

# 20th Annual Trends and Issues in Logistics and Transportation Study

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Operating in the New Normal



October 2011

## A CHANGING LANDSCAPE

It's the Wizard of Oz, just in reverse.

That is how some are describing the new normal. In one of the many iconic scenes, Dorothy is seen living in shades of gray until she opens the door to Oz, and steps into its Technicolor splendor. In our case, we are stepping back out of the sharp contrasts and into a more shaded world, with less distinct landmarks to lead the way.

The world is truly becoming more complex. Planning cycles are shrinking as competitive pressures are forcing manufacturers to introduce new products quicker. Customer expectations have forced operations to move from mass production to mass customization of goods and services. Once agreed upon business assumptions are being questioned and doubted. Global volatility is matched with domestic uncertainty. Future growth opportunities are harder to quantify and visualize. Market research data used to set the strategic direction of the firm can be ambiguous and subject to interpretation in various ways. The term new normal is being used to describe this emerging business environment.

**Flexibility** is essential.

**Efficiency** is vital.

**Differentiation** is imperative.

The new normal has also created fundamental shifts in logistics and transportation management. The pressure to be more efficient has never been greater. Any potential investment must pass additional levels of scrutiny as credit is tight. Being as lean as possible is desirable to eliminate waste and non-value added activities in order to improve supply chain flows and the firm's financial position. The unrelenting focus on cost reduction has resulted in an increased emphasis on leveraging every dollar spent on logistics and transportation activities. This can be seen in the growing use of truckload transportation and the importance that is being placed on shipment consolidation. Concern about inventory levels and the effect on the cash-to-cash cycle has also never been greater as "cash is king" in the new normal business environment. There is also a move towards more sophisticated tools and techniques to manage transportation and distribution activities as they have become more complex, and there is a growing need for increased visibility in order to better synchronize supply chain flows.

The march towards continued efficiency is not new. In fact, our research starting in 2000, examined six key capabilities that drive a transformation to greater efficiency in supply-chain, logistics and distribution processes. These drivers -- Collaboration, Optimization, Connectivity, Execution, Speed, and Visibility -- were the benchmarks we used to evaluate the progress of companies in achieving logistics and supply chain excellence.

THERE IS A MOVE TOWARDS MORE  
SOPHISTICATED TOOLS AND  
TECHNIQUES TO MANAGE LOGISTICS  
AND TRANSPORTATION ACTIVITIES.

## DEFINING THE NEW NORMAL

At the macro-economic level the new normal is characterized by: slow growth in GDP, leaner profit margins, smaller returns on assets than in previous decades, steadily high unemployment, slow-moving credit, and budget cuts at all levels.

For logistics, transportation and supply chain management, the new normal means having a continuous focus on efficiency, being able to respond to changes without excessive cost, time or loss of performance, and the ability to design and operate a network that is capable of meeting the different service requirements placed on it.

As we all know, however, efficiency is not enough to succeed in the new normal environment. The new normal for logistics and transportation calls for the ability to accommodate increasing customer service requirements that are also becoming more tailored for that customer. As all members of the supply chain are striving to be leaner, service levels are becoming even more critical to success. Yet this year's study results indicate that companies continue to struggle with this vital part of logistics and transportation. Instead of improving, service levels have remained stagnant, and in some cases have declined, since 2003.

The third effect of the new normal environment on logistics and transportation is the necessity of being able to adjust or respond to change quickly. Volatility of demand coupled with unexpected events that occur on an ongoing basis in supply chain flows compel companies to be flexible. The companies that will prosper in the new normal will be those that have the capability to capitalize on change when others simply will not be able to react or alter their actions fast enough. Flexibility is the remedy when uncertainty exists.

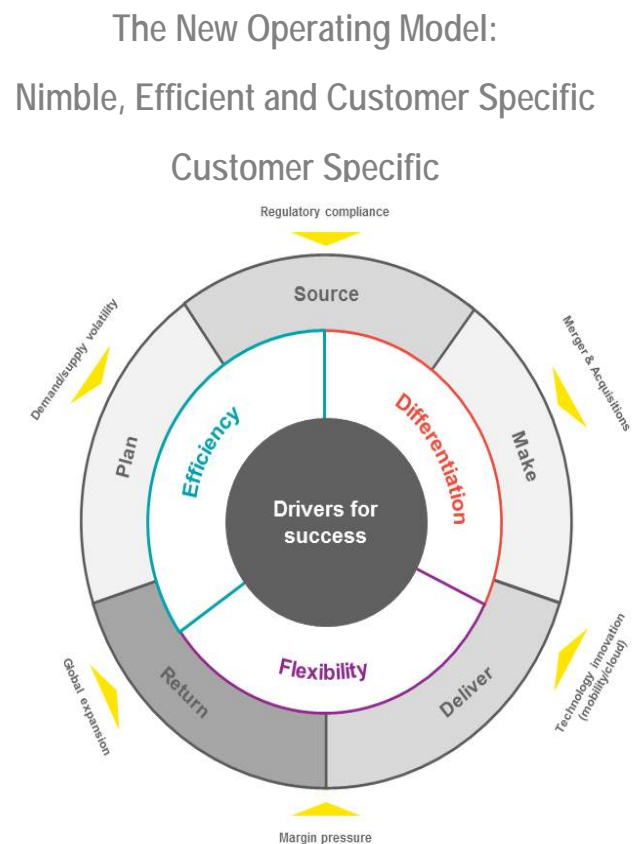
The new reality is that certainty is a short-lived state. The constant in the new normal is change. To succeed in this environment, it is critical that we have the right formula to assist us in achieving the company's short- and long-term goals and objectives. Surviving – and growing – in this new landscape involves three basic principles: flexibility, efficiency and differentiation.

The results of the 20<sup>th</sup> Annual Trends and Issues in Logistics and Transportation Study suggest that we are not making the progress that is needed for significant contribution in the new business environment. This highly dynamic and complex environment calls for new and innovative approaches. The purpose of this report is to help firms navigate the new normal by focusing on the three principles that we believe will be the new fundamentals in logistics and transportation management.

In order to plot a path forward in the new normal, it is important for firms to understand the multiple layers that define this new environment. The framework shown below indicates that the five main SCOR supply chain processes – plan, source, make, deliver and return – now occur in an environment that has a myriad of challenges including:

- unpredictable demand
- uncertainty of supply
- mergers and acquisitions
- legal and regulatory policies
- volatile commodity and energy prices
- operating practices that protect and improve our environment
- rapidly changing technology, and
- global expansions to take advantage of new sources of supply and markets.

For the supply chain processes to achieve the desired goals and objectives of the firm, we believe that logistics, transportation and supply chain management must develop a high level of flexibility in the services provided, be as cost efficient as possible in doing so, and be capable of delivering that service in a manner that differentiates between customer segments. It is the combination of flexibility, efficiency, and differentiation that customizes the supply chain to meet the needs of each individual customer. This effort starts to roll back the gray uncertainty and provide a rich contrast that will enable providers to meet the needs of individual customers. Many of the factors shown in the framework present both opportunities and threats to global supply chains as they become longer and leaner. Time and distance have added risk to the global supply chain that must be addressed. The participants in this year's annual study identified five key areas that they believe present the greatest risk potential to the firm relative to planned operations.





Yet, identifying the risks is far different than managing the risk. In the new normal it is anticipated that energy and fuel prices will continue to be volatile. Energy and fuel prices are affected by a variety of factors, most of which are not controllable by the firm, including the global demand for a shrinking supply of world oil supplies, climate and emissions initiatives, and existing and pending regulations at the federal, state and local level. Fuel purchases can involve complex tradeoffs between the risks of variable market prices and fixed forward buying. The firm's goal is to decrease future risk through reduced price volatility.

In addition to energy and fuel prices, companies are concerned about rising commodity prices. The Commodity Research Bureau's Continuing Commodity Index for 17 commodities shows that prices have been steadily rising since 2002, except for a brief deflationary dip in 2008. The message is clear – increasing commodity prices are not a short term phenomenon. The issue is further complicated by the fact that increases in commodity costs are not passed quickly or efficiently down the value chain. This supply volatility can lead to lower than predicted earnings.

The fourth risk identified by study respondents, demand uncertainty, is the topic of copious articles and books. Customer demand can never be forecasted exactly. What is so ironic about this is that we live in the information age where there is an abundance of data at the point-of-sale level. There is no doubt that information has changed the way that we manage supply chains. In terms of demand management, however,

#### WHAT ARE YOUR PLANS IF DIESEL FUEL RISES TO \$5 PER GALLON?

The answer to this question was surprising – 47.9 percent of respondents said their logistics networks would not change. Moreover, no actions are currently planned as a result of rising fuel prices. What was the second line of action that respondents would employ to address rising fuel costs? Pass the increases along to the customer.

volatility can be driven by not-so-obvious reasons such as batch ordering, understated or inflated orders, price fluctuations and even long lead times. In some cases respondents report that they lack the integrated processes to leverage data and information on customer buying behavior.

Demand volatility has always existed. Most firms have generally treated it as an operational issue involving the coordination of marketing, manufacturing and distribution. In the new normal, this is not sufficient. Demand uncertainty must also be addressed at a strategic level which entails significant involvement of external supply chain members.

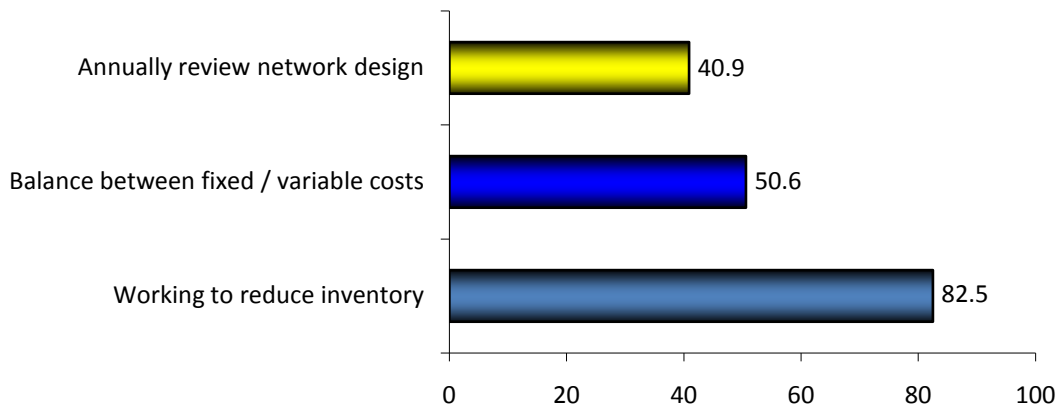
**THE FACTORS THAT POSE THE GREATEST RISK TO THE SUPPLY CHAIN ARE MOSTLY OUTSIDE THE CONTROL OF THE FIRM.**

Synchronizing supply and demand is a major challenge for most firms. The task is made even more difficult due to the growing length of the supply chain. This was the fifth-ranked risk reported by participants in the annual study. In the new normal the scope of the 5 main SCOR supply chain processes is global. The time dimension of supply chain flows

has increased as companies take advantage of specialized sources of supply, low cost labor locations, and new market opportunities across the world. Months before demand is realized, suppliers and manufacturers often have to commit their resources to specific levels of output due to the length of the supply chain. In addition, as the firm employs strategies such as lean and just-in-time in a global supply chain, the level of risk also increases.

**Working To Alleviate Disruption to Planned Operations**

(percent of respondents)

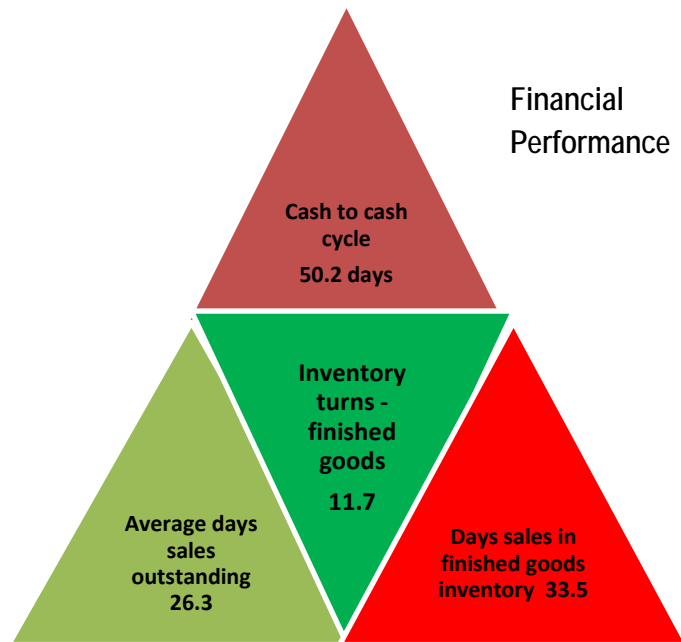


Despite the positive actions that are being taken to reduce supply chain risks, there are a number of areas that need improvement. The risks presented by demand uncertainty and supply volatility will not decline unless there is substantially more external involvement. Currently only 6.3 percent of key customers and 7.5 percent of key suppliers are highly involved in the sales and operations planning (S&OP) process. This lack of significant external involvement has implications for the success of inventory reduction initiatives that are currently underway. Visibility in the supply chain has been stagnant or declined for several years. This capability is critical for improving efficiency and flexibility.

Ultimately, financial performance in the new normal is extremely important. It has been said that “cash is king” in this environment. Therefore how quickly companies turn cash back into cash is a key indicator of health in this area. The study results indicate on average it takes 50.2 days for this cycle. Compared to the previous year, inventory turns declined. In 2010, the average inventory turns were 12.7 days; in 2011 that average is 11.7. This represents a 7.9 percent decline in year-to-year performance. The data show that the Masters had the biggest struggle with inventory management. They dropped from 15.1 turns in 2010 to 11.0 in 2011.

Inventory management touches all of the areas that are critical to logistics in the new normal. In many industries and supply chains inventory is one of the largest costs. While inventory is needed for a variety of reasons from production savings to transportation economies of scale, too much inventory can have undesirable consequences such as a lower level of liquidity and a greater risk of obsolescence. It’s not just about reducing inventory levels. In the new normal the firm must have the ability to effectively increase or decrease inventory levels in response to changes in demand. This requires close coordination between all the members of the supply chain and implies a certain degree of integration. In cases of increasing demand, flexibility directly effects supply chain performance through out-of-stock situations. In the current environment, however, the lack of flexibility has led to higher-than-desired inventory levels.

Achieving effective and efficient inventory management cannot be done by the firm alone. It also involves the external capabilities of supply chain members.



	<b>Challengers</b> (<\$500 million in annual sales)	<b>Contenders</b> (\$500 million to \$3 billion in annual sales)	<b>Masters</b> (>\$3 billion in annual sales)
Cash-to-cash cycle (days)	48.1	53.4	45.0
Inventory turns	11.4	18.8	11.0
Days sales in inventory	34.9	32.5	40.0
Days sales outstanding	26.8	32.6	35.0

So what does it all mean? Clearly, the environment in which businesses are operating has changed significantly over the past few years. In fact, we feel that the indicators of a changing landscape have been present for quite some time. Earlier we mentioned our research that began in 2000 and continued over several years regarding the drivers of supply chain excellence. The data from the annual studies conducted during this time clearly

indicated that new ways of managing logistics and transportation were needed due to many of the same reasons that exist today. The difference between then and now is that domestic macroeconomic factors and global economic concerns have forced us to face a reality that has been some time in the making. Over the next several pages we'll dig deeper into flexibility, efficiency and differentiation and see how firms are using these fundamentals to respond to the challenges of the new normal.

## FLEXIBILITY

### Being nimble and responsive

The level of flexibility that a company has directly reflects its ability to anticipate, adapt, or react to changes in its environment. Obtaining the level of flexibility that is needed to operate in the new normal is not easy for a number of reasons. Flexibility is required at many different levels in the firm including: the ability to change the volume of aggregate output based on the fluctuation of demand, the capability to alter the variety of products that can be produced, the speed and number of new products that can be introduced, the ease of product modifications, and operational as well as functional ability to adjust and deploy the resources to match requirements. Flexibility also entails the ability to meet customer-specific service level requirements, and to efficiently handle specific flow patterns for a variety of situations. For example, it might be desirable to do order fulfillment for a set of customers from the distribution center(s) with the oldest inventory for that item. The two perspectives of flexibility suggest that there are internal and external dimensions to the capability. The outcome of internal flexibility is increased customer service as the company is able to change volume and mix. External flexibility recognizes that market requirements and customer needs must also be taken into consideration. Given the broad array of processes and activities that this capability affects, it's not surprising that companies are struggling with this driver for success.

#### Flexibility

- The ability to quickly meet an increasing variety of customer requirements at the "right" cost, time and place while creating maximum value for the company.
- The capability to alter and adapt in a reversible manner according to needs.

It should be noted that flexibility entails the ability to adapt in a reversible manner to an existing situation without excessive cost, time, or loss of performance. This is different from evolution which is irreversible. In other words, it's not a matter of changing to another state and staying in that condition. A flexible company or supply chain must be able to morph, and perhaps return to an original state, all in a very short period of time.

A company's flexibility can be directly related to the number of discrete supply chains that it uses for the distribution process. The data indicate that on average a company has 3.16 supply chains. Further analysis of the data by firm strategy shows that the mix strategy has more discrete supply chains on average than the others.

**Average Number of Supply Chains  
by the Firm’s Strategic Direction**

Overall strategy for the division or business unit	Average number of discrete supply chains
Cost leadership	3.21
Mix: Be all things to all people	3.35
Customer service	3.02
Product / market innovation	2.22

**Supply chains and operating flexibility**

Why do companies find it necessary to have different supply chains? The top three reasons cited by the study participants are:

- Customer requirements
- Business unit or division requirements
- Product characteristics

Multiple supply chains also provide the company with increased flexibility. The ability to quickly respond to changes or unexpected events without incurring excessive costs, time, organizational disruptions or any loss of performance is necessary to compete in the “new normal.”

The leading actions that companies have completed in order to improve their operating flexibility yielded some surprising results. The top two completed initiatives involve transportation. The third priority for companies was the integration of internal systems such as the order management system with the warehouse management system.

An analysis of the data revealed that medium size firms (Contenders) have invested the most effort in increasing their flexibility. To date, they have completed or are in the process of implementing 10 or more actions to improve operating flexibility.

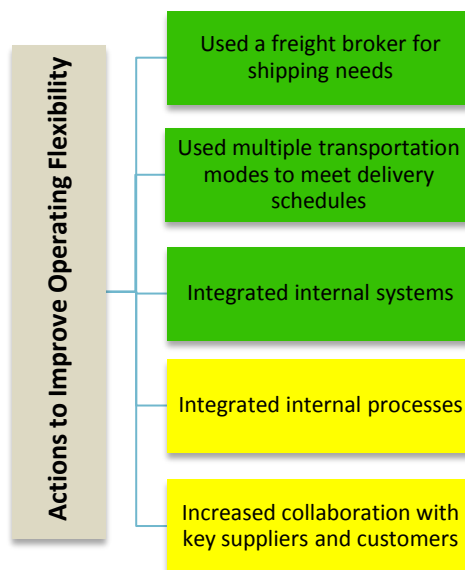
**Flexibility in a hospital network**

When your customer's customer's life depends on your supply chain, you must be flexible. A large hospital network known for its excellent supply chain has built flexibility into their daily mode of operation but has also done it around key process standards. The standard processes are a must with over 5,000 customers within their network and over 10,000 stocked items. But included in their customer base are over 125 Operating Rooms and more than 15 different department types. In addition, product types can range from standard tissue and latex gloves to soap bubbles for pediatric lung patients’ recovery exercise to a new hip. They have added flexibility in their ability to provide critical care items on very short notice, to service specialty care and other unique areas with separate storage and supply chains (e.g., clean rooms, temperature control) and provide most of their items in a Low Unit of Measure (LUM) or each format to support limited space capacity in the hospital department store rooms.

Number of Flexibility Initiatives Completed or Currently Being <u>Implemented</u>	
Challengers	1 to 5
Contenders	10 or more
Masters	6 to 9

The most notable thing about the completed initiatives is that two of the three items are considered to be execution oriented. The third most completed item – integrated internal systems – can be viewed as a tactical approach to increasing flexibility, just as the top implementation action of integrating internal processes. The integration of systems and processes will enable the firm to increase internal visibility of information and should lead to greater and faster response to changes. The second ranked implementation action – increased collaboration with key suppliers and customers – is a strategic move by the firm to include external supply chain members in order to improve its ability to sense and respond to changes that occur. The completed initiatives, and those currently being implemented, touch all three levels of planning, organizing and controlling the activities of the firm in order to achieve its objectives.

**Completed Initiatives** and **Current Implementation Actions**



## EFFICIENCY

### Cost to Serve

In the new normal there is more pressure than ever on performance. Performance is a measure of both effectiveness and efficiency in completing a given task. At times, these can seem to be conflicting goals for managers. The study results indicate that reducing costs continues to be the primary goal of companies. Some 39.8 percent of the study participants noted that this is the primary focus for their company.

Since 2006 the main focus of companies has been on efficiency. Previous to this date increasing customer satisfaction was the primary aim. In the new normal a key to reaching the desired level of efficiency lies with understanding the cost to serve. Manufacturing flexibility has enabled companies to cost effectively produce for increasingly differentiated customer segments. Companies create customer value in this way, but tangible products are only part of the equation. Differentiated products must be bundled with a set of logistics services that also reflect differences in customers' needs. A big challenge for logistics has been the development of customer segments that can be served profitably by distinct networks. Without accurate and detailed data to understand how this complexity impacts cost, we are left using averages to determine the cost to serve. The use of average costs may lead to customers with unique requirements being underserved and undercharged, while other customers with more routine, standard needs may be overcharged. A good understanding of customer requirements is also necessary in order to formulate a logistics system and a supply chain that is capable of meeting, or exceeding, those requirements.

### Efficiency

- A measure of how well we utilized the available resources to accomplish the goals of the firm.

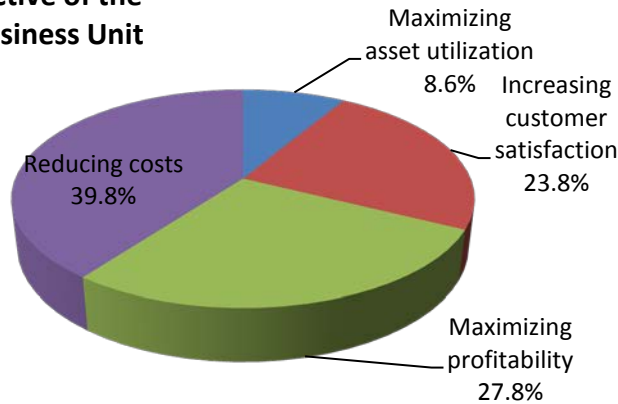
### EVOLUTION OF MEASURING EFFICIENCY

Stage 1: Financial  
 Stage 2: Productivity  
 Stage 3: Performance  
 Stage 4: Integration of Performance and Financial

### An optimal balance of cost and service

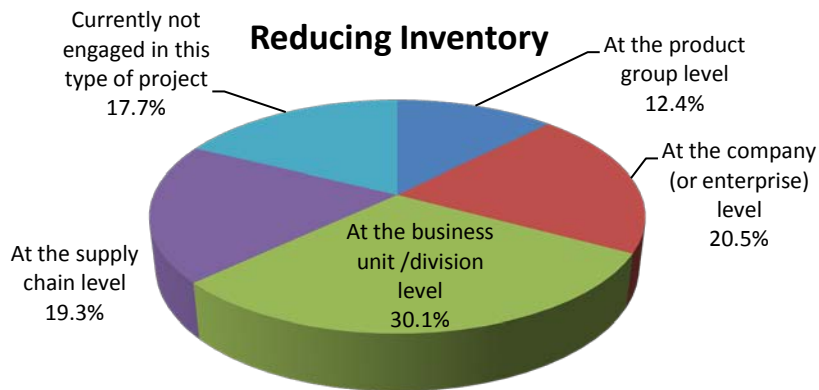
Does the item you produce as a finished product have almost 6 million parts? Does your product have high levels of stress during use? Do several hundred lives depend on those parts working correctly and that all of the maintenance has been done timely and the right parts available? Theirs does. A large mass transportation and freight transportation manufacturer has a parts support logistics system that has to act and behave very efficiently to serve the global customer base and all of their needs. This requires knowing when and where to outsource logistics effectively, managing an efficient parts supply distribution network, understanding (and constantly measuring) the cost to serve without impacting service and preparing for growth with an increase in market share. This manufacturer does all those activities but still continues to benchmark themselves against other industries in an ongoing effort to improve and invest in the right logistics areas to continuously gain efficiencies.

**Primary Objective of the Division or Business Unit**



Logistics represents a major expenditure for businesses. Two of the major cost components for logistics are inventory and transportation. Finding the optimal balance between cost and service is a difficult task. Relative to inventory, the right level of inventory investment is more than an internal financial decision. It requires the firm to understand internal tradeoffs in conjunction with customer needs and supply chain partners' goals. In the new normal there is increased pressure to improve both efficiency and effectiveness. The quest for gains in efficiency is propelling companies to work on reducing their current overall level of inventory. The results of the annual study indicate that 82.3 percent of all companies are currently engaged in inventory reduction initiatives. The majority of the effort is aimed at the business unit or division level (30.1 percent). On average, the expected result is a reduction of inventory between 5 and 15 percent. Interestingly, the anticipated result did not vary by size of firm.

**BALANCING INVENTORY COSTS AND SERVICE LEVELS IS DIFFICULT AS OPPOSING FORCES – MINIMIZATION AND MAXIMIZATION – ARE AT WORK.**



Transportation is also a major cost component for logistics. One of the key indicators for this measure of efficiency is transportation spending as a percent of sales. The trend over time is an interesting one. From 2004 through 2007, North American domestic transportation spent as a percent of sales increased every year. In

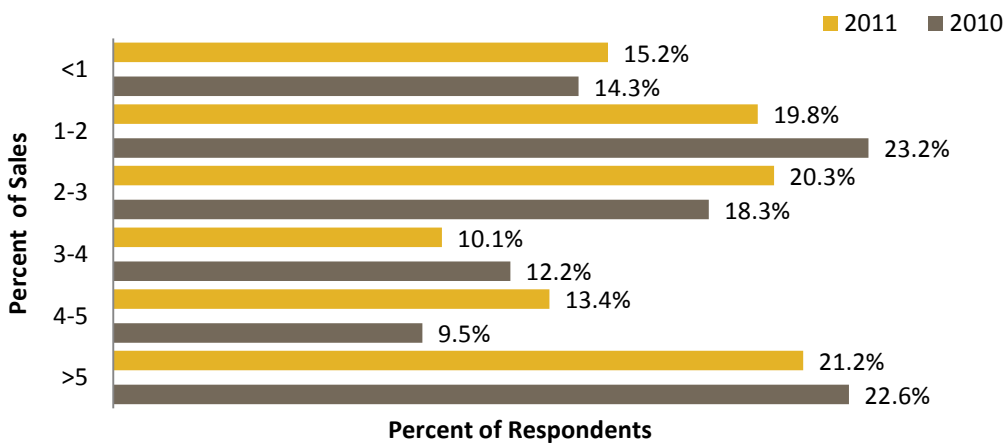
**INNOVATION IN  
TRANSPORTATION  
MANAGEMENT IS SORELY  
NEEDED IN ORDER TO ACHIEVE  
BREAKTHROUGH EFFICIENCY  
GAINS.**

2008 as the economy began to show signs of weakening, the percentage of firms spending more than 5% of sales on domestic transportation dropped significantly from 2007. Spending increased again in 2009 and continued to rise in 2010 with some 22.6% of firms reporting that they spent more than 5% of sales on domestic transportation. This percentage dropped to 21.2% for 2011. Results show that the most significant change in domestic transportation spending as a percent of sales has occurred in the

middle range. That is, firms that spent 1-2% of sales on domestic transportation last year (2010) are now spending 2-3% of sales on this activity. The same is true for those firms that spent 3-4% last year on sales. They are now outlaying 4-5% of sales on domestic transportation.

Transportation plays a vital role in new normal. Without the efficient and effective flow of materials and goods around the globe, it will not be possible for companies to succeed. High-quality, cost effective transportation has enabled firms to extend their reach to previously unavailable markets. It has allowed firms to source materials and manufacture products at any location(s) that creates the greatest competitive advantage for them. Transportation decisions directly affect the cost to serve, and serve a key part in creating customer value. Lastly, transportation is a key element in increasing the firm’s flexibility. Study participants reported that using multiple modes of transportation to meet delivery schedules was one of the top actions they had completed over the past 12 months in order to improve operating flexibility.

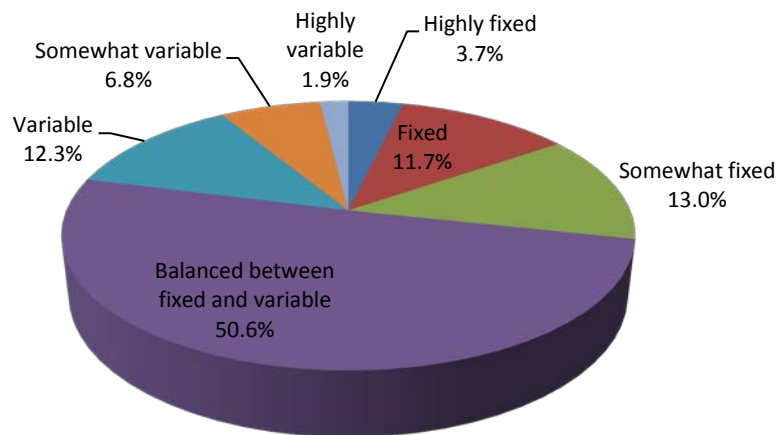
**Transportation Spend as a Percent of Sales**



## CHANGING THE COST TO SERVE

Companies have substantially increased the scope and magnitude of their global operations in terms of sourcing, manufacturing and distribution networks. In addition, the new normal business environment presents a number of challenges and opportunities not previously faced by companies such as currency fluctuations, changes in demand patterns, emerging markets, and designing logistics networks that leverage resources.

Each of these, in addition to many other factors, affects the cost to serve. It's more than just total costs, however, as the mix of fixed to variable costs plays a significant role in the decision making process. The optimal balance of fixed and variable costs is different for each company and industry sector. Basic economics tells us that in order to reduce fixed costs per unit of output, volume must be increased to spread these fixed costs over more units of output.



**Current Cost Structure of the Firm**

As the results indicate, a majority of companies perceive that they have a balance between fixed and variable costs. Another way to interpret the data is that only 21.0 percent of companies reported that their cost structures are variable to highly variable. In the new normal environment, in which tailored products and services are required, the balance between fixed and variable costs will be even more critical. Study participants acknowledged that they are currently working to convert more fixed cost capacity to variable. On average they would like to change between 6 and 15 percent of fixed costs to a variable cost basis.

One area where change is not anticipated is where companies plan to manufacture products. A large majority (76.4 percent) of respondents reported that their companies have no plans to change their manufacturing strategy to incorporate either more on- or near-shoring. Even for those firms that are planning to change their strategic approach, the degree of change over the next five years will be quite moderate.

## DIFFERENTIATION

### Strategy determines the firm's path

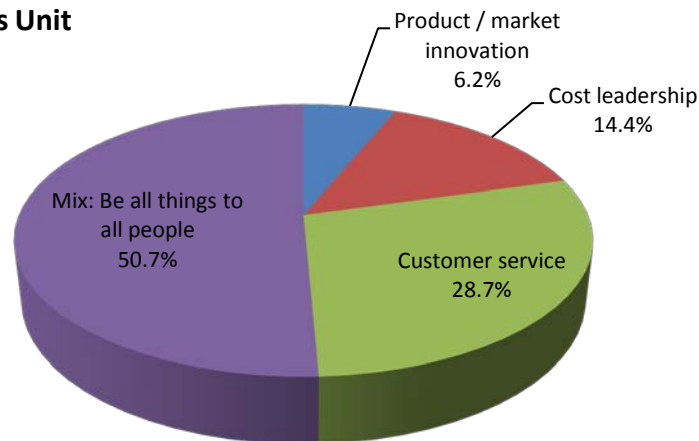
The company's strategy should provide a clear signal regarding its purpose and focus. From this, the firm decides which customers it will serve, how it will serve them, and how it will compete with others in the market. A strategy focused on competing on cost is more apt to consider ways to reduce the total cost of producing and marketing a product. This strategy would be different than a firm seeking to gain market dominance through customer service. While both strategies have some overlap, there are operational consequences that result from choosing one strategy over another. Customers can choose one firm over another based on the level of service, or the price, they are willing to pay.

### Differentiation

The ability to separate into distinct groups for the purpose of distinguishing between them.

But, what happens if the strategy is to serve everyone? In the new normal, firms appear to be determined to 'be all things to all people.' For the first time over the many years of conducting this study, a majority of respondents reported that this is their firm's strategy.

**Overall Strategy for Division or Business Unit**



As the data in the table show, over time the emphasis on customer service as the strategic direction for the firm has been declining. While the primary goal and objective for the firm shifted to one of cost reduction during this same time, this move was not reflected at the strategic level with an increased percentage of companies opting for cost leadership as their strategy. Instead there was awareness by companies that service was, and still is, an integral part of value creation. It can be used to differentiate the company from competitors and form the basis for building sustainable competitive advantage. The growth in the mix strategy over the years was a signal that the logistics and transportation environment was changing. It's not possible to be one dimensional in the new normal. Companies must truly be all things to all people.

**Strategic Direction of the Firm**

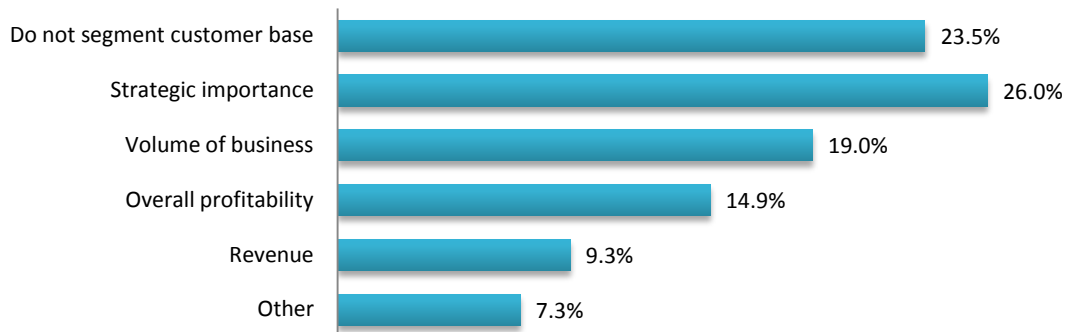
(percent of respondents)

Year	Mix: Be All Things to All People	Customer Service	Cost Leadership	Product/Market Innovation
2007	36.8	38.5	8.4	16.3
2008	44.7	29.5	17.3	8.4
2009	48.9	26.3	17.0	7.8
2010	48.2	26.3	17.0	7.6
2011	50.7	28.7	14.4	6.2

**One size service does not fit all**

Firms also need to recognize that decisions made about logistics and supply chain processes result in different levels of customer service that affect market share and profitability. That is, differentiated service can be used to increase sales and reduce costs. The design of the logistics network should reflect the different service requirements that are placed on it. The point is that not all customers should receive equal service. Not only is this approach too expensive for the firm, it also does not distinguish between customers in terms of importance. In other words, when service is not differentiated every customer receives the same level of service. Segmentation enables the firm to optimally design the supply chain to deliver the required level of service to the different market segments. Without segmentation, the result is a “one size fits all” approach that leaves your most important customers dissatisfied and your logistics costs much higher than necessary. Customer segmentation is the means by which the firm determines how to group customers in order to deliver differentiated service. The data indicate that the primary method used by companies for customer segmentation is strategic importance. A surprising 23.5 percent of the study respondents do not segment their customer base.

**Method of Customer Segmentation**



Are companies actually delivering differentiated service? The data indicate that firms are indeed distinguishing between “best” and “average” customers when it comes to service. The largest difference in service occurs in “over / short/ damage” and “backorders.”

Performance Measure	“Best” Customer	“Average” Customer
On time delivery	96.8	93.8
Over / short / damage	1.4	2.3
Shipments that result in some form of a customer complaint	1.9	2.4
Backorders	2.4	3.3
Perfect order	96.0	96.3

## MOVING FORWARD: THE CALL TO ACTION

### Success = f {Flexibility, Efficiency, Differentiation}

In the new normal business environment, the traditional approach to logistics and transportation management will not be sufficient to accomplish the goal and objectives of the company. The operating conditions are more than challenging – global expansion which is creating long supply chains, unpredictable demand, increasing customer requirements, and growing complexity due to legal and regulatory compliance – just to name a few. The results of the 20<sup>th</sup> Annual Trends and Issues in Logistics and Transportation Study suggest that in order to succeed in this environment three key capabilities are needed: flexibility, efficiency, and differentiation. These are the drivers of success in the new normal.

In order to determine exactly where companies stand with regard to the three capabilities that we feel are essential for success in the new normal, we developed a Flexibility-Efficiency-Differentiation (F-E-D) composite score. For each capability the participants’ responses were tallied, and assigned to one of three groups – high, medium and low. Each group was assigned a score, and the three scores were totaled for a respondent. The results were then disaggregated by the firm’s strategy – mix, customer service, cost leadership, and product/market innovation.

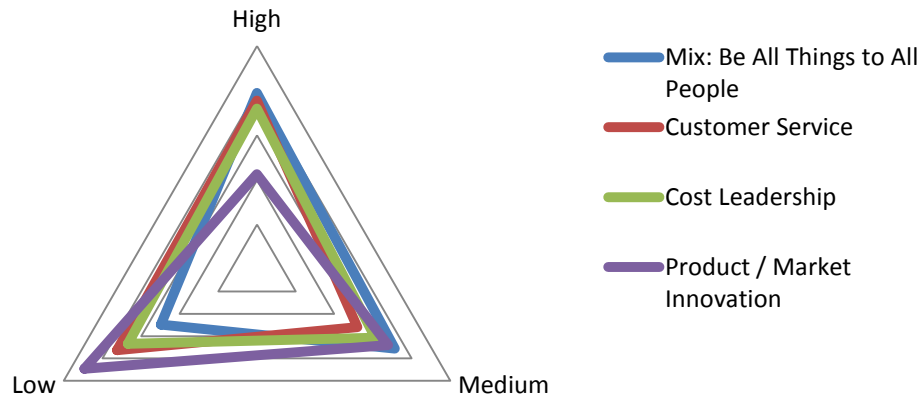
The table presents the percentage of respondents by F-E-D group and strategy. The results are quite revealing. Firms with a mix strategy have the largest percentage of firms in the high range of the F-E-D score, while product/market innovation strategy firms which have the greatest percentage of firms with a low F-E-D score. Customer service focused firms are almost evenly split between a high and low score. The low scoring firms have very low flexibility scores, and those firms in the high category have high differentiation capability. Cost leadership firms are almost evenly spread between the three groups – high, medium and low.

### Flexibility-Efficiency-Differentiation (F-E-D) Composite Score

(percent of respondents)

Strategy	High	Medium	Low	Total
Mix: Be All Things to All People	39.5	35.6	24.9	100.0
Customer Service	37.8	26.0	36.2	100.0
Cost Leadership	36.0	30.6	33.4	100.0
Product / Market Innovation	21.3	34.0	44.7	100.0

The diagram provides a visual of the combination of score and strategy. What is apparent from both perspectives is that there is a considerable amount of effort that needs to be expended in order to reach the needed F-E-D level. We chose to disaggregate and present the data by strategic direction because we feel that each component of the F-E-D will be leveraged in ways that assists the firm in achieving its goals and objectives. For example, in a cost leadership strategy efficiency and flexibility may be much more important than differentiation. This does not mean, however, that differentiation is not important to cost leadership firms. That is to say, all the components are important and none are optional for success in the new normal.



### Plotting the Progress in Achieving Flexibility, Efficiency and Differentiation

An analysis of the individual components shows that flexibility is the greatest challenge, and conversely biggest opportunity, facing companies today. A majority of companies were considered to be “low” relative to this capability. As discussed earlier in this report, flexibility is a critical capability for dealing with the uncertainty and quick response that is a hallmark of the new normal. The good news is that companies understand the critical need for this capability. Unfortunately, many of the actions that have been completed to date and the initiatives that are currently being implemented are operational in nature. To reach the level of competence that is needed in the new normal business environment, action is required at the strategic level.

For differentiation, the scores are almost the opposite of flexibility. A majority of firms scored “high” on this capability. Since deregulation of transportation in 1980, companies have focused on using service to create competitive advantage. In the 1990s the focus shifted from “one size fits all” customer service in logistics and transportation to differentiation of that service for defined customer segments. It was not surprising, therefore that a majority of firms perceive they are quite capable in this area.

The scores for efficiency fall somewhere between those for flexibility and efficiency and are related to strategic approach. As would be expected, cost leadership firms rate high on this capability while product / market innovation firms are primarily low scorers for this component. There are a number of measures that can be used to determine efficiency. As we move forward with our research we will endeavor to expand the factors that are used to measure this capability.

Future research effort will focus on further development of the F-E-D formula and the manner in which the composite score is calculated. Using an additive approach to determine the current state is appropriate at this stage of knowledge. As we continue to learn more about each of the drivers this knowledge will be used to improve the methodology.

## **IN CLOSING....**

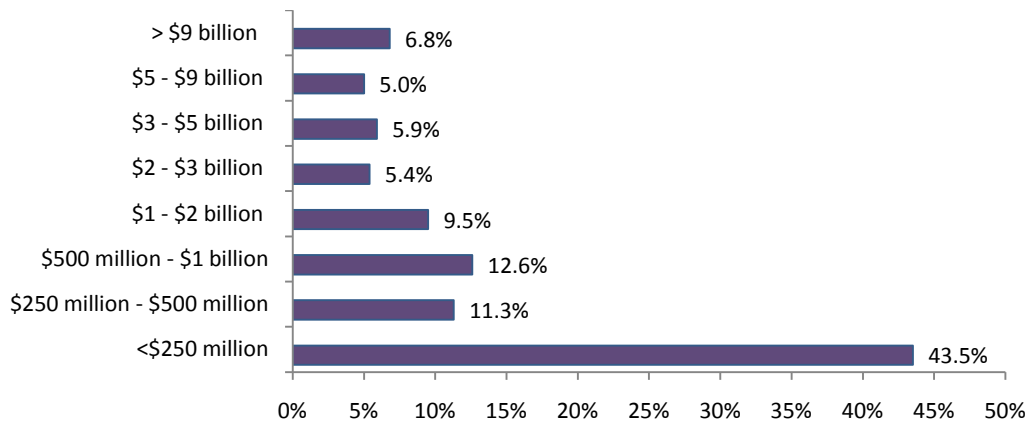
Let’s be as direct as possible. The next few years look to be just as challenging as the previous ones we’ve experienced. There are less distinct landmarks than ever before. Management practices that have worked in the past may not bring the desired results in the new normal. The companies that will prosper and grow in this environment will be those that use flexibility, efficiency and differentiation to pave the way forward. Many of the supply chain risks being faced by firms are factors that cannot be controlled by them. When these factors are added to macro-economic factors such as sluggish GDP growth, steadily high unemployment rates, tight credit, and leaner profit margins, companies operating in the new normal face a daunting challenge.

The results of the annual study suggest that firms must direct much more effort towards increasing their operational flexibility. The effort to date has primarily focused on execution. More emphasis on strategic initiatives such as collaboration with key customers and suppliers, and integration of information systems with these same external supply chain members, is greatly needed. The “good news” in the study’s results is the move by companies to use more sophisticated tools and techniques to manage transportation and distribution activities. Technology is an enabler that will assist firms in increasing their flexibility, efficiency and differentiation capability. If the initiatives that firms told us they are planning are actually implemented, next year’s study results should show considerable improvement in all areas of F-E-D. Stay tuned for that report.

## BACKGROUND

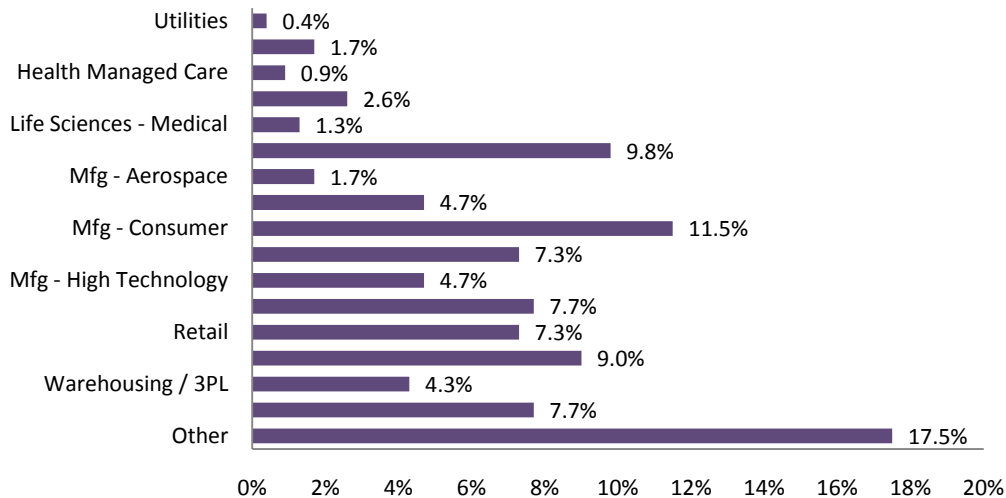
For the past 20 years the Masters’ study has identified emerging trends and issues in the field of logistics and transportation. This year 764 domestic and global logistics, transportation and supply chain professionals participated in the study, accounting for an estimated \$18.6 billion in transportation expenditures, and over \$15.7 billion in international transportation. The Masters of Logistics - companies with annual sales greater than \$3 billion - represented 17.7% of the study participants. Medium sized firms, between \$500 million and \$3 billion in annual revenue, accounted for 27.5% of respondents. The largest group of respondents (54.8 percent) is small firms whose reported annual revenue is less than \$500 million.

**Annual Sales of Study Participants**



The annual study encompasses more than fourteen industry sectors ranging from pharmaceuticals to food. Since the beginning of the study, the core group of participants has been in the manufacturing sector. This year that group represents 37.6% of the total.

**Respondents by Industry Sector**



## ABOUT THE AUTHORS

### University of Tennessee

**Dr. Mary Holcomb** is associate professor of logistics in the College of Business at The University of Tennessee. Her professional career includes eighteen years at the Oak Ridge National Laboratory in transportation research for the U.S. Department of Energy, U.S. Department of Transportation, and the U.S. Department of Defense. Dr. Holcomb's background also consists of varied industry experience with Milliken & Company, the former Burlington Northern Railroad, and General Motors. Her research has appeared in the *Journal of Business Logistics*, *Transportation Journal*, the *International Journal of Logistics Management*, and *Supply Chain Management Review*.

**The University of Tennessee**, Knoxville, has been recognized as one of the premier institutions of higher learning focused on supply chain management. Its Supply Chain Management/Logistics programs consistently receive top marks in rankings by *U.S. News and World Report*, *AMR Research*, *Supply Chain Management Review*, *Supply Chain Digital*, and others. The faculty publishes widely on topics of current industry concern and explores future trends through research and studies.

For further information, please visit <http://mlt.bus.utk.edu>

### Con-way Inc.

**Mr. Tom Nightingale** is vice president, communications and chief marketing officer (CMO) for Con-way Inc. He is responsible for the oversight of the global branding of Con-way and its business units including: Con-way Freight, Con-way Truckload, Menlo Worldwide Logistics, and Road Systems Inc. Mr. Nightingale joined Con-way in July 2006, bringing 20 years of experience in the sales/marketing arena, most recently from Schneider National Inc., where he was vice president of corporate marketing. In this position, he played a significant role in critical initiatives managing the brand on three continents. His business-to-business experience spans senior marketing, sales leadership, pricing, strategy and operations roles. Prior to Schneider, he worked in a variety of commercial and operational roles for several transportation, technology, logistics and supply chain companies, including UPS, CSX and GATX.

**Con-way Inc.** (NYSE:CNW) is a \$5 billion freight transportation and logistics services company headquartered in Ann Arbor, Mich. Con-way is an industry leader in the transportation and logistics industry and delivers industry-leading services through its primary operating companies of Con-way Freight, Con-way Truckload, and Menlo Worldwide Logistics. These operating units provide high-performance, day-definite less-than-truckload (LTL), full truckload and intermodal freight transportation; logistics, warehousing and supply chain management services; and trailer manufacturing. Con-way Inc. and its subsidiaries operate from more than 500 operating locations across North America and in 18 countries across five continents.

## **Ernst & Young**

**Mr. Tony Ross** is a Senior Manager in the Advisory Services practice of Ernst & Young LLP. He leads the supply chain transformations - logistics group within the North American practice. As a leader of this group Tony focuses on performance improvement in all aspects of supply chain operations. He has over 25 years' experience in supply chain management strategy with a blend of both corporate and consulting experience in: operations management, organization design and technologies. He is a visionary designer of solutions for real client problems based on a keen understanding of trends and key indicators, cross-industry best-in-class business practices, strategic vision, transformation approaches and exceptional client relationship skills. Tony has extensive experience in every major sector and has worked on multiple international projects.

The relationship between risk and performance improvement is an increasingly complex and central business challenge, with business performance directly connected to the recognition and effective management of risk. Whether your focus is on business transformation or sustaining achievement, having the right advisors on your side can make all the difference. The 20,000 advisory professionals at **Ernst & Young's Advisory Services** form one of the broadest global advisory networks of any professional organization, delivering seasoned multidisciplinary teams that work with our clients to deliver a powerful and superior client experience. We use proven, integrated methodologies to help you achieve your strategic priorities and make improvements that are sustainable for the longer term.

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**Dr. Karl Manrodt** is a professor of Logistics and Intermodal Transportation at a regional university in South Georgia. Research interests revolve around strategic sourcing, performance measurement, the role of logistics / supply chain management in health care. His publications have appeared in such journals as the Supply Chain Management Review, Transportation Journal, the International Journal of Physical Distribution and Materials Management, Interfaces, and the Journal of Business Logistics.

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