

Improving Profitability By Investing in Logistics

Logistics may seem like a word that you see mostly on the side of trucks. But it has a bigger meaning: the management of the flow of materials through an organization, from raw materials to finished goods. As crucial as it is to efficient operations, logistics has the distinction of being perhaps the most abused terms in business. The Oxford Dictionary definition of logistics is first, the “science of movement, supply and maintenance of military forces in the field.” Poor logistics was one of the reasons Napoleon was defeated, and the same could be said for Hitler’s troops as they were beaten on the roads to Moscow and Stalingrad. In both instances the leaders of these seemingly unstoppable military machines were defeated when they over-stretched their supply lines. The examples in history are plentiful (... Rommel lost in North Africa when his tanks lacked enough fuel to fight Montgomery effectively at El Alamein...), mighty giants are brought to their knees because they didn’t give logistics the priority and respect it requires.

Logistics started to become a sexier topic in business circles after the U.S. victory in the 1991 Gulf War. In fact, General Norman Schwarzkopf’s logistics chief joined the American retailer Sears Roebuck, to work his magic in civilian life.

Logistics might sound simple, after all it only entails the act of moving things around. But the approach to logistics can be the difference between profitability and debt, and growing customer service expectations and new technologies are making the art of logistics even more critical to successful operations. Now that companies have delayed, re-engineered and scrubbed the waste from their assembly lines, logistics is demanding closer attention.

Much of the Japanese-led methods of lean production and just-in-time supply and replenishment remained within factory walls. Incoming parts came in batches from warehouses, and sat around until they were used; outgoing products were delivered to distributors in batches, and also sat around. Now companies are more demanding, seeking to eliminate both incoming and outgoing inventory.

They do this in several ways. To simplify what goes into the factory and make it more of a snap-together assembly line, they outsource more, and buy in sub-assemblies rather than individual parts. They are also trying to build only against orders from customers (known as Build To Order or BTO), rather than estimating what will be in demand and supplying it from accumulated stocks. Cutting inventories and introducing BTO calls for a comprehensive, flexible freight operation. This is such a challenging task that companies are reluctant to do it all themselves. So more of them are, in effect, outsourcing logistics to third parties.

This movement is forcing the freight-transport industry to adjust, as customers seek service suppliers with global reach. Manufacturers want custom-designed delivery systems, using all types of transport — land, sea and air. Distinctions between postal, express and logistics services are blurring. And the fastest-growing part of the business is catering to the demand for outsourcing by providing companies with third-party logistics.

Companies realize that organizing the supply of incoming parts and outgoing goods can account for 10% of their costs. Yet they know little about how to structure their logistics to be more cost efficient. The biggest omission is not counting the cost of holding more inventory than is needed. Even carmakers, for all their lean factories, produce cars that sit idle for up to 100 days.

Consolidators in Control

Today, with global supply-chains connecting cheap workers on one side of the world with rich consumers on the other, good logistics can make all the difference to a company's ability to serve its customers. It is not just what you make or how you make it, it's also about how efficiently you get the parts together, or shift finished products from Asian factories to western markets. The success of retailers such as Wal-Mart in the U.S. or Marks & Spencer in Britain depends largely on getting the right goods to the right place at the right time.

These pressures are forcing consolidation in the freight industry, traditionally very fragmented. At one extreme are basic road-haulage companies, rail-freight firms, shipping lines or air-cargo firms. Above them are a handful of international companies known as "consolidators" or "integrators". These are firms such as FedEx and UPS. These companies have a lot of capital invested in their global networks, and they offer both parcel and express-delivery services. For the most part, they run standard services to make best use of their assets.

Management consultants at McKinsey calculate that the total American logistics market, which includes basic transport and in-house administration costs, is worth about \$1 trillion a year, and grows annually by around 4%: in other words, it is a mature business. But the third-party market, of around \$50 billion a year, is reckoned to be growing at 15-18%. On a similar narrow definition, McKinsey estimates that the European market was worth around \$155 billion in 1999, and will expand to \$213 billion by 2005.

This growing market is being eyed, especially in America, by many existing freight companies. Most operators in one market, or one region, are considering widening their service and geographical footprint. Express air-carriers such as FedEx and UPS have the advantage of existing large networks, which they can also use for customized logistics. Broking houses such as Kuehne & Nagel can offer their skills in tying together different modes of transport. DPWN and TPG bring sheer size and capital. Truck-leasing firms, such as Ryder and Penske, and for-hire truckers, such as CNF and US Freightways, also have big customer bases and fleet-management skills. One global manufacturer, Caterpillar, which makes construction equipment, has also chosen to enter the logistics business, hoping that its global distribution network will give it a good start.

The businesses that make most use of these levels of logistics are in electronic components, consumer electronics, pharmaceuticals, fashion and above all, automotive — both parts manufacturers and assemblers. The conversion to lean manufacture in its factories has spurred a need for ever-more sophisticated logistics.

Smart and Soft

So what exactly can smart logistics do for companies? One example is TPG's contract with Ford to service its Toronto factory. This plant produces 1,500 Windstar minivans a day. To keep it running virtually around the clock, TPG has to organize 800 deliveries a day from 300 different parts makers. The company's software must be tied into Ford's computerized production system and track goods arriving at 12 different points along the assembly lines without ever being more than 10 minutes late. Parts must be loaded into trucks in a pre-arranged sequence to speed unloading at the assembly line. To make all this run like clockwork takes a team of ten computer-wielding operations planners and 200 unskilled workers, who make up the loads in the right sequence at a warehouse down the road. The vehicles involved are mostly owner-operated, but under contract to TPG. It is a seven-year contract, and TPG has to lower its price by 2% a year.

Another example is an arrangement between Maxtor, a maker of computer disk drives, and Exel, the world's leading firm for pure logistics. The deal requires it to shift drives from factories in Asia to companies such as Dell, Compaq and HP in Asia and America, all within 48 hours. As John Allan, Exel's chief executive, says, "there is no inventory".

The more they get into orchestrating the flow of inbound goods, the sequencing of parts delivery and the management of supplier parks for vehicle assemblers, the closer these companies come to managing actual production. Along the supply chain, the different freight companies now increasingly do packaging, labeling and some manufacturing, especially in consumer electronics.

Some industry analysts reckon that in consumer electronics, the growth of such contract manufacturing, often organized through logistics companies, will lead to over a third of electronics manufacturing being outsourced by 2005. Some forecasters think that the share could then double again. Technology is partly driving this growth. Transponders on product packages can communicate with devices in factories or warehouses, leaving a trail of where things are at any given time. All this makes it easier for manufacturers or their logistics contractors to track their products across the whole supply-chain. Accenture claims it is the biggest advance in supply management since the arrival of the bar code.

Given these technological advances, and as logistics firms reach ever deeper into clients' core businesses, traditional manufacturing, whether of cars or personal computers, could start to disappear. The logistics operators may then organize everything but product development, design and marketing. Then they will be even more vital to a company's success.