Global supply chains. These words can evoke widely contrasting emotions depending on your perspective. From one perspective, global supply chains offer significant benefits to consumers because the law of comparative advantage promises the availability of cheaper goods and services to the multitude. Global supply chains also offer tremendous potential to producers, opening up their markets to a huge population base.

From another perspective global supply chains can hurt the economy in a number of ways. It can result in more jobs moving overseas to cheaper labor markets. An accompanying fear is that when these jobs move overseas, the skills associated with these jobs may also eventually disappear. Other concerns include a possible increase in supply chain risks and complexity because the time delay in acquiring these goods is also a matter of concern.

Before weighing in on either perspective, let’s define global supply chain: a worldwide network of suppliers, manufacturers, warehouses, distribution centers, and retailers through which raw materials are acquired, transformed, and delivered to customers.

Whether global supply chains are seen in a positive or negative light, people across the world have come to accept the notion that globalization and global supply chains are here to stay. The British politician Clare Short aptly captured this notion, stating “People have accused me of being in favor of globalization. This is equivalent to accusing me of being in favor of the sun rising in the morning.”

Assuming that global supply chains are here to stay, a logical conclusion is that organizations in one country will depend on organizations from other countries, either to supply material or to market their products.

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Bending the Chain: The Surprising Challenge of Integrating Purchasing and Logistics

This article is an excerpt from the second annual Game-Changing Trends in Supply Chain series by UT’s top-ranked supply chain faculty (No. 1 in the world for research productivity) that will be published in an upcoming special edition of The Link. IBM is the corporate sponsor.

What are the benefits when purchasing and logistics are working in concert? What steps can supply chain managers take to bring these functions into alignment within their organization? Read an excerpt from an upcoming special report from UT’s supply chain experts that explores these issues.

By Theodore P. (Ted) Stank, Ph.D, Harry and Vivienne Bruce Chair of Excellence in Business, UT’s Dept of Marketing & Supply Chain Management; Michael Burnette, lecturer, UT’s Dept of Marketing & Supply Chain Management; Chad Autry, William J. Taylor Associate Professor in Supply Chain Management, UT’s Dept of Marketing & Supply Chain Management; Kenneth J. Petersen, Ph.D, Dove Professor of Supply Chain Management, UT’s Dept of Marketing & Supply Chain Management; Paul Dittmann, Ph.D, Executive Director, The Global Supply Chain Institute, UT

Renowned quality expert W. Edwards Deming asserted that an enterprise needed constancy of purpose, i.e., alignment of activities across the value chain and within the business, to make money.

Deming also wrote that competition is our ruination not our salvation; rather, collaboration is our salvation (collaboration = functions and entities working together to achieve a common objective).

Instead of adopting this advice, organizations have focused on developing technical centers of functional expertise to drive scale and meet short-term financial/market expectations.

In this second annual study of Game-Changing Trends in Supply Chain, we use results of empirical data analysis and industry examples to establish that collaboration among functions and enterprises has been driven out of value chain practice despite at least three decades of focus in the popular and academic press (Shapiro 1987 HBR on functional integration).

In fact, the greatest area for dis-integration lies within the four walls of the organization. (“We have met the enemy and he is us.”) Within an organizational value chain one key area where this occurs internally is between purchasing and logistics. These two areas can represent significant total organizational costs and working capital through inventory and cash. Yet decisions made in these two areas are rarely made in concert. In fact, the optimization of vastly different functional metrics drives decision-making, with purchasing often focused on purchase price and cost of goods sold while logistics is focused on delivery and storage efficiency and effectiveness. Neither area tracks performance to higher level financial value creation.

A true life example from a Fortune 100 company: A logistics executive for a large global consumer durable goods company hosts a “supply chain management advisory board.” During dinner at a local restaurant, the executive leading the group notices another group of company leaders hosting another group of visitors in another private room in the restaurant. It turns out this group is the purchasing executives hosting their own “supply chain management advisory board.” Neither group had any knowledge that the other was meeting nor what they were talking about.

What does this mean? The purchasing group is making decisions about purchasing locations globally with no insight into costs of movement. The logistics group is discussing how to reduce costs of global warehousing, inventory, and transportation with no insights into future locations of supply and manufacturing.

It is highly likely that your firm is organized, measured, and incented in ways that prevent you from deriving the benefits of collaboration. In fact, your firm may facilitate behaviors that destroy value both in the short term by suboptimizing total system costs, and in the long term by generating superficial gains from functional cost reductions. Neither leverage asset investments.

Why should business leaders and supply chain managers care about this topic?

It is highly important for functional elements of the supply chain to align with each other, as supply chain activities have a critical impact on firm financials and EPS. Without integrated decision-making, financial performance is at best suboptimized, and at worst value is destroyed. Thus firms must refocus organizational design, metrics, talent, and incentives to align activities across the value chain. With the development of multifunctional integrated business systems driven largely by supply chain leaders, we must model effective organizational integration and team work. Our business leaders expect it!
Year-after year, this report continues to deliver an in-depth assessment of the current state of logistics and transportation management operations.

By Mary Holcomb, Ph.D., Niedert Supply Chain Fellow, Department of Marketing and Supply Chain Management, The University of Tennessee and Karl B. Manrodt, Ph.D., Department of Marketing and Logistics, Georgia Southern University

Some have said transportation is a street leading to unlimited destinations. On this street, some are headed to a place where transportation is viewed as a commodity. Others have made a dramatic U-turn and are headed towards an end point of long-term commitment where transportation providers are viewed as critical partners to the success of the firm. Meanwhile, the majority remains in the middle, parked in the off-ramps, wondering why everyone is in a hurry. For those headed to commitment or commodity, the reasons for urgency are apparent and inescapable.

This allegory reflects a trend continued by a group of carriers and shippers towards the co-creation of value, and this group has moved further along the road to positioning transportation as a strategic value-add function. In fact, the results of the 22nd Annual Trends and Issues in Transportation and Logistics (Masters of Logistics) findings indicate that this “value-added” view of transportation directly relates to better company performance in areas such as profitability, return on assets, competitive position/market share, and customer service.

This year’s findings reveal that the value-added approach to transportation goes beyond the core carrier program: It’s an active two-way street where both parties are committed to the long-term success of the other; a strategic relationship, where both parties keep their focus on forging a new way of managing transportation.

In addition to the annual global survey which is the primary source of data presented in this article, the authors, along with survey sponsor Con-way Inc., conducted in-depth interviews with vice presidents and directors of transportation, logistics, and supply chain of Fortune 100 companies as well as discussions with CEOs of the top ranking truckload (TL) and less-than-truckload (LTL) carriers. The interviews provided a wealth of perspective concerning the commoditization of transportation.

The findings from the survey in tandem with the interviews point to a pivotal change in the way transportation is being viewed and managed by companies. A critical mass is emerging at both ends of the “commodity/value add spectrum.” Both sides cite compelling, data-driven reasons for their positioning of transportation. Four of the most frequently mentioned factors that emerged from the study regarding forces that are changing the way transportation and logistics is managed are: business climate; cost to serve; customer service; and functional alignment.

Business climate: Changing, uncontrollable

Over the past few years, various facets of the business environment have altered how shippers and carriers manage their operations. Study participants reported that foremost among these is changing customer requirements, followed by cost to serve and demand uncertainty.

Regardless of size of company or position in the supply chain (e.g. retailer, wholesaler, manufacturer, or supplier), trying to meet the performance expectations and needs of customers is increasingly difficult.

The environment is even challenging for carriers. According to Derek Leathers, president and COO of TL giant Werner Enterprises: “Many trucking companies are dealing with a very high debt load and limited access to credit; equipment is much more expensive and the residual value of old trucks is low. Added to that, drivers are simply not available.”

What this means for shippers and carriers alike is that flexibility is becoming more critical. The question for shippers is how they can increase their flexibility, especially from transportation providers?

One option would be to use a wide range of carriers. If transportation is all the same, it really doesn’t matter who moves the

(Continued on page 4)
Customer Service: Stagnation

During our interviews, both shippers and carriers frequently mentioned the importance of service. In fact, shippers stated that service was a critical value-add in their strategic carrier relationships. What’s driving this focus on service? The data gleaned from this year’s study show that, in general, service for the past two years has been stagnant.

Average on-time delivery for the surface transportation modes remained the same as last year, while the percent of correct invoices and equipment availability showed slight declines. Damage rates for all the surface modes, except for parcel, increased dramatically. “With the ever-increasing changes in customer requirements, it’s hard to increase service,” says Tommy Barnes, president of Con-way Multimodal. “To do this, there needs to be some level of stabilization in service requirements.”

However, very different results were reported for international modes of transportation. As our data show, on-time deliveries for air freight and ocean improved substantially from 2012 to 2013 as did the percent of correct invoices and equipment availability. This year marks the third consecutive year that ocean has improved its on-time performance.

Cost to Serve: Transportation’s move to the fast lane

As a derived demand, transportation has reflected inconsistent demand patterns due to changing consumer requirements. The result has been an increase in the cost to serve that is being directly felt in transportation expenditures.

This year’s study results confirm that transportation costs increased at a brisk rate from the previous year. Companies who spent more than 5 percent of sales on domestic transportation grew from 26.8 percent to 30.9 percent from 2012 to 2013. While this shift was noteworthy, the largest swing occurred for those companies that previously had been spending 1 percent to 2 percent of sales on transportation and are now spending 2 percent to 3 percent, representing a 26.3 percent increase in the companies in this spending category—a difference that can translate into millions of dollars.

Where are transportation dollars being spent? The survey data indicate that TL continues to dominate the modal picture commanding 32.2 percent of the transportation budget. TL’s portion of the budget has remained essentially unchanged for the past three years suggesting that this mode has reached an equilibrium of sorts.

Other data support this conclusion. Some 57.8 percent of companies in this year’s study have now completed the move to multiple modes of transportation to meet delivery schedules. An additional 15.7 percent are in the process of implementing this action to gain greater flexibility. “In the past, 3PLs mainly arranged or provided multi-mode capability,” says Brian Mayer, vice president of global logistics and materials management at Eaton Corporation. “Now, for a carrier to be considered a strategic partner they must bring these resources to the table.”

The data suggests that LTL, intermodal, and surface parcel are the beneficiaries of this multi-modal approach to meeting transportation needs. In particular LTL, at 21.1 percent of the overall transportation budget, appears to be in somewhat of a resurgence as this mode’s share increased for the first time since its high of 28.9 percent in 2007.

Company Alignment: Purchasing takes an increasing role

The way we manage and control transportation is fundamentally changing. Part of this change is driven by where the responsibility for transportation decision-making resides in the company.

As Table 3 indicates, transportation/logistics is still the primary functional area with responsibility for managing and controlling transportation processes. However, a closer look at the data shows that when it comes to preparing and requesting quotes and bids, purchasing/procurement either solely, or in combination with transportation/logistics, leads this task in 43.1 percent of companies. Purchasing/procurement is also materially involved in carrier negotiations with 36.2 percent of companies reporting that this functional area either controlled, or jointly led, this activity. As expected, operations planning and carrier performance are primarily directed by transportation/logistics. What is interesting is the percentage of companies in which these core transportation activities are overseen jointly by the two functional areas (19.8 percent and 17.5 percent, respectively).

The data in Table 3 was collected by our large-scale survey and confirms the information we learned through the in-depth
interviews: Transportation decision-making seems to be headed in what seems to be opposite directions. In a growing number of companies, procurement/purchasing is becoming much more involved in transportation management. Is this a good or a bad thing?

The overall feeling from the interviews was that when purchasing/procurement is in charge of transportation, this unit often views it as a commodity much like other products or services they acquire. On the other hand, companies that view transportation from a value-added perspective tended to have the function at an organizational level commensurate with sales, manufacturing, etc.

The “new” Masters of Logistics

The phrase “Masters of Logistics” was coined during a time when the size of company (based on annual sales revenues) made a significant difference in managing logistics and transportation. Over the years of conducting this study, the impact of the Masters (companies with annual revenues greater than $3 billion) has ebbed as many of the critical difference-making elements—such as technology and level of supply chain visibility—has become more widely available to companies of all sizes.

The results of this year’s study point towards a shift by the Masters of Logistics that is significantly different from smaller companies. The survey data indicate that the Masters are focusing on continuously improving their transportation processes in order to keep costs low.

Further, the Masters perceive that they are the primary source of innovation in transportation services. The interview data reveal that it’s the partnership between the Masters and their strategic carriers that enables them to focus on these two important objectives.

But, let’s be clear about this shift. Not every large-size company is moving in this direction. The evidence from the survey shows that in many companies—including a healthy percentage of the Masters—transportation is perceived as a commodity where the services provided have no essential differences, and the selection of a primary carrier relies heavily on price. In addition, the perceived cost of switching to another carrier is low.

One other key trend emerged from the data: The Masters aren’t always the Masters of Performance. Smaller and medium size companies, just like a high proportion of the Masters, also reported results that were better than competitors across factors such as firm profitability, return on assets, market share, and customer service levels. In the years to come, we believe that the “new” Masters of Logistics will be dictated by the results they achieve, and not by the size of the company.

Analysis of high performing firms found some interesting results, especially around the discussion of commoditization. The majority view transportation and the design and functionality of their transportation services as crucial to their competitive positioning. High performing companies also feel that their primary or core carriers help them acquire new customers through the services they provide.

“We have to deliver more services and be deeper in the customer’s business,” says Leathers. “To have a successful partnership we have to ‘swim upstream’ in their supply chain.”

However, the focus is more than just transportation effectiveness. High performing companies reported that they are constantly improving transportation operational efficiency, in addition to continuously refining and improving services in order to keep costs low. “Mutually looking at ways to take costs out of the equation is an expectation of our strategic carrier partners,” says Eaton’s Mayer.

Barnes, of Con-way Multimodal, agrees with this top shipper. “To deliver value-add service we have to embrace a lean culture that constantly seeks ways to reduce costs while delivering differentiated service.”

Are high performing companies and the Masters of Logistics forging a new path to the future through their value-added view of transportation? Certainly the results of the high-performing group hint that this is the case.

It is too early to conclude that this view alone drives company performance that is much better than competitors? The findings from the in-depth interviews suggest that as the business and regulatory environment continues to create adverse operating conditions, strategic relationships between shippers and carriers where transportation is viewed as a value-added function will have a significant impact on the company’s performance.

Changes to the hours of service rules, the impact of CSA 2010, the volatility of fuel prices, tightening of carrier capacity, the uncertainty of demand, and changing customer requirements are just a few of the adverse conditions that face transportation in the near future.

The question to be answered in future annual studies is which view of transportation—value-add or commodity—will contribute to better company performance. The answer to this question is right around the bend.

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**A One-on-One Conversation With “the Bruce” Chair**

Ted Stank, Ph.D., is the Bruce Chair of Excellence in Business and one of UT’s leading supply chain management thought leaders.

**Q.** You’ve co-authored a book about global supply chains with three other thought leaders. What can you tell us about it?

**A.** My co-authors and I developed a framework to measure the supply chain potential of geographic regions. The maturity level for each region is assessed using the EPIC framework—Economy, Politics, Infrastructure, and Competence. What we’re hoping is that managers of supply chains can use this framework to identify the strengths, weaknesses, opportunities, and threats of the different global regions that impact their business and develop their supply chain strategies accordingly. (It’s available through Amazon… one of our Supply Chain Forum members. We like to keep it in the family.)

**Q.** Speaking of which how did it feel to see a UT alumnus on 60 Minutes talking about managing Amazon’s supply chain?

**A.** Pretty amazing. Dave Clark is just one example of the high level supply chain executives who graduated from UT and now run supply chains for some of the largest companies in the world. Many of them, including Dave, sit on the advisory board of our Global Supply Chain Institute and help guide our research and teaching initiatives.

**Q.** What else is coming through the research pipeline?

**A.** We’ve continued our commitment to applied research with the second annual *Game-Changing Trends in Supply Chain* white paper. This one looks at the alignment (or lack thereof) between purchasing and logistics, and the implications that has for firms’ supply chains. Some of the data comes from companies that attend our biannual Supply Chain Forums as well as companies that participate in our supply chain audits. These touchpoints are what keep our research topical and meaningful to practitioners.

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A natural question to ask is what are organizations doing to take advantage of such codependencies to build partnerships that will enhance their competitive position in the marketplace? What are the key issues on the mind of the chief executive officer (CEO) and her team, in particular, the global supply chain manager? Do these issues cover strategies for nurturing collaboration with organizations in other regions of the world? If so, which regions? Answers to these questions require an assessment of the key issues surrounding global supply chains.

One of these issues is that supply chains, and global supply chains in particular, have been defined and operationalized narrowly, primarily from the perspective of academics and practitioners in North America and Western Europe. Such a perspective ignores potentially differing perspectives from people in other regions of the world. The reasons for such ethnocentric North American and European perspectives are historical, emerging from the economic history of the last 500 years. However, the world is increasingly getting “flat,” at least from a regional perspective. Thus organizations ignore regional uniqueness at their own peril.

The goal of this book is to provide information about supply chains in each region in the world, identify their unique characteristics, and help the decision maker arrive at more informed decisions. To this end, it is informative to discuss the evolution of supply chains over time to gain some insight into the nature of present-day global supply chains. These insights will facilitate subsequent discussions on strategies and tactics CEOs and their teams can adopt to enhance the competitive position of their organizations.

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