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By Charles C. Poirier, Morgan L. Swink and Francis J. Quinn

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Our premise is basic: A concerted effort to find optimized conditions across an extended supply chain network will yield superior business results. These gains can be sustained and enhanced if those directing the effort set their sights on achieving a level of competence on each of ten traits that distinguish the best supply chains. We take a broad view of the supply chain that incorporates the firm’s downstream and upstream partners and relationships. The 10 supply chain traits serve as standards against which any firm in any business can calibrate itself, determine the current gaps in performance, and develop a strategy for gaining parity. By reaching excellence across these traits, a firm will improve its business performance and positioning.
The best companies approach their supply chains in a way that differs markedly from their less-successful competitors. In particular, they consistently embrace certain traits that make their operations run more smoothly and profitably. These are the traits of the supply chain leaders—practices, processes, and principles that any organization would be wise to emulate.

in the marketplace.

To validate our premise, we must provide convincing evidence that sustained attention to supply chain management (SCM) as a business improvement tool will yield substantial results and that pursuing the 10 specific traits will move the business consistently forward. The required validation can best be met by answering these questions:

- Does SCM bring significant, measureable results?
- How much better are the supply chain leaders than others? What is the impact of the opportunity for lagging firms?
- Who are the leaders in terms of industry? Companies? And why will they remain leaders?
- What traits characterize the best supply chains?
- How will adoption and execution of these traits lead to improvements for my business?

Results Confirm Value of Superior SCM

To begin, SCM is not just a business fad or the latest application du jour. The results of our Global Survey of Supply Chain Progress repeated over the years, coupled with other recent research, confirm that a serious supply chain improvement effort can reduce costs while increasing revenues and raising customer satisfaction. Overall profitability, earnings per share, shareholder value, and stock price performance are among the metrics positively impacted by SCM. A typical concerted supply chain initiative will provide two to four points of new profit after approximately three years. The leaders, in fact, have recorded as much as seven to eight or more points of new profits after a decade of implementation and some have doubled earnings per share.

But not everyone is achieving these results. There is a wide spectrum of performance, ranging from those businesses that fail to reap any supply chain benefits to those that have significantly enhanced their balance sheets and profit-and-loss statements. Across this spectrum, our accumulated evidence of the actual benefits achieved has revealed a tripartite segmentation of firms that can be categorized as leaders, followers, and laggards. Leaders consistently report greater progress with the SCM efforts and lead the other two categories in all 10 traits of supply chain excellence. Followers are in the middle, having achieved some progress in some of the traits, but not to the extent of the leaders. Laggards are generally focused on cost-reduction only and fall behind the other two categories in all of the traits. Our survey findings show that operational and financial benefits nearly double as a firm moves up from one category to the next—that is, from laggard to follower to leader.

The Survey and Supporting Research

Let’s begin by explaining the survey methodology, our annual reports on the survey findings, and other sources we have used to form our conclusions. The year 2009 marked the seventh consecutive year of conducting the Global Survey of Supply Chain Progress, which is jointly prepared and executed by Computer Sciences Corporation (CSC), Supply Chain Management Review, and the Eli Broad School of Management at Michigan State University (MSU). Initially, the survey respondent base came from subscribers to SCMR and CSC’s client base in North America. In 2008, the Council of Supply Chain Management Professionals (CSCMP) also extended the survey to its global membership, which was particularly helpful in increasing the number of respondents from non-U.S. companies. CSC’s European and Asia-Pacific operations also have been helpful in recent years in expanding the survey’s global reach.

Most of the data we report here come from the 2007 and 2008 surveys sent to professionals with supply chain and logistics positions in companies around the world. Respondents rated their progress on a five-page questionnaire. Together, the data from the two surveys represent input from more than 450 responding companies.
Notable for its larger and more global respondent base, the 2008 survey included 192 respondents from North America, 42 from Europe, 41 from Asia-Pacific, and 19 from other sectors of the world—a total of 294 respondents representing 22 industries in 32 countries.

The 2008 survey contained multiple questions for each of the 10 competency areas listed below. These data, along with other qualitative and quantitative observations, helped us to identify the traits that differentiate the best supply chains. The competency areas we examined to help us identify the traits were:

- Alignment with corporate strategy.
- Strategic customer integration.
- Strategic supplier integration.
- Cross-functional internal integration.
- Supply chain responsiveness.
- Supply chain rationalization/segmentation.
- Planning and execution process and technology.
- Global supply chain optimization.
- Innovation management.
- Risk management.

CSC subject matter experts and faculty from Michigan State University analyzed the data from the survey questionnaire. Using a statistical technique known as cluster analysis, the MSU researchers identified the three groups of categories of respondents: leaders, followers, and laggards. The respondents’ scores within each group reflect a distinct pattern of competence achievement. Leaders’ scores on all 10 traits are superior to and statistically different from the scores of the followers and laggards. Similarly, followers outperform laggards on all 10 traits. These achievement-based groupings serve as the foundation for our comparisons.

Here are the 10 traits of the leaders that collectively add up to supply chain greatness.

1. Sound strategy supported by solid leadership.
2. Intense focus on financial metrics.
3. Commitment to innovation and process improvement.
4. Close collaboration with selected partners.
5. Superior strategic sourcing.
7. Proficiency in planning and responsiveness.
8. High customer integration and satisfaction.
9. Ability to anticipate and manage risk.

**Sound Strategy Supported by Solid Leadership**

Supply chain planning and decision making must be integrated with higher-level business strategies to affect sustained improvement across the extended enterprise. Despite years of exhortation to break down the walls of conflict or indifference between internal business units and functions and between external business partners, most firms still have not heeded the call. Elimination of functional and business unit stovepipes, coupled with close collaboration with external partners, is fundamental to any measure of supply chain success. The leaders understand that.

The first trait involves establishing a compelling strategy with a clear, effectively communicated charter for continuous process improvement throughout the enterprise. Management must be fully aligned with that charter and be committed to a set of guiding principles. The strategy needs to be executed under the best possible leadership and management structure, and supported by people who are qualified to design, initiate, and execute innovative procedures.

The secret is to work vertically and horizontally throughout the business, engaging the people involved in the various process steps. In this way the organization can more effectively learn the root causes of problems and then apply appropriate solutions. With this first leadership trait firmly in place, companies can more
readily identify and overcome cultural inhibitions and structural barriers to needed change.

2. **Intense Focus on Financial Metrics**

Nearly every company can benefit from closer collaboration between the supply chain and its financial groups. The goal is to help the financial folks more clearly understand the direct impact of supply chain initiatives on financial performance. The odds of acquiring additional resources or attaining funding for a supply chain initiative improve dramatically when finance understands the impact on business performance. Financial help with the application of activity-based costing, balanced scorecards, and measurement dashboards, for example, provides the kind of validation needed to demonstrate the potential value of a supply chain initiative. It also eliminates many time- and resource-consuming actions that do not bring the kind of benefits anticipated—by showing the lack of actual financial benefits.

Our research unequivocally confirms that when the financial function takes a keen interest in the supply chain and helps to identify where it can add value to the business, results dramatically improve. In our personal contacts with supply chain managers, we consistently find they have a full plate of improvement initiatives that exceed both the financial and management resources available. We also note that when finance applies its expertise to identifying the business impact of supply chain proposals, a significant number (up to one third of more) fall off the plate.

Our book points out the route to total cost improvement by explaining how this trait manifests itself among the leaders. The key, we found, is applying talented and scarce resources to those actions that have the greatest effect on customer satisfaction and financial performance. In parallel, we issue a call for marketing and sales to become more involved in matching customers’ needs with supply chain capabilities in order to deliver above-average performance without bankrupting the business.

3. **Commitment to Innovation and Process Improvement**

It’s not just about doing things better anymore; it’s doing better things through a portfolio of initiatives that are matched to the business needs. That means not only seeking new ways to improve a supply chain but also effectively managing change—both the desired changes form the supply chain initiative and the change necessary to adapt to new technology and to respond to dynamic market conditions.

Our evidence shows that, in addition to the supply chain initiatives themselves, the leaders apply other business techniques to optimize performance across the key process steps. For example, they aggressively seek to eliminate all waste and nonvalue-adding steps in the end-to-end system. They apply quality standards to identify and eliminate root causes, keep customers satisfied, and maintain the business position. The leaders also outsource selectively to the most capable business partners as part of an overall network optimization.

Six Sigma, total quality management (TQM), and vendor-managed inventory (VMI) are among the specific process improvement techniques often employed by the leaders. Tools such as enterprise resource planning (ERP) and radio frequency identification (RFID) technology also are rigorously applied to further improve processes. The leaders today are paying particular attention to increasing visibility as a way of more effectively matching what is in demand with what is in the delivery network.

Perhaps more importantly, the leaders are not bound by their cultures and past practice when it comes to pursuing innovation or improving processes.

4. **Close Collaboration with Selected Partners**

The fourth trait has to do with segmentation of different types of relationships with various types of suppliers and customers—that is, the extent to which companies recognize the varied business requirements and accommodate for them in supply chain structures. Achieving superior supply chain performance requires segmenting customers and suppliers, and then working diligently with key business partners. And that, in turn, requires careful analysis to identify partners that share a similar business philosophy and are eager to work together for mutual benefit in an atmosphere of trust. This leadership trait clearly emerged not just from the survey data but from our analysis of business trends overall.

The business arena today is a global one. Recognizing this, the leaders are moving beyond an internal improvement focus in which knowledge is shared only within the organization’s four walls to a broader focus in which partners are carefully selected and collaborating is nourished across the extended enterprise. Creating such a collaborative culture is a necessary prerequisite to achieving supply chain success.

Our book lays out the roadmap to achieve success on collaboration. We detail why it must be a serious and selective endeavor approached with great care. Systems need to be established to enable secure knowledge trans-
6. **Excellence in Logistics Execution**

A critical supply chain process centers on those multiple activities under the umbrella title of logistics, which includes warehouse management, transportation management, integrated logistics solutions, delivery strategies, and supply chain execution. Using the results from the survey and data from MSU studies and practices, we developed a contemporary logistics model for achieving supply chain excellence. The model essentially is a framework for progression, from the initial position to the desired level of logistics excellence. It includes these five levels:

- **Framework Level 1: Calibrate the Beginning.** In Level 1, the firm typically begins to focus on reducing the overall costs of logistics from an internal viewpoint. At this position, it seeks to identify its starting point and determine how far it might proceed. It examines such factors as shipping and receiving costs, techniques for loading and unloading at various sites, and order management. In general, the firm tries to find better ways to control the amount of inventory used to support operations and customer satisfaction.

- **Framework Level 2: Achieve Logistics Capability.** In Level 2, the firm establishes a logistics center that evaluates total costs across the organization. As the firm begins to leverage transportation and storage the same way it does purchasing volume, it moves closer to traffic optimization. It examines service requirements, on both the inbound and outbound side of manufacturing, to determine if another supply chain partner can make the deliveries more economically and efficiently.

- **Framework Level 3: Leverage e-Commerce.** The aim here is to use internet technology and cyber-based tools, internally and externally, to enhance logistics processing. Now the company takes advantage of its internal data analysis and, with the help of external advisors, starts moving toward the virtual logistics network. With some of its most trusted allies, the firm performs a network cost analysis and develops the end-to-end visibility so important to the contemporary logistics model.

- **Framework Level 4: Tap Network Opportunities.** In the fourth level of the logistics framework, logistics strategy truly becomes a network experience as efforts are integrated across multi-tiers of partners. With the assistance of key allies and relying on data readily accessed internally and externally, the focus moves to the extended enterprise and the shipment and storage activities across multiple organizations.

- **Framework Level 5: Build and Advantage.** This level is the province of only the most sophisticated of networks. It requires the formation of joint logistics models and involves full communication connectivity across the extended enterprise. Total costs are evaluated through the connecting electronic communication systems.

Achieving delivery excellence emerges not as a science but rather as an art of execution. Essentially, it’s based on having the right information on what is needed and what can be delivered.

7. **Proficiency in Planning and Responsiveness**

Trait No. 7 speaks to the extent to which planning and execution are comprehensive and rigorous and embrace stakeholders from different functions and business partners in the extended enterprise. Proficiency here entails having the appropriate response system matched to what the customers really want and need. This critical capability requires close and continuous attention (not the cursory attention often paid) across the various supply chain relationships.
One of the consistent findings from the annual surveys is that sales forecasting is a significant problem in nearly all organizations. Respondents indicate that, of all the supply chain activities, forecasting has improved the least over the years. Results further show that leaders achieve a relatively higher level of competency on this trait primarily by using S&OP. Through this technique, they bring a discipline to planning and are able to garner useful information to match more closely actual demand with actual supply capability.

There is a strong tendency within business to withhold the most accurate demand information. The governing assumption is that suppliers will incur the extra costs for making what amounts to heroic responses in times of need. In the long run, this approach hurts business performance. Companies instead need to focus intently on improving their sales forecasting in order to better match supply and demand and to reduce inventories to what is actually needed in the supply chain.

### High Customer Integration and Satisfaction

The survey data reveal clear differences among the customer approaches taken by companies in the leader, follower, and laggard categories. In general, most firms are not nearly as customer oriented as their business rhetoric would suggest. The 2008 survey showed, for example, that only 40 percent of firms have changed from a push to a pull orientation for driving their supply chain. Thus, whereas, a few firms are responding to actual customer needs, many are still pushing production into inventory.

Customer metrics make a difference in business success. The superior top-line growth of leaders attests to their ability to achieve perfect orders, one version of the truth, on-time deliveries, high fill rates, low returns, and more. The remaining firms tend to push goods into the supply chain and hope the sales group can move them to customers, often at discounted prices.

The leaders are using business intelligence and a stronger customer focus to outdistance rivals in terms of satisfying customers and generating new revenues with lower inventories. One of the secrets is to utilize contemporary customer-facing technology to get beyond the weak information generally provided by sales forecasts.

### Ability to Anticipate and Manage Risk

Going forward, an organization’s ability to manage supply chain risk proactively will no doubt demand increased attention. In fact, it will be the mark of the advanced supply chains of the future. Although a few select firms have become adept at risk management across their global supply chains, the overall results from our surveys have been disappointing in this regard. In reviewing the 2008 data, we were discouraged by the lack of urgency paid to this critical issue. While most respondents recognized the need for contingency plans, far fewer had actually developed and implemented them.

Unfortunately, effective risk management capabilities are currently found only among a small cadre of leadings forms. Going forward, though, risk management must become a core capability of any supply chain organization that hopes to succeed. Leaders understand risk. They know how to prepare for both expected and unexpected disruptions, and they have contingency actions that can be readily put into effect. Others give lip service to risk management. Their “plan” is to wait for a disruption to happen and they rely on heroic efforts to overcome the situation—whatever the cost. In short, they assume a completely reactive posture.

### Global Optimization

Throughout our book, we stressed collaboration as an ingredient of greatness. Add to that a complementary feature—the ability to use technology as an enabling factor for success. The combination of the two elements provides a powerful capability that enables supply chain leaders to maximize their global resources and opportunities. The final trait—the ability to optimize a global network of resources—clearly distinguishes supply chain leaders from others in their industry. In effect, global optimization represents the culmination of the nine greatness traits that have preceded it.

These ten traits from a roadmap for achieving greatness in any supply chain. Some traits are more important to certain businesses and industries than others. Moreover, while pursuing excellence in all of these traits might be a laudable aspiration, it’s not always realistic. For these reasons, our book provides some advice on how to prioritize a few of the more important traits to the organization and then work on achieving excellence one by one.