

Press Release

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Trend Report No. 4: Logistics Market China

Logistics Market China – Potential and Risks

- **Logistics as an important element of Supply Chain Management**
- **Steadily increasing demand for modern logistic services**

The market and the production conditions are only one side of the coin when companies engage themselves in China. Whether it's procurement or production in China, or exports to it, logistics have to be taken into consideration from the start. Logistics will also be an important topic for exhibitors at the 7th AchemAsia, to be held in Beijing from May 14 to 18, 2007. More than 500 exhibitors from 25 countries will present their equipment, products, and technologies for the chemical, petrochemical, pharmaceutical, food, biotechnology, and environmental technology industries and related sectors of the process industry. The five exhibitor halls of the China International Exhibition Centre are likely to be fully booked for the event.

Conditions for production and purchasing

China is the world's largest trading hub and is often referred to as the „locomotive“ of the world economy. The country is a byword for rapid economic growth – in recent years, its economy grew at an average of 7 to 10 percent annually. China's demand for raw materials, iron ore, crude oil and steel seems insatiable. In 2015, China is expected to be the world's largest economy. 1.3 billion people live in a country whose size is 27 times the size of Germany. With its gigantic domestic market and favorable economic conditions, China is highly attractive to foreign investors and corporations. The average labor costs are only one-fortieth of the current German average. Therefore it is no surprise that an increasing number of companies, from electrical and electronic engineering to automobile makers and plastics and chemical manufacturers move parts of their production out of western countries with high-labor costs to China, or are intensifying their sourcing in China.

The tough global competition often makes it economically necessary for companies to seize cost-saving opportunities in production and purchasing. This also applies more and more often to small and medium-size firms. They, too, want to take advantage of the more favorable environment in China, following the example of large multinational corporations and trading companies. In a recent survey among medium-size companies, 12 percent said they plan to undertake medium- to long-term activities in China or expand their activities. 40 percent of all German companies already present in China plan to intensify their commitment in China^a.

Currently 1,600 German companies are present in China, and the number will increase. China is ranked as the top destination of foreign investment activities^b. The study also revealed that more than 40 percent of the chairmen and general managers plan to move their production to China. But it is not only the favorable production conditions that make China interesting for foreign corporations. China's large middle class is eager to consume many goods and services that were previously unavailable, so the country also offers a tremendous potential for foreign market players.

The moving of production and purchasing activities to China, and the continuously increasing trade volume between Asia and the western world has had tangible results. The companies' supply chains have changed fundamentally, not only geographically but also in terms of strategy and operations^c. The growing trend to shift procurement and production to China has had a major impact on the logistics market. Logistics companies are facing new challenges. For instance, if service providers whose main business has been in Europe want to support their customers when they enter the Chinese market, they must build their own networks in China and other Asian countries. Production and service companies, on the other hand, must take the peculiarities of the Chinese market into consideration and develop long-term planning while keeping in mind that efficient logistics cannot be taken for granted everywhere in China.

The Chinese logistics market

Political and economic conditions

All companies intending to become active in China are facing the same challenges: cultural differences, the language barrier, and, often, obscure trade regulations. All of these make it difficult to enter the Chinese market. However, the continued liberalization of the service sector in the past years has partially remedied the gaps in the logistics infrastructure, which still remain considerable. The Chinese government has set itself the goal to provide the necessary logistics and legal conditions for international companies wanting to invest in China in order to create a reliable framework for economic activities. Since China became a member of the World Trade Organization (WTO) in December 2001, logistics in China have improved tremendously. The State Council and China's provincial governments have established a joint action plan for the development of logistics in China that will give foreign companies almost free access to the Chinese market and allow the flow of logistic know-how into China wherever it is needed. This action plan loosened the restrictions in many areas of logistics that were previously only open to domestic companies.

For instance, before China became a WTO member, only Chinese entrepreneurs were allowed to establish transport and logistics companies, whereas today foreign logistics companies may also receive the necessary „A“ license. With this license a company is permitted to offer the entire range of logistic services and issue legally valid logistic

^a Ernst & Young, Mittelstandsbarometer 2006. Deutscher Mittelstand sieht Chancen im China-Geschäft – aber kein China-Hype. Stuttgart, April 29, 2006.

^b KPMG Global Dealmonitor Survey 2004.

^c See also Bogaschewsky, R. Einkaufen und Produzieren rund um den Globus – Letzte Chance für deutsche Unternehmen? Unibund Vortragsreihe. March 16, 2006.

documents. However, the license, which is issued by the Chinese Foreign Ministry, is only valid for a single province, and a license request for an additional province can only be submitted after one year. This means that it takes several years before a logistics firm can offer its services across provinces.

Important logistic parameters

In addition to the „A“ license, companies must also take into consideration a number of other basic elements that play a role in Chinese logistics. These include the large distances between the country's economic centers. For example, the distance between Shanghai and Beijing is more than 1,200 kilometers. China has about 14,500 kilometers of coastline. When designing logistic processes, the need for intermediate storage has to be planned in, for example when freight is unloaded from railway cars onto trucks. Transit times are usually long. The average speed of freight transports in China is very low due to the often outdated and in many areas underdeveloped infrastructure.

Also, special packaging might be required to prevent damage of the products during the long transport. To speed up the processes, an increasing number of production companies are commissioning local service providers to handle the loading and unloading and storage and transport operations, and to make sure that processes connect smoothly without major delays. Often additional insurance and quality checks are necessary to insure a company against transport damage and quality loss of the freight. Depending on the type of products, companies need to figure a higher percentage of damaged and defective goods into their calculations.

A special problem is the widespread product piracy in China, which causes losses in the range of several billions every year. The piracy problem has prompted companies to invest in identification technologies that make their products identifiable and copy-proof and ensuring their quality – a crucial concern especially for the chemical and pharmaceutical industry.

The logistic systems in China are inefficient compared to those in Europe and the United States. As a result, the share of logistics in the total product costs is significantly higher in China than in western countries. According to a Fraunhofer Institute for Factory Operation and Automation (IFF) study commissioned by the EU, China's logistic costs make up roughly 17 percent of the GNP, whereas in Germany, they amount only to 7 percent. According to the study, transport and storage costs equal 30 to 40 percent of the total costs of industry goods. The percentage is even higher in foods, where up to 60 percent have to be calculated for transport and storage, and for some chemicals the percentage reaches 70 to 80 percent. Companies planning to include China in their global sourcing, as well as logistic service providers have to calculate these higher logistic costs into their calculations.

Setting out to identify the optimization potential in Chinese logistics first requires to be aware of the fundamental differences between China and most western countries. These vast differences are due to infrastructural issues and, especially, a different mentality. In China, the term „logistics“ traditionally only comprises transport and storage. Logistic standards have not been established yet, and there is a lack of service providers. IT systems for the planning and monitoring of supply chains are still the exception. On the other hand, international companies in China apply the same high standards and have the same requirements as for their operations in western Europe and the United States. The need of these companies for high-quality services, such as short-notice delivery of parts – within a few hours – consistent tracking and tracing, and an overall supply chain management, is as strongly developed as in western countries^d. However, this high service level is not even being fulfilled consistently in the country's large economic centers.

^d See also *Studie zur Service-Logistik China erstellt von der Managementberatung Barkawi, dem Logistik-Dienstleister DHL und dem China Supply Chain Council (CSCC)*

Economic centers as logistic hubs

In this situation logistic service providers with a supply-chain approach, and a portfolio that gives their customers mobility and supports them in the development of processes that fit the Chinese clientele and market have the greatest potential. To keep additional logistic costs at a minimum, international manufacturers and logistics companies prefer to settle in strategically important regions, such as Tianjin, China's largest port city. Tianjin is a transportation hub and the door to the outlying areas of central north China, northeast and northwest China, as well as an important seaport for China's neighbors. The region around Tianjin is a highly promising in terms of economic opportunities and its competitiveness compared to other sites in China. The region has developed into a growth catalyst for the city of Tianjin and the larger Bohai region. It is the preferred region for investment in China today. The annual average growth rate lies above the national average. Between 1993 and 2005, the GNP grew by almost 13 percent. Because the Tianjin region, whose coast stretches along the northeast of Bohai Bay, is not far from the capital city of Beijing, it also benefits from the government's development strategy. Since 1994, 34 billion euro have been invested in its infrastructure.

Networking makes logistics more efficient

The increasing volume of raw material imports and other goods into China, as well as the export of industrial goods to other countries have given the container business a boost. More than 90 percent of the intercontinental trade is done by ocean and overseas freight. According to the Transpacific Stabilization Agreement (TSA), whose members are the eleven largest container shipping lines for transpacific services, ocean transports from China to the United States grew by 24 percent on average in the first two months of 2006. In the next five years, it is expected that the volume of China's container traffic will grow by 12 percent annually to 133 million TEU (Twenty Foot Equivalent Units, logistic unit für the capacity of containers).

According to the latest statistics China's ship-building industry is already the second largest in the world following Korea. China has declared that it wants to move up to the world's number one. Therefore the country is heavily investing in ports and nearby infrastructure. Currently more than 200 Chinese ports are under construction or are being expanded and modernized.

Airfreight from and to China has also benefited from China's WTO membership, with annual growth rates in the 12 to 15 percent range. Airfreight expands parallel to the container traffic, because it offers timesavings that are crucial for a number of high-quality or delicate goods. The increased frequency of flight connections, both between the country's economic centers, and China and Europe and the American continent allows keeping up with the upsurge of passengers. For passenger traffic and freight traffic, the same challenges apply: making the airport part of a powerful network and provide a densely knit logistic infrastructure around the airports. Both conditions have to be in place to provide efficient pre- or post-flight processes on the ground.

In this situation international players in China have a strong interest in creating dense and reliable networks. The number of European and Chinese companies cooperating in logistic projects is expanding. For instance, the German National Railways Deutsche Bahn supports the development of the Chinese high-speed transport network. Another example is Shanghai Airlines' joining the international passenger airline network Star Alliance. International logistic specialists are opening offices in China in central locations such as Shanghai, using them to prepare their market entry while working closely with their customers who are already active in China. Their Chinese offices serve the logistics companies as a bridgehead for the rapidly growing flow of products coming into Asia or leaving Asian countries as exports. Logistics companies have also begun to offer onsite services, such as stockkeeping and warehouse maintenance, loading and unloading or supplemental services at the production facilities of their customers in China. Industry associations and logistics consultants with a commitment in China, such as the Fraunhofer-Gesellschaft für Materialfluss und Logistik (IML) help companies networking in China by providing valuable contacts and contributing with their experience to the success of logistic projects.

Logistics in China: a market with great potential

The Chinese industries with outstanding growth rates are automotives, telecommunications, chemicals, and pharmaceuticals. It is expected that their increase in revenue will lead to an escalating demand for modern transport and logistic services in the next few years. Thus the market offers great potential for strong international logistic service providers. 57 percent of the manufacturing industry and 38 of the trading companies in China are looking for new logistics partners^e.

The huge potential that companies have identified in the Chinese logistics market is also mirrored in the great interest for the trade fair transport logistic China, which premiered in 2004. It was held for the second time in the fall of 2006 with more than 200 exhibitors from 30 countries presenting their products and services and discussing current logistic trends in China. The trade fair demonstrated that similar to other countries, the future holds a more prominent role for IT in logistics also in China.

In cooperation with their logistic service providers or independent institutes, an increasing number of companies develop individual IT solutions and install viable high-performance logistic systems. The goal is obtain transparent procurement logistics and better planning and execution of the supply chain, as well as the ability to react promptly to short-notice changes in the material needs. Now that the „digitalization of logistics“ – this is how Chinese refer to the combination of logistics and IT – is in full swing, looking at the supply chain as a whole and optimizing the overall logistic costs are two factors that are gaining importance.

Experts agree that the end of China's boom is not in sight, as the country has barely begun to develop to its full potential. The same can be said about China's logistic potential. In order to master the complex challenges lying ahead, qualified technical professionals and managers are required who are familiar with China, its people, language and culture. Intercultural competency is a key factor for logistics companies. It is a prerequisite for the successful implementation of complex logistic strategies – and hence a way to master the “China” challenge.

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(The trend reports are compiled by specialized international journalists. DECHEMA is not liable for incomplete or inaccurate information.)

^e BearingPoint Analysis 2006.