Top 3 Ways

to Maximise the Operational Efficiency of Your Port

Competition between port operators in Asia is heating up as new port projects and expansions across the region threaten to divert established shipping routes and steal business. This leaves Asia's port operators with one of two choices, adapt or die. Whilst it may not be feasible for every port to invest in ambitious expansion projects or port automation systems, there is substantial room for an improvement in operational efficiency, an area that is often neglected at ports around the world. To find out more, we spoke with Andy Lane, a Partner at CTI Consultancy, who explained the reason for this under performance and the 3 essential steps to maximise the operational efficiency of Asia's ports.

Andy Lane is an expert from the containerised transportation industry, with more than 25 years' experience in Liner Shipping & Container Terminal Operations, specialising in the interface between these two elements of the transport chain. Through his career he has led or has been closely involved with process improvements, business integrations and cost efficiency initiatives, often focusing on annual spends in excess of USD 500 million.

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Why Are PORTS Not More Efficient?

The simple answer is that they have never needed to be efficient and they themselves do not feel compelled to improve, after all, they generate some of the best returns on invested capital within the end-to-end supply chain industry. **A good word to summarise the present situation is ‘complacency’.**

Another reason is that industry standards are generally very low. Quay cranes designed to generate 40-48 moves per operational hour usually do not achieve 30, (62% efficiency). **When 30 moves are achieved, often a celebration occurs, which from my perspective means that failure is being celebrated.** If we look towards manufacturing, especially automotive, we see some very different approaches. These plants operate on razor-thin margins and have survived for many years through a true efficiency focus. The bottleneck machine in any profitable manufacturing plant will be operating in excess of 90% efficiency. Can we compare a port to a factory? The primary difference is just a roof, conceptually the rest is extremely similar.

The prime assets within a terminal, the quayside interface, are also often not operational for any more than 50% of the hours within a week, a month or a year, despite being available 7*24 minus time required for preventative maintenance. Rather than trying to utilise and make more efficient use of current assets, they simply go out and buy more. Why? Because they can and because it is perceived as easier than sweating the assets already available.

INCREASING Customer Pressure

The shipping industry used to be highly complacent as well. Previously the industry was reasonably profitable and experiencing healthy annual growth rates. That was until the Global Financial Crisis starting in 2007 rocked this boat to its core. Reactively the Lines reduced costs by billions per year, albeit not necessarily through sustainable methods. **The construction of larger vessels created a huge supply surplus whilst demand growth stuttered. This imbalance will take very many more years to reduce** and all Lines will experience the profit pinch until supply matches demand more closely. In response, the Lines have largely harvested the low-hanging fruits to cut costs and this has certainly helped, yet the implemented initiatives remain insufficient for longer term profitability through the continuing rough seas ahead.

The Lines have not managed to optimise revenues particularly well and this remains a big challenge for them to overcome, so they need to continuously reduce their cost base. This will largely be achieved through greater levels of 'network optimisation', which so far has not been well exploited, yet it drives 70% of a Line's cost base. Slower steaming (which is not network optimisation, but tactical management) on the Asia-Europe trades this has added 2 weeks, (plus 2 'surplus' vessels) to each service rotation. The inability of Terminals to increase productivity proportionate to average vessel or call size growth has resulted in one more additional week, (and vessel) being required. Time in port as a percentage of a round-trip voyage continues to increase, eroding sea buffers and jeopardising schedule integrity.

The Lines will now need to focus more on Terminal performance moving forwards, and this will place pressure on Terminals to either increase efficiency and/or reduce their own costs and revenues. Port stay times need to be reduced and that time added to sea legs for a Liner network to become more efficient, better optimised and more reliable.

As a result, the lines will increasingly opt to call at ports and terminals which offer the greatest efficiency levels, meaning that:

1. To survive, ports and terminals need to differentiate themselves.
2. They now need strong and clear competitive advantages.
3. Productivity improvements are an obvious solution and one of very few available levers.

Productivity improvements will not happen by doing more of the same, and they will not be sustainable or cost minimal unless 3 fundamental pre-requisite steps are taken first:

1 Change Your Mind-set and Beliefs

All enterprises evolve through what is commonly referred to as the profitability curve. As the business grows, this inclines, but it is never infinitely linear. Economies of scale become exhausted, additional business complexity causes cost creeps, and more competitors with new innovative products enter the market place. Business models need to continually be re-invented and proactively during the profit inclines if a business is to remain truly sustainable. Once the profit incline starts to level off, you are now in reactive mode, if the profit curve has started to decline, you are in crisis. Where are you on the profit curve?

In order to change and improve your business you need to start with an acknowledgement that today's performance is not optimal and be determined and want to change. If this step is not taken first, any of the subsequent steps highlighted below will not achieve maximum effectiveness.

As an example, consider the following excerpt from Enron's Annual Report for 2000, a major American energy, commodities and services company which subsequently went bankrupt 3 months later in May 2001:

> ***“Our size, experience and skills give us enormous competitive advantages. Our technology and fulfilment systems ensure execution. In current market environments, these abilities make Enron the right company with the right model at the right time.”***

The lesson is to not wait for signs of smoke or fire, since by then you are already in crisis. There needs to be clear and executable strategies with a true constancy of purpose, championed from the board-room, and institutionalised through all levels of the organisation's DNA.

2 Adopt Continuous Improvement

Many mature industries have adopted methodologies and programs of Continuous Improvement and Process Excellence. However for every 5 of these initiatives which commence, only 1 has traditionally succeeded and delivered the required results. **Continuous Improvement is a journey and not a destination; it is a life-style and not a diet.** Many embark on such programs unrealistically expecting magic to happen within a few short months and they do not have the patience nor the determination to see the program through several years. This is potentially due to waiting for signs of profit curve declines before taking action and therefore entering a state of panic.

You will find waste and legacy in each and every business process which you review through true Lean methodologies. **The limit to how much waste you can remove is limited only by your own determination.**

Only once you have everybody within an organisation thinking and acting in a lean process way, that's when you will start to see payback. Take care of today and prepare for the future, neither can take a priority over the other – they need to co-exist.

Several target areas for continuous improvement include:

- Safety
- Yard quality / integrity
- Operator skills
- Shift Changes / Meal Breaks / Operator Changes
- Pro-active execution
- Data accuracy
- Long crane management
- Truck alignment
- Equipment reliability
- Supervision

3 Implement a Business Performance Management Program

The old saying goes, what gets measured gets done and this definitely applies to the ports industry. It is therefore vital that the right things are measured, using empirical data and that a red-thread runs all the way through the entire organisation.

As an output from the strategy definition and an assessment of operational capability to deliver and execute that strategy, the board will be well placed to create objectives and tangible goals for its business – so we have the CEO's "scorecard". Ideally the objectives and targets have been discussed and agreed with the CEO, so that he has full buy-in and commitment to achieve these. **Targets need to be stretched, but they also need to be realistic, otherwise they will have zero positive impact.**

The CEO then works with all of his functional leaders to determine what they control and influence which will drive the overall business towards its targets. The cascading continues all the way to the front line, with each and every employee fully understanding what is expected of them and more importantly how their personal performance will be evaluated. Many companies make the mistake of considering this a once a year process, but it needs to be continually ongoing. Regularly performance meetings need to be held, feedback needs to be provided and maybe some recalibration is also required. At the end of the year or period, there should be no surprises in performance appraisals. When done well, this will engage and motivate every employee to contribute towards driving the organisation to new heights and levels of performance. Good performance is then recognised and rewarded accordingly, and likewise consequences for poor performance also need to exist – as painful as that may sound.

Business performance management also requires increased levels of empowerment, this further engages the entire work-force to focus on common goals. **The positive effects of employee engagement should not be under-estimated.** There is continual research in this area and one paper from Hays Group, who are recognised as human capital specialists, concludes the following:

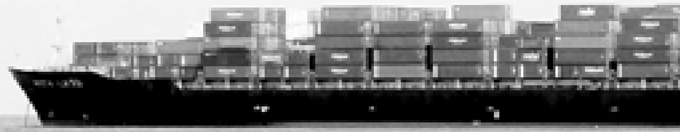
	Employee performance	Employee retention	Customer satisfaction	Financial success
	Increase in employees above performance expectations	Reduction in turnover rates	Customer satisfaction rates	Revenue growth
High engagement only	10%	-40%	71%	x2.5
High engagement + high enablement	50%	-54%	89%	x4.5

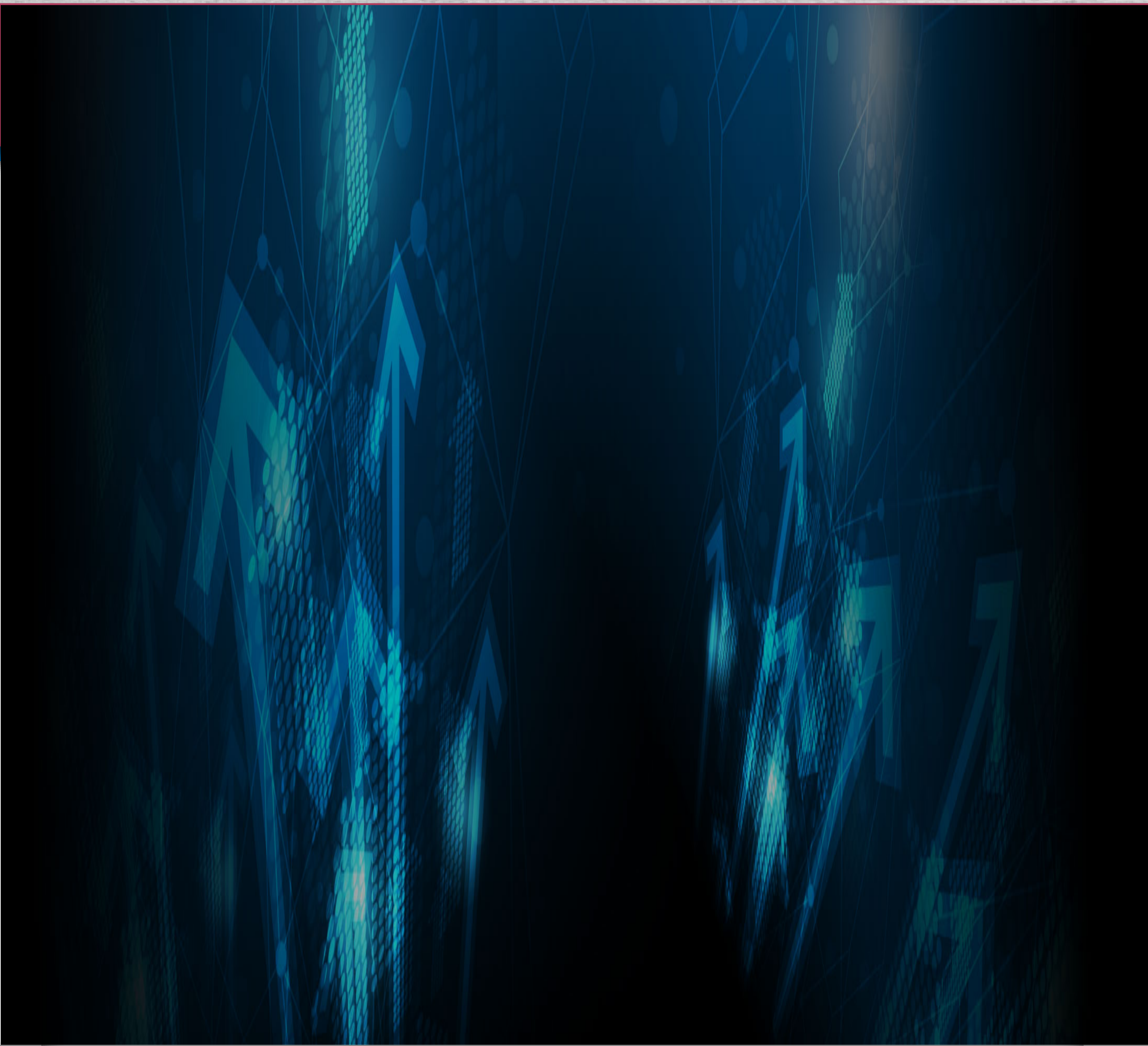
Based on linkage case studies using Hay Group's global normative database

Source: Hay Group, "Enabling, Engaging, & Rewarding Employees A Study of Most Admired Companies"

Driving Your Port's OPERATIONAL EFFICIENCY

The shipping lines are going to be in a very bad place for a very long time and they will become more demanding. For this reason, when it comes to port efficiency, we need to remove the rose-tinted goggles and acknowledge that improvement is both urgent and achievable. Improving productivity is one of the few areas where a terminal can differentiate itself and is the key to not only surviving, but succeeding in today's rapidly changing business environment.





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