

CHAIN OF PEARLS: PEARL RIVER DELTA SUPPLY CHAINS AS ENABLERS FOR LONG TERM DEVELOPMENT OF HONG KONG

Abstract

This paper proposes through efficient management of the supply chains in Chinese hinterland, i.e., the Pearl River Delta region, and by leveraging its existing capabilities, Hong Kong could re-shape its economy for long term gains and ultimately achieve a win-win situation by contributing to the further growth of both the Mainland and Hong Kong.

Introduction

The effective management of supply chains has been instrumental in reshaping Hong Kong companies. The relaxation of the travel restrictions on the Mainland Chinese has seen an inflow of cash and possibly hopes for Hong Kong to combat its economic downturn. The signing of the Closer Economic Partnership Arrangement (CEPA) is anticipated to add impetus and momentum to some industries. Hong Kong is an international financial center and a regional trade hub. With its superior infrastructure in air cargo and container port services, it is in close proximity with the world's largest factory base known as the Pearl River Delta (PRD), an area which is one of the fastest growing and most affluent regions in China. Since the 1980s, Hong Kong has started to relocate most of its manufacturing assembly lines in the PRD region. This turned PRD into the most significant economic region within China, contributing 40 percent of the national's export and 30 percent of foreign direct investment values. Being at the forefront of PRD, Hong Kong's fortune also relies greatly on its successful integration with the emergent growth of its hinterland. However, Hong Kong has to face new challenges on creative and flexible supply chain management and logistics strategies to lift its competitiveness.

The Emerging Pearl River Delta

The PRD covers a surface area of 41,698 square kilometers and its population is about 40 million. Since 1980 the region has been transformed from an economy based on agriculture to an economic powerhouse with strong manufacturing capabilities and great potential for growth.

Between 1980 and 2000 the GDP of PRD has grown an average of 17 percent per year, well ahead of the national GDP growth of 9.5 percent per year during the same period. By 2000 the gross domestic product was US\$89.2 billion, 7.4 percent of the national total and the GDP per capita was nearly US\$3,400, one of the highest in Mainland China.

The PRD contributes between 35 to 40 percent of China's foreign trade. Exports were worth US\$84 billion in 2000, which represents 31 percent of the national total. The region has attracted US\$12 billion in foreign direct investment in 2000, which comprises 27 percent of the national total and among the enterprises based in the PRD, there are 38,000 companies with foreign participation.

The PRD's economic importance in China stems from early economic reforms, starting experimentally in the Shenzhen and Zhuhai special economic zone (SEZs) that quickly spilled over to adjacent cities and towns in the Guangdong Province. It was blessed with foreign direct investment, initially from

Hong Kong (which shifted 70 percent of its industrial capacity to PRD in less than a decade) and then from Taiwan all of which has brought about massive economic growth and exports. Foreign direct investments from other countries like Japan and the United States have followed since the mid-1990s.

Most investment from Hong Kong and Taiwan has been in the low value-added manufacturing and this has created employment for huge pools of low cost labor from inland provinces. Among the migrants are those from the poor rural areas (mainly women aged between 17 and 24 looking for manufacturing jobs) as well as educated workers working in technology-related employment.

As other parts of China became more competitive during the 1990s – particularly the Yangtze River delta, the PRD has started to lose its appeal to foreign investors. This can be seen from the fact that though the PRD accounted for more than 40 percent of actual FDI in 1990, its share of the national total has declined to just over 25 percent in 2000. On the other hand, the Yangtze River delta's share has increased from 10 percent in 1990 to 25 percent in 2000.

Hong Kong's Current Role in the Supply Chains of PRD

Hong Kong is economically closely integrated with the PRD. Hong Kong is the leading investor in the region and about 90 percent of Hong Kong manufacturers have production facilities in the PRD. On the other hand, the PRD is the world's fastest growing export-oriented manufacturing region. The rapid growth of manufacturers in the PRD has been the major impetus behind Hong Kong's economic development over the past two decades.

The partnership between the PRD and Hong Kong has always been described as a "front-end shop and back-end factory" relationship. Nonetheless Hong Kong's relationship with PRD is not limited to the manufacturing exports arena. Hong Kong contributes to the supply chain management of the PRD through its business modelling, product research, design, logistics and marketing. The service center function of Hong Kong is now integrated with the PRD production "powerhouse".

Hong Kong firms gain the reputation as reliable partners in licenses production and distribution for overseas companies targeting China's domestic market. As a service center, Hong Kong offers an ideal location for regional offices, in marketing and distribution. Hong Kong provides the higher end value services in the supply chain of the PRD and in some ways, Hong Kong is exempted from direct competition in the provision of these service exports because a substantial proportion is provided by the parent company in Hong Kong to its subsidiary or affiliates across the border. In fact, most of the production capacities in light industries in the PRD are controlled by Hong Kong's small and medium enterprises. Thus, when China exports show strong growth, Hong Kong will benefit as the level of production-related services increase accordingly.

To illustrate, contribution from the services industries to Hong Kong's GDP rose to 85.6 percent in 2000 from 74.5 percent in 1990. In year 2000, services exports had doubled that of goods exports and the value of Hong Kong's services exports was US\$41.4 billion whilst the value for goods exports was US\$19.6 billion.

Among the major service groups, trade-related services contributed most significantly to the overall invisible trade surplus at US\$11 billion in 2000. This was followed by transportation at US\$6.5 billion, financial services at US\$2 billion and other services at US\$1.2 billion. These service groups are either directly or indirectly involved in the supply chain management for the PRD region. The services sector is now the principle source of employment in Hong Kong. In 2001, 83.5 percent or 2.72 million of the working population of 3.25 million worked in services.

To a large extent, the relocation of Hong Kong's factories to the PRD has generated considerable demand for various support services with the key ones being transportation and logistics, insurance and professional services. These come by as a result of Hong Kong's enterprises in the supply chain management of the PRD region, and Hong Kong's fortune will rely more than ever on its successful integration with the emergent growth of its hinterland.

Advantage of the PRD Region

The PRD region benefits from its links with Hong Kong, its international orientation, its flexibility and decentralized development, its ability to attract skills and resources, and its clusters of internationally successful industries. The competitive edge of Hong Kong is its systems advantage. This includes the rule of law, high quality supervision and regulation, corruption-free civil services, sophisticated financial infrastructure and free flow of information. These advantages have put Hong Kong at the top as the world's freest economy [5]. Through its link with Hong Kong, the PRD region has superior access to the global economy.

Its early opening has made the PRD region more oriented towards the markets and private sector development. The region has been competing in the international markets without large State subsidies. There are more multinational Asia Pacific headquarters in the region, especially in Hong Kong. Together with better access to international markets, it opens up many opportunities in the export-oriented industries for the PRD region.

Challenges for Hong Kong in the PRD Region

Lack of Unifying Vision and Collaboration Between Local Authorities

Even when there are calls for economic integration between Hong Kong and PRD, there seems to be no shared visions and goals among the local governments of the region. Instead of collaboration, competitive perspectives existed between Guangdong and Hong Kong. Numerous jurisdictions within the PRD have been trying to outdo each other especially in building infrastructure. The excessive airport capacity, over-building ports, science parks, exhibition spaces, and so on are typical examples of this rivalry. This creates potential internal threats to the PRD region.

¹ Economic Freedom of the World: 2002 Annual Report, The Fraser Institute, June 2002

The ability to achieve a true integration among local authorities, and to develop coordinated vision and goals, so that strategies and policies can be formulated on a partnership basis for the benefit among the stakeholders, are the major challenges for both Hong Kong and PRD.

Physical Borders Between the Two Areas

There are four physical borders – Lo Wu, Lok Ma Chau, Man Kam To and Sha Tau Kok separating Hong Kong from its hinterland. Each border checkpoint is a bottleneck for transportation between Hong Kong and Shengzhen. Delivery trucks being delayed for three to eight hours at the border is not uncommon. This not only increases the logistics time and cost, it also creates barriers to free flow of people, goods, information can capital, thus interrupting the supply chain between the two areas.

Even though these physical barriers cannot be removed in the short run, an immediate challenge for Hong Kong is to simplify border legislations and ease the bottlenecks to facilitate a better flow, so as to strengthen its position in the supply chain management of PRD.

Underdeveloped Transportation Infrastructure

Currently, the only major land transportation linkages between Hong Kong and China are the electrified railway crossing LoWu and the Hong Kong-Guangdong expressway built in the early 1990s. Comparing this with other major international cities, this transportation system is relatively inadequate for connecting Hong Kong's 6.8 million population with the 27 million people of its hinterland and the 70 million people of Guangdong province. To support a truly integrated economy within PRD, Hong Kong needs to develop better transportation systems to improve the linkage.

Challenges from Shanghai in Yangtze River Delta

Statistics show that Hong Kong is the most competitive city in China followed by Shanghai. Both of the cities have close proximity of delta regions, PRD and Yangtze River Delta respectively, which offer them significant opportunities for economic development. In the following comparison, the Yangtze River Delta region includes Shanghai, Jiangsu and Zhejiang provinces while the Pearl River delta region will include PRD economic zone, Hong Kong, and Macau.

The Yangtze River Delta region is generally seen as having several advantages over the Pearl River Delta region, including size of population and economy, geographic location, workforce capabilities, government support, and more unified development.

The large population, gross domestic product, and the area's historical importance as the centre for business, industry and commerce make Yangtze River Delta anchored on Shanghai attractive location to the firms looking expand into the Chinese market. In the heart of the mainland, it provides easy access to the Yangtze Basin's and China's 360 million and 1.3 billion populations respectively, whereas the Pearl River Delta region is considered as peripheral by comparison. Several China's leading universities in the area provide educated and knowledgeable workforce, who generally regard Shanghai as more attractive place to live than Guangzhou and Shenzhen in the Pearl River Delta region. In addition, traveling around the Yangtze River Delta region does not require immigration or customs checks while this is a must for people in Hong Kong and Macau to cross the border into Guangdong province.

In addition to the location advantages, the region also receives substantial backing from the central government, which has attracted thousands of foreign firms to locate into the region. This compares to the Pearl River Delta region which seems to receive far less central government support.

Opportunities for Hong Kong

Hong Kong as a Business Platform

The US is one of the most significant foreign investors in China. It accounts for 8.9 percent (UN\$39.9 billion) of China's foreign investment projects with actual utilized foreign direct investment in 2002. On the other hand, China is the second largest trading partner of the US and a top source of US imports outside the NATFA. A large proportion of US-China bilateral trade is managed by Hong Kong. To maximize the benefit of PRD's cheap manufacturing environment and its growing consumer market, many US companies make use of Hong Kong's business infrastructure and comprehensive supportive services in arranging their mainland sourcing, production and marketing activities. Large companies like Li & Fung in Hong Kong also act as risk managers by ensuring quality and by providing just-in-time delivery. China's private enterprises also consider Hong Kong as a strategic geographical location to manage regional business activities and an ideal platform for seeking foreign capital and human resources.

As China implements the WTO terms in the coming few years, Mainland Chinese private enterprises will face a bigger scope for development as well as fierce foreign competition, and therefore need to upgrade their management structure and corporate profile urgently. Hong Kong is in a very good position to fill this gap.

Impact of WTO Entry to Transport and Logistics

As part of the WTO terms, China agreed to open its distribution and logistics sector. This urges the modernization and consolidation of the sector in the coming three to five years. The selling cost proportion in China is much higher relative to the West. One of the major reasons is 90 percent of a Chinese manufacturer's time is spent on logistics and only 10 percent on manufacturing. For some commodities, logistics costs can be 40 to 50 percent higher than they would be in the US. However, the industry recorded a very high growth rate in the last five years – from 31 percent in 1999 to 55 percent for 2001 and this is forecast to grow 50 percent annually for the next three years. The outsourcing of logistics and transportation is expected to expand approximately 25 percent annually through to 2005.

China's current distribution system is very fragmented and with a strong attitude of local protectionism. Presently, no one company can offer nationwide distribution services and no single logistics provider has more than two percent of the market share. The opening of this sector offers large business opportunities for both local and international operations. Hong Kong, with its better management systems and technologies, knowledge of local operating environment, organization culture and customer service, will definitely have a competitive edge over the local Chinese and foreign competitors in providing these services.

The Impact of the Economic Partnership Arrangement

The Closer Economic Partnership Arrangement (CEPA) between Hong Kong and China is regarded as a regional Free Trade Agreement, a “gift” from the central government to Hong Kong. It brings active cooperation between Hong Kong and the key PRD provincial and municipal authorities, thus creating a community of common interest.

According to TDC’s tentative analysis of CEPA’s impact on Hong Kong (www.tdctrade.com), a number of different opportunities can be seen to position Hong Kong as a major player in the supply chain management of PRD. These include: -

Distribution Services Industries: Before CEPA, few Hong Kong companies could participate directly (i.e., without paying as license holders) in foreign trade, wholesale and distribution services on the Mainland. With CEPA, Hong Kong wholesalers with annual sales of more than US\$30 million for three years can set up wholly owned enterprises on the Mainland. Hong Kong’s major economic players like the Swire Group and Cheung Kong will get immediate access to expand their branded Hong Kong retail chain outlets such as 7-Eleven and Fortress in China. With the benefit of their existing financial and operational scales, they can locate their outlets near their distribution and logistics networks gained by CEPA concessions.

Manufacturing/Trading: Before CEPA, Hong Kong retail or wholesales companies were in a position where, even though they had factories in China and sales offices for domestic distribution, they were not allowed to trade products nor produce in their own China factories. Hong Kong traders and manufacturers had to “appoint” local agents or distributors to set up local retail outlets.

With CEPA, Hong Kong companies are able to have their own retail and wholesale business licenses, and Hong Kong traders and manufacturers will have better control in the distribution of their products. A product qualified as “Made in Hong Kong” can enjoy zero tariffs for exporting to China. This encourages development of Hong Kong brands for the Mainland market. Subject to the definition of “Made in Hong Kong”, the zero tariffs might also attract foreign goods to be processed in Hong Kong for exporting to the Mainland.

Logistics: China’s WTO commitments agreed to open up the logistics market to foreign companies on an individual industry basis and also allowed them to set up joint-venture “integrated” logistics services in the eight provinces and cities. Under CEPA, Hong Kong companies are granted a “head start” of one or two years over the other foreign companies. They are also permitted to provide direct non-stop road freight transport services between Hong Kong and across the whole of China.

Implications for Hong Kong Based Businesses: Integrated Supply Chain

We have just looked at the challenges and opportunities of Hong Kong in the macro environment. Whether Hong Kong can meet these challenges and maximize the market opportunities, heavily depends on whether individual companies are innovative in their supply chain management, especially in integrating the different supply chain activities.

De Meyer et al [4] provide a progressive framework on how to approach the integration. This approach has been adopted by many leading manufacturers to achieve more direct and similar flow of

information and materials from suppliers to producers to end-users. It calls for partnership and strategic alliance from design to delivery scheduling. Suppliers will take the responsibility from design to issues like when to ship the finished goods to customers. It has the effect of increasing total quality (value added) service to the customer; can eliminate waste of inventory, warehouses, data entry and errors, thus eliminate cost; can reduce supply lead times, and eventually fewer, but closer customer and supplier relationships.

There are four levels in the ISCM model:

1. Rationalising the network of suppliers and distributors
2. Sharing information and common problem solving
3. Implementing systems, e.g., common cost reduction programs and channel-wide management of inventories
4. Sharing risks and rewards, common performance evaluation

We are going to use a case study on a Hong Kong export trading company Li & Fung Company to illustrate how this approach can be implemented in real life.

Case Study: Li & Fung

Li & Fung is the largest export trading company in Hong Kong and an innovator in the development of supply chain management. The company produces global products by optimising each step of the manufacturing value chain. What they have been practicing for the recent years is regarded as a very successful example of integrated supply chain management.

In the following paragraphs, we extract examples from an article to demonstrate how the four levels of the Integrated Supply Chain Model described by De Meyer et al. [4] could be implemented.

Rationalising the Network of Suppliers and Distributors

For an order of 10,000 garments received from a European retailer, Li & Fung might buy yarn from a Korean producer and have it shipped, woven and dyed in Taiwan. The Japanese have the best zipper manufacturing in China, Li & Fung will order the right zippers from their Chinese plants. Thailand has the cheapest labor, so all the raw products are shipped to Thailand for manufacturing. There will be a few factories doing the same order at the same time. Five weeks after Li & Fung received the order, 10,000 garments already arrive on the shelves in Europe. Even though the product label says ‘made in Thailand’, it is not a Thai product. In the effort to maximize the efficiency of manufacturing process and lower the cost, Li & Fung breaks down the value chain and get the best supplier for each step. The management of the company’s extensive network of 7,500 global suppliers is conducted in the headquarters in Hong Kong.

Sharing Information and Common Problem-Solving

As Li & Fung spread geographically world-wide, they form ‘policy committee’ consisting of approximately 30 people. The committee meets once every five to six weeks. People fly in from around the region to discuss and agree on policies. To facilitate problem solving, the Li and Fung’s inspectors visit the factories on regular and frequent basis. If they find factories that do not comply their

instructions or policies, they discontinue cooperation if the performance is not improved after the consultation of the inspectors.

Implementing Systems by Common Cost Reduction Programs and Channel-Wide Management of Inventories

Li & Fung apply a low inventory policy to meet the fashioned driven customers' needs. As explained by Victor Li, the CEO of Li & Fung, companies in consumer-driven, fast-moving markets need to keep low inventory. Another example given for implementing systems is cost reduction: a product leaves a factory at a price of \$1, it may end with selling price of \$4 on shelf. As it is hard to decrease the cost of production further down, Li & Fung looks at bigger cost reduction spread throughout the distribution channel.

Sharing Risks and Rewards through Consistent Performance Evaluation

Li & Fung hires people whose main objective would be similar to running their own businesses. Li & Fung provides them with the financial resources and the administrative support of a big organisation, but with freedom and independency. All the merchandising decisions are made at divisional level. To motivate the division leader, they rely on substantial financial incentives by tying their compensation directly to the unit's bottom line. There is no cap on bonuses.

Apart from the above, there are many other strategies and tactics revealed in the Li & Fung article that Hong Kong companies can be modelled on in managing their supply chains.

Recommendations for Hong Kong Supply Chain Management in the PRD

To Ease the Border Bottleneck

The most pressing obstacle in the way of closer integration with the PRD is the bottleneck at the existing borders. At the present time, only the Man Kam To border opens 24 hours a day. Opening up the other three borders 24 hours, 7 days a week can substantially improve the situation, but understandably with increased costs and other administrative charges. As the four existing border crossings to the Mainland are all to the eastern part of the PRD, it could be suggested that at least one crossing should be added to the West. This should be supported especially as the labor rates in the west of the Delta are much lower than the developed east.

To Improve the Transportation Linkage

Apart from the recent agreement on constructing the bridge linking Hong Kong and Macau and Zhuhai on the western side of the Pearl River, other bridges or expressway that can help to ease the flow should be considered.

To Develop the Distribution and Logistics Network in China

With the opportunities provided by CEPA, Hong Kong should use its competitive advantage to develop a stronger presence in China's distribution and logistics industry before the entry of foreign investors, as it is becoming more recognized that improvements in supply chain management is crucial for business success.

To Strengthen Hong Kong's Role as the "Bridge Between East and West"

China's entry of WTO can be both a threat and opportunity for Hong Kong depending on its corresponding actions. To cut down the threats and maximize the opportunities, Hong Kong should invest in innovation, and further strengthen its business infrastructures, supportive services and management skills to meet the growing challenges and demands of both foreign investors and Mainland partners.

Conclusions

The advantage of Hong Kong relative to other Asian cities is that it is politically, culturally, geographically and economically attached to the largest and fastest growing market in the world – Mainland China. It remains a highly efficient centre for services and fundraising activities, something that China is in desperate need of. To an increasing number of multinationals, Hong Kong is also an ideal base for their regional headquarters and offices. Hong Kong is attractive because of its location and also the value it adds.

To successfully capture these opportunities, Hong Kong has to be able to maintain a strong, transparent and well regulated financial system; low and predictable taxes; the rule of law; a well- developed transportation and telecommunications infrastructure, the free flow of trade, information and capital facilities, and a level playing field for all corporations. More importantly, it should continue its ability to adjust to changing conditions, from a manufacturing based economy to a service economy. Hong Kong must find new ways of strengthening economic synergy with the Mainland and, in particular, the PRD. It will face competition from Shanghai, which benefits from Yangtze River Delta region, but the dynamism in one should help rather hinder the success of the other. Besides, with China's sustainable economic growth, it is possible that there are two economic hubs such as Hong Kong and Shanghai in serving their respective delta regions.

Enhancing transportation and other links to ensure the smooth flow of goods and services, people, know-how and capital is imperative. Statistics revealed that already about one third of China's foreign trade goes through Hong Kong, with 1,000 flights a week linking Hong Kong and the Mainland cities. Last year, some 90 million people passed through the Lo Wu crossing between Hong Kong and Shenzhen. Building and maintaining a system capable of handling the traffic flow is critical to its success.

Hong Kong's future lies in high-value added activities as opposed to trying to compete in a low cost contest, the latter feature for which it cannot compete with its Chinese counterpart. With a pool of skilled and educated workforce, outstanding infrastructure and most importantly, an agile approach in problem solving, the most preferred option for Hong Kong would be to design and implement an effective integrated supply chain management system which is recognized to add value to companies in Mainland China.

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