High-Impact Sourcing
2005

Precision-Guided Sourcing Strategies for Maximum Results
Boston Strategies International helps companies and their suppliers develop and implement sourcing and logistics programs that result in market leadership and maximum supply chain value. We provide:

- **Strategic Sourcing Programs** – metrics, benchmarks, forecasts, supply market analyses, and comprehensive strategic sourcing programs
- **Logistics Optimization Tools** – process design and custom software solutions for efficient inbound, production, assembly, and outbound product flows
- **Operations Research & Training Modules** – research, workshops, and training programs on effective procurement, logistics, and transportation management

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This report summarizes the results of Boston Strategies International’s strategic sourcing study. Further information is available as noted below.

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1 Abstract

Have your purchased materials or services costs increased or decreased in the last 12 months? Which have been the most effective sourcing strategies in your industry, and for what you buy? How many suppliers should you have, and are you developing the right ones?

Boston Strategies International’s 2005 study of executive perspectives on strategic sourcing probed the goals and the relative success that companies had with scale-based sourcing techniques, and with hyper-consolidation in particular. The ongoing study has received approximately 100 responses to date, of which over half are from Fortune 1000 companies. 60% of the respondents hold Vice President Procurement or Director-level procurement positions. The average company has $3.5 billion in annual sales, and companies of all sizes were represented, from those with more than $20 billion to those under $50 million.

The study uncovered five important findings:

1. Global sourcing saves companies 12% with a focused effort and 7% when managed opportunistically. Knowledge of the Chinese supply market is essential to doing business anywhere else in the world due to its radically different cost structure.

2. Centralized purchasing saves companies 6-11%. Moreover, it is a platform for material standardization, which reaps another 7% in savings. Most companies use purchasing councils and spend analyses to develop a centralized purchasing strategy.

3. Partnering saves 8-10%, and yields a variety of non-cost benefits such as better product and information quality and availability, shorter leadtimes, and more robust engineering support.

4. Strategic sourcing represents an enormous opportunity. If all 12 sourcing methods in the study were applied in concert, savings would total 30% of acquisition cost. A phased approach can reap all the benefits while limiting the investment in resources.

5. Focus pays off. Companies that focus intensely on a sourcing approach get twice the savings of those that approach it with a moderate effort, and four times the savings of those who hardly focus on it at all.
2 STUDY APPROACH

Boston Strategies International conducted a survey asking procurement managers and executives about their use of 12 strategic sourcing tools. Approximately 100 companies responded to the survey.

The survey, which can be found in Appendix B, asked 33 questions. Including a matrix-format table that asked for multiple answers, each survey contained 66 data points. Key questions centered around how much emphasis they will place over the next two to three years, and how much benefit they have received or expect to receive, from each of the strategic sourcing tools.

One part of the survey dealt with the emphasis being placed on each tool. A five-point scoring system was used to rate the emphasis. A score of 1 indicated no emphasis, whereas a score of 5 indicated dominant emphasis.

Another part dealt with the savings impact of each tool. A quantitative scale was used.

Many numbers were collected in brackets (0-3%, 4-6%, etc.) to pre-empt sensitivity concerning disclosure of confidential data. The numbers within the brackets were converted to point values (0-3% was translated to 1.5%) for purposes of comparison. Savings of “>20%” was coded as 25%.

We interviewed about half the respondents. Each interview was designed to answer questions that arose during the initial data analysis phase.

The 12 types of strategic sourcing tools studied are described in Figure 1.
<table>
<thead>
<tr>
<th>Tool</th>
<th>Definition</th>
<th>Examples/ Providers</th>
<th>Related Tools</th>
</tr>
</thead>
</table>
| Auction | Any one of a number of reverse auction electronic bidding approaches, usually involving a common website and fixed timeframe. | • Freemarkets  
• Moai  
• Fairmarket/eBay | • Negotiation |
| E-Procurement System (“E-Proc”) | Transactional purchasing system designed for enterprise use and integrated with order management and accounting systems. May include spend analysis tools. Designed to control renegade spending and reduce cost per P.O. | • Ariba  
• PurchasingNet  
• Commerce One | • ERP |
| Global Sourcing (“Global”) | Identification, qualification, and consideration of international suppliers and logistics in the bidding process. | • International suppliers  
• Global logistics network | • E-sourcing |
| GPO (Group Purchasing Organization) | Entity or association that pools volume from multiple companies and negotiates better rates with suppliers than each company could do on its own. | • Retex  
• United Sourcing Alliance  
• Topco | • Cooperative  
• Buying group  
• Buying entity |
| Longer-Term Contracts (“LongTerm”) | Master, or umbrella, contracts or other agreements structured to extend a special commitment to a supplier. Usually 3-10 years in duration. | • 5-Year contract  
• Framework agreement | • Volume commitments  
• Strategic alliances |
| Purchasing Cards (“P-Cards”) | Credit or debit cards issued to end-users for direct purchases; consolidated statements. Usually for small-dollar purchases. Intended to reduce the number of purchase orders. | • American Express  
• Citibank | • E-procurement |
| Purchasing Council (“P-Council”) | Central/corporate sourcing and/or purchasing done on behalf of operating divisions. Intended to consolidate and control spend. | • Purchasing Council (planning)  
• Centralized purchasing (tactical) | • Reorganization  
• Authorization levels  
• Requisition procedures |
| Payment terms (Improved Payment Terms, or “Pmterms”) | Longer payment terms than have been typical for this buyer/supplier in the past. | • 90-day payment terms  
• Payables products (Citibank, GE Global Distribution Services, TradeCard, etc.) | • Consignment  
• Terms & Conditions |
| Rationalization/Partnering (“Rationalize”) | Reduction of the number of suppliers to achieve optimal total (internal + external) cost. May involve strategic alliances that leverage multiple aspects of each organization’s business (partnering). | • Reduction  
• Rationalization (optimization)  
• Partnering  
• Strategic Alliance | • Outsourcing |
| RFx | Request for Quotation form or process. RFx refers to RFI (request for information), RFP (request for proposal), or any similar format used to support competitive bidding. | • Paper-Based  
• E-sourcing tools (Perfect, Emptoris, Procuri, etc.) | • RFI  
• RFP |
| Supply Chain Integration (“SCI”) | Tighter process and/or system linkages with suppliers to identify and reduce the cost of inbound transportation and inventory. | • CPFR  
• Consignment  
• Event management  
• Co-location  
• JIT  
• TQM | • EDI  
• XML |
| Value Engineering (“Specs”) | Analysis of the materials or design/features of a purchased product or service, with the intent of reducing the complexity or standardizing on certain purchased materials or services. | • Simplified material specs  
• Same raw material specs for multiple end products  
• Reduction of product features with little perceived value | • Consumption controls  
• Process redesign  
• Spend analysis |
Respondents assessed the savings they realized or expected in each of four cost areas, as a percent of that area’s cost. The four cost areas are defined below:

1. **Direct Materials and/or Services Cost.** Direct costs are costs of the product or service that can be affected by value engineering, simplification, or redesign efforts.

2. **Supplier Operating Cost.** This includes production, assembly, and service costs that can be reduced through economies of scale or joint process simplification.

3. **Supplier Profit Margin.** This is the supplier’s markup or margin that might be affected by competitive bidding approaches such as global sourcing, auctions, RFP/RFQs.

4. **Order Processing and Delivery Cost.** This includes all remaining buyer-borne costs of acquisition, including the cost of procurement staff, information systems, accounting, and inbound transportation and logistics that are borne by the buying organization.

These four areas combined make up what we define as total acquisition cost. Since total acquisition cost includes some indirect costs (the cost of processing purchase orders, for example), total acquisition cost is greater than the amount paid to the supplier (as shown in Figure 2 below).

**Figure 2: Total Acquisition Cost – Illustrative**

Boston Strategies International converted the impact responses to a “percent of total acquisition cost” in order to compare the relative savings from the different methods by applying industry-specific cost structures. For example, if a respondent indicated a savings
of 10% of direct materials cost, and direct materials represent 62% of total acquisition cost in that respondent’s industry, then we counted this as a savings of 6.2% of acquisition cost. Similarly, if a respondent said he saved 20% of supplier’s operating cost through production economies of scale, and supplier’s operating cost represents 25% of the cost structure for that industry, we counted a savings of 4.5% of total acquisition cost. We then combined the savings from the four cost elements to obtain the impact on total acquisition cost for that strategy and that company.

To get the total possible savings from full implementation of all the strategies, we backed out savings from one strategic sourcing approach that in all likelihood were counted in another tool in order to eliminate double-counting. For example, if a respondent said that “partnering” resulted in cost reductions due to economies of scale (EOS), we did not count his EOS-related savings from “purchasing councils,” which would in most cases already be included in the savings from “partnering.”
3 Profile of Respondents

Many of the participating companies are household names. Since survey participants are promised confidentiality, Figure 3 below gives general descriptions of the companies.

**Figure 3: Representative List of Participating Companies**

<table>
<thead>
<tr>
<th>Aerospace &amp; Defense</th>
<th>Medical &amp; Pharmaceutical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipbuilding firm</td>
<td>Pharmaceutical manufacturer</td>
</tr>
<tr>
<td>Defense contractor</td>
<td>Pharmaceutical distributor</td>
</tr>
<tr>
<td>Avionics manufacturer</td>
<td>Bio-pharma research company</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automotive &amp; Transport Equipment</th>
<th>Metals &amp; Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automaker</td>
<td>Mining &amp; aggregates company</td>
</tr>
<tr>
<td>Mechanical assembly company</td>
<td>Aluminum extrusion company</td>
</tr>
<tr>
<td>Electrical products fabricator</td>
<td>Steel service center operator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemicals &amp; Plastics</th>
<th>Paper &amp; Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injection molding company</td>
<td>Specialty paper manufacturer</td>
</tr>
<tr>
<td>Agribusiness manufacturer</td>
<td>Paper consumer products mfr.</td>
</tr>
<tr>
<td>Fluid controls equipment mfr.</td>
<td>Office supplies manufacturer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer Goods</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toy company</td>
<td>Grocery chain</td>
</tr>
<tr>
<td>Tool company</td>
<td>Electronics retailer</td>
</tr>
<tr>
<td>Furniture maker</td>
<td>Retail holding company</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting manufacturer</td>
<td>Financial services company</td>
</tr>
<tr>
<td>Circuit and switch maker</td>
<td>Property management company</td>
</tr>
<tr>
<td>Power systems company</td>
<td>Third party logistics provider</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electronics</th>
<th>Telecommunications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision instrumentation co.</td>
<td>Telecommunications operator</td>
</tr>
<tr>
<td>Microwave equipment mfr.</td>
<td>Communications device mfr.</td>
</tr>
<tr>
<td>Semiconductor equipment mfr.</td>
<td>Telecom equipment manufacturer</td>
</tr>
</tbody>
</table>

| Machinery & Equipment | |
|-----------------------| |
| Engine maintenance operation | |
| Exercise equipment company | |
| Machine tool manufacturer | |

The average company has $3.5 billion in annual sales (the median size is $2 billion). The sample contains a broad mix of industries, shown as a percent of the total sample in
Figure 4. Companies of all sizes are represented, including those with $20+ billion to those under $50 million, as shown in the distribution in Figure 5. Over half of the responses are from Fortune 1000 companies.

**Figure 4: Responses by Industry**

- **Chemicals/Plastics**: 8%
- **Consumer Goods**: 9%
- **Electrical**: 6%
- **Electronics**: 12%
- **Machinery/Equipment**: 5%
- **Paper/Packaging**: 7%
- **Retail**: 5%
- ** Telecom Equipment**: 7%
- **Services**: 12%
- **Metals/Minerals**: 8%
- **Aerospace & Defense**: 6%
- **Automotive/Transp. Equipment**: 6%
- **Chemicals/Plastics**: 8%
- **Consumer Goods**: 9%
- **Electrical**: 6%
- **Electronics**: 12%

**Figure 5: Responses by Company Size**

- **$0-$50 million**: 5%
- **$50-$100 million**: 15%
- **$100-$500 million**: 10%
- **$500m-$1 billion**: 10%
- **$1-$3 billion**: 20%
- **$3-$10 billion**: 5%
- **$10-$20 billion**: 5%
- **$20 billion +**: 0%
Over half of the respondents hold Vice President of Procurement or Director-level procurement positions, as shown in Figure 6. Twenty-five percent of the respondents are Chief Purchasing Officers or Vice Presidents, or hold other Officer-level positions. Most of the rest are Strategic Sourcing Directors and Managers. Figure 7 shows some of the titles represented.

**Figure 6: Respondents by Position**

- Director: 34%
- Manager: 36%
- CPO: 24%
- Other: 6%

**Figure 7: Sample of Participants’ Job Titles**

<table>
<thead>
<tr>
<th>Executive / Vice President</th>
<th>Director</th>
<th>Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chief Purchasing Officer (CPO)</td>
<td>• Senior Director, Materials Management</td>
<td>• E-Sourcing Manager</td>
</tr>
<tr>
<td>• Chief Operating Officer</td>
<td>• Director, Global Purchasing and Logistics</td>
<td>• Procurement Manager</td>
</tr>
<tr>
<td>• Senior Procurement Officer</td>
<td>• Director, Global Procurement</td>
<td>• Manager, Strategic Sourcing</td>
</tr>
<tr>
<td>• VP, Supply Chain</td>
<td>• Director, Global Procurement</td>
<td>• Manager, Indirect Purchasing</td>
</tr>
<tr>
<td>• VP, Global Materials</td>
<td>• Director, Supply Chain</td>
<td>• Manager, Purchasing Programs</td>
</tr>
<tr>
<td>• VP, Operations</td>
<td>• Director, Materials</td>
<td>• Manager, Global Procurement and Contracts</td>
</tr>
<tr>
<td>• VP, Purchasing</td>
<td>• Director, Strategic Sourcing</td>
<td>• Global Process Leader</td>
</tr>
<tr>
<td>• VP, Sourcing</td>
<td>• Director, Sourcing</td>
<td></td>
</tr>
<tr>
<td>• VP, Procurement</td>
<td>• Director, Procurement</td>
<td></td>
</tr>
<tr>
<td>• VP, Supply Chain Management</td>
<td>• Director, Purchasing</td>
<td></td>
</tr>
<tr>
<td>• VP, Supply Management</td>
<td>• Director, Logistics</td>
<td></td>
</tr>
<tr>
<td>• Global Procurement Leader</td>
<td>• Director, Lean Supply</td>
<td></td>
</tr>
</tbody>
</table>
About a third of the respondents buy primarily raw materials and a third buy primarily parts, as shown in Figure 8. The remainder buy primarily services or finished goods.

- **Raw materials** purchases include steel, plastics, chemicals, wood, castings, gas, and anything else that is a direct input to their production process and is re-sold.

- **Services** include marketing and advertising services, building and grounds maintenance services, security services, temporary labor, transportation, information technology, event and meeting services, and professional services such as legal and consulting. Contract manufacturing is a subset of Services.

- **Parts & equipment** includes any discrete product intended for further value-added, such as fabrication or assembly. Parts & equipment also includes MRO spare and service parts, capitalized equipment purchases, and shelf stock hardware.

- **Finished goods** includes goods for resale or distribution, custom-designed (OEM) parts and equipment, and all other machinery, equipment, instrumentation, etc. that will be used without further value added.

**Figure 8: Percent of Respondents by Principal Commodity Bought**
4 A Huge Opportunity

4.1 The Most Effective Sourcing Methods

Global sourcing has the greatest cost savings impact. Those with a focused effort have reduced acquisition cost by 12%, and best practice exceeds this. Even those with an opportunistic approach have saved 7%. As with all but three of the tools in the study, individual companies saved over 20%. As explained in the Study Approach section, all savings over 20% were classified as 25%.

Purchasing Councils save 11%, including the effects of value engineering that often come under their umbrella. Even ad-hoc centralization efforts saved 6%. Structured first-time centralization efforts can save more than 13%.

Partnering and supplier rationalization save 10% of acquisition cost, when focused. Including companies that don’t try to rationalize their supply base, the average company saved 8%. Mergers, acquisitions, and alliances in the supplier market create a smaller set of potential suppliers.

Auctions save an average of 9% with a focused effort. Those who used them opportunistically (internet auctions, etc.) saved only one or two percent. The average savings is higher than the results from a moderate focus (“2” or “3” on the 5-point scale), implying that “dabbling” in auctions does not achieve consistent savings.

Long-term agreements were popular as a sourcing method with less risk of increasing prices than competitive events. In this context, many companies saved 8% from focused application of long-term agreements. Many companies saved 6% by extending current contracts.

Value engineering saves about 7%, on average.

RFI, RFP, and RFQ cycles save 5-7%. As with auctions, the average savings is higher than the results from a moderate focus (“2” or “3” on the 5-point scale), implying that a structured and consistent set of bidding cycles is more effective than ad-hoc RFQs.

E-procurement achieves savings of 4-8%, largely due to back-end bid optimization, auction capabilities, and spend visibility features that overlapped with other methods listed above.

Group purchasing savings is in a similar range: 5-8%. Supply chain integration averages 3-4% savings. Payment terms and purchasing cards have minimal cost impact, according to respondents.
The chart in Figure 9 below shows the range of savings reported for each method:

1. The average impact of all the responses, including those that placed no emphasis at all on the method (the dotted red line)

2. The average impact of the responses of those who are putting a “2” or a “3” emphasis (on a 1 to 5 scale) on the method (the low end of the blue bars)

3. The average impact of the responses of those who are putting a “4” or a “5” emphasis (on a 1 to 5 scale) on the method (the high end of the blue bars). We do not report a “maximum” savings or top quintile, but companies reported “greater than 20%” savings from all the tools except payment terms and purchasing cards.

4. A best practice savings, based on a structured program with external consulting support (the solid blue line)

Figure 9: Savings by Strategic Sourcing Tool
Global Sourcing
Purchasing Councils
Partnering/Rationalization
Auction
Long-Term Agreements
E-Procurement
Group Purchasing
RFx
Value Engineering
Supply Chain Integration
Payment Terms
Purchasing Cards

Savings as a Percent of Acquisition Cost
Note: The chart in Figure 9 is available for the following industries and commodities:

- **Industries:**
  - Aerospace & Defense
  - Automotive and Transportation Equipment
  - Chemicals and Plastics
  - Consumer Goods
  - Electrical
  - Electronics
  - Machinery & Equipment
  - Medical & Pharmaceutical
  - Metals & Minerals
  - Paper & Packaging
  - Process Manufacturing
  - Retail
  - Services
  - Telecommunications Equipment
  - Transportation & Logistics

- **Commodities:**
  - Chemicals & Plastics
  - Contract Manufacturing
  - Electronics
  - Hardware
  - Metals
  - MRO
  - OEM
  - Office Supplies
  - Paper/Packaging
  - Parts & Equipment
  - Professional Services
  - Services – Non-Professional
  - Services – Professional
  - Transportation
4.2 *Cumulative Savings Potential*

If combined consecutively or in parallel, implementation of the 12 strategic sourcing approaches addressed in this study could save a combined 30% of acquisition cost. The incremental savings by approach are captured in the “waterfall” chart in Figure 10. This raises the question of where to focus limited resources, which is discussed later in this report.

As stated earlier, for this analysis we eliminated double-counting by excluding savings from one strategic sourcing approach that in all likelihood were counted in another tool. For example, if a respondent said that “partnering” resulted in cost reductions due to economies of scale (EOS), we did not count his EOS-related savings from “purchasing councils,” which would in most cases already be included in the savings from “partnering.”

![Figure 10: Potential Cumulative Benefits](image-url)
5 THE GLOBAL SOURCING IMPERATIVE

Global sourcing saves an average of 12% for those making a deliberate effort, say study participants.

The savings number tells only half the story, however. One plastics technology company explains that even to buy in the U.S. market, you need to understand what’s happening in China.

By U.S. standards, Chinese cost levels are eye-opening. The average working wage is 45-70 cents per hour in rural China and $1.20-$1.50 in urban export centers, according to a recent study. In addition, the yuan is widely believed to be undervalued by about 30%, making Chinese labor even cheaper for Western multinationals. China has so profoundly altered the landscape for manufacturing that one manufacturer in the study said “without China we’d be closing the doors.” Korea and Singapore (Malaysia) are also manufacturing bases for many American companies.

Many companies are struggling with how to get started in China. Multinational participants have set up international procurement offices (IPOs) in the region. The cost of setting up an IPO in Asia are relatively affordable if staffing consists primarily of foreign nationals instead of American or European expatriates.

- An electrical products manufacturer set up a Chinese company to source from China.
- An aerospace company set up an Asian IPO in Singapore
- A manufacturer of fabricated metal products set up a trading company in Hong Kong and will source up to 90% of purchased materials from China for certain major product lines.

Trust is a central issue in dealing with Chinese agents and brokers. One grocery retail chain advises companies involved in China to observe cost issues and processes “with their own eyes.” Ultimately, they say, you will either feel comfortable that you have a good relationship or you won’t. “No certificate of analysis, quality system documentation, or statement of costs can or should be construed to prove that the operation is as capable as onshore production,” says one participant. He suggests that each company visit a variety of manufacturing facilities and look for the traditional visual signs of process control and orderliness. “If you don’t see it, it probably isn’t there.”

In the Americas, Mexico is still important to some companies as an offshore production base. However, one company recently repatriated its Mexican operations to the United States. Another is disappointed in the culture, and finds rework and delays to be endemic to working with Mexican labor. This company refers to the “mañana culture” to connote
the lack of urgency and limited sense of obligation to quality standards that American companies have come to expect.

Partially due to offshore sourcing savings, unit prices of companies’ principal suppliers fell over the last 12 months (see Figure 11). On average, prices were down about 1 percent, but there were large decreases in some categories and larger increases in others, as shown in Figure 11. Prices of services declined noticeably – about 3-5% on average. Price of parts and equipment were also down, and were more widely disparate than the service buys. Raw materials rose in price across the board (see Appendix A for more information on raw materials trends).

**Figure 11: Change in Unit Price vs. Previous Year**

![Change in Unit Price vs. Last Year](image-url)
6 Centralization: Getting Lift

Centralized strategic sourcing, usually in the form of a multi-business-unit Purchasing Council, saves 8% on acquisition cost, independent of the savings from value engineering and supplier rationalization. Companies realize the high savings by reducing administrative cost and by using the centralized vantage point to make smarter channel decisions.

Smarter channel strategy and management inevitably flows from centralized sourcing. With the enhanced visibility of the total company’s spend, companies can re-think the direct/indirect decision. Some companies that have been buying through distributors find that their aggregate spend allows them to deal more efficiently directly with the manufacturer(s). Logistics plays a key role, since distributors often provide significant value-add in transportation and warehousing, and manufacturers often don’t have the internal capability to handle logistics in-house.

- One company, based on centralized sourcing information, is negotiating directly with second-tier suppliers and getting the same price that the first-tier supplier had, without the markup.
- Another company is doing the same thing, but only with overseas suppliers, which is where the markups are highest.
- A third company is currently dis-intermediating the first tier, and intends to do likewise with the second tier next year.

Many companies cited an administrative savings due to centralized purchasing. Redundant sourcing efforts are eliminated, thereby reducing staff overhead and related travel, supplier qualification, and similar expenses. Combining back-office purchasing with central strategic sourcing reaps further administrative savings. Two companies in the study recently formed independent sourcing entities with independent legal identities, for centralized sourcing.

Value engineering, which often directly follows the establishment of a Purchasing Council, saves 5% on total acquisition cost, according to the study participants. The savings comes from rationalizing the number of materials purchased, as well as rationalizing the number sold to end users. Many companies claimed success at this, but usually of a more incremental nature than the dramatic reductions in suppliers.

- A retail chain reduced the cost of wood for store displays by comparing metal and wood options, and selecting types and grades of wood that met the requirements at minimum cost.
- A distributor reduced the gauge of shrink wrap used for packaging by 5%.
• An electrical equipment manufacturer is working with its suppliers to use the “offal” – the thrown-away portion of metal stampings after the principal part is cut.

• A metal products manufacturer has standardized to fewer maintenance, repair, and operating (MRO) supplies than before. It cites the classic example of reducing the number of different pairs of gloves available as realistic and effective.

Product line rationalization of the variety that faces the customer is addressed by procurement in some cases – usually by distributors that buy and re-sell the same or similar product. In one case, a tool distributor rationalized the finished product line in order to simplify its purchasing requirements. In another case, the procurement department of an education supplies distributor cuts its product line, and reduced its inventory by 40%. It was able to do this because of strong turnaround efforts at the company that eliminated traditional resistance to rapid change.
7 Partnering: The High-Stakes Small-Numbers Game

7.1 The Extent of Rationalization

Based on the most popular and also the most cost-effective sourcing strategy, most companies said they are aggressively consolidating their supplier base. Many companies have consolidated about 50% over the last several years, many due to lean management practices. Some have gone further. The result is a dramatically rationalized supply base (see Figure 12 for a time series that was developed outside of this study).

Figure 12: Supplier Consolidation Trend

As a result, today’s largest suppliers represent a much greater percent of spend than in the past.

Here are some examples of the more aggressive consolidations evident in our study participants:

- A medical device manufacturer has half as many suppliers now as it did two years ago.
- Another medical device company reduced the number of suppliers by 50% in the last 3-5 years.
- A paper company halved the number of equipment suppliers that it had eight to ten years ago, and cut the number of indirect suppliers by 50% in the last three years.
• A utility’s largest supplier of line service has 15% of the business, compared to 5% five years ago.
• A retail chain consolidated it supply base for interior design by 62%, with a 28% savings.
• An electronics manufacturer intends to cut its supply base by 50% over the next 24 months.
• An electronics manufacturer intends to cut its supply base from 700 to 350.

Some have been more moderate in their approach, consolidating by 10-30%. Usually these companies have been constrained by technical or engineering requirements or proprietary or legal issues such as outstanding patents that tie them to a vendor or vendors. Here are some examples:

• A transportation company has trimmed down its sub-contracted carrier base by 20% from where it was three years ago.
• An injection molding company and an electronics equipment manufacturer have reduced their supply base by 10-20%.
• A plastics company has consolidated 10-15% so far.
• A tool company is consolidating 20% in Asia and intends to reduce its U.S. supply base by 30%.
• A paper company’s supply base has remained stable for the last four to five years, but experienced a 30-40% reduction prior to that and intends to reduce its suppliers for one category by 20-30% in the next 12 months.
• An electrical equipment supplier notes that the smaller suppliers “have been weeded out by now.”

Sometimes, the supplier consolidation has been driven by the structure of the supply market, and not by an intentional purchasing strategy. Many suppliers are refocusing on the more profitable customers to keep margins up, and some are exiting unprofitable businesses or shedding unprofitable customers. The following are results of this type of supply-market consolidation:

• A metal fabricating company that had 5 suppliers of an aluminum material now only has one. The market for the type of aluminum products that it buys has consolidated, and some large players have exited the business, so this company is now in a “sole supplier” situation.
• A steel service center is moving toward an exclusive distributor arrangement. This is in effect supplier consolidation, but their supplier consolidation is a result of consolidation in the supply market, and therefore fewer potential suppliers to choose from, and not an intentional strategy.
A retailer consolidated its base of equipment suppliers, but this too has been driven by the supplier market, not by its own sourcing strategy. When the supplier market consolidates, you’re a smaller customer than you used to be because the suppliers become larger relative to the buyers. One option is to join a group purchasing organization (GPO); another is to adapt the business strategy. Ultimately, staying as a small buyer with small suppliers is a losing strategy.

Figure 13 shows the distribution of supplier concentration. The largest supplier’s percent of the spend is 25% in companies with more than 10 suppliers in the category concerned (Figure 14), but 53% in situations with less than 10 suppliers (Figure 15).
Figure 13: Percent of Suppliers Accounting for 80% of the Spend

Figure 14: Largest Supplier’s Percent of the Spend, Categories with >10 Suppliers
Companies are quite satisfied with the quality and service provided by these core suppliers, usually giving them an “A” or “B” rating for quality and service, as shown in Figure 16, although buyers give partner suppliers – those with greater than half of the category spend – fewer “A” marks than non-partner suppliers (see Figure 17).
Figure 16: Supplier Ratings: All Suppliers

Figure 17: Supplier Ratings: Suppliers with Greater than 50% Share of Spend
7.2 The Benefits of Rationalization

Supplier rationalization reduces companies’ acquisition cost by 9%, according to study participants. Because of the scale of the buy, suppliers run more efficient production operations. When both the buying organization and the supplier work together, large-scale ideas have large-scale payback. Here are some examples:

- An I.T. infrastructure company consolidated from eight to a single cardboard box supplier for its packaging material. It asked the suppliers which grade of cardboard it consumed most, and standardized on the supplier and the grade of cardboard that offered the greatest economies of scale.

- A third-party logistics company helps its suppliers achieve economies of scope. It supports its subcontracted carriers on routes where they have excess capacity, and expects those carriers to support it on routes where it has excess demand. This network “give-and-take” allows both companies to improve their asset utilization, thereby benefiting from economies of scope. The unit price on any given lane does not change, but the network functions more effectively and efficiently.

- A medical device company co-invested in process technologies with its core suppliers, in exchange for a unit cost savings.

Besides economies of scale, benefits include reductions in the cost of margins, overhead, and engineering.

- Suppliers may trim margin in exchange for more spend from the same customer, especially when it means securing the number one spot. However, the power of consolidation as a sourcing tool is that it also allows companies to “double-dip” benefits by also enjoying reduced administrative, engineering/product design, and production costs.

- Consolidation also reduces the procurement overhead, and staff headcount, needed for transactional tasks like supplier qualification, requests for information (RFI), requests for proposal (RFP), and requests for quotation (RFQ). It also reduces the time needed to populate and update supplier information in ERP and e-procurement systems. A paper company reduced its accounting headcount by moving to simplified pricing, summary billing, and periodic invoicing.

- Consolidation also reduces engineering cost and new product development leadtime, and results in more cost-efficient designs, as core suppliers work harder and joint problem-solve. A paper company that works closely with its chemical suppliers on research & development now gets the full attention of its suppliers on developing and introducing new products.

Partnering also delivers a host of non-cost benefits, including better product quality, better information quality, a shorter product development cycle time, and more robust technical
support. Partnering companies also say their suppliers pass on fewer price increases. Here are some examples of non-cost benefits realized by study participants:

- A plastics molding company receives fewer price increases, better product availability, and shorter leadtimes from its partner suppliers than from others.
- A steel reseller gets fewer price increases from its partner suppliers than it had before consolidation.
- A paper company has better quality
- An auto company’s e-procurement vendor has all of its corporate part numbers in its database to simplify ordering.
- An electrical distributor’s supplier helps with MRO part selection, which alleviates the burden on its procurement staff.

Partnering organizations achieve another 3% savings – beyond the 9% savings from partnering – by reducing inventory and production management-related supply chain costs. For example:

- An electronics company avoided peak period supply interruptions by having the core vendor stock material at its location.
- An electronics manufacturing company is realizing higher inventory turns by working with its fewer suppliers
- A jet engine maintenance operation reduced flow-days (inventory days on hand) by 25% through six sigma-based joint process improvement with its core suppliers
- A biomedical firm implemented “kanban” by providing its core supplier production plans.
- An electrical products manufacturer implemented just-in-time supply by locating its core supplier directly across from its production plant
- An automaker squeezes waste from the operation by reducing leadtime with its core suppliers.

7.3 Is Single Sourcing For You?

So if the average savings is 9%, can I get double that by reducing my supply base even more?

The proverbial “80/20 rule” – which in procurement typically means that 80% of spend belongs to 20% of the suppliers or items – has become “80/5” for about a third of the companies in the study. The spend is becoming concentrated in the hands of fewer suppliers.
Most procurement executives regard one or two suppliers as the optimum number, for a category, SKU, or plant. Some like a third player to ensure competition between the first two.

- A major automaker is driving toward 1-2 flagship suppliers per category. Its high volume allows it to have truckload quantities, even at the category level.
- An electrical products manufacturer is shooting for 1-2 suppliers per plant, due to the logistics of less-than-truckload consolidation.
- A utility would ideally like to award 40% to the top supplier.
- A minerals and aggregates company views 60/40 as the ideal split between two large suppliers.

Why not just single source and get it over with?

Sometimes there is no choice but to go with a single supplier. OEM buys are often single-sourced due to long development leadtimes and stringent technical requirements. Upfront tooling is sometimes so costly or precise that having two suppliers is cost-prohibitive. Appearance considerations, batch specifications, mixing, and other technical or customer-driven constraints sometimes force the issue. Finally, one supplier may have patent protection or a proprietary design that cannot be duplicated.

However, most companies in the study avoid single-sourcing where possible due to various potential risks of being held captive, which includes the risks of:

- Price gouging. A plastics molding company sums it up: with single-sourcing, “you give all the leverage away;” and as a defense contractor says, “suppliers could be padding their pockets.” A bulk agribusiness company knows the pain of being captive, based on its perpetual one-to-one railroad lanes: one carrier at the origin to one carrier at the destination. And a tool distributor explained that one supplier has “a death grip” on them because this supplier is also one of its largest customers.
- Quality problems at the sole manufacturing site
- Product unavailability due to a fire, flood, or other natural disaster.
- Equipment unavailability during peak periods. One company’s seasonal demand requires that multiple suppliers be producing and delivering during the peak period.
- Supplier financial difficulties or profit-based business decisions. A transportation company relies on truckload and air cargo carriers, both of which enter and exit traffic lanes fairly frequently due to very dynamic competition, and highly variable profit margins. The acquisition or loss of a single large customer could spur a carrier to exit a traffic lane. As a result, it needs to have a high number of backup carriers.
The risks are worth the benefits, say other participants. Most companies believe that their largest suppliers have competitive cost levels (as shown in Figure 18). They also estimate that partner suppliers have a 3-5% lower cost structure than non-partner suppliers (see Figure 19).

**Figure 18: Top Supplier’s Cost vs. Percent of Category Spend**
Therefore, even if their costs or prices were higher than the competitors, they have to be greater than the supply chain savings and the non-price benefits that accompany partnering in order to outweigh the partnering benefits.

In addition, some companies have established risk mitigation measures such as once-a-year open-book auditing (to mitigate price risks) and lot certification (to mitigate quality risks). A defense contractor requires suppliers of $550K+ contracts to follow disclosure requirements, per government stipulations. A medical device distributor requires its suppliers to undergo a yearly financial audit. And an electronics equipment manufacturer has an open book relationship with its major supplier.

Ultimately, the decision on how many suppliers depends on many factors. Considerations include logistics, production economies of scale, the relative size of the buyer and the supplier, supply market trends, and technical specifications. For bulky materials, there is often one most competitive supplier from a transportation cost point of view. For technically stringent products, batches must look and behave identically. Each product has different economies of scale. And if the supply market is evolving, it may make more sense to partner with an underdog or keep multiple suppliers in anticipation of future mergers, acquisitions, and alliances.
7.4 Were Auctions a Fad?

Last year’s edition of this study focused extensively on the resolution of the dot-com era. One of its findings was that auctions rated next to last in emphasis for the next four years. Numerous problems, hesitations, and concerns were cited for the shallow penetration of auctions in most study participants. Of course, some companies had good experiences and experienced great savings with them, but these examples were few and usually related to highly standardized items like office supplies.

This year we see a continuation of the same trend. Two-thirds of all examples are failures of auctions, or at least removal of an auction software or system, and replacement with a more conventional and full-featured bidding mechanism in an ERP or broader e-procurement package.

- An equipment manufacturer switched from Freemarkets/Ariba’s Fullsource and Quicksource products to Procuri.
- An appliance manufacturer now uses auctions more selectively, and only if it is likely to reduce prices. Given recent upward price pressure, it has been using them very rarely.
- A paper company does not and never has used auctions. Auctions, they say, are nearly always used as back-leverage to leverage down prices of the incumbent, and rarely create the level playing field they are known for.
- A metal fabricator uses auctions, but primarily for price discovery.
- Two companies are using auctions successfully – one for raw materials and the other for office supplies.

In a related development, e-procurement continues to evolve. Companies are shifting from one system to another, but there is enough variety and innovation in the marketplace to satisfy the needs. Only one company has reported dropping the business case premise entirely.

- A raw materials processor unplugged Ariba due to lack of ROI.
- A pharmaceutical company is migrating to Oracle from Ariba. It expects Oracle Business Intelligence to give them better metrics and historical information. In addition, they will save money on licensing and 3-yearly upgrades.
- A construction products company is using Procuri for supply chain visibility, and is very happy how it works for “C” items
- An aerospace company is setting up a portal for all suppliers, based on Plumtree Software.
7.5 Long-Term Agreements: The Trading Card

Long-term agreements saved companies 7% of their acquisition cost, on average. As with supplier rationalization, the savings from long-term agreements comes from multiple areas – administrative costs, design costs, supplier margins, and scale economies – and is therefore aided by “double-dipping” benefits.

Buyers and suppliers leverage economies of scale through long-term agreements. Our study participants had a variety of success stories related to long-term agreements:

- An I.T. company signed a 5-year outsourced packaging agreement. Now they amortize the initial investment cost over 60 invoicing periods instead of 12, substantially reducing the “all-in” unit cost.
- A minerals company signs 10-year agreements with its customers and with its suppliers, hedging material costs and allowing it to amortize its upfront capital investment over 10 years.
- A paper company signs 10-year agreements as a form of what the investment industry calls “income averaging.” Given the business cycles of the industry, it reasons that some years will be good and others will be bad, but that the good years will offset the bad years.

Several companies are successfully using long-term contracts as leverage to avoid price increases, as suppliers are sometimes willing to trade margins for contract length. This strategy is being used extensively for buying raw materials, where lowering prices is not an option, and the only question is the amount of the increase (see Appendix A for details on raw material trends).
8 Focus Pays Off

8.1 4x Benefits

Focus pays off. Companies that focus on a sourcing approach get twice the savings of those that approach it with a moderate effort, and four times the savings of those who don’t focus on it at all (see Figure 20 below).

Figure 20: Emphasis vs. Savings – Overall

<table>
<thead>
<tr>
<th>Emphasis (1=None, 5=Dominant)</th>
<th>Savings as % of Acquisition Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>3</td>
<td>9%</td>
</tr>
<tr>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>5</td>
<td>16%</td>
</tr>
</tbody>
</table>

Figure 21 shows specific examples of the payback compared to the emphasis for the three most effective sourcing approaches.
8.2 Emphasizing the Winning Strategies

The problem is, of course, where to focus. The issue of limited resources is real and important. According to the results, companies give dominant emphasis (a “5” on a 5-point scale) to only two of the 12 strategic sourcing initiatives at a time.

Procurement managers are putting a roughly equal amount of effort into each of the 12 tools, while the benefits of some far outstrip that of others, as shown in Figure 22. For example, global sourcing yields strong benefits, but efforts are just average. Auctions also yield substantial benefits for those who adopt them, but few are adopting them. On the other hand, participants are putting substantial effort into purchasing cards and payment terms, even though these deliver minimal financial results.
Figure 22: Emphasis versus Benefits

- Partnering/Rationalization
- Purchasing Councils
- Global Sourcing
- Long-Term Agreements
- Supply Chain Integration
- E-Procurement
- Payment Terms
- Group Purchasing
- Value Engineering
- Purchasing Cards
- RFx
- Auction

[Bar chart showing relative emphasis and impact for various procurement strategies]
9 A Phased Approach

If all 12 programs were applied together, they could reduce acquisition cost by 30%, even assuming just average success with each one.

A phased approach makes sense in most situations. Borrowing from Robert Tuckman’s 1960s model, there are four phases to a sequenced approach:

- **Forming**: Form a Purchasing Council and begin standardizing purchased parts, materials, and services in preparation for sourcing.

- **Storming**: Stage competitive events. RFQs, auctions, global sourcing, and group purchasing are all possible ways to get started.

- **Norming**: Establish long-term agreements and design partnership programs with the core suppliers that have emerged from the competitive sourcing event. At this point, suppliers are willing to trade off margins and shave off non-value-added costs in exchange for extensions of the agreement or win-win cost reductions.

- **Performing**: Squeeze administrative costs out through enhanced payment terms, dedicated or vendor-managed inventory programs, purchasing cards, and e-procurement streamlining. During this stage, companies also set up the right high-level metrics and skills to make strategic decisions with a long-term, cross-functional perspective.

In the ideal world, the stages are sequential, as shown in Figure 23. However, all of these steps have been successfully implemented in companies without a strict predecessor or prerequisite relationship.
Figure 23: Sequence of a Phased Strategic Sourcing Implementation

Forming

- Purchasing Council
- Value Engineering
- Global Sourcing

Storming

- RFQ
- Auction

Norming

- Rationalization/Partnering
- Long-Term Agreements

Performing

- Purchasing Card
- E-Procurement
- Supply Chain Integration
- Payment Terms/Cash-to-Cash

Forming → Storming → Norming → Performing

Group Purchasing

Purchasing Council

RFQ

Auction

Rationalization/Partnering

Long-Term Agreements

Purchasing Card

E-Procurement

Supply Chain Integration

Payment Terms/Cash-to-Cash
10 IMPLICATIONS FOR ORGANIZATION AND SKILL DEVELOPMENT

10.1 More Strategic Than Ever

Sourcing decisions today are becoming more important and more strategic than ever before.

With fewer suppliers and a larger spend per supplier, achieving the full benefits of “partnering” with a supplier may mean committing a lot of volume to a small number of strategic partners for a long period of time. And choosing one or two suppliers means rejecting others with whom you may have established relationships.

With increased volatility in supply markets, buyers need to be better at assessing risk and sticking to long-term decisions, even if these decisions seem inopportune as the economy, capacity, or prices cycle up and down. And with the potential savings so large, buyers must be aggressive in defining areas of total supply chain opportunity and pursuing them across functional boundaries and with trading partners.

As a result, the profile and characteristics of a procurement manager has shifted remarkably in the last 10 years. Figure 24 shows Boston Strategies International’s estimates of how some key characteristics of the working environment have changed and will continue to change.

Figure 24: Illustrative Profile of a Direct Material Category Manager in a Mid-Sized Manufacturing Company

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2005</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td># previous employers</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Decision horizon (years)</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td># suppliers 80% of spend</td>
<td>5-20</td>
<td>2-10</td>
<td>1-3</td>
</tr>
<tr>
<td>$M spend influenced</td>
<td>25</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>% time working cross-functionally</td>
<td>60%</td>
<td>75%</td>
<td>90%</td>
</tr>
</tbody>
</table>
In order to succeed in the new arena, procurement professionals must seek professional development opportunities in several areas:

- Learn new decision tools for big “small-numbers” decisions
- Keep a steady rudder on the Procurement department with a focused set of key process and performance metrics.
- Continue to evolve from Procurement to supply chain management, and lead the company cross-functionally in thinking in terms of strategic supply chain benefits. Procurement professionals have been adapting to this evolution for over a decade and will continue to face increased pressure to adopt a more strategic perspective.

### 10.2 Dealing with Very Important Small Numbers

Partnering makes for bigger, albeit less frequent, sourcing decisions than ever before. There are three major aspects to our decisions to commit to partner suppliers for any given category. With only a few likely suppliers, there is a small number of possible decisions (see Figure 25):

- Use 1 or multiple suppliers
- Commit no volume, some volume, or all volume
- Sign a 1-year agreement or a “long-term” agreement

<table>
<thead>
<tr>
<th>Decision</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sources</td>
<td>1, multiple</td>
</tr>
<tr>
<td>Volume commitment</td>
<td>None, some, all</td>
</tr>
<tr>
<td>Term of agreement</td>
<td>1 year, long-term</td>
</tr>
</tbody>
</table>

Most purchasing departments make these critical, high-value decisions by gut feel. There are few good methods for making complex decisions involving risk, and those that exist are scarcely known. Organizations are culturally reluctant to make big new commitments; most would rather make incremental commitments to suppliers by awarding more business only after the supplier demonstrates an ability to successfully execute the current base load. And since these decisions are political in nature, politics sometimes overrides logic.

By single sourcing, Purchasing can usually achieve unique price leverage by taking advantage of the supplier’s economies of scale, and reduce administrative and product or service design cost by spreading overhead across more volume and integrating supply chains. However, buying from one supplier incurs a risk of supply interruption or delay – for example, from a strike or fire, from a quality problem, or even from a targeted terrorist attack.
attack. And if switching costs are incurred, the single source situation may become a sole supplier (captive) situation, raising the possibility of price increases, justified or not.

By committing volume, Purchasing also gain price leverage and enhanced trust in the relationship. However, the committed volume may not materialize, and the volume agreement limits flexibility to change suppliers as supply and demand market conditions evolve. What level of price benefit offsets the risk that the demand will not materialize as projected?

By signing a multi-year agreement (the term varies, but is often standard within a company), Purchasing enables suppliers to secure lower material costs and reduce overhead, but risks losing flexibility. Over time, demand could fluctuate. Global cost differentials or exchange rates could make other sources more attractive. And country or political risk may result in currency inconvertibility or any number of other undesirable situations.

Advanced decision support tools can provide the right answers by applying statistical analysis and logic from financial theory. Difficult questions such as how much volume to commit, and what price makes a long-term contract a good deal, have right and wrong answers. The right tools provide a basis for negotiation and facilitate a better outcome than intuition when it comes to risk tradeoffs. Although mathematically more complex than more intuitive approaches, they offer more defensible approaches and reduce the risk of strategic partnering decisions.

10.3 Steadying the Rudder

Years after advanced methods of cost measurement and control have been introduced and the benefits of supply chain management have been unanimously touted by practitioners and academics alike, many companies still cannot objectively evaluate their sourcing performance, due to fragmented systems and data, and sometimes due to organizational ambiguity of the procurement department.

A large number of ERP and e-procurement investments have yet to deliver clean data. Some of these companies are finalizing their implementations now. But until then, Procurement is still without reliable data for key processes, including spend analysis, contract compliance, budgeting and variance analysis, supplier performance monitoring, supplier qualification, and of course, overall measurement of sourcing performance.

The scope of procurement’s authority remains unclear in some companies. Does Procurement have leverage over transportation decisions affecting Logistics budget? Over product line rationalization affecting Production’s capacity utilization? Over part or material standardization involving Engineering’s resources? Over pricing decisions that impact Sales’ bonus structure? Key cross-functional metrics, such as total cost of
ownership (TCO), are often still primarily influenced by departments other than purchasing.

In order to measure sourcing performance, key sourcing metrics must support successful supply chain performance, and each key supply chain metric must have a sourcing counterpart.

“Process” metrics tell you if you’re doing the right things to achieve results, and “results” metrics tell you if you’re achieving the results. Figure 26 shows a “house of sourcing” with key process and results metrics in five areas: cost, quality, service, agility, and asset utilization.

A well-built metrics system includes:

- Clearly defined metrics so people in your company understand what’s being measured. Tailor the metrics if necessary.
- Established baseline values for each metric.
- Benchmarks against an appropriate standard, such as those collected in benchmarking studies (see www.bostonstrategies.com for an ongoing benchmarking study of key sourcing metrics)
- Target values.
- Visibility to encourage discussion and continuous improvement.

**Figure 26: Boston Strategies International’s House of Sourcing Metrics**
10.4 Collaborating with Supply Chain Stakeholders

Procurement must take a corporate leadership role in identifying aggressive supply chain improvement opportunities and driving home change. This means engaging in a tight relationship with other functions and taking a leadership role with trading partners. Functional relationships that are pivotal include:

- Marketing/Sales (need alignment with pricing strategy, new product plan, etc.)
- Engineering/R&D (need flexibility to deploy new suppliers)
- Operations/Production (need acceptance of change)
- Logistics/Distribution (need to monitor cost and service performance)
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APPENDIX A: RAW MATERIAL TRENDS
**10.5 Up, Up and Away**

Prices of metals, wood products, paper, packaging, and fuel, to name a few commodity-based raw materials, have all increased markedly in the last 18 months. With oil rising to more than $50/barrel in November, the prices of most petroleum derivative products have spiked in the last 12 months. The price of flat rolled and galvanized steel more than doubled, imported coke is up 110%, iron ore freight is up 105%, scrap 47%, and ore 28%. Polystyrene, polyethylene, and PVC all nearly doubled, peaking late last year. Chemicals and natural gas have risen a more modest 12-17% overall. Figure 27 shows selected price indices and trends.

![Figure 27: Selected Raw Material Price Trends](image)

A pre-existing long-term agreement may provide shelter from the worst increases, but demand is so high that mills and service centers sometimes renege on contracts or put customers on allocation rather than absorb losses.

**10.6 Little Wiggle Room**

Some observers feel that a combination of factors may reduce the price pressure. However, there is no clear sign that the fundamentals will change this year. Global cost differentials are large, boosting trade flows and encouraging continued offshore investment. China’s strong internal consumption is driving world market prices up, and the country continues to be a magnet for foreign investment, largely due to its unbelievably low cost of labor. The weak dollar continues to take a toll on U.S. purchasing power, and accounts for about a third of steel price increases, according to a variety of steel suppliers. Strong U.S. demand is keeping production pumping, and the war in Iraq and general threat of geopolitical instability has certainly contributed to higher oil prices.
Our own lean thinking has exacerbated the price increases. In the spirit of lean manufacturing, we are holding less inventory. Because we have slimmed down the supply base and now deal with fewer trading partners, we are sometimes captive to sole suppliers who can make themselves whole after years of price concessions. And a collective failure to invest in capacity since 9/11 is delaying rapid price relief.

Organizations with less advanced supply chain processes and organizational disconnects are particularly feeling pain. Absent or limited spend analysis and market forecasting has impeded visibility to price trends, and resulted in higher average prices for companies whose reactive contracting succeeded only in locking in rates at the peak. Uncoordinated corporate functions and lengthy strategic sourcing cycles have the same effect – the price rises before the bid cycle concludes.

The jury is out whether and how long it will continue. Many see Chinese demand and the American economy staying heated for the next several years. In the meantime, most bulk and process manufacturing companies are absorbing some of the price increases and offsetting the balance with savings in services and other materials buys. The finished goods producer price index ended 2004 up by 6%, a fraction of the price of the raw materials increases. But that doesn’t make buying any easier. What reasonable steps can a buyer take when it seems like rocks and hard places are becoming your comfort zone?

### 10.7 Hedging the Risk

Raw material buyers are pursuing three actions to mitigate much of the pressure caused by rising prices.

First, they are assuring supply through an anchor supplier and strategic inventory. They are making themselves important to at least one supplier by building a stable, trust-based relationship, because trust and goodwill goes a long way toward ensuring product availability in a tight market. They are negotiating capacity, not just price, and sharing information in order to get information in return.

- An electrical equipment maker requires an open book relationship in order for suppliers to get a material escalator
- A retail chain is “risk-sharing” more with its suppliers.
- An electrical company is focusing more on capacity availability than price

Second, they are keeping their options open by building flexibility into agreements. They are setting up contracts that are long enough to satisfy production plans but short enough to permit adjustment if prices start to decline. This includes sharing the risk by indexing prices and setting alert bands and trigger points, and hedging the remaining risk with futures contracts.
• One manufacturer is “auctioning short” to be ready in case material costs come back down
• Another using RFPs more than auctions because they allow one-way price visibility and have no obligation to conclude an agreement should the price go up instead of down.
• A defense contractor is not sending out any RFQs because it believes it is better off holding prices steady rather than risking price increases.
• A device manufacturer is separating surcharges from base price so when the economy slows down again they can pull the surcharges out without renegotiating the base price.
• An electrical equipment company is putting in de-escalators in addition to escalators, and more contracts are indexed.

Third, they are planning ahead to anticipate cost trends and setting internal expectations. They are conducting periodic, formal supply market analyses. And they are relying on intelligence from industry experts and their own international antennae, such as strategically-located international procurement offices, sales offices, and plants.

• A plastics company is in daily communication with suppliers. According to the Director of Purchasing, “you need to know more about the market than the market.”
• A paper company adds that “it’s not worth worrying about losing money; but you need to be concerned about losing more money than your competitors are losing.”
APPENDIX B: SURVEY FORM

Your Company
1. Name: _____________________________
2. Title:   _____________________________
3. Company: _________________________
4. Division: __________________________
5. Approx. Annual Revenue ($m): ________
6. Industry: __________________________
7. Phone (for clarifications): ________________
8. E-Mail (for report):_____________________

9. Primary Type of Business (check one)
   - Heavy Industrial Mfg. – Bulk
   - Manufacturing – Discrete
   - Manufacturing – Process
   - Wholesaler/Distributor
   - Consumer Direct
   - Transportation
   - Retail
   - Other (_____________________

9. Based on Your Largest Category of Spend: _______________, please indicate your sourcing impact:

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Success Primarily Impacts the Cost of</th>
<th>Impact on Cost in</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Next 2-3 Years)</td>
<td>(check one):</td>
<td>That Area (Expected or Experienced)</td>
</tr>
<tr>
<td></td>
<td>Raw Materials and/or Services</td>
<td>Supplier Operations (Production, Assembly, Service)</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

10. Supplier Rationalization/Partnering 
11. Global Sourcing 
12. Centralized Purchasing/Purchasing Council 
13. Longer-Term Contracts 
14. Improved Payment Terms 
15. Supplier Interfaces/Supply Chain Integration 
16. Simplification of Specs/Value Engineering 
17. E-Mailed or Paper-Based RFI/RFP/RFQ 
18. E-Procurement (e.g., Ariba or ERP pchsg) 
19. Auction (e.g., Freemarkets, or proprietary) 
20. P-Cards 
21. Group Purchasing 
22. Other Method (describe) ___________________

C. Your Scale Leverage (based on your largest spend category). If you don’t know an answer, skip the question.

23. Is this category a Direct expenditure (consumed by your customers)? Yes [□] No [□]
24. Percent of your company’s operating expense?  5% or less [□] 6-10% [□] 11-15% [□] 16-20% [□] 21%+ [□]
25. Approximate number of active suppliers: _______________
26. Approximate number of these suppliers making up 80% of your spend: _______________
27. Change in unit price of purchases last year (based on your primary unit of measure for this spend)?
   - Down 10% or more [□] Down 6-9% [□] Down 3-5% [□] +/-2% [□] Up 3-5% [□] Up 6-9% [□] Up 10%+ [□]
28. The largest supplier’s approximate percent of this category’s spend? ______________%
29. Thinking again of your largest supplier, what is this supplier’s operating costs vs. its competitors?
   - >9% Lower [□] 6-9% Lower [□] 3-5% Lower [□] +/-2% [□] 3-5% Higher [□] 6-9% Higher [□] >9% Higher [□]
30. What grade would you give this supplier for service (fulfillment)? A [□] B [□] C [□] D [□] F [□]
31. What grade would you give its product/service quality? A [□] B [□] C [□] D [□] F [□]
32. If you have you calculated your organization’s Cost per Purchase Order, what is it? $___________
33. Please add any other comments: _____________________

I found out about the study through _____________________