Understanding Integrated Global Sourcing—
A Framework and Case Study

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Satisfying customer demands while responding to relentless competitive pressure requires creative and often complex approaches to managing a firm's supply chain. Perhaps more than any other area, executive managers increasingly believe that a concept called globalization offers the best opportunity to achieve major performance gains. Realizing these gains will require most organizations to operationalize this concept to the point where it becomes an integral part of a company’s executable strategy.

Increased globalization is clearly on the minds of most executive leaders. A survey by the Foundation for the Malcolm Baldrige National Quality Award revealed that three of the top five challenges facing CEOs involved globalization. Almost 95% of CEOs indicated that becoming more global was their top challenge as they looked across a three to five-year planning horizon.

Reducing the cost and improving the performance of their global supply chains was mentioned by almost 80% as a top priority and challenge. Given the importance that CEOs place on globalization, along with the importance of the supply chain to achieving global goals, understanding how to define and then operationalize this topic should be a major concern.

One area where many companies can begin to capture the benefits of globalization is global sourcing, which involves the worldwide integration of engineering, operations, and procurement centers within the upstream portion of a firm’s supply chain. For executive leaders who are under intense pressure to achieve continuous improvement, the development of global sourcing processes and approaches may well offer the next generation of performance breakthroughs.

Capturing the benefits potentially offered by globalization is often limited by a lack of understanding concerning how to pursue global sourcing. To help overcome this limitation this article summarizes the international purchasing and global sourcing literature, defines the differences between international purchasing and global sourcing, details the global sourcing process and experience of a leading company, and summarizes global sourcing excellence characteristics and trends.

under intense pressure to achieve continuous improvement, the development of global sourcing processes, approaches, and strategies may well offer the next generation of performance breakthroughs. Companies that successfully implement global sourcing strategies achieve material cost savings averaging 15%, and sometimes over 30%, compared with local or regional sourcing practices and agreements. Less dramatic improvements are also available in quality, supplier responsiveness, and technology contribution.2

Capturing the benefits potentially offered by globalization is often limited by a lack of understanding concerning how to pursue global sourcing. To help overcome this limitation we first provide a summary of the international purchasing and global sourcing literature, arguing that most firms take a lower level or reactive approach to global supply opportunities. We then define and describe, using a five-level framework, the differences between international purchasing and global sourcing. The next part of this article details the experiences of a leading company as it strives to achieve competitive advantage from its aggressive global efforts. We conclude with a summary of global sourcing excellence characteristics and trends.

The Global Sourcing Research Project

The Global Sourcing Research Project, which includes survey data from 162 companies and detailed findings from site visits conducted at ten firms, provides the basis for the findings and examples presented throughout this article. The purpose of this research, completed in 2001, was to better understand integrated global sourcing, including global sourcing processes, implementation progress, critical success factors, benefits, results, and risks. All findings and examples are based on survey results as well as interviews with team members and leaders, team analysts, executive steering committee members, and executive managers who are closely involved with the global sourcing process at their respective companies. Firms that received surveys were randomly selected from a global database maintained by the Global Benchmarking Initiative at Michigan State University. Respondents were primarily vice presidents or global sourcing managers working at the corporate level. Of the 2,000 surveys forwarded to companies, 162 surveys were returned (yielding an 8% response rate). Many firms elected not to participate because of their inexperience with international sourcing activities.

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While surveys were distributed worldwide, the vast majority of respondents were U.S. based (86%). Remaining firms were distributed across Canada, Latin America, Western Europe, and Asia-Pacific. Companies also represented various types of industries, including industrial products (40% of the sample), consumer products (15%), high technology companies (8%), service providers (9%), and basic materials and utilities (each at 3% of the sample). Companies that participated in the field visit portion of the research were from the chemical, transportation, computer, electronics, photographic, and consumer products industries. Each participant was recognized as being progressive in its global sourcing practices and approaches.

As expected, the average sales of participating companies revealed a sample of larger companies—the average participant had annual sales of $1 billion to $3 billion. While 40% of the respondents had sales of $500 million or less, almost one-third had annual sales greater than $3 billion.

A Review of International Purchasing and Global Sourcing Research

During the late 1980s and early 1990s, an abundance of research emerged that addressed the topic of international purchasing. In fact, it is safe to conclude that international purchasing was a key supply chain research focus during this period. The growth in this topic related directly to the declining competitiveness of many Western firms along with the belief that international purchasing could help reverse this decline. A major portion of international purchasing research has addressed the benefits that firms should expect to attain from sourcing offshore as they competed against aggressive and skilled foreign companies.3

Not surprisingly, most researchers conclude that unit price reduction (although not necessarily total cost reduction) is the primary benefit realized from international

2 - The data and research cited throughout this paper originates from The Global Sourcing Research Project, 2000. This research collected survey data from 170 firms worldwide and includes detailed cases from ten leading companies competing in six industries.

Contradictory views exist, however, concerning the over-all cost and benefit of international purchasing. One view maintains that technological and organization-all advances have reduced the cost and increased the speed of transportation and communication, thereby facilitating international purchasing. A second view counters that distance remains a significant barrier to conducting business and that the true costs of managing an international supply chain are often underestimated or unknown. Other international purchasing benefits cited in the literature include greater access to product and process technology, higher quality, and the ability to introduce competition to the domestic supply base.

Another focus of international purchasing research has centered on how to manage the risks that often result from doing business internationally. Risk can increase due to extended material pipelines, longer material ordering lead times, relying on new and unfamiliar sources of supply, total costs that may far exceed unit costs, and managing different currencies, languages, and business practices.

International risk management is a well-researched topic from many operational and functional perspectives. Throughout the international purchasing debate there has been minimal discussion about how to apply a strategic perspective to international purchasing, or what we term global sourcing. This is due partly to the fact that relatively few firms actively engage in strategic global sourcing, particularly during the period when the interest in international purchasing began to take place. Arnold noted this absence in 1989 when he presented the differences between international purchasing as an operational activity and international (i.e., global) purchasing as a strategic activity. He argued that global sourcing means globalization in two respects—internationalization of purchasing activities, which researchers have addressed quite well, along with adopting a strategic sourcing orientation, which is not addressed well. While there has been some recognition

7 - Trent and Monczka, “Purchasing and Supply Management Trends.”
about these dual perspectives, most researchers have concluded that most Western firms focus mainly on the internationalization of purchasing activities without considering or adopting a strategic orientation. This does not mean, however, that researchers have not called for firms to take a more strategic perspective to global sourcing.

Most companies have typically followed a traditional and reactive approach to international purchasing, concentrating on a search for the lowest price sources of supply.1 We also know that international purchasing decisions tend to be made independently of other units and at lower organizational levels, making the decisions more operational or tactical.2 A recent study concluded that U.S. firms, for example, are not maximizing the potential offered by higher-level global sourcing. The prevailing inclination of U.S. firms has primarily been toward opportunistic rather than strategic global sourcing. If U.S. firms were to raise the current status of global sourcing from an occasional cost cutting or quality improvement activity to a critical factor in developing global strategy, they would gain a long-range strategic posture that would likely improve their global competitive edge.3

An extensive literature review fails to identify any in-depth analysis concerning how firms should organize or structure themselves to globally integrate their upstream supply chain activities. In other words, while many studies have concluded there is a need to develop global sourcing processes and strategies and to view global sourcing as a key strategic tool, details concerning how to achieve this are few. A lack of detail concerning how to develop a strategic orientation or how to operationalize global sourcing has been the primary driver behind our research.

**Differentiating Between International Purchasing and Global Sourcing**

While many researchers and practitioners interchange the terms, fundamental differences exist between international purchasing and global sourcing. International purchasing refers to a commercial purchase transaction between a buyer and supplier located in different countries. This type of purchase is typically more complex than a domestic purchase. Organizations must contend with a variety of supply chain issues such as lengthened material pipelines, greater in-transit inventory, and lead-time variability. Increased rules and regulations, currency fluctuations, customs requirements, and a host of other variables such as language and time differences can also affect international transactions. Global sourcing, which differs from international buying in scope and complexity, involves proactively integrating and coordinating common items and materials, processes, designs, technologies, and suppliers across worldwide purchasing, engineering, and operating locations. In addition, global sourcing requires the horizontal integration between product design and development groups as well as between supply and demand planning activities. Supply chain integration is also required with tier 1, tier 2, and possibly even tier 3 suppliers within the supply chain.

Exhibit 1, which presents international purchasing and global sourcing as levels along a continuum, reveals that an internationalization of the sourcing process takes place as firms evolve or progress from domestic purchasing only to the global coordination and integration of common items, processes, designs, technologies, and suppliers across worldwide locations.4 Exhibit 1 summarizes this progression along with the current and future levels that firms expect to achieve over the next three to five years. Higher globalization levels occur only when an organization begins to assume a worldwide sourcing perspective.

Strategies and approaches developed in Level III (versus a domestic focus in Level I or the limited international purchasing perspective characterized by Level II) begin to recognize that a properly executed worldwide strategy can result in major improvements. However, strategies at this level are not well coordinated across worldwide buying locations, operating centers, functional groups, or business units.

Level IV, which is the integration and coordination of global sourcing strategies across worldwide buying locations, represents a sophisticated level of strategy development. Operating at this level requires worldwide information systems, personnel with advanced knowledge and skills, extensive supply chain coordination and communication mechanisms, an organizational structure that can centrally coordinate global activities, and executive leadership that endorses a global approach to sourcing. Organizations that operate at Level V have achieved the cross-locational purchase integration that firms operating at the fourth level have achieved. The primary distinction is that Level V participants proactively integrate and coordinate common items, processes, designs, technologies, and suppliers across worldwide purchasing centers and with other functional groups. This integration occurs during new product development as well as during the sourcing of items or services to fulfill customer orders. Level V global sourcing strategy is also linked with other functional groups, particularly engineering, operations, and increasingly managing and coordinating common items and variables.

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marketing. Furthermore, design, build, sourcing, and logistics responsibilities are often assigned to the most capable units around the world. Only those firms that have worldwide design, development, production, and global procurement capabilities can, by definition, progress to this level.

Data analysis reveals that fundamental differences exist between firms engaged in international purchasing (Levels II and III in Exhibit 1) and those that pursue global sourcing (Levels IV and V). Without question global sourcing is not a realistic option for many firms, regardless of their future intentions to evolve toward Level V. Firms that engage in global sourcing are significantly larger than firms that pursue international purchasing and are more likely to face multi-regional or global competitors ($3 billion average annual sales versus $800 million average annual sales). Global sourcing companies also commit a greater percentage of annual purchases to non-domestic sources and perceive that global sourcing improvement and cost reduction opportunities are more widely available than firms engaged in international purchasing. Global sourcing is clearly an initiative carried out by larger firms that have the resources and the strategic need to confront more intense worldwide competition.

While most firms expect to advance toward Levels IV or V over the next three to five years (as indicated in Exhibit 1), the reality is that many will lack the understanding, size, resources, or willingness to achieve these higher levels. The following case, which features the most progressive company studied during our research, furthers our insight into how to achieve competitive advantage through the development and implementation

**EXHIBIT 2: Santek Chemical's Global Engineering and Procurement Process**

<table>
<thead>
<tr>
<th>STEP</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Step 1</td>
<td>Identify Global Engineering and Procurement Opportunities</td>
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<td>Step 2</td>
<td>Establish and Charter a Global Engineering and Procurement Strategy Development Team</td>
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<tr>
<td>Step 3</td>
<td>Propose Global Engineering and Procurement Strategy</td>
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<td>Step 4</td>
<td>Develop Requests for Proposal Specifications</td>
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<tr>
<td>Step 5</td>
<td>Forward Proposals to Suppliers</td>
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<td>Step 6</td>
<td>Evaluate Supplier Proposals</td>
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<td>Step 7</td>
<td>Conduct Negotiations</td>
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<td>Step 8</td>
<td>Award Contract</td>
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<tr>
<td>Step 9</td>
<td>Implement and Manage Global Agreement</td>
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</tbody>
</table>

**KEY FEATURES**

- Steering committee and globalization manager consider the following criteria when identifying specific commodities for globalization:
  - What businesses or projects require the largest cost reductions?
  - How much does the company currently buy?
  - How is the commodity currently specified?
  - How much effort will it take to create a global set of specifications for the commodity?

- Specific team responsibilities during this phase include:
  - Validate the original assumptions underlying the project, including current volumes, expected savings, and that the project is a global rather than regional opportunity
  - Perform detailed fact finding and cost analyses
  - Calculate theoretical cost models
  - Identify potential suppliers who will receive proposals
  - Invite potential suppliers to verify expectations and assumptions
  - Establish project timelines, milestones, and target dates
  - Document team activities
  - Use the negotiation checklist from the on-line manual to identify contract issues
  - Make strategy recommendations
  - Write and distribute the proposed strategy to purchasing and engineering

- Six suppliers on average receive detailed requests for proposals
- Suppliers have four weeks to respond to proposals
- A smaller team conducts final negotiations with suppliers
- For complex or large contracts a steering committee member becomes involved
- All negotiations are conducted at Santek’s U.S. corporate headquarters
- Contract issues include price, delivery, terms and conditions, support outside the letter of the agreement, commitment and accountability, currency issues, and after sale service
- Negotiation process strengthens if the team does not achieve its price targets
- Communicate information about the contract throughout the company via e-mail distribution
- Steering committee publicly recognizes the lead and informing users of project success
- Steering committee maintains a continuous tally of agreements and savings
- Load global agreements into the appropriate corporate systems
- Manage the transition to new suppliers (if switching occurred) and new part numbers
- Continuously measure savings from global sourcing agreements and work with suppliers to achieve continuous performance improvement
of global sourcing processes and strategies.

**Integrated Global Sourcing at Santek Chemicals**

Santek Chemicals, a chemical producer headquartered in the U.S., designs, builds, and operates chemical facilities in 60 countries, including facilities located on-site at key customers. The company has major design and procurement centers located in the U.S. and Europe. Unfortunately, industrial buyers increasingly view Santek’s primary chemicals as commodity items, which, along with intense global competition, have created extensive downward pricing pressures. This has created the primary challenge that Santek Chemicals faces—margins are declining yet the company has made strong performance commitments to investors and financial analysts. Executive management has concluded that the company must lower facility-related costs (including design and materials) by 30% to meet financial and operating targets.

Santek has historically operated as a regional engineer-to-order company, which has resulted in a great deal of design work customized to each new project. New facilities have largely been engineered without considering previous designs or leveraging commonality across Santek’s worldwide design and procurement centers. Even if the U.S. and its European center required a similar or same item (which was often the case) or designed the same facility in terms of process technology, each would have separate material specifications and contracts developed by engineers and procurement specialists who did not coordinate their efforts. In an effort to better manage costs, the company’s objective has shifted from operating as independent business units focusing on geographic regions to entering the global marketplace as an integrated company.

During the late 1990s Santek Chemicals developed a process to globally integrate and coordinate common materials, processes, designs, technologies, and suppliers across its worldwide buying, engineering, and operating centers in North America and Europe. The following details this company’s efforts to pursue a globally integrated approach to facility design and management, which Santek calls its global engineering and procurement process.

**Development of Santek’s Global Process**

The primary driver behind the development of Santek’s global process was the need for cost reduction. The company’s vice president of engineering believed that the potential benefits of standardizing process technology designs, including spare facility parts, and then using the procurement process to capture gains through leveraged sourcing with global suppliers could be significant. Responding to the call to “globalize” engineering and procurement, the director of worldwide projects and logistics supply assembled a leadership team to develop, sell internally, and launch a global engineering and

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13 - This company has requested that its real name not be used.
procurement process.
A major part of developing the
global process involved several
supply chain managers working
together to define the concept of
globalization and then assuming
responsibility for creating the
formal global engineering and
procurement process, which
required four months. The leader-
ship team eventually evolved into a
corporate steering committee with
a full-time globalization manager
assigned to oversee the process.
Santek’s global process involves
more than identifying similar items
or commodities that have a global
application. Each project involves
an extensive analysis between the
U.S. and European design centers
to determine areas of commonality
and synergy. A cross-locational
team with members from the U.S.
and Europe develop specifications
that satisfy the needs of each
design center. While the process
started with very focused
applications, subsequent projects
have become broader in scope
once the cost-saving possibilities
became obvious. In fact, the
company is now applying its
global process to worldwide travel
services and telecommunications.
Exhibit 2 highlights the main
features of Santek’s best-practice
global engineering and procurement
process.
The expected output from each
project is the development of a
global supply agreement. Santek’s
first round of global projects
resulted in twenty agreements,
ranging in value from several
hundred thousand dollars to
$5 million, with total annual
expenditures of $25 million. These
agreements, which are three-year
single source contracts, have
resulted in 20% price savings on
average compared with previous
agreements. The global process is
continuous because agreements
will be renewed on a predictable
basis. Santek’s initial goal includes
20, 50, then 80 new global
agreements over a three-year
period.14 The process provides
additional value as global sourcing
managers now work with marketing
to include expected savings from
in-process projects when marketing
responds to proposal requests from
customers. Savings from global
agreements are helping Santek
Chemical win new business around
the world.

Global Engineering and
Procurement Critical Success
Factors

Besides developing a well-defined
global process, other factors have
been critical to Santek’s global
success. First, the company has
historically organized its
purchasing groups by commodity
with a strong central focus.
Decentralization, which often
affects how well global sourcing
contracts are accepted at sites
across the value chain, has not
been an issue at Santek Chemicals.
Second, by linking with its accounts
payable systems Santek can
effectively measure the savings
realized from global agreements.
This validates the efficacy of the
process and is critical when
requesting budget to support
global engineering and procurement
projects.
Santek’s global process has also
been successful due to a variety of
organizational design features.
This includes the formation of
executive and operating steering
committees, the development of a
globalization manager’s position,
and extensive use of cross-
locational teams.
Santek’s global executive steering
committee consists of senior
managers from engineering,
procurement, and operations
with a finance representative
participating as required. This
committee, which brings higher-
level commitment and exposure to
the process, has responsibility for
demonstrating executive support
and allocating the budget that
supports global efforts, including
the globalization manager’s staff.
This budget also supports travel
and living expenses for team
members incurred during the
development of global agreements.
A full-time globalization manager, a
procurement manager (who
commits 15% of his time to the
global process), and a director of
worldwide sourcing (who commits
50% of his time to the global
process) comprise the core
operating steering committee. A
capital equipment supervisor from
the U.S., a control systems
supervisor from the U.S., a capital
equipment supervisor from Europe,
and the globalization manager’s
counterpart in Europe join
this committee in a weekly
teleconference. While the group
communicates formally each
week, informal communication
occurs daily to address a broad
range of issues. Exhibit 3
outlines the globalization manager’s
responsibilities, as well as the
executive and operating steering
committee responsibilities.

Consensus exists throughout
Santek concerning the importance
of the globalization manager, a
position created to oversee the
global engineering and
procurement process. This manager,
who is also the operating steering
committee leader, is a well-
respected engineer with 25 years of
experience. He reports to the vice
presidents of engineering in Europe
and the U.S. This is important since
the two design centers must work
closely during the development of
global agreements. He has located
his office and staff with the
procurement group at U.S.
headquarters, which facilitates
teamwork and trust between the
functional groups. The manager’s
salary, along with that of his staff,
is charged directly to the
globalization manager’s budget.
This account also pays the travel
and living expenses (but not
salaries) of team members incurred
throughout a project.
Santek Chemicals relies extensively
on cross-functional/cross-locational
project teams. Teams are formed
and chartered by the operating
steering committee to develop

14 - Santek Chemicals has fallen short of its initial global project schedule. The company
underestimated the amount of time and effort required to “ramp-up” a process as complex
and comprehensive as global engineering and procurement. The company also
underestimated the effort required to communi-
5. The company has in place 100 global agreements and is still
achieving an average 20% unit cost savings
compared to previous regional contracts and practices.
global strategies and agreements. Each team, with four to six members, has responsibility for determining which suppliers will receive formal proposals or bids and then proposing and negotiating a global strategy. Engineering representatives from the U.S. and Europe, called specifiers, work full-time to develop standardized specifications between design centers. Time commitment can be an issue for the two procurement representatives since their team assignment is in addition to regular job responsibilities.

The globalization manager solicits participation through each member’s functional manager—a responsibility that he feels is one of his most important. If the steering committee selects a commodity for a global sourcing project, then the buyer and engineer most familiar with the commodity are invited to become team members. Engineering is responsible for developing specifications and evaluating the technical responses from suppliers while procurement evaluates the commercial issues. Each project team works with the globalization manager to develop milestones and expected completion dates. Teams meet face to face on a monthly basis, which is unusual considering that each team has members from two continents.

The meetings alternate between the U.S. and Europe. At these meetings, and informally throughout the process, teams update their milestones. A steering committee member receives regular team progress reports and updates the status of each project on Santek’s intranet. Project teams perform supplier site visits as necessary using an ISO 9000 procedure and internally developed assessment tools. Perhaps the most important responsibility performed by these project teams is the development of theoretical cost models that identify where savings can be realized. Savings occur primarily...

Source: Global Sourcing Research Project: Survey and Field Research, 2000-2001
in four areas—material design savings, currency savings, logistical and transportation savings, and savings due to volume leveraging and opening the commodity to competition. Santek’s intranet includes a cost reduction methodology to support this exercise. Teams disband after negotiating a global agreement. At this point the buyer who manages the commodity on a daily basis (and who may also have been part of the team that developed the strategy) has responsibility for executing and then maintaining the agreement. Disbanding a team at this point is not unusual. Most companies visited during our research assigned another group or manager the task of implementing the agreement across locations and then issuing purchase orders and material releases against global agreements.

The global engineering and procurement process has also benefited directly from information technology support. Project teams can easily retrieve historical purchase data from a data warehouse and evaluate forecasted worldwide volumes, reducing the data collection burden typically faced during global sourcing efforts. The operating steering committee, with support from information technology personnel, has placed a number of support documents on Santek’s intranet, which global teams can easily access. A sample of these documents include a global engineering and procurement process outline; a strategy development template; a contract terms and conditions checklist; a global status report on completed, in-process, authorized, and future ideas; a request for proposal template; and currency risk-management guidelines.

Global Engineering and Procurement Benefits and Risks

Managers who are familiar with this process have identified some important benefits and risks. The primary benefit is material cost savings that are averaging 20% compared to regional agreements. Managers also argue that transaction costs savings, not easily measured like material savings, have been realized due to fewer total suppliers, less competitive bidding, and less proposal analysis over the three-year agreements. Furthermore, engineering design savings are being realized as the process fosters a common set of specifications between design centers. The extensive communication required during global projects has helped align the sourcing process at Santek’s design and procurement centers. Each center now examines initiatives in terms of cost reduction, supplier accountability, and procurement process productivity, which are the three criteria preferred by executive management. Previously, some centers took a more limited cost perspective only. Global engineering and procurement also presents risk. Shifting from a regional to a global perspective almost always results in the use of supply sources, designs, or part numbers that are unfamiliar to some locations or centers. Furthermore, transitioning from one supplier to another, or from one set of part numbers to another, requires time and can create additional administrative and transaction costs. The company has also increased dramatically the number of global projects it expects to undertake, which some managers are concerned will be difficult to support. Finally, anticipated savings from global contracts are often considered when developing capital plans for new facilities or responding to customer proposals. What happens if the savings are not realized at the budgeted or anticipated level? Those involved with the global process have found that a higher level of learning is required to initiate a process as complex as this one. Global agreements demand greater expense and time to prepare for and negotiate, contain additional terms and conditions that add complexity, require detailed analysis of supplier facilities, proposals, and supply chain costs, and incur a major effort to standardize and communicate specifications between worldwide centers. Team member travel can also be extensive. Even with these issues the executive leaders at Santek Chemicals consider global engineering and procurement to be one of the company’s key business processes in place today. This perception has elevated senior management’s expectations, which partly explains the aggressive number of global sourcing projects established for 2002 and beyond. Global engineering and procurement is helping a company that operates in a mature industry remain competitive in an increasingly hostile competitive environment.

Looking Toward the Future

Exhibit 1 revealed that a majority of firms expect to progress toward higher levels of global sourcing over the next three to five years. While most firms desire a higher level of globalization, the reality is that many will lack the understanding, size, or willingness to achieve these levels. As demonstrated by the Santek case, global sourcing demands a high level of executive commitment, a well-defined process, qualified participants, a supportive organizational structure, and information technology support. Before an organization can excel at global sourcing it must understand the characteristics that define world-class excellence. Exhibit 4 segments these excellence characteristics as identified during our survey and case research. Even firms that have achieved Level V global sourcing must continue to refine, improve, and advance their global capabilities. Progressive leaders recognize that globalization is a continuous journey of development and improvement. Foremost in this journey is the need to develop or obtain human resources that have the skills and willingness to evaluate the supply market from a worldwide perspective. In fact, our research found that involving personnel with the right skills and
abilities, along with a well-defined process, were the two most important predictors of global sourcing success. Other future developments and trends include the need to agree on global performance measures, establish integrated systems between worldwide units and with suppliers, and continued development and refinement of a Level V global process. We also anticipate greater integration between marketing, engineering, and supply chain groups as firms evolve toward greater globalization.

There will also be a growing trend toward doing business only with suppliers that have global capabilities. In addition, the focus of global sourcing will shift from part (i.e., component) sourcing to subsystems, systems, and services. Cost reduction pressures will also result in an increased willingness to source in emerging supply markets such as Eastern Europe, China, and Southwest Asia.

One conclusion across every major industry is clear—the pressure to improve is relentless and severe. Those firms that succeed will be the ones that have learned how to leverage and coordinate their supply chain activities on a worldwide basis. For many, this means pursuing global strategies and approaches that integrate engineering, purchasing, operations, logistics, and even marketing. Global sourcing may well be one of the last areas that offer the performance breakthroughs required for remaining successful in highly competitive markets.