Logistics Association of Australia Ltd

THE MOST SIGNIFICANT LOGISTICS TREND AFFECTING AUSTRALIAN BUSINESS

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There is presently much debate and a plethora of views about the most significant logistics trend affecting Australian business. Some consider that China or the other 'sleeping giant' India will have a major impact on the trend in demand for inbound and outbound products and the consequent requirements for logistics services.

Depending on your political persuasion and given the recent high profile appointment in safe electoral seats and counter moves with energy policy announcements, environmental concerns and the impact on emissions, vehicle and fuel design, toll charging and diesel rebates is the most significant logistic trend and flavour of the month.

E-commerce and e-logistics have also enjoyed some popularity over the last couple of years and RFID & comparable associated electronic messaging is about to receive the same level of attention in Australia mainly lead by US retailers, software providers and conference organisers.

Many advocate that skill shortages in the transport storage and logistics industry, due to an ageing population and lack of young people entering the industry, is a significant trend that will affect Australian business.

Educators, associations and training organisations often complain that education and training is the most worrying of logistics trends. Some blame fragmented registered training organisations, debatable funding arrangements, lack of clear

education pathways, schools and universities that do not turn out students with the required skills, or industry not investing enough in educating and training its workers.

Others consider that Australia's geographic spread and isolation coupled with emerging or strengthening trade blocks and free trade agreements are the key logistics aspects to affect business.

Also featuring prominently as key logistics trends for Australian businesses are transport infrastructure, deepening of ports, intelligent transport systems, inland ports, the Adelaide to Darwin railway, privatisation, Auslink, take-overs mergers and competition policy, chain of responsibility legislation, fatigue management, track and trace, global transport security and risk management.

All of these logistics issues and trends are significant and do affect Australian business. However, whilst not yet widely reported or adopted nor specifically caused by the transport storage and logistics sector, there is an escalating trend that will have a significant impact on the logistics industry and all Australian businesses. This significant trend is the emergence of **lean** principles as a way of life in all aspects of business both in Australia and globally.

What is lean and why will it impact logistics and Australian business so significantly?

In manufacturing Lean is defined as being athletic, fit and agile, quick and responsive, getting rid of the fat, as opposed to thin or emaciated. Lean is a manufacturing philosophy, which shortens the time line between the customer order and the product shipment by the relentless pursuit and elimination of all

forms of waste. Waste is anything that adds cost to the product without adding value.

Manufacturers have been the early adopters of lean, primarily by way of the automotive assemblers and their enlightened first tier suppliers. In the late 1800's car were built by craftsmen with pride, on blocks in the barn as workers walked around the car. Components were handcrafted and hand-fitted. The cars were of excellent quality, very expensive and few were produced. Henry Ford 1920s mass production saw the emergence of the assembly line, low skilled labour, simplistic jobs, little pride in work, interchangeable parts, lower quality and affordably priced for the average family. Billions of identical cars were produced and sold. By the 1980's lean manufacturing created cells or flexible assembly lines, broader job scope, highly skilled workers, pride in product, interchangeable parts, even more variety, excellent quality was mandatory, and costs were being driven down through process improvements, global markets and extreme competition. In the 1990 book written by Womack, Jones & Roos, The Machine that Changed the World, lean was defined as half the hours of human effort in the factory, half the defects in the finished product, one-third the hours of engineering effort, half the factory space for the same output and a tenth or less of in-process inventories. Toyota described it as best quality, lowest cost and shortest lead-time through shortening the production flow by eliminating waste. In supply chain and logistics we refer to it as the right part, at the right time in the right amount by implementing continuous flow, pull systems and level schedule production. Quality is built in by manual / automatic line-stops, labour-machine efficiency, error proofing and visual control. Operational stability is by way of standardized work,

total productive maintenance, robust products and processes as well as supplier involvement. Flexible, capable and highly motivated people underpin it all.

What does all this mean to the transport storage and logistics industry? Advocates of lean state that transporting, receiving, storing, counting, loading, unloading, repackaging, moving, sorting, inspecting and returning of product are all forms of waste. In other words even though some are important or necessary, none of these activities adds value. But this is exactly what the logistics industry does. However, the logistics companies including 3PLs and 4PLs servicing the automotive industry are well versed in their relentless pursuit of waste and the cost down, quality improvement focus in service also. As the waste has been progressively eliminated from the automotive production line and factory floor, the assemblers and manufacturers had to look behind the scenes at their back office operations and further up and down their supply chains. Suppliers of goods and services were an obvious target for them to pursue. Auto-logistics companies had to look at their own systems and processes and levels of waste. They were forced to get lean because many of the services they provided were considered waste by the automotive definition. Annual cost-down contracts imposed by the automotive sector also guaranteed margin shrinkage if the auto-logistics companies were not able to improve their in-house systems.

This lean trend has spreads downward from the automotive assemblers into the first and second tier supplier base. It has spread outward across the globe and into major trading partners and competitors including China, through automotive joint venture arrangements and the sharing of intellectual property and capacity in

processes and technology. The lean trend is spreading into other industries servicing the automotive sector, including as previously stated logistics.

Lean has also spread beyond automotive into leading, major Australian manufacturing industries such as wine making, brewing, food processing, electronics, ICT, defence, toolmaking, plastics and white-goods. Mining and agriculture as well as large retailers too are taking a closer look at lean concepts in their operations and supply chains. As the advantages of lean become more widely known and documented, small to medium sized businesses in these fields are also beginning to become educated in and are adopting lean principles. Smaller lot sizes, increased capacity and throughput, higher inventory turns, more available floor space, improved workplace organization, improved quality via reduced scrap and re-work, reduced inventories of raw material, work in process and finished goods, reduced lead times and improved participation & morale add to bottom line results and greater gross margins. As many businesses seek out these advantages, the trend towards lean is growing. These businesses in turn will be demanding lean operations from their logistics providers. Businesses that fail to learn and implement lean as a continuous culture will not survive in the long run.

Lean in logistics means many things including but not limited to no trucks, ships or aircrafts queuing, but time-slot loading and unloading at all ports and warehouses. Lean means having the right material handling equipment, labour, goods and information available at all times. Lean means back office processes that run like clockwork. Claims, lost PODs, expediting, lost stock, obsolescence, rework, wasted labour, product recall, paper invoices, late payments, credit holds etc. are a thing of the past. Lean means having a place for everything and everything is in its place.

Lean means a well trained and educated flexible workforce dedicated to the continuous pursuit of identifying and eradicating waste in all processes.

There may be a window of opportunity for logistics companies to adopt lean. As an advisor, I have been asked to conduct logistics reviews for many manufacturers, only to discover that they need to look internally first and rid themselves of the waste in their processes before they look further a field to their transport and logistics arrangements. A lean examination, commonly known as a current state map will uncover much waste and the future state map will reveal many opportunities for improvement and potential profit.

To get rid of the waste in logistics and to make progress on the lean path, many of the trends mentioned earlier in this paper are fundamental or should be structured to facilitate the lean transition process. Adequate transport infrastructure, education and training, legislation, regulation and compliance, RFID standards, electronic capability and free trade agreements must all be able to assist not hinder. Global competition is also a critical factor and is a constant reminder to keep business focussed.

If logistics companies don't become lean and responsive, they will progressively be left behind or will be bought out by leaner stronger more profitable organisations from around the world. The competition is getting fitter and leaner by the day and it is a never-ending fitness regime. Those companies who choose to ignore it do so at their own peril.