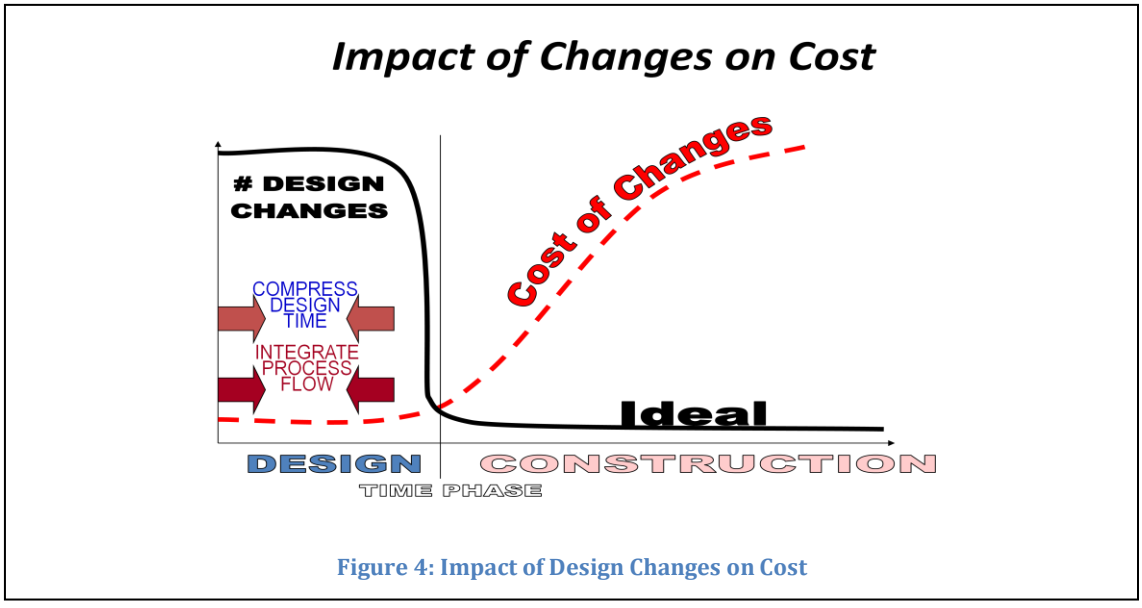


Figure 4: Impact of Design Changes on Cost

[3] Interview with Robert Porter Lynch, October 21, 1997

of changes was greatly reduced when suppliers were involved early on. (See Figure 4: Impact of Design Changes on Cost)

Recognizing the impact of design changes on cost, Nelson and his supply chain team, working with Honda engineering, reconfigured the process of how suppliers would interact with Honda, gaining not only early invovlvement, but using the creativity of suppliers to generate new, innovatinve ideas for reducing the total cost of a car – for both suppliers, Honda, and their customers – thus producing a quality advantage, reducing costs for everyone in the value chain, generating more sustainable profits, and delighting the customer. This process was called "Target Costing." Figure Figure 5: Component Costing vs Target Costing illustrates the difference between traditional procurement methodology (i.e. three bids and a buy), and the more strategic and collaborative approach used in Target Costing.

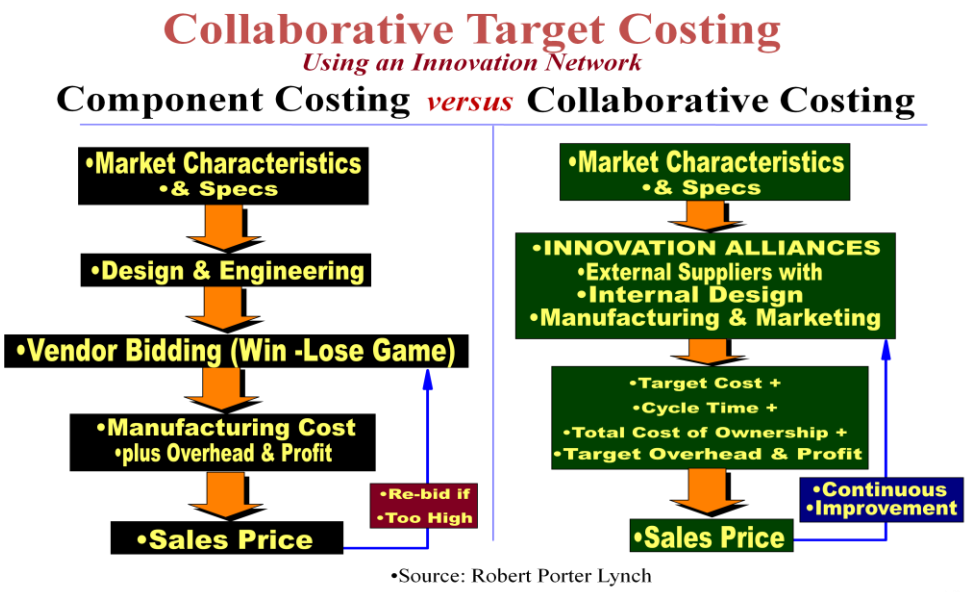
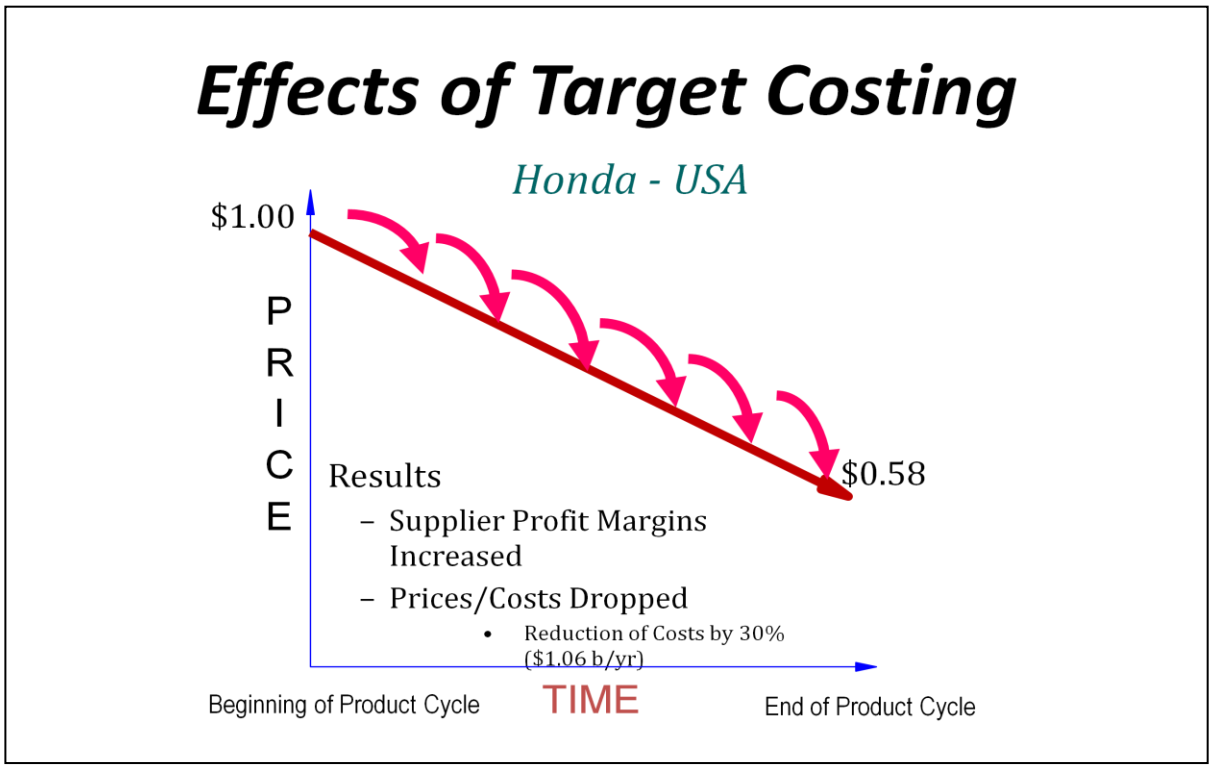


Figure 5: Component Costing vs Target Costing

By replacing the traditional component costing process with a far more strategically valuable, and operationally more rapid and cost effective method, Honda produced real value gains across the entire value chain. Bringing suppliers into the early stages of car design and development, Honda was able to shave off months of development time, reduce the total number of parts in a car, and reduce the cost of production continually.

Below Figure 6: Impact of Target Costing illustrates what happened to the typical cost of a part over a seven year production run. It's important to understand that at the lower costs, suppliers were *more* profitable than at the higher costs. This enabled suppliers to make strategic, long-term investments in their business, which

in turn, created a much stronger supply chain for Honda than their competitors, who had been disemboweling their suppliers for years.



Total Cost of Ownership

These powerful cost impacts did not happen by the old-style "squeeze the vendor" approach to supply negotiations. Instead, Honda changed the way they measured costs from a "component" approach to a "systems" (or holistic) approach. This is called "Total Cost of Ownership"(TCO), which is a far more accurate assessment of the real cost of a product, service, or component. It measures the cost, not from one company's perspective, but from the perspective of the cost to the entire value chain. (See Figure 7: Total Cost of Ownership Checklist)

Two things every Supply Manager must always be aware of:

In a Fast Moving, Rapidly Changing World, The Most Sustainable Source of Competitive Advantage is COLLABORATIVE INNOVATION

You Cannot Cost-Cut your way to Prosperity
(Cost Cutting will only achieve short term objectives, but is not, by and of itself, a sustainable competitive strategy).

Total Cost of Ownership Check List

Here is a typical list of TCO factors considered by companies who embrace the strategic value of customers.

1. Product Design
   - Parts Reduction, Design for Manufacturing & Assembly, Integration
2. Requirements Definition
   - Specs, what we need, when we need it, where we need it
3. Forecasting (often 5-15% of TCO)
   - Inaccurate forecasting increases cost of manufacturing & inventory control
4. Source Identification
   - sources, selection of sources
5. Acquisition (typically this is only 25-40% of TCO)
   - requisitioning, purchases, delivery, receipt, payment
6. Processing, Storage & Inventory
   - inventory, staging, reclamation, reconditioning, supply warehousing, preservation
7. Operations, Conversion, Installation, & Maintenance
   - operational costs, maintenance, repairs, testing, labor, training, integration, assembly
8. Quality, Breakdown, Downtime, Scrap & Waste
   - reduction of productivity, cost of scrap, disposal, re-tooling & re-ramp-up
9. Non-Value Add
   - Hard-Nosed Negotiations, Missed Communications, Faulty Invoice Processing
10. Risk Mitigation & Legal
    - Insurance, Unnecessary Legal Filings, Law Suits, Cumbersome Contracts
11. Transportation
    - Travel, Insurance, Overtime, Licensing, Packaging, Record Keeping
12. Warranty & Service
    - costs of repairs, brand name degradation
13. Retirement & Environment
    - resale, salvage, disposal, & waste management
14. Future Strategic Positioning
    - new research, innovation, competitive advantage, ancillary benefits

Figure 7: Total Cost of Ownership Checklist

IBM

Gene Richter is the only individual to lead three procurement organizations which have won the Purchasing Medal of Professional Excellence:[4] IBM, HP and Black & Decker. Mr. Richter surrounded himself with strong procurement professionals with diverse backgrounds, then engaged them in every key decision on policy, strategy practices, structure, initiatives and objectives.

During the period 1994-2000, the late Mr. Richter guided procurement at IBM to a level of excellence seldom duplicated. First, Richter made a number of changes to supply management, among which included:

- Procurement rulebook was reduced from 100 pages of brain-numbing rules to 12 pages of guidelines.
- Supplier contracts were reduced from 40+ pages of legalese to simple six page agreements.
- The contract cycle was reduced time was reduced from 6-12 months to less than 30 days.
- Purchase Order cycle time was moved from an average of 30 days to less than 1 day.

These changes led to an astounding impact on the corporation:

- Cumulative savings on direct and indirect materials exceeded $9 billion.
- Supply improved collaborative relations with its suppliers and had a significant impact on the inflow of technology.
- Internal customer satisfaction moved from 47% to 80%.
- Supplier surveys moved from dead last to first place in every category.

Procter & Gamble

In addition to the innovation results mentioned above (over 50 % of new product technology coming from outside the company from a broad range of suppliers), P&G's sourcing and supplier management efforts delivered in excess of $100 million of savings annually for seven consecutive years. This represented almost half the

[4] In honor of Gene Richter's contribution to Supply Management, in 2006, the Institute of Supply Management instituted the R. Gene Richter Awards for Leadership and Innovation in Supply Management.

corporation's profit improvement over that time frame. In addition, P&G leveraged its existing suppliers and established new relationships with emerging market suppliers as it successfully expanded its business globally – shifting from a predominantly U.S. to a majority international company, often by localizing supply – either through existing supplier investment in new geographies, or by finding and developing local sources.

CHRYSLER

In the late 1970s, Chrysler Corporation received a massive bailout from the Federal government to keep it from failing. Chrysler responded with a new lineup of cars under the leadership of Lee Iacocca, who successfully revived the company.

However, the glory was short lived. Less than a decade later, Chrysler was faced with mounting losses, an aging line of cars, and uncompetitive cost structures. The situation was perilous: payments to suppliers were stretched to the limit, and Chrysler was rapidly running out of cash and headed into a dark oblivion.

In 1991, as time was running out and its crisis worsened, Chrysler embarked on a bold new strategy, dramatically different from their past: rather than squeezing its suppliers for further cost reductions, it became convinced that collaborating with them as if they were members of the Chrysler team would be far more effective. Then Vice President of Procurement, Tom Stallkamp, met with Chrysler's largest suppliers jointly to design a plan to save both Chrysler and its suppliers. The plan would call for early supplier involvement in Chrysler's next vehicle: the LHS model (nicknamed behind the scenes "Last Hope for Survival").

The plan was to work collaboratively to accelerate the time to market, to use target costing to reduce the total cost of ownership between Chrysler and its suppliers, and to reward innovation flow from the suppliers into Chrysler. Any real savings would be share with the suppliers to enable them to recover from the beating they had taken in the past.

The program, named SCORE (Supplier Cost Reduction Effort), was based on close collaboration and trust building to reduce procurement transaction costs. The program's objectives are listed in

Figure 8: Chrysler's SCORE Objectives

Quickly SCORE began to produce results. From its inception in 1991 to 1998, SCORE produced $5.5 Billion in savings to Chrysler, generated massive inflows of innovation, and suppliers gained profits as well. What's more, in addition to the cost savings, billions of dollars of new revenues were gained by the new innovation flows from supplier alliances.

SCORE Objectives

Cooperative Win-Win, Life-of-Product Relationship

- ✓ Reduced number of suppliers by more than 30%
  - Eliminate sales representatives
  - Eliminate competitive bidding, Replace with target costing
- ✓ Coordination and communications
- ✓ Cross functional teams
- ✓ Process Changes
- ✓ Pre-sourcing and target costing
- ✓ Total value chain improvement
- ✓ Trusting Relationships with Honorable Suppliers

Figure 8: Chrysler's SCORE Objectives

For example, the Jeep Cherokee was the first model to introduce a compass in the overhead (prior to GPS). This innovation came from a supplier of interior components, who got the technology from another alliance with an avionics supplier who originally developed the compass for commercial aircraft.

Not only did Chrysler avoid bankruptcy, but by 1994, Chrysler's supplier alliances, with few formal legal agreements, provided a massive competitive advantage versus their other American counterparts:

- $1,000 price advantage per auto
- Most profitable auto manufacturer
- High Employee Productivity
- Highest return on assets auto manufacturer
- Fastest market share growth auto manufacturer

(see Figure 9: Example of Chrysler's Competitive Advantage)

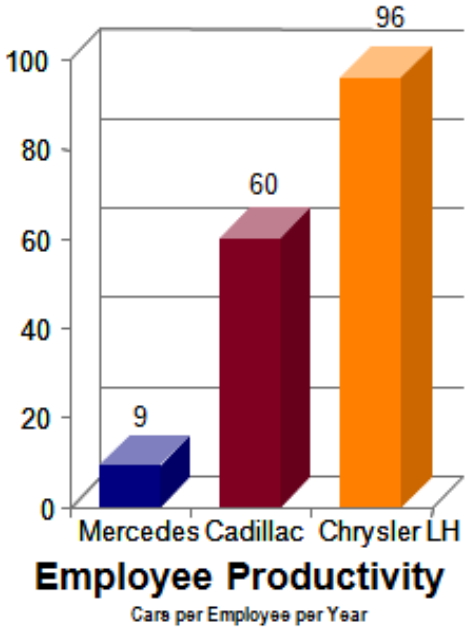


Figure 9: Example of Chrysler's Competitive Advantage

The SCORE program was a resounding success. In seven years Chrysler had pulled back from the edge of the abyss of bankruptcy to financial success., with over $7 Billion in cash in the bank by 1998. Stallkamp was hailed as a visionary leader and promoted to the presidency of Chrysler. At that time he commented:

> *"Suppliers are experts…part of a joint team focused on collaboration …contracts aren't based on old style relationships but on allied business and engineering systems."*

Shortly thereafter, Chrysler's outstanding performance captured the attention of Daimler Benz (Mercedes). Daimler purchased Chrysler for $36 Billion in 1998. This massive shift in Chrysler's value from near bankruptcy at the beginning of the decade can be attributed to a large extent to Chrysler's collaborative supply management strategy.

However, Stallkamp's collaborative relationship with suppliers was to die a quick death. Shortly after the takeover, Daimler pulled the plug on the SCORE program. Wolfgang Bernhard, Chief Operating Officer of the Chrysler group after the Daimler acquisition demanded a 15% price cut from suppliers, stating:

> *"Supplier relationships are based solely on competitiveness; we give no preference for the incumbent or reward for excellence…only competition."*

Chrysler then lost several billion dollars. In 2007, Daimler sold its Chrysler division for a value of $9.25 Billion, a loss of 75% of its former value. And by 2009 Chrysler was bankrupt.

RAYTHEON

Cost savings can be a highly complex issue, especially in a company that has many far-flung divisions serving commercial and defense customers, such as Raytheon. Meeting the needs and requirements of a diverse customer base can present very unique and sometimes conflicting demands. What works well in one division may even be illegal in another division.

Raytheon addressed this complex problem of diverse driving forces with very creative approach, sponsoring 70 members of its supply management community to attend the University of San Diego's graduate supply management program over the course of several years. The program was designed to have two aims:

1. enhance the procurement and leadership skills of its supply managers,

2. ensure that all learning is highly practical by insisting that all learning was applied to a company-oriented project where the impact could be measured, either on Raytheon's top or bottom lines.

The Raytheon project teams were often composed of supply managers who came from multiple divisions or multiple locations. In one example, four project team members of Raytheon's Aerospace Division closely coordinated their efforts, developing an action plan to implement Raytheon's 6-Sigma Quality Program with its key suppliers. Their joint efforts resulted in net savings to Raytheon of some $70 million over a period of 5 years, plus a significant reduction in incoming defects.

Other teams examined the market impact potential of new products, recognizing that the first firm to market with an innovative product could potentially capture and hold approximately 50% of the market after competition entered the market. [5] Of equal or greater importance, profitability for the early-to-market firm is far greater.

We now focus our attention on supply management's role in reducing the time required to bring a new product to market.

TIME to MARKET

Traditional tactical, transactional thinking about supply chain management focuses on three factors: component cost, quality, and delivery. However, a more strategic approach calls for a much more insightful evaluation of critical metrics. A strategic supply manager will always be thinking about the key metrics of advantage, such as those illustrated in Figure 10: Competitive Advantage Gains.

For example, Chrysler's close collaboration with its suppliers (prior to its acquisition by Damlier-Benz) resulted in a reduction in the time from when a new product entered the development cycle until it was ready to enter the market.

By engaging suppliers early in the design and development of autos, Chrysler was able to shorten product development cycles:

- 1989: 234 weeks (nearly 5 years)
- 1993: 183 weeks
- 1997: 160 weeks
- 2000: 100 weeks (projected goal)

This enabled Chrysler to introduce cars more quickly into the market, and provide cars with more up-to-date offerings, particularly in design and electronics.

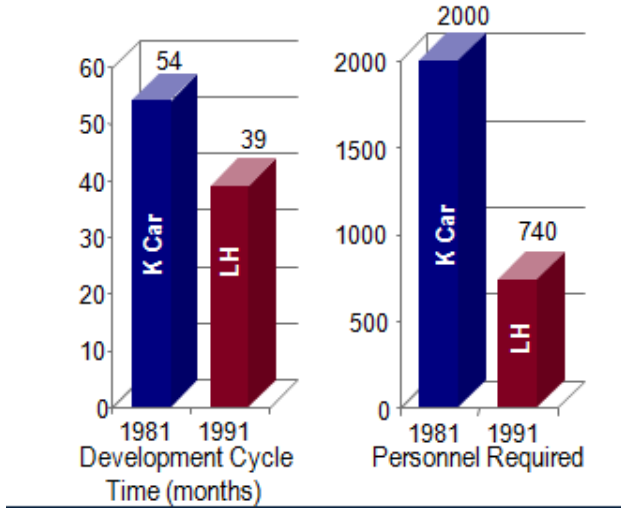


Figure 10: Competitive Advantage Gains

[5] Based on the PIMS (Profit Impact of Market Strategy) which originated at General Electric Company, and was further refined at the Harvard Business School. The current data base includes the real world business performance experiences of more than 3,000 businesses representing 16,000+ years of data. About 80% of the reasons for success or failure, according to the study are due to 9 strategic factors, and management skill or luck only 20%.

Thus, whenever its competition, particularly Ford and GM were ready to introduce a new model, Chrysler was a several years ahead of them. And Chrysler would soon make their rival's models obsolete.

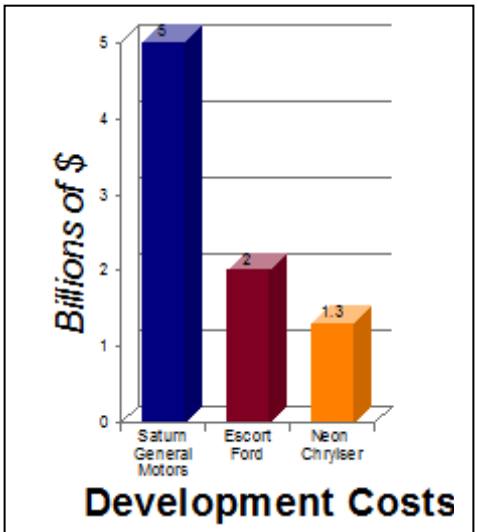


Figure 11: New Car Development Investment Costs

With this shift, development costs also gave Chrysler a massive competitive edge. While it cost GM $5 billion to bring its Saturn to market, by 1994, Chrysler was able to introduce its Neon for only $1.3 billion (a savings differential of $3.7 billion). (see Figure 11: New Car Development Investment Costs) A then, in 1996, Chrysler brought its Sebring convertible to market for the unheard of investment of only $200 million. How? By giving its suppliers long-term contracts for the life of the model, and having the suppliers make the necessary capital investments.

In addition, by settling on a stable and trusted supply base, Chrysler was able to shorten bidding cycle – the time to send out Request for Quotes (RFQs), analyze bids, rebid, negotiate contracts. The result:

- 1989: 12-18 months for bidding, with only 75 week lead time to volume production
- 1993: Involve Supplier at concept stage, 180 week lead tome to volume production

Upon his retirement as Chairman of the Board of Chrysler, Bob Eaton was asked:

- *What value were your strategic supplier alliances at Chrysler?*

Answer:

"*Our supplier alliances have been invaluable to us in creating enormous economic value, in terms of cost reductions and new product innovations."*[6]

Continuity of Supply

From the beginning of recorded history, purchasing/supply management has been responsible for ensuring that production has an adequate supply of required materials for operations, or inventory for sales. We now look at examples of supply management's role in ensuring that the right materials are available at the right time.

At P&G the supply development efforts consistently encouraged and added supplier capacity and multiple geographies in advance of business expansions and in support

[6] interview by Robert Porter Lynch with Robert Eaton, Chairman, Daimler-Chrysler, Naples, Florida, March 10, 2000

of acquisitions that have almost doubled the size of the company in the past 10 years – often in times of severe supply shortages. Without a collaborative relationship with its suppliers, much of this growth would be difficult or impossible because suppliers must develop their capacities and capabilities in a synchronized way with their customer.

Another classic example of continuity of supply took place back in the 1970's at the watch maker, Timex. The firm adopted a collaborative and synchronized approach to dealing with its strategic suppliers.

Many financial executives take the position that suppliers are just vendors, and should be treated as such. Stretching payments to vendors is a typical tactic … a continuing source of frustration to suppliers and enlightened supply management professionals.

Timex adopted a policy of paying suppliers the day their invoices were received. Then along came a severe material shortage. While its competitors were put on allocation wherein they might receive 50-90% of their requested orders, Timex's collaborative policy resulted in 100% fulfillment. (This is the source of the oft quoted expression: "Timex never lost a beat due to stock outs!")

The principles discussed in the first 21 Chapters largely discuss the "science" underlying professional procurement. These principles are of little value without someone to implement them…the art of professional procurement. We now turn our attention to the art of leadership.

LEADERSHIP

Achieving excellence in Supply Management in the future will require a great deal more than just being proficient at procurement and logistics. It will require leaders who have a major shift in mindsets and skillsets about three key factors:

First, supply chain thinking has its own embedded flaw – it makes us view the world tactically and transactionally from a "supply" perspective, not a strategic one. In the preceding cases from P&G and Chrysler, supply chain became, first and foremost, a strategic function, and the measure of value was not just money or cost, but innovation flow.

Second, money (whether it be cost advantage or profit) is important, but fundamentally it is a lagging indicator of real value created. Money is one *result* of excellent practices, not the *cause* of them. When one restricts their measurements to money, other major factors, such as meeting customer needs, developing innovations, reducing total cost of ownership in the chain, and a variety of other causal forces are too often neglected.

And, third, in each case, building trusted relationships with suppliers and internal departments was a critical underpinning of the alliance relationships that were producing breakthrough results.

Each of these three factors will be highly instrumental for the future supply chain leader to create sustainable competitive advantage.

The leader of the procurement organization (frequently know as the Chief Procurement Officer or simply CPO) plays a critical role in achieving competitive advantage. Additionally, other members of the supply management organization have important roles to play. We call outstanding middle-level leaders "champions." We now view examples of CPO's and champions.

CHIEF PROCUREMENT OFFICERS

Our favorite former CPO's are Tom Stallkamp, the late Gene Richter and Dave Nelson. These men were leaders every bit as much as being procurement professionals. As leaders, they helped the members of their organizations establish a vision of what they wanted to contribute to the larger organization, their stakeholders and society. The resulting vision statement told people what's expected of them in the broadest sense, provided a sense of direction, energized them and stretched them—but not to the point of breaking—and served as the basis of their organization's strategies. They provided world class training in all aspects of supply management and leadership.

These leaders helped all members of their organizations prepare for necessary change and helped them cope with the change as they struggled through it. These leaders helped motivate and facilitate necessary adaptive work by all members of their organizations. They energized their people, helped them maintain focus in the face of adversity, listened actively, communicated clearly and convincingly, knew how and when to disarm conflicts, functioned as empathetic mentors and process-orientated facilitators, and adapted to change quickly. All three of these leaders thought outside of the supply management box.

CHAMPIONS

Perhaps as critical to the transformation of supply management to strategic status as the CPO is the champion. These are people who do not achieve CPO status but are change catalysts. Three examples will highlight their special qualities:

Steve Rogers

Steve held several director level positions at Procter and Gamble, the last of which was Director, World Wide Purchases Mastery. He was instrumental in the globalization of P&G's procurement, personally leading the company's Fabric and

Home Care global sourcing teams located in 10 cities across the world. He authored and implemented P&G's sourcing strategy methodology; institutionalized the art of managing external supplier relationships to deliver increasing value to P&G; and led the creation of P&G's global sourcing skills training college. During his 30 year career he was known as P&G's "father" of strategic sourcing, benchmarked and reapplied external ideas (including make vs. buy methodologies, hedging strategies and supply chain redesign efforts) and delivered in excess of $1 Billion in hard cost savings. He personally spearheaded many of the efforts to bring collaboration, innovation, and trust into the mainstream of P&G's supply functions.

Steve Ogg

Developing high caliber personnel is essential in supply management because, just as in any profession, best practices are constantly being upgraded. Any organization that is not continually reaching for world-class standards is falling behind, often with devastating results, as happened in the U.S. auto industry. In 2000, Steve Ogg, Director of Supply Management at Raytheon's Aerospace Division played the key role in sending 70 Raytheon Supply Management employees to a graduate program in supply chain management. Not only did these individuals gain the benefit of new and upgraded skills, they also saved Raytheon many millions of dollars through completion of their action based learning projects.

Margie York

Recently retired from Solar Turbines of San Diego (a division of Caterpillar), Margie York played a key role in sponsoring 18 members of Solar's procurement division for a nearby graduate program in supply chain management. These individuals have saved Solar millions of dollars, improved relations with suppliers and have had a major impact on incoming quality. Margie was an essential champion in improving Solar Purchasing's impact on the top and bottom lines! And, now, we get to play fortune teller.

Being a champion of change is not an easy task, It takes being a visionary, crossing boundaries, translating ideas into practice, building alliances, fueling creative thinking, finding common ground, building trust, and ensuring win-win results. It is not a job for the faint of heart, and it requires very supportive executives to stand by their champions, who will be in the line of fire from those resist the future.[7]

Later in this chapter (see Transformation), we will further address the nature champions

[7] See Lynch, Robert Porter; How to Foster Champions, Ch 14 in Drucker, Leader of the Future, Leading Beyond the Walls, Jossey Bass, 1999

A NOT SO CLOUDY CRYSTAL BALL

While predicting the future is always chancy, we have enjoyed a pretty good tract record over the past 50 years. It is our prediction that the forces of change march inevitably over the competitive landscape. Capitalism has been historically notorious for devouring the slow, cumbersome, and unimaginative. It's called "creative destruction," and it's accelerating. Thousands of companies every year succumb to the plight of rejection by the marketplace that is always seeking a more innovative solution. Think of the computer companies like Digital Equipment, or Control Data, or Apollo that are now merely historical footnotes.

Several competitive forces will only continue to accelerate in the future: innovation, speed, integration, and complexity, to name a few.

More collaboration is inevitably required to handle these forces, causing the supply profession to shift dramatically over the next decade, or sink under the burden of the forces.

To become faster and more integrated, advanced supply chains are transforming into supply *networks.* However, supply looks just upstream, which is a liability, because the customers that pay the bills are all downstream. Astute supply managers will be strategists and alliance builders, paying more attention to how competitive advantage will be increased through end-to-end value networks. And naturally, value network management (VNM) will be commonplace within the coming years….at least at firms that survive and thrive! SNM largely looks at the supply world, whereas VNM integrates both the supply world and the firm's customers. The type of business game we play will not be just about individual businesses, but instead about the battle of value networks.

Money is the currency of exchange, but innovation is the currency of value and competitive advantage.

Sharp strategists will recognize that many companies supply management holds more of the corporate purse-strings. With this recognition will be the demand that supply management provide greater competitive advantage than simply lower prices and reliable logistics.

Supply Network Management and Value Network Management address the fact that business in the modern world is conducted in a networked fashion. It is far easier to visualize chains, whether supply chains or value chains, but truth be known, we live and operate in a world of networks!

VALUE NETWORKS AND THE WORLD TO COME

As advanced supply chains become more strategic and collaborative, their very nature changes, just as a worm goes through a stage of metamorphosis next as a caterpillar and lastly as a butterfly. So too with supply chains when they become more strategic and morph into value chains – from supplier to customer. And then again into value networks as more of the players become better connected, faster, and more integrated.

In the old supply chain model, the economic value is measured in terms of costs from the monetary perspective of "transactional exchange." In this mode of thinking, Profit comes from one's power position in the industry, the intensity of rivalry of competitors, and the control of precious resources. And prosperity is derived from one's ability to compete against, competitors, suppliers, and customers.[8]

When supply and value chains are synergistically linked through strategic alliance architecture, they begin the transformation into supply and value networks. Here the economic value is measure in different terms, not as tactical, transactional exchange, but as "mutually strategic value creation," based primarily on collaborative use of the intellectual capital of new ideas and the recognition of the mutual needs of buyer and supply to win and remain sustainable competitively. This model reinforces the need to flow innovations through the value network to ensure continuing competitive advantage to both the network and the ultimate customer.

In the value network, the paradigm of economic value shifts dramatically. Profit now comes from speed of innovation and response, as well as coordination and leverage of member's strengths and value of their core competencies. Prosperity is derived from the network's ability to create mutual value for its customers, with its suppliers, and possibly join forces with competitors when needed to satisfy customers.

Networks are flexible virtual systems linked by communication systems and collaborative relationships. Within any network, many things are happening simultaneously. Cooperative relationships must be established with suppliers and their suppliers back to Mother Earth. Value Network Management augments Supply Network Management to include the marketing and distribution systems which bring the goods and services to the ultimate customer.

Networks are designed and managed to drive cost out while ensuring that one member does not benefit at the expense of another. World-class supply and value networks are highly adaptive. They focus on value and speed, they are innovative and they are highly integrated. Quite obviously, trust is an essential precondition to successful supply networks and value networks. Figure 12: from Purchasing to Value Networks portrays the 'Burt-Lynch Supply Chain Evolution Model.'

[8] This is the model made renown by Michael Porter in his treatises on strategy.

World Class Supply Management

Level of Evolution	1. Clerical	2. Transactional	3. Process Based	4. Strategic	5. Systemic
Type	Tactical Buying	Bid-Based Buying	Supply Chain Mgmt	Value Chain Mgmt	Value Network Mgmt
				☐ Total Cost of Ownership ☐ Top & Bottom Line ☐ Integration	☐ Total Value Impact Costs, Revenues, with Quality, Innovation, & Speed
Value Driver	☐ Timely Availability, Convenience	☐ Lowest Purchase Price	☐ Cost ☐ Quality ☐ Just In Time	☐ Revenue & Bottom Line Impacts ☐ Increase Share Holder Value	☐ Future & Present Revenue & Bottom Line impacts, Supplier & Stakeholder Impact
Financial Impact	☐ Overhead-Cost Center	☐ Improve Bottom Line No Consideration of Revenue Impacts	☐ Improve Bottom Line ☐ Some Consideration of Revenue Impacts	☐ Moderate Integration ☐ Procurement, Logistics, Operations, Engineering, R&D	☐ Full Integration ☐ Procurement, Logistics, Operations, Engineering, R&D, Sales, Marketing, Service, Customer
Integration Level & Functional Elements	☐ No Integration ☐ Purchasing stands alone	☐ Low Integration Procurement & Logistics	☐ Partial Integration ☐ Procurement, Logistics, Operations, Engineering	☐ Coordination ☐ Interconnectedness	☐ Hyper-Competition, Hybridization of Technology, Speed & Innovation, Customization
Basis of Competitive Advantage	☐ Do the Job	☐ Leverage Size of Buyer	☐ Through Put ☐ Global Impact	☐ Speed ☐ Effectiveness ☐ Monitor Supply Environ't	☐ Innovation, Synchronicity, Synergy, Monitor Customer Environment
Performance Metrics	☐Timeliness & Efficiency	☐ Low Component/Unit Cost, On Time Delivery	☐ Coordination & Cost, Develop Suppliers	☐Speed & Integration, ☐Design Supply Base, ☐ Integrated Supply Strategy	☐New Processes ☐Systems Solutions ☐Leverage Supplier Technlgy
Innovation Focused on	☐Not Consiidered	☐ Squeeze the Vendor is first priority	☐Process Innovation, ☐Develop Requirements, ☐Near Defect Free Supply		
Time Focus	☐ Isolated from Customer	☐ Reactive to Customer	☐ Responsive to Customer	☐ Pro-Active To Customer	☐ Pre-Active with Customer

*Copyright by David N. Burt and Robert Porter Lynch.
Evolved from The American Keiretsu by David N. Burt and Michael Doyle, Business One-Irwin, Homewood IL., 1993, p. 21.

Figure 12: from Purchasing to Value Networks

This model depicts the evolution from "buying" to value Network Management. It also serves the important role as a benchmark, allowing the CEO and other senior managers and corporate directors to judge how their organizations are progressing on the road to Value Network Management.

TRUST

Trust is the key building block for all collaboration, innovation and network management. All the examples used in this chapter relied strongly on the trust factor for their success.

Trust is the foundation of all collaborative enterprise. Further, it is a massive competitive advantage for it makes everything run faster, smoother, and more honestly. As the world continues to speed up, more trust gives a real competitive edge.

Probably the most compelling factor about trust is that it gives a company a 20% or greater competitive advantage, according to studies conducted by colleague Robert Porter Lynch.. As Mr. Lynch writes, "Trust enables everything to move faster, more effortlessly, and with less conflict." [9]

Building trust requires several factors, as a minimum (acronym: TRISHA):

- Transparency
- Reliability
- Integrity
- Safety
- Accountability

But this alone is insufficient to generate the trust needed to succeed. Trusted people have a conscience, build shared visions, and act with "honorable purpose." Their good business sense is tempered with empathy and vision. They always look for win-win solutions to ensure their suppliers are going to have a solid chance at remaining whole over the course of the business relationship. And, while firm in their high standards, the trusted supply manager is always fair in their dealings.

Those who don't consider trust as a major factor in their future success are doomed to failure in the long run, although they might produce a string of illusory short term successes.

Within every human being is the desire to be creative and to collaborate with people of like minds and strategies. The trusted negotiator builds on these inner forces to create and collaborate. On the other hand, we are paradoxically competitive as well. The supply manager who understands the nature of trust quickly learns two key elements of trust:

[9] See Lawrence, Paul R. & Lynch, Robert Porter; Leadership and the Structure of Trust, European Business Review, May-June, 2011

Collaborate *internally*, and compete *externally*.
Truly strategic suppliers are part of my *internal* team.

People support what they help create.
Engage everyone as if they are ready to hatch a truly new idea.

TRANSFORMATION

The road to world class supply network and value network management is a tortuous one, filled with challenges. The preceding chapters have addressed the technical principles underlying world class supply management. We now need to address the even more challenging human issues….the art of transformation.

Change Champions

One or more champions of change must step up to the batter's box and study:

- the present situation,
- changes which must be made, largely in thinking about strategic suppliers and the firm's relationship with them,
- resistance to change: change is disruptive and threatening.
- potential internal allies
- the potential rewards (in the form of satisfaction and fulfillment)

The change champion periodically should reflect on the following:

- Great champions understand that when in doubt about action, it's better to ask forgiveness after the fact than permission before the fact.
- Be committed to a vision of the future that's larger than any fear.
- The world owes nothing to any man, but every man owes something to the world. I pity the man without a purpose in life. (Thomas Edison)
- Brainpower alone is insufficient to drive the innovative spirit; innovation and change are disciplines of both head and heart.
- Be the champion of your life—believe fully; live fully. Don't be afraid of dying: be afraid of an "unlived life."

Once committed, the "change champion" should carefully select an inside executive sponsor. This person will give some protection and security against other insiders, who are threatened by change and also guide the champion through difficult political waters. Also consider bringing in an outside change facilitator. The ideal outsider will be both an experienced change agent and seasoned expert in the principles of strategic supply management, giving guidance on how best-in-class

companies have risen to the top before. The two will then develop an action plan to change the organization's view of and relationships with its strategic suppliers.

Two approaches are especially attractive: (1) gaining support of the CEO and (2) gaining support of manufacturing and/or the firm's outward facing activities. In order to gain CEO support, arrange for an hour long meeting with the CEO. Share the following list of questions with the CEO[10] in Figure 13: Questions for Senior Executives :

SUPPLY CHAIN:
QUESTIONS FOR SENIOR EXECS

1. What % of your corporate budget is spent on outside sources?
    - Typical Answer: 40-70%
    - Does this make your procurement function "strategic" to your company?
        - Typical Answer: Yes, I guess So!

2. Do you treat your Supply Chain as an "Expense" or as a "Strategic Asset"?
    - Do you see your major suppliers as Strategic Partners?
    - In your supply chain, 80% of your purchases go to what % of your suppliers?
        - Typical Answer: 3-8% of Suppliers account for 80% of Expenses (These should be the initial target for Strategic Supply Innovation)

3. Do you think of your Supply Chain as a means of creating Competitive Advantage?
    - How well is your Supply Chain Strategy connected to your Customer Strategy?

4. Is innovation a Competitive Advantage in your industry?
    - What percentage of your innovation streams come from your supply chain?
        - Typical Answer: less than 5%
    - So, if 60% of total corporate expenses go to suppliers, and you get only 5 % of your innovation streams from suppliers, is there something wrong with this picture?

5. What is the Level of Trust you have with your most strategic suppliers?
    - What is the real Cost of Distrust?
    - If you want Strategic Supplier Alliances to produce Innovation Flows, then you must have a strategy, system, and method for establishing Trust.

Figure 13: Questions for Senior Executives

[10] CEO Questions provided by Robert Porter Lynch, who works with many senior executives on alliances, innovation, and supply chain strategy. He has shared with us the questions he asks when first meeting with senior management

It is our experience that these questions will result in a request for an action plan. This plan will become the basis of a supply transformation initiative. The plan should identify low hanging fruit opportunities, ideally with a potentially strong ally.

The second approach calls for a meeting with one or more directors of manufacturing or operations and/or the following outward facing activities: new product development, marketing and sales. Ask them the same questions. Then ask them to rate the firm's Supply Management System against the above Supply Chain Evolution Model.

This approach should lay the foundation for a recommendation to the CEO to undertake the necessary transformation. In a worse case scenario, manufacturing and/or the outward looking division(s) will work with you as teammates to implement as much change as feasible. Both approaches will be more successful if a realistic estimated dollar impact on both sales and savings is made for the next two years.

Transformation Prerequisites

During our many years of experience in procurement, we have been fascinated with the process of transformation---especially the transformation from reactive purchasing to proactive procurement to world-class supply management. We have had the good fortune to work with huge international corporations, governments, midsized businesses and small firms.

We cannot overemphasize the importance of four keys to successful transformation:

- executive sponsorship
- the presence of a change champion (This individual may be from supply, alliances, marketing or elsewhere in the corporation. He/she will be known as a champion of change by many senior managers.)
- the involvement of dedicated, educated and committed personnel
- the availability of an experienced outside advisor/facilitator with expertise in both change management and supply management.

AND, THERE YOU HAVE IT: OUR VISION OF THE FUTURE AND SOME THOUGHTS ON HOW TO GET THERE. REMEMBER: YOUR COMPANY'S SURVIVAL AND SUCCESS ARE DEPENDENT ON YOU. THE CHALLENGES WILL BE MANY AND THE SATISFACTION BEYOND BELIEF. REMEMBER THAT TOM STALLKAMP STARTED AS A BUYER AND BECAME THE CEO OF A FORTUNE 100!

The Coming Shift in
Strategy & Structure
of Supply Chain Management

By, Robert Porter Lynch, David N. Burt, James D. Reeds

Introduction

Evolution of Supply Chains

In the early 1990s, thought-leaders in what was then the Purchasing and Procurement profession began to lay out a new vision. Driven by the forces of globalization, emerging data interchanges (pre-internet), and operational efficiency, a new profession was carved out called Supply Chain Management. It linked operations, logistics, and procurement into a more unified system serving burgeoning industries that were stretching their reach into emerging countries like Mexico, China, and Taiwan, to name a few.

The Powerful Shift in the Nature of Business

In executive seminars over the last decade we've asked over thousands of senior managers all over the U.S., Canada, and Europe to graphically express what the impact was of the rate of change/speed/complexity was since 1970. Amazingly, for over 90% [11]of the executive responses the curve looked thus (Figure 1)[12]:

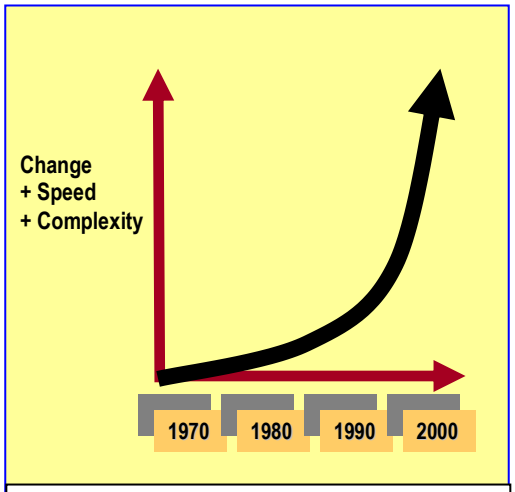


Figure 14 -- Graphic Depiction of the Rate of Change in the Business World

This astounding concurrence represents the dazzling shift that has rocked the very foundations of organizational thinking. But with this shift, executives have been caught flat-footed. In the first half of this era (1970-1990), the business world was slower moving, a period of relative predictable change, characterized by five and ten year strategic plans and three year sales forecasts. Organizations were stand-alone and predominantly hierarchical. The rules of management in this era had been developed from years of experience, handed down through generations of tradition and the esteemed learning from our business schools.

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[11] The only difference among these 90% was the point of inflection where the curve changes direction radically. For those in very rapid change industries, such as high tech, the point was generally between 1986 and 1990. For those in slower changing businesses, such as petro-chemicals the point tended toward 1995-7. The primary reasons for the shift cited by executives were: computers, faxes, globalization, cell phones, then the internet, each compounding upon the other.

[12] Author's Note: The implications of this phenomenon, from a predictable, slow-time world to an integrated fast-time world are massive. It affects every aspect of management.

Then hell broke loose. Fired by the forces of change (see footnote #1), what was once a somewhat predictable world almost instantaneously suffered a tectonic shift, becoming fast, discontinuous, and unpredictable. Long term strategic plans were suspended, sales forecasts scaled into shorter horizons, and alliances burgeoned to enable adaptation to the shift.

With less predictability came stiffer pressures and penalties from Wall Street. Downsizing, rightsizing, and outsourcing, coupled with cutbacks in R&D were made to boost shareholder's bottom line demands. Criticism was leveled that companies had "hollowed out their core." Strategic alliances began to be formed to match this ever-accelerating rate of change and provide the structural linkages to facilitate innovation flows.

In the face of this massive shift in speed, complexity, and change, the need for innovation becomes essential for business survivability. Out of the survey group, the overwhelming majority concurred that *"In a fast moving, rapidly changing world, the most sustainable competitive advantage is innovation."* Innovation is the most effective strategy for combating competitors with low price structures. Most companies cannot continue to cut costs indefinitely without killing their supply base."

Need for a Shift in Supply Chain Thinking

By the late 1990s, it became evident to us (these three authors) that the next evolution of Supply Chain Management would begin as a result of four major driving forces:

1. the strategic nature of supply chains,
2. the massive connectivity created by the internet,
3. the acceleration of the pace of business, and
4. the need to access innovation streams.

We thought this shift would happen early in this past decade. We called it the "networked enterprise." In 1996, we predicted "the emergence of the networked enterprise" would be "fundamentally the most revolutionary and complex shift in organizational functioning and structure in the history of commerce." We were wrong. With the exception of a few leading organizations, the shift never occurred. Supply Chain Management never entered its next evolutionary stage of development; it has remained stuck; and is growing stale.

What's missing in our current thinking? What caused us to get caught in the rut? What is the next stage? And how is it different?

Strategic Shift

The Strategic Nature of the Supply Function

First, let's examine what's missing in Supply Chain Management thinking: *strategy.* For the most part, SCM is tactical, not strategic in its nature. Most Supply Chain managers focus their daily activities around three things: low cost, ample supply, and efficient logistics. While there is nothing inherently

wrong with these three, they do not consider the fundamental question that needs to be asked: How can the Supply Management function create *competitive advantage.* Unless this deeply vital question is asked, we jump immediately into day-to-day operational (tactical) issues such as RFPs, delivery penalties, and the like.

In case you are asking the question "Well, why is Supply Management a strategic function?" just consider this. In most manufacturing companies, the supply function encompasses more than half of the company's expenses. This factor alone makes the function strategic. Prior to World War II, the old purchasing departments controlled less than 20% of the expenses; today it's not unusual for 70%-80% of a company's expenses to go through supply management's hands. In services industries, supply management is equally strategic: the late arrival of equipment, the late completion of a construction project, the hygiene of outsourced laundry all impact on the success of a hospital.

CEOs, CFOs, and Boards of Directors should take note. Having such a large portion of expenses be scrutinized only from a "lowest cost" perspective is myopic at best, and foolhardy at worse.

Instead, we should be seeing supply as a critical source of innovation flows from suppliers to customers, thus a means for generating revenues. In this vein, we should be linking the supply functions more closely with research, development, and marketing, as well as its current linkage to operations.

Supply management can be an important resource in finding new ways for products, services, and sub-systems to enter the market place. However, in today's lexicon, the idea of "revenue generation" for supply management not even considered.

Structural Shift

From Chains to Networks

Second, the idea of chains is an anachronism in today's world of networks. Chains are simply too simplistic, too linear, and too adversarial. In the old days of procurement, we had "vendors" who we could "squeeze" for their lowest price. The old idea of "three bids and a buy" was our normal modus operandi. The legacy of this archaic terminology from that era still lingers in the backwaters of most supply managers.

Today, it should be self-evident that the idea of chains is far too linear, slow, and cumbersome. For example, Boeing got in a lot of trouble in the development of its latest commercial airliner because it saw a supply chain as a number of "tiers".

Third tier suppliers were inadequate to the task. If Boeing had seen these suppliers as part of a "network" then it would have encouraged more communications, integration, and alliance relationships to enable higher levels of planning, coordination and early identification of difficulties. For years in the auto industry, Honda and Toyota have understood the competitive value of supply networks, but their American counterparts, such as GM remained locked in chains. collaborative
Hand-in-hand with networks is the shift from adversarial to relationships. The adversarial nature of chains leads to seeing "vendors" as second-rate peons with little to offer, and thus the subject of regular horsewhipping and squeezing. In the auto industry, this practice, mastered to the point of an art-form, has been driving 500 suppliers, along with critical skills, innovative ideas, and diversity of sources out of the industry.

From Adversarial to Collaborative Relationships

Third, supply chains are inherently adversarial, pitting supplier against supplier against buyer. In industries such as health care, the cost of adversarial relations adds 20 to 30 cents on every dollar spent. And the cost is not just in dollars, but also an enormous cost in lost opportunities. In particular, innovation flow, which is one of the most critical competitive advantages a company can have, virtually dries up when conflict infests a supplier relationship. This was highly evident in the auto industry in the mid 1990s when Chrysler, under the brilliant leadership of Tom Stallkamp, reformed his supply chain from an adversarial to a collaborative relationship. Innovations began to flow to Chrysler, helping it regain a prominent and profitable position in the industry. Stallkamp was extremely cognizant of the value of this move.

> "Adversarial commerce is based on using short-term leverage … to produce quick results … The dominant party applies economic leverage in a dictatorial, arbitrary manner forcing the subordinate party to concede to demands without considering the financial hardship or long-term affects those demands might create. This might seem to be a natural byproduct of size, responsibility, or power…. It forces even the adversarial firm to concentrate on short-term results instead of building a sustainable and growing relationship.[13]

> "Adversarial commerce forces the two parties into a defensive posture that is counterproductive to building long-term success. Relationships built on distrust between two parties force them to protect their own profit position instead of work for joint solutions to joint problems. An underlying atmosphere of antagonism and defensiveness permeates the environment under this management style. Even though they are doing business together, the firms build barriers between each other, when they should be working more closely. Under adversarial commerce, companies use tactics that intentionally keep the relationship tense and unstable. The subsequent tendency is for both sides to seek maximum control over the other party and try to gain advantage.[14]

[13] Stallkamp, Thomas; SCORE, p20
[14] Ibid, p20

> "By sharing information between buyer and supplier, joint planning and sourcing can reduce a buyer's outlay for research and development and ensure less risky, much more secure returns for the supplier. It might sound simple but in practice this type of sharing of information is discouraged under adversarial commerce.[15]
>
> "Collaboration permits companies related a common enterprise to streamline their mutual operations, reduce overhead costs, and speed up the product-development process. The advantages are that everyone can share in the sustained profitability and security of growth...The transition will not be easy, nor for the fainthearted, but it certainly is less onerous than waiting for pink slip for watching stock prices fall because of the negative results of the command-and-control adversarial style."[16]

Adversarial commerce is synonymous with distrustful commerce. It's rampant; it's costly; it's often subtle and insidious; and it erodes the creation of value. The leader of the future must be ever-alert to ferret it out to maintain competitiveness.

When Tom Stallkamp installed this type of thinking and the structural systems to support it between 1991 and 1998, Chrysler's profit performance shifted dramatically from virtual bankruptcy to a market capitalization of $35 billion, and $7 billion in cash. It was considered a miracle in the auto industry; but it wasn't due to smoke and mirrors, but instead because of the shift in thinking, systems, and tools Stallkamp used for implementation.

Now the sad part of the story: When Daimler bought Chrysler in 1998, they immediately threw out the golden goose. Stallkamp, the only Supply Chain executive to become CEO of a major U.S. company was fired, old adversarial "squeeze the vendor" tactics were reinstated, Chrysler began to experience a continuous series of losses, and a decade later was back in bankruptcy. Go figure!

Collaborative Imperative and Strategic Suppliers

Thus the very nature of the supply function must embrace collaboration as both a strategic and structural imperative. This alone has major implications on the mindsets, skillsets, and toolsets of the supply profession.

Collaboration is an essential element in working with strategic suppliers. Who are these "strategic suppliers." In our analysis of suppliers, we have found that in most organizations, 80% of the supply spend is done with 6% (+/-2%) of the supply base. For example, if your supply base is composed of 1000 suppliers, about 60 will be truly strategic for you; the other 94% will be tactical. (note, there will be a small number of strategic suppliers with whom you don't spend a lot of money, and conversely a few tactical suppliers with whom you have a high-dollar set of transactions.)

It is with these strategic suppliers of supplies, services and equipments that alliances must be built to enable the collaboration to produce innovation streams that will create competitive advantage. Ultimately, winning in business is, more and more, due to who has the best supplier networks

[15] Ibid, p 48
[16] Ibid, p 195

delivering the highest value products and services. In the end, the most innovative value network is most likely to be the winner in the game. For example, when P&G shifted to a value network model in the early 2000s, it caught its competitors, such as Clorox, flat-footed with a dearth of innovations. The stock prices of the companies in P&G's market segments reflected the value of innovations flowing through the supply chain.

Differentiated the Collaborative and Adversarial Systems

The mind-sets, system-sets, skill-sets, and tool-sets that support this change are quite different. In Table 1, we briefly outline this change.

#	ATTRIBUTE	ADVERSARIAL STANCE	COLLABORATIVE STANCE
1.	Business Strategy	"Bury the Competition." • Control Resources; • Exert Power Over Suppliers; • Control Market Positioning.	Seek Collaborative Alliances Throughout the Value Networks: • Employ Useful/Leading Innovation (Inspiration). • Adaptive Behavior. • Meet Changing Customer Needs.
2.	Belief System	Corporation Exists To Create Shareholder Value; • Seeks Lowest Labor Costs Globally; • Financial Capital Is More Important Than Employee Intellectual Capital; • Employees Are A Liability – Not An Asset.	Collaborative Alliances Exist To Maximize Every Enterprise's Growth, Profitability, and Sustainability: • Employees' Intellectual Capital Is A Major Source Of Competitive Advantage; ○ Thus Employees Are A Great Asset; • Profit-Sharing And Employee Stock Ownership As A Means Of Engaging & Aligning All
3.	Strategic Goal:	To Maximize Power Position; • Every Enterprise is Viewed As A Competitor.	To Maximize Network Alignment and Goal-Setting: • Helps Define Common/Mutual Goals, Purposes, Interests And Processes.
4.	Market Growth and Expansion	Growth Model: • Via Acquisition (Which May Often Remove A Competitor), • Mistrust Of Alliances (Which Cannot Be "Controlled").	Growth Model: • Preference: Internal Growth & Alliance Formation. ○ Will Use Acquisitions Only If the Enterprise candidate Is Trustworthy & Synergistic.
5.	Organizational Assumptions	The "Nature" of Self-Interest: • Narrow, Short-Term Interests Of Functional Organizations Assume Priority Over Strategic Objectives; • Frequently in Conflict with Strategic Objectives of Enterprise. • Maximize Power Maximized Via a Command & Control Model.	The "Nature" of Self-Interests: • "Working Together" In Cross-Enterprise Teams is in the Nature of Most People • Maximize Mutual Interests. • Maximize Profitability Via Network Collaboration And Innovation.

6.	Organizational Perspective	Bias: • Finance And Legal Are The Core Operational Units. • Value Is Created By Selection of The Lowest Price Providers (Price Competition).	Bias: • No Operational Unit Is More Important. • Working Synergistically Is The Vital Issue For Creating Highest Value To Cost Ratio.
7.	Power Base	Power Projected and Maintained Via: • "Command and Control" Organizational Hierarchy; • Scale; • Financial Advantage.	Collective Competitive Advantage Maintained Via: • Agility (Speed). • Flexibility. • Creativity. • Low Levels Of Non-Value Added Functions High Levels Of Human Empowerment.
8.	Assumptions Driving Organizational Advantages	Focus: • Greed (Enlightened Self-Interest); • Competitive Toughness; • 'Siege' Mentality.	Focus: • Shared Strategic Vision. • Collaborative Innovation. ○ Based Upon A Foundation Of Trust.
9.	Assumption About Human Motivation and Behavior	Guiding Principle: • Control Resources; • Defend Interests; • Motivate People Via Competition.	Guiding Principle: • Co-Create, Understand Inter-Relationships & Systems. • Motivate and Energize People To Work Collaboratively.
10.	Intellectual Property	Rigid/Static View: • Considered A Defensible Property Right; • Must Be Vigilantly Protected, With Adversarial Win-Lose Litigation.	Flexible/Adaptive View: • Business Environment is An Ever-Changing Landscape; • Employs a Combination Of Open And Closed Systems For Intellectual Property. • Upgrading Is Seen As Essential For Future Competitive Advantage.
11.	Customer & Supplier Relationships	Competitors That Cannot Be Trusted.	Potential Allies With The Potential To Create "Systems Synergy."
12.	Negotiation Stance	Win-Lose. • Short-Term Transactional Relationships.	Win-Win. • Seek Long-Term Collaborative Relationships.
13.	Strengths	Fundamental Strength(s): • Straight-Forward, Top-Down Driven. • Comparatively Easy, Simplistic to Implement and Deploy. • Relatively Quick to Engage and Implement.	Fundamental Strengths: • Views Collaboration as a Competitive Advantage • More Cost Effective and Profitable. • Trust is Essential to Ensure Long-Term Relationships. • Screens Out Non-Collaborative Talent In The Hiring Process. • Future Orientation: Seek New Ways of

			Doing Things. • Proactive/Innovative/Creative, • Must Realign Culture, Metrics & Rewards to Support the Collaborative Strategy.
14.	Weaknesses	Fundamental Weakness: • Lacks A Foundation Of Trust That Underpins Individual, Functional Organization And Network Relationships. • Short-Sighted, Opportunistic Near-Term View of Business. • Is More Costly ○ Ignores Total Cost of Acquisition and Relationship Maintenance. • Past Orientation: Seeks to Preserve a Status Quo. ○ Reactive/Passive "That's The Way-We've Always Done It."	Fundamental Weakness(es): • Requires Hard Work Across Functional and Enterprise Boundaries. • Open-ended Time Horizon. • Task of Alliance-Building Never-Ending. • Requires Organizational Top-to-Bottom Buy-In. • Requires Enterprise-to-enterprise Buy-In. • Underlying Premises Not Easily Understood. • Requires System-wide Transformation in Thinking and Behavior.

In the new world we live in, particularly during this time of transition, a company must have a mastery of both models – particularly knowing when to enact *defensive* strategies against adversarial attackers, and a *collaborative offensive* strategy to create real competitive advantages in the marketplace with suppliers, compatible co-deliverers of value, and customers.

Implications for Business

Understanding the Impact of this Shift

Now, ten years after having realized we were wrong about the timing of this shift, we believe we understand why. There are major forces inside the current of supply management that prevent this shift in most organizations: structure

1. Operations & Finance: In a very large number of organizations, the supply function is tied tightly to operations and finance. Thus logistics and cost, not strategy and innovation, are the key drivers and rewards for supply managers. To prevent this, P&G's supply function has become linked with R&D. Further, the financial metrics of a networked model requires a shift from component-costing to total-cost-of-ownership. Most financial measurement systems are simply not geared to this advanced level of insight.

2. Mind-Sets: The installed base of professionals making up the supply management function have been self-selected and promoted because of their excellent logical, analytic, and computational skills. The new world of the networked enterprise requires a different mind-set:

oriented to strategy, creativity, and relationships to build trust. These are not the mind-sets of the typical supply manager currently employed.

3. Professional Training: To shift into this new mode of thinking requires professors of supply management in business schools to create books and courses in this genre. When one reads the current level of leading thinking in supply management, it is still stuck in the old paradigm. Without a change in thinking in universities, the new systems- models required to implement value networks will remain ephemeral and ethereal.

4. Lack of Senior Executive Demand: Lastly, there is no real pressure from senior executives on the supply profession to make this shift. C-level leaders, not having any greater expectations from the supply function than cost-cutting and logistics, are content. Thus, without greater expectations, there is no real change.

Burt-Lynch Model of Supplier Evolution

To help facilitate this required shift in mind-sets, system-sets, skill-sets, and tool-sets, we have developed a visual model describing the brave new world. We have tied the model to Figure 1, to put the idea of the shift into both an historic and futuristic context.

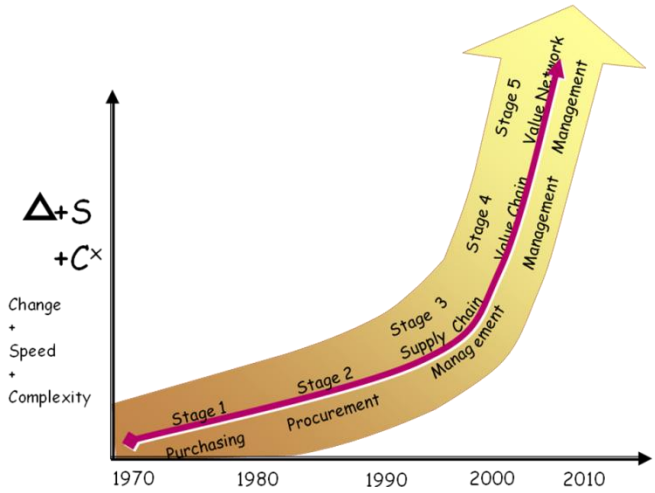
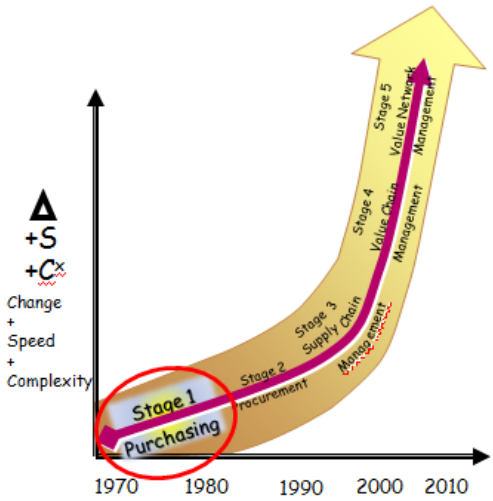
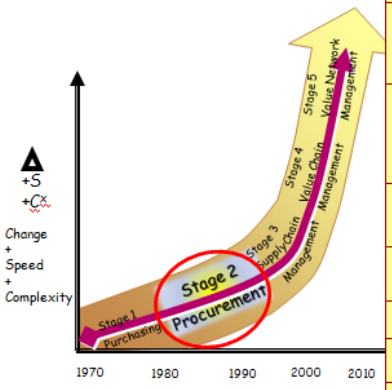


Figure 15: Shift from Purchasing to Value Networks (overview)



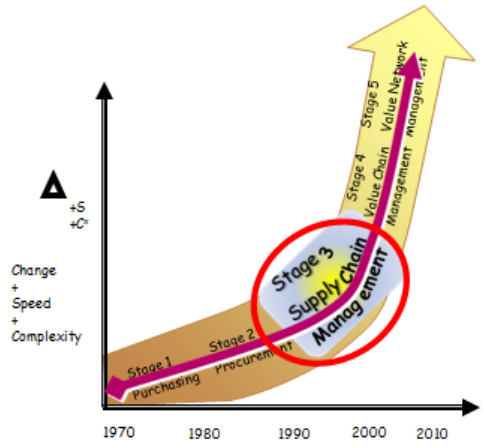
VARIABLES	STAGE 1. Procurement *Clerical Tactical Buying*
Value Driver	• Timely Availability, Convenience
Financial Impact	• Overhead-Cost Center
Integration Level & Functional Elements	• No Internal Integration Purchasing
Basis of Competitive Advantage	• Do the Job
Performance Metrics	• Timeliness & Efficiency
Innovation Metrics	• Nothing
Knowledge	• Thomas Directory • Phone Book • Rolodex
Supplier Relationships	• Personal
Time Focus	• Isolated from Customer
Environmental	• Not Considered

Figure 16: Stage 1—Purchasing



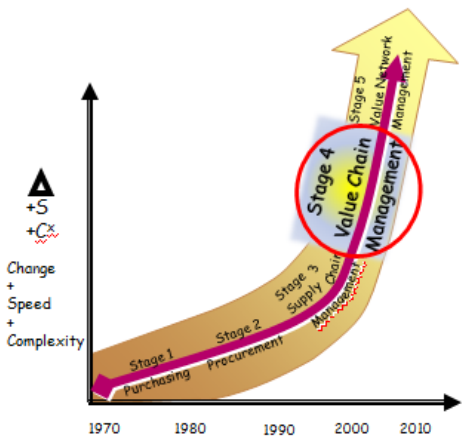
VARIABLES	STAGE 2. Procurement *Transactional Bid-Based Buying*
Value Driver	• Purchase Price
Financial Impact	• Improve Bottom Line. • No Consideration of Revenue Impacts
Integration Level & Functional Elements	• Low Internal Integration Procurement & Logistics
Basis of Competitive Advantage	• Leverage Size of Buyer Power Dynamics Between Buyer & Seller
Performance Metrics	• Low Component/Unit Cost • On Time Delivery
Innovation Metrics	• Squeeze the Vendor • Internet, Auctions
Knowledge	• e-Commerce • "Should Cost" Analysis
Supplier Relationships	• Adversarial & Transactional
Time Focus	• Reactive to Customer
Environmental	• Added Cost Factor

Figure 17: Stage 2 -- Procurement



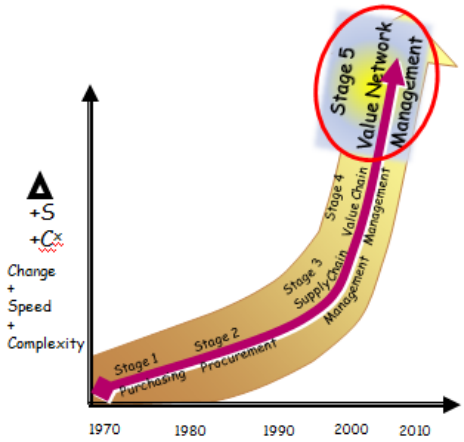
	STAGE 3. Supply Chain Mgmt
VARIABLES	*Process Based*
Value Driver	• Quality • Just In Time • Total Cost of Ownership
Financial Impact	• Improve Bottom Line • Some Consideration of Revenue Impacts
Integration Level & Functional Elements	• Partial Internal Integration Procurement, Logistics, Operations, Engineering
Basis of Competitive Advantage	• Through-Put • Global Impact
Performance Metrics	• Coordination & Cost • Develop Suppliers
Innovation Metrics	• Process Innovation • Develop Requirements • Near Defect Free Supply
Knowledge	• Understand Suppliers
Supplier Relationships	• Transactional & Collaborative
Time Focus	• Responsive to Customer
Environmental	• Considered As Part of TCO

Figure 18: Stage 3 -- Supply Chain Management



	STAGE 4. Value Chain Mgmt
VARIABLES	*Strategic*
Value Driver	• Innovation • Top & Bottom Line • Internal Integration
Financial Impact	• Revenue & Bottom Line Impacts • Increase Share Holder Value • Transform Innovation into Value
Integration Level & Functional Elements	• Moderate Integration • Internal & External Integration: Supply , R&D, Logistics, Operations, Engineering, Marketing, Customer Service
Basis of Competitive Advantage	• Coordination & Synchronicity • Interconnectedness • Relationships & Trust
Performance Metrics	• Speed, Effectiveness • Monitor Supply Environment
Innovation Metrics	• Speed & Integration, • Design Supply Base, • Integrated Supply Strategy
Knowledge	• Understand Industries, Supply Base
Supplier Relationships	• Transactional, Collaborative, & Alliance
Time Focus	• Pro-Active To Customer
Environmental	• Pro-Active as Market Differentiator for Customer

Figure 19: Value Chain Management



	STAGE 5. Value Network Mgmt
VARIABLES	*Systemic*
Value Driver	• Total Value Impact • Innovation • Costs • Revenue • Speed
Financial Impact	• Present & Future Revenue • Bottom Line impacts • Supplier & Stakeholder Impact
Integration Level & Functional Elements	• Full Internal & External Integration: Supply, Procurement, Logistics, Operations, Engineering, R&D, Sales, Marketing, Service, Customer's Strategy
Basis of Competitive Advantage	• Hyper-Competition • Technology Hybridization • Speed, Innovation, & Customization
Performance Metrics	• Innovation, Synchronicity • Synergy • Monitor Customer Environment
Innovation Metrics	• New Processes, Systems Solutions • Leverage Supplier Technology
Knowledge	• Customer's Future Needs • Industry Trends • Connectivity
Supplier Relationships	• Multi-Dimensional • Collaborative, Networked • Vision & Values Based
Time Focus	• Pre-Active with Customer
Environmental	• Pre-Active with Customer to Reengineer as Added Value

Figure 20: Stage 5 -- Value Network Management