

Singapore – A supply chain hub for emerging markets and beyond

By Thomas Cullen



Singapore has become a key operating location for manufacturers and logistics providers, with its airport and seaport among the busiest in the world.

Transport Intelligence examines the country's growing significance to global supply chains and the sustainability of this growth, with comment from the Singapore Economic Development Board, CEVA, DHL, Infineon Technologies and Becton Dickinson.

For such a highly developed economy, Singapore continues to grow at an impressive pace. Expansion over the second quarter of 2013 implied an annual growth rate of 3.5%, yet even this is down slightly on the average 5.6% seen between 2007 and 2013. For the medium term, the Singapore government foresees a more modest 2-3% growth per annum.

Driving this expansion are a number of factors including the 'China trade', but also the new prosperity of consumers in South East Asia and the city state's positioning in fast growing sectors such as electronics.

Nevertheless, logistics remains central to the Singapore economy. Always dependent on world trade, the efficiency of its container port, airport and oil terminal were key to the city-state's growth in the latter decades of the twentieth century. However, South East Asia has seen a large expansion in modern transport infrastructure and now supply chain managers have alternatives when it comes to finding good quality sea terminals or airports.

LOCAL MARKET

The obvious advantage of Singapore's position in the global logistics sector is its location. The Straits of Malacca may be the gateway to the wider Asia-Pacific, but Singapore also sits at the centre of the South East Asian region. The rise in GDP per head within the region and the development of the productive base of countries such as Indonesia or Thailand has been overshadowed by the noise generated by China. However, as Kelvin Wong, at the Singapore government's Economic Development Board, suggests "within the ASEAN region we are seeing the growth of a middle class of 600m people. That's greater than the three Chinese coastal cities or Latin America". But this is more complex than it seems. The nature of these economies varies substantially, as do their logistics capabilities. Therefore, Singapore provides what CEVA's Elaine Low, EVP of Business Development Asia Pacific, calls a "gateway option". For the likes of CEVA and its customers, it makes sense to locate lower value customer goods within large markets such as Indonesia or Thailand, both in order to be nearer the customer and to exploit what are usually lower warehousing costs.

Therefore, the role of Singapore in serving these emerging markets is nuanced. Whilst it has an importance for trans-shipment, increasingly it is also fulfilling a role described by Elaine Low as a "competency hub" which "feeds talent into South East Asia to support operations". CEVA, like a number of big LSPs and shippers, is developing a 'whole of Asia' capability to augment its presence in individual countries. This gives it the ability to

respond to customers who need to access the large and very variable markets of the entire Asia region, but cannot commit to just one country.

Elaine Low indicates that Asia is a vast area with very differing infrastructure and market channels, managing this requires a specific intra-Asian trade capability, with specific management capabilities; “we look at the Asian region as one region so we can deploy people... there is a lot of risk mitigation, we have to create different plans to cope with the variety of problems from congestion in China to flooding in Thailand. Singapore provides the ability to create a back-up plan.”

This is an aspect that is likely to increase as the assembly of electronic products shifts from China to less developed locations such as Laos – which has seen significant investment recently by the camera maker Nikon. Singapore’s role is increasingly to act as a co-ordinator, a source of expertise and to provide stability rather than just physical assets.

This is not to deny the role of China in Singapore’s trade patterns as Hong Kong and China remain its second and fourth largest export destinations. Not only are a huge proportion of Singapore manufactures and services destined for China, but it is also a key trans-shipment hub for both China’s imports and exports. However, here again, Singapore also delivers the same stability and ease of process to the ‘China trade’ that China itself cannot deliver.

MANUFACTURING HUB

The other side of the logistics sector in Singapore is the role it plays in manufacturing. Although services are of increasing salience, manufacturing and related activities are still very important. The most important is electronics which accounts for 5% of GDP and 25% of all manufacturing, with pharmaceuticals the second largest sector. Logistics is fundamental to both of these industries. However, the profile of electronics in Singapore is distinctly different from that in much of the rest of Asia.

Rather than end-product assembly operations such as those that take place in Thailand or China, the sector in Singapore is focused on the production of what might be called intermediate components, such as silicon wafers or hard-drives. This has substantial implications for logistics provisions.

Kelvin Wong from the EDB suggests these types of manufacturing create specialised demands for logistics providers; “LSPs need to have strategic capabilities and be able to integrate into high value supply chains and manufacturing. Many of the components produced (in Singapore) are on the intermediate stage, so this makes an understanding and familiarity of the product essential. So, LSPs need specialised capabilities and thus higher margin and less commoditised services”.

It is the ability to deliver these specialised services that makes Singapore attractive. Mathew Harris, Vice President Technology Asia Pacific at DHL, comments that it’s much easier to recruit a workforce that is “experienced in manufacturing, with what might be called a zero-defects mindset and understands customer service” in Singapore than anywhere else in Asia.

DHL has worked with a number of electronics companies in Singapore such as Infineon, collaborating to produce the sort of logistics capabilities required on supply chains characterised by such high criticality. Infineon itself is a good example of the sort of manufacturers Singapore attracts. The German-based chip producer uses Singapore both for post-production testing operations and for spare parts services across Asia Pacific. Roxane Desmicht, Senior Director Corporate Supply Chain at Infineon Technologies, affirms that the “high level of automation seen in these operations needs skilful workers, but that also applies in areas such as warehousing, with the need for higher levels of compliance and smoother processes. This is much easier to find (in Singapore) than anywhere else in Asia.” It is also the case that the number of LSPs capable of delivering such services is greater in Singapore, “uniquely you have better people, if you need a provider with EDI capability or a programme to eradicate defects, it’s here” Roxane added.

The response to higher labour costs is greater levels of automation. This has already been seen in the evolution of Singapore as a producer of intermediate electronic components and is now being felt within logistics. A good example of this is the new Texas Instruments ‘Product Distribution Centre’ automated high-bay warehouse which DHL operates.

The medical devices and pharmaceuticals industry is similar to electronics in being capital intensive and highly value adding, yet its service and quality requirements are possibly even greater. For example, the medical device manufacturer, Becton Dickinson is similar to Infineon in having both a production activity - in this case the making of medical devices - and spares support operations in Singapore. Min Yuan Seow, the company’s Regional Supply Chain Manager, Greater Asia, comments that his company did an intensive study of its options

within the whole of Asia before settling on Singapore as its regional hub, a decision driven by the need for quality processes above all; “the key criterion was efficiency, the ease of customs which for medical devices is essential...and the high quality of service available from logistics service providers who understand how to comply with standards in handling medical devices”.

Min Yuan acknowledges that Singapore is expensive, but again, it is the availability of management and service skills such as the “quality of implementation, good planning, ability to manage temperature control and shipment traceability for product recall. These things are not necessarily available from your typical logistics service provider elsewhere, but you can get them in Singapore.”

Indeed, as in the electronics sector, healthcare companies use Singapore to inject such ‘non-asset based’ capabilities into logistics operations in the rest of Asia, with Becton Dickinson driving these processes from its ‘greater Asia regional distribution centre’ (RDC) out to its smaller and less sophisticated national distribution centres (NDC). For Min Yuan, Singapore enables shippers to design networks in collaboration with LSPs, such as DB Schenker, which can manage routes between his RDC in Singapore and NDCs in the rest of Asia “with end-to-end visibility combining the management of sea-freight with that of the NDC itself”.

It is spare parts operations in particular that are attracted by the reliability and smoothness of processes, both within facilities and externally. This is the case with both Becton Dickson and Infineon, who have combined their manufacturing operations with spare parts distribution centres on a regional scale.

SINGAPORE’S RELEVANCE TO GLOBAL SUPPLY CHAINS

Becton Dickinson’s operations also illustrate that Singapore is a leading location for global supply chains. As the healthcare markets in Asia have expanded, Beckton Dickinson has created a global network of both production and distribution centres around the three main markets of Europe, North America and Asia. Each is responsible for managing sales and service in its region and enables the whole of the company to reach into global markets. Singapore is the leading location for this sort of supply chain capability within Asia. It is not unique; Hong Kong and possibly Japan and Korea are certainly rivals. However, Singapore is particularly well-placed to compete on attributes other than cost.

THE THREAT OF RISING COSTS

That said, cost is certainly a problem. Singapore now has one of the highest GDPs per head of any economy in the world. Although in the past labour costs and labour shortages have been mitigated by the importation of workers from surrounding countries, this has become a controversial practice in Singapore and the government is presently moving to limit the ability of companies to import less qualified staff in particular. The other major cost driver has been the availability of land, which despite the ability of the Singaporeans to create new space through land reclamation – such as Jurong Island – still results in the city state having some of the most expensive residential and commercial real estate in both Asia and possibly the world. Indeed, Min Yan Seow comments that recently “costs are rising with the restriction over recent months in the use of foreign workers and with the price of land skyrocketing”.

This is obviously affecting the nature of Singapore’s economy in general and logistics in particular. Kelvin Wong at the EDB admits that “the cost of living creates a tension between what fits here and what doesn’t.” Although there are a growing number of highly automated and niche logistics activities Mr Wong observes that there is still a tail of logistics activity in Singapore that is insufficiently efficient. Singapore, he says, must move towards best-in-class operations across the logistics sector with emphasis on high labour and land utilisation.

But there are still threats to Singapore’s position as the leading logistics centre in Asia. Lower land and labour costs will always be a pull and as DHL’s Mathew Harris observes, in certain sectors such as electronics there is trend towards direct shipment from the point of production to the customer, which could militate against Singapore’s role in trans-shipment. Even manufacturers with a strong presence consider the possibility of other locations. Infineon’s Roxane Desmicht admitted that “definitely costs could be a threat, but this is why we reinvented the business model...., we have even considered moving out from Singapore. But rather than move location, we decided to move to the next level of automation. There is a threat down the road, Shanghai’s attempt to establish itself as an efficient export port, but Singapore offers a 24/7 airport and a big community of airlines. Shanghai faces problems of manpower, land cost and service”.

Min Yuan Seow at Becton Dickinson has a slightly different perspective, but is similarly attracted by Singapore’s quality: “There are very new developments in Malaysia, with designated industrial areas and new high quality warehousing which might be attractive...whilst Hong Kong is the closest competitor in terms of service it is more expensive, whilst service levels are not high enough in Malaysia”.

The response of many LSPs has already been to strip-out cost, with CEVA looking to move less critical activities such as aspects of customer reporting and co-ordinating shipments to India or the Philippines.

OPTIONS AND OPPORTUNITIES

This highlights another growing strength in Singapore. As the city state becomes an attractive location for logistics providers around the world, it is building up options for both shippers and larger LSPs. They can contact and deal with logistics providers from regions where access to physical infrastructure is difficult and do this in a reliable contractual environment. As Kelvin Wong comments, “One of the things is that Singapore is a very international community with a lot of experience to offer collaboration, language and culture. For example, Japanese LSPs can get access to western business out of Singapore which they can’t in Japan.” Elaine Low at CEVA agrees with this, citing Singapore as having unique capabilities in delivering solutions for India, for example.

EFFICIENCY AND GOVERNMENT

For logistics providers, shippers and manufacturers, the factor that emerges again and again as the key differentiator in Singapore is the role of the state. As DHL’s Mathew Harris comments, “Political maturity, cost management, inflation and a serious pipeline of business drags you back to Singapore. Others are not politically mature enough”. He also cites related issues such as respect for intellectual property questions, which for the technology sector is of considerable importance.

Another factor highlighted by everyone is the quality of customs in Singapore. Obviously, this is of great importance to any logistics operation and in the case of Singapore, customs processes are consistently singled-out as being easy to use and responsive. Roxane Desmicht at Infineon comments that in contrast to China “where you are very dependent on relations with specific people with the customs, it causes problems if people change, if there are changes in Singapore you don’t have that risk. Customer service in customs is very high here”.

Reliability is also central to Singapore's attraction. Whether in terms of business relationships, the effectiveness of infrastructure or indeed the quality of commercial law, Singapore delivers a reliability that is very hard to find elsewhere in the region, even in other highly developed economies such as Japan.

Of course, other economies may catch up in some areas. With vast sums being spent on ports and airports in China and elsewhere, it would be surprising if performance of physical assets did not improve to a degree. However, it is in the more intangible areas that Singapore is looking to consolidate its comparative advantage such as business culture, quality of the rule of law and areas which many of the big Asian economies will continue to struggle with and which Singapore will be able to market at a premium. Possibly the hardest of all to replicate will be the quality of processes within the Singapore state itself.

CEVA, DHL, Infineon and Beckton Dickinson all agree that the Singapore government has a unique ability to pull together the provision of workforce, infrastructure and regulation to deliver a better working environment. But then it has to. As a small market in a region characterised by huge populations, in the words of Roxane Desmicht, "Singapore has to watch-out...but that's why the government is working on other parts of the supply chain, planning, customer service which is a big difference to other countries. Singapore deals with universities, ministries etc. There is no other country in the region like that."

The speed of reaction, willingness to listen to business and the ability to pull together different parts of the state is what gives Singapore its strongest competitive advantage. The problem for the future is that others will be looking to learn from Singapore's example and they are likely to have the advantage of price on their side. The city state will have to keep running hard in order to keep ahead.

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The Economic Development Board is the lead government agency for planning and executing strategies to enhance Singapore's position as a global business centre. We dream, design and deliver solutions that create value for investors and companies in Singapore. Our mission is to create for Singapore, sustainable economic growth with vibrant business and good job opportunities.

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