The “New Normal” in the Transportation Industry

Four forces reshaping the future transportation marketplace

As transportation companies emerge from the economic turmoil of the past few years, they face uncharted economic territory—a “new normal” that is changing the supply chain for businesses and consumers alike. To succeed, transportation firms must rethink their fundamental business models and investment priorities, and reevaluate their capacity for change. Rather than making tactical moves, it is time to look past the next quarter or two—beyond a cyclical view of the landscape—and develop a smart, forward-looking strategic response.

While many forces are shaping the economic landscape, four in particular are having a profound impact on the transportation industry as they drive volumes down and costs up:

• Going “green” (sustainability)
• Re-shoring, near-shoring and localization
• Transformation of consumer goods
• Last-mile delivery

The following discusses each of these forces and the implications on the transportation industry, including the new and differentiated strategies required for long-term prosperity.

1. Going “Green” (Sustainability)

Rising fuel costs, emissions regulations and carbon taxes are motivating logistics executives to rethink their supply chains. In energy-intensive industries such as refining, steel and chemicals, the effects of rising fuel and emissions costs could have a ripple effect throughout the entire supply chain. Specifically, emissions taxes and fines could reduce output of these commodities in high-cost countries as manufacturers adjust to a new cost curve. Global production, consumption and trade patterns could shift to keep the costs of manufacturing and transportation from exceeding the value of the goods being sold.

Already, governments are launching a host of green initiatives. China’s “Euro III” emissions standards for heavy-duty diesel engine vehicles are required in major cities. In Japan, the Auto Carbon Dioxide Emission Restriction Law designates five qualified vehicle types. In Europe, a carbon-emissions tax is near, along with defined green tags for transport, loading and unloading. The United States has implemented various initiatives, including the Clean Trucks program at the port of Los Angeles and tier-4 engine emissions standards.

In addition, fast-moving consumer goods (CPG) companies are launching corporate sustainability initiatives, many of which are increasing
compliance requirements for transportation companies. Sony’s “Road to Zero” plan, for example, aims for a zero carbon footprint by 2050—and a 14 percent reduction in CO2 emissions from all transportation by 2016. Del Monte, among many companies seeking to reduce packaging materials, is in its fifth year of a 10-year plan to “de-package” by 15 percent—minimizing secondary packaging materials and increasing packing efficiency while reducing freight miles. Wal-Mart plans to reduce packaging by 5 percent from 2008 to 2013, which translates to approximately 213,000 fewer trucks on the road, 667,000 less metric tons of CO2 emitted into the atmosphere, and 66.7 million fewer gallons of diesel fuel used every year.

What is the impact on transportation?

Continued modal shift. For most commodities, a continuing shift to cheaper and more fuel efficient forms of transportation will continue. The U.S. Environmental Protection Agency (EPA) estimates that every ton-mile of freight that moves by rail instead of highway reduces greenhouse gas emissions by two-thirds. According to the Federal Railway Administration, the average freight train moves a ton of freight 480 miles on a single gallon of fuel—that’s far better than trucks.

Demand for “greener” vehicles. The demand for more fuel efficient vehicles is creating innovation opportunities—but higher capital cost—for transportation providers. Leading providers such as UPS and FedEx, for example, have been working with auto manufacturers for years to test delivery vehicles that use alternative fuels, including electric, liquified natural gas (LNG) and biodiesel vehicles.

Lower volumes. Lower value bulk commodities such as steel, coal and chemicals are particularly sensitive to increased fuel and emissions costs, and less output will cause fewer total ton-miles transported.

Increased complexity. As customers expect service providers to comply with their “green” mandates, there will be more and different regulations to deal with around the globe. Yet, as compliance costs increase, so will the opportunities for differentiation as customers will favor transportation companies that stay ahead of the compliance curve.

2. Re-Shoring, Near-Shoring and Localization

For the past two decades the world has been chasing the “China Price”—outsourcing manufacturing to the cheapest suppliers in low-cost countries such as China. Lately, however, compliance problems and rising labor costs in China have prompted some companies to look for new low-cost locations, leading to the emergence of new trade routes.

Already, Asian countries such as Vietnam, India and Thailand are becoming more prominent in the outsourcing game. For example, in October 2010, Intel completed the relocation of its billion-dollar factory from China to Vietnam. At the same time, the need for faster, cheaper factory-to-shelf logistics has positioned Mexico, Brazil and other Central American countries as attractive near-shoring alternatives for the United States.

Wal-Mart’s Global Sustainable Agriculture program is committed to sourcing more food locally worldwide and the retailer is investing more than $1 billion in its global fresh supply chain in the next five years. General Electric is launching a billion-dollar investment to bring manufacturing back to America, starting with four new U.S. plants to design and build refrigerators.

What is the impact on transportation?

Changing trade routes. The inevitable confluence of re-shoring and near-shoring will alter the face of present day trade routes. Near-shoring is reinvigorating NAFTA and CAFTA trade and revitalizing North-South lanes. This will require transport companies to redesign their networks and redeploy their assets to high-growth regions.

Increased infrastructure needs. Completion of the Panama Canal is spurring the expansion or development of logistics facilities and services in the southeastern United States. Likewise, Russian Railways’ Trans-Eurasian Express should encourage more freight rail transport and cut total shipping times. Increased infrastructure investment, such as the U.S. Heartland Corridor and the Asian Highway Network, will be vital to keep goods flowing.

Reduced ton-miles. The challenges continue as shorter supply chains lead to lower ton-miles globally and transportation providers face higher costs from implementing network changes and additional infrastructure investments.

1 For more information, see the A.T. Kearney Global Services Location Index® at www.atkearney.com.
3. Transformation of Consumer Goods

Consumer electronics manufacturers are focused on “miniaturization” making thinner, smaller and lighter products, thanks largely to advances in microprocessors and batteries. But it costs more to transport these goods as many of these products must be handled with greater care, which means shipments are more labor-intensive. The added value per shipment increases supply chain risk, and more security is required as more products can fit into a single container.

Additionally, the elimination of physical goods, or “dematerialization,” through digitized content such as e-books, mp3s and online video is reducing the need for transportation altogether. Within the next year or two music distribution will be primarily digital and Amazon’s Kindle e-reader, which can hold up to 3,500 books in its digital memory, has spawned numerous competitors, including Apple’s popular iPad.

What is the impact on transportation?

Higher cost to serve. As shipments of consumer goods become smaller, more frequent and of higher overall value, it will be imperative for transportation providers to reassess their risk profiles and supply chain security. Costs for tracking and security will rise while overall ton-miles fall.

Demand for more value-added services. Even as the cost to serve rises, there will be opportunities to offer higher value-added services such as track and trace options and specialized handling. In addition, the current pricing model by weight and lane may no longer be relevant to the market.

4. Last-Mile Delivery

As e-commerce expands business-to-consumer (B2C) deliveries—with online shopping growing roughly 25 percent annually in the past decade—there is more demand for last-mile deliveries. Traditional retailers such as Best Buy, Target and Macy’s are also joining the fray as their online sales increase faster than in-store sales. Some retailers offer online ordering with in-store pickup, which requires more frequent warehouse replenishment and store deliveries to keep products in stock. Other services, such as in-home installation, require more specialized last-mile delivery options. At the same time, prices must remain competitive as cost conscious online shoppers are averse to paying for high-priced shipping. And as health and environmentally conscious consumers demand more locally produced food, there is a need for smaller, more frequent deliveries to local stores.

What is the impact on transportation?

Shorter length of haul. Smaller, more frequent deliveries will inevitably increase the frequency of smaller shipments through shorter length of haul. Transportation providers will be challenged to tailor their business models to meet the requirements of the home-delivery market.

Increased complexity. Last-mile delivery presents two distinct challenges: (1) managing the fixed costs of a fleet of delivery, and (2) controlling the variable costs of irregular delivery patterns. Shorter routes can result in lower overall ton-miles transported per trip, further increasing costs.

Demand for more value-added services. Since last-mile delivery serves as the only link in the supply chain that directly touches the customer, it’s an opportunity to gain a competitive advantage by providing an array of customer-focused services, such as weekend, night or time-sensitive delivery schedules. Providing additional value-added, fee-based services, such as custom installation and pickup of returns, could also improve revenues. The explosion in returns management and other reverse logistics services should not be missed.

Rather than making tactical moves, it is time to look past the next quarter or two—beyond a cyclical view of the landscape—and develop a smart, forward-looking strategic response.
Strategic Imperatives
Together, these four forces are driving down volumes, driving up costs and increasing complexity. The cumulative potential of these forces to impose unprecedented change on the transportation industry means no company can afford to be without a new strategic roadmap. Responding to these challenges will require re-evaluating all aspects of the business, including service portfolios, pricing models, risk exposure, network design and capital investments in assets, infrastructure and technologies (see figure).

A fresh, high-level “clean-sheet” approach to long-term strategic planning will incorporate both macro-level drivers of the global business environment—the forces shaping the transportation industry—and industry dynamics. Determining the impact on your business will be crucial. Thriving in this new environment requires not only understanding the shifting market dynamics but also rethinking strategies and executing the right moves to best position your company for the future.

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