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shanghai shine-link international logistics: Lean supply chain management

Professor Wei Lyu, Jianfeng Chai, and Kenny Hang wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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In September 2017, Liu Hong, chairman, and Xu Feng, president, of Shanghai Shine-Link International Logistics Co. Ltd. (SLC) were sitting in Liu’s office, considering the company’s future. SLC had just listed on the Shanghai Stock Exchange. Liu’s lanky stature, meticulously combed hairstyle, and gold rimmed glasses left an impression of scholar and university professor. Xu was a typically ambitious business executive, whose favourite self-mockery was that because of a dental implant operation, his sense of smell was accidentally injured, but his business sense had become even keener than before.

While neither man said much, each knew well the other’s mind and the range of issues and opportunities the company faced after achieving this newest milestone. Both men had fond memories of the ceremony and celebration surrounding the listing, including Liu’s words: “Following our listing, we look forward to Shanghai Shine-Link International Logistics continuing to develop as a leader in China’s logistics industry, through technological achievement, management expertise, and globalization. Congratulations to Shanghai Shine-Link International Logistics on what will surely be a bright future!”

From the time the company was first established in 2001, through 2008 when the ownership structure was enhanced and the company renamed, SLC had developed steadily and rapidly, achieving revenue of ¥596 million[[1]](#footnote-1) (about US$88.3 million) and net profit of ¥81 million (about $12 million) in 2017.[[2]](#footnote-2) Now the two had to decide on the company’s future.

macroeconomic development of China and Shanghai

Since 1978, China’s reform and opening up had resulted in spectacular growth. In 1978, China’s gross domestic product (GDP) was about $150 billion, and per capita GDP was about $156. By 2016, GDP had reached $11.2 trillion, nearly 74 times the 1978 figure, while per capita GDP had reached $8,123, nearly 50 times the 1978 figure. China’s GDP grew by about 6.9 per cent in 2017,[[3]](#footnote-3) and the World Bank projected China’s GDP to grow by 6.5 per cent in 2018,[[4]](#footnote-4) while the International Monetary Fund projected China’s GDP per capita would reach $10,000.[[5]](#footnote-5)

International trade was an essential component of China’s growth. According to the government of the People’s Republic of China, the country’s total import and export value per year at the end of the 1970s was about $20.6 billion.[[6]](#footnote-6) The World Trade Organization reported that by 2013, annual imports and exports were worth about $4.16 trillion, making China the world’s number one trading economy. China’s trading volume exceeded that of second-place United States by about $250 billion, and third-place Germany by about $1.5 trillion. Since 2013, the United States had surpassed China in total imports and exports only in 2016. The following year, China once again claimed the first position.[[7]](#footnote-7)

In November 2018, China was scheduled to host the first China International Import Expo in Shanghai, the first time that China had hosted this type of event. Organizers expected approximately 2,800 companies from more than 130 countries and regions to meet with over 150,000 buyers;[[8]](#footnote-8) 160 of the world’s top Fortune 500 organizations would participate in this event.[[9]](#footnote-9)

Free Trade Zones and China’s Trade Development

Free trade zones and similar initiatives to promote trade had played an important role in China’s international development. In 1990, China established its first free trade zone, also known as a free trade area (FTA), the Shanghai Waigaoqiao Free Trade Zone. After 1992, the country established several more, in Tianjin, Dalian, Shenzhen, Fuzhou, and Xiamen. Another wave of openings and further development occurred in 2013 in Guangdong, Tianjin, and Fujian, and by March 2017, the State Council had approved seven new FTAs, in Liaoning, Zhejiang, Henan, Hubei, Chongqing, Sichuan, and Shaanxi.[[10]](#footnote-10)

These FTAs were a key component of China’s reform and opening up, and also a platform for integration into the global economy. Each FTA had its own distinct features, but common imperatives for all were contributing to the government’s national strategies—in particular reform and opening up—and fostering the development of the FTA’s surrounding areas. Common goals for the FTAs were to achieve international standards in areas such as investment and trade facilitation, currency exchange freedom, efficient and convenient regulation, and legal and environmental norms.[[11]](#footnote-11)

In 2017, the Shanghai Waigaoqiao FTA reached an import and export value of ¥1.35 trillion[[12]](#footnote-12) (about $200 billion), while three other pioneer FTAs – Guangdong, Fujian, and Tianjin – achieved import and export amounts of ¥990 billion[[13]](#footnote-13) ($147 billion), ¥193 billion[[14]](#footnote-14) ($29 billion), and ¥256 billion[[15]](#footnote-15) ($38 billion) respectively.

SLC: Development and Milestones

SLC was formerly Shanghai Industrial Foreign Union International Logistics Co. Ltd, formed in May 2001 by the Shanghai Waigaoqiao Free Trade Zone Joint Development Co. and Shanghai Industrial Logistics Holdings Limited. The president, Xu, was originally from the Waigaoqiao Free Trade Zone Joint Development Co., where he had served as the general manager of the foreign investment department. When he joined SLC, Xu had relatively little direct experience with logistics management.

In the early days of 1990 to 2000, thousands of both domestic and international logistics providers were working both inside and outside the Waigaoqiao FTA. Leading multinational players included United Parcel Service (UPS), DHL International GmbH, and DB Schenker; however, most of the providers were domestic logistics enterprises.

At that time, the domestic companies lacked modern logistics management experience and technology, so they were confined to traditional warehousing, transportation, and other labour-intensive, low-end logistics services. They also sometimes served as the outsource service providers for multinational logistics enterprises.

SLC’s chairman, Liu, had outlined the company’s goals in a few interviews:

Through solid alliances with leading logistics enterprises, we aimed to offer the highest value-added modern logistics services and solutions, focusing on making SLC a lean supply chain management pioneer. At the same time, through the development of such collaborative, high quality logistics services, we aimed to foster the overall development of the Waigaoqiao Free Trade Zone and Pudong New Area overall.

Xu later recalled, “While the goal was lofty, the reality was that we faced a tough challenge.” At the time, the investment from joint venture partner, Waigaoqiao Free Trade Zone Joint Development Co., consisted largely of some old warehouses, vacant for years. There were also plenty of competitors in the area who were ready to sacrifice profits in a price war aimed at gaining customers and eliminating competition.

SLC faced an imperative to escape competition in low-end logistics service by adopting an entrepreneurial spirit and changing its competitive positioning. The company leadership was determined to offer third-party contract logistics (3PL), providing customers with comprehensive supply chain solutions. Xu had rich experience in attracting foreign investments by promoting the advantages of Waigaoqiao FTA. Thus, in 2001, the business was able to win several logistics contracts from large multinational chemical and industrial raw materials companies, with a cumulative annual contract value over ¥10 million ($1.2 million).[[16]](#footnote-16)

However, Xu was not interested in simply winning storage contracts from these prospective clients; he also wanted to develop opportunities to serve their higher-end supply chain needs. The challenge was that much of the high-end logistics services market was dominated by the multinational, integrated, logistics service providers (see Exhibit 1), and those providers had a long history of co-operation with their customers. Many of the valuable 3PL projects had long since been signed, often at the level of global or regional headquarters.

In 2001, Xu learned that a division of Sony Corporation needed about 200 square metres of warehousing space and management, specifically for repair parts and accessories. The multinational logistics enterprises seemed unwilling to bid for the project because there were many stock-keeping units (SKUs), but the inventory for each was small and the turnover sporadic, usually in single digit or between 10 and 20. Achieving a good balance of timeliness, quality control, and cost performance with high SKU volume and low turnover was especially difficult, which is why the multinational players were not interested in the business.

SLC secured the contract. The various requirements of this relatively small project, such as consistently maintaining spare parts inventory, aligning with sales forecasts and processing rapid clearance, set a high-performance bar for SLC. The requirements also forced the company to steadily improve its logistics technology and management. SLC had one key advantage in meeting the demands: SLC’s parent company, Shanghai Waigaoqiao Free Trade Zone Joint Development Co., provided SLC with a deep understanding of local customs policy and practice.

With the technological and managerial expertise required to serve the new business well, a strong warehouse management system seemed essential. Xu’s training in an engineering masters degree program prepared him to evaluate the various warehouse management systems available to SLC. He determined that a warehouse management system made by EXE Logistics Solution LLC (EXE) was best for SLC; however, the cost of implementing EXE would be at least ¥5 million (about $604,000). SLC would go on to later make annual investments in research and development worth tens of millions of Chinese yuan, but in 2001, an investment of ¥5 million was a significant consideration. To convince the board that the investment was worthwhile, Xu explained to the board and reinforced why the company could not move up the logistics value chain with just a stable storage business. An investment in EXE’s warehouse management system—a requirement to successfully serve the Sony business—would be the platform to support the company’s rise.

The board finally approved the investment. Now, Xu felt that he had no choice but to deliver success. Later recalling that time, Xu said, “I had always believed in ‘diligence and team first.’ In the face of risk and the difficulties of implementation, I was confident that if we had the right goal and the perseverance to achieve it, we would do well.” Xu’s optimism and leadership proved themselves: Sony was satisfied with the quality of SLC’s solution and consequently awarded more projects to the company.

SLC grew steadily, in part with China’s overall rapid development and its increasing integration with global supply chains. By 2005, SLC was managing Sony’s worldwide repair spare parts logistics, of which 95 per cent served the Chinese market. In 2006, SLC launched finished goods logistics services; in 2012, the company began serving the medical sector; and in 2014, SLC began supporting high-end consumer goods customers with their import logistics.

The company developed 3PL services for a wide range of industry sectors, such as high-tech electronics, medical devices and reagents, machinery and equipment components, imported food and clothing, and automobiles. SLC secured some of the world’s leading companies as long-term, strategic customers, such as Sony, Mitsubishi Corporation, Robert Bosch GmbH, General Electric Co., Fujifilm Holdings Corporation, Panasonic Corporation, Pioneer Corporation, Caterpillar Inc., Nitto Denko Corporation, Yazaki Corporation, Delphi Technologies PLC, Boston Scientific Corporation, Becton, Dickson and Co., Ortho Clinical Diagnostics, MEI.com, Li & Fung Limited, and Ryohin Keikaku Co., Ltd. (Muji).

Keys to SLC’s Success

Customer-Centric Services

For each new customer, SLC assigned a key account manager to act as a bridge between the customer and SLC’s various internal operations, coordinating SLC’s internal resources to meet the customer’s specific needs through highly customized logistics services. Project work often began with three to six months of preliminary research, which involved, for example, analyzing storage of goods, information technology (IT) systems, packaging requirements, and logistics processing; operations, distribution, and transportation; and project standard operating procedures (SOP). The goal was to achieve optimal service levels for the new customer.

The key account manager led implementation of the project, with a focus on key performance indicators. The manager also pursued continuous improvement, following kaizen principles. For example, SLC’s services for a key account had come to include reverse logistics and other aspects of leading-edge integrated logistics services. To service the client, SLC located its warehouse near the brand’s foundry and managed the stock of factory parts and supplies. SLC took responsibility for interacting with the various parts suppliers, sorting the parts after delivery to the factory, and managing factory production of categories of finished products, all by smoothly coordinating the seller’s orders to integrate distribution to the vendors and retail stores.

While this may seem to have been a relatively simple combination of services, the effective combination reflected the essence of lean supply chain management. SLC and the brand’s systems exchanged about 200,000 discrete messages per day, each message representing an information field and containing a single number corresponding to a completed task, the expected next node time, and other logistics information.

SLC regarded each customer as unique and designed tailored logistics services for the customer’s specific needs. With a robust information management system and other advanced technical capabilities, the company could respond quickly and flexibly to customers’ dynamic business environments. SLC not only rapidly adjusted logistics operations, but also effectively controlled costs, continually offering enhanced and well-suited supply chain solutions to help customers improve their own efficiency and profitability.

Entrepreneurial Spirit

SLC’s evolution into a leading, lean, supply chain partner for customers had increased customer stickiness, helping the company become a strategic supply chain partner for a large number of customers. From the farthest upstream supply chain point, such as raw materials intake, inventory management, and parts procurement, to the downstream destination points, such as production line back-end processing, finished goods sales logistics, and aftermarket logistics, SLC had proven its value to customers in a variety of industries, with integrated, diversified, and comprehensive solutions (see Exhibit 2).

“Believing in diligence and team first”—an expression of Xu’s entrepreneurial spirit—had become the corporate culture of SLC, where the concept of entrepreneurship extended beyond innovation to include entrepreneurial team leadership. Through hard work, the company empowered every employee’s innovative spirit. Combining that spirit with strategic and innovative use of intelligence and information management tools, SLC bolstered its strong position in a fiercely competitive market. From successfully introducing the EXE warehouse management system early in the company’s evolution, SLC went on to develop the business and IT teams over the following decade and effectively adopt the world’s leading logistics management technology and experience. Combined with the changing needs of customers, the company had developed its own resilient and responsive enterprise resource planning (ERP) system, transportation management system, and air transport operating systems.

By 2017, SLC had more than 60 application software patents, all supporting the company’s imperative to provide distinct and customized solutions for customers. Through vendor-managed inventory, just-in-time inventory, just-in-sequence inventory, international procurement office, and other lean supply chain management models, SLC’s customers achieved zero inventory production (see Exhibit 3). That accomplishment would have been impossible without 21st-century IT and real-time optimization of logistics resources.

With its up-to-date information systems and Internet of Things networking technology, SLC managed the following resources and activities:

* More than 400,000 square metres of modern warehouse space.
* Nearly 5 million kinds of electronic products, machinery parts, medical products, and high-end consumer goods.
* More than 500,000 processing orders in and out of warehouses monthly.
* More than 600,000 customer electronic data interchange messages daily.
* A total value of nearly ¥200 billion (about $30 billion) of goods door to door with zero error service.

Total Quality Management

While the modern logistics industry was entirely grounded in advanced IT support, technology alone did not guarantee high-quality logistics service standards. Xu was particularly proud that SLC was better in terms of response time and accuracy when compared with multinational companies equipped with advanced IT systems—success due, in part, to every front-line operator in each link contributing to the service quality.

One of the most important criteria for quality of enterprise logistics services was the capability and commitment of front-line staff. Consequently, SLC had developed a strict system of rewards and corrective measures. Each employee was equipped with an operation identification and the ERP system recorded each operational step, so that each employee’s performance quality and quantity could be analyzed objectively.

To promote the concept and culture of “full excellence,” SLC had introduced total quality management, establishing a full-time department to oversee it. In turn, each department was staffed with a quality management team member, responsible for implementing quality management mechanisms. SLC had successfully introduced global standards of industrial engineering, lean management, Six Sigma, and other continuous improvement initiatives and approaches. Six Sigma Green Belt and Orange Belt projects, in particular, led the company toward being a pioneer in lean supply chain management in China.

SLC had invested substantially to foster a learning environment. For example, the company had arranged for more than 200 key staff members to visit Toyota Motor Corporation’s Japan headquarters so that SLC team members could enhance their understanding of advanced lean supply chain management concepts and practices. Because of the company’s dedication to fostering a world-class team, employees were regularly innovating operational improvements; the employees were enthusiastic about quality and customer satisfaction.

Co-operation with the Government

In February 2013, the toy company Hasbro Inc. (Hasbro) asked SLC to find a way for branded products for a popular movie to be shipped to and sold in China in the shortest possible time. Such a logistics operation usually required about three weeks. But because the film was already showing in China, a three-week delay would be too late to capture the immediate excitement about the movie. SLC consulted with China’s General Administration of Quality Supervision, Inspection, and Quarantine (Administration), and suggested that perhaps a test of toy samples only, rather than the entire batch, would be appropriate. SLC proposed that if the tested samples passed, the Administration permit the entire shipment to be imported. SLC’s good reputation with the customs officials gained their consideration of this unusual approach. The suggestion was accepted, and Hasbro immediately shipped samples to Shanghai for testing. By the time the dozen containers of toys arrived at the Shanghai port, the samples’ test result was returned. All had passed, and the inspection certificate was issued precisely when the toys entered the bonded area. As a result, the toys were delivered to retailers in time for Hasbro to enjoy good movie-related sales.

After the Shanghai FTA was established in September 2013, the Administration institutionalized the Hasbro approach with other new policies designed to streamline customs procedures for imports. These policies shortened the time required for customs processing by half and reduced corresponding storage costs by 60 per cent. SLC, as one of the leading logistics companies in China by that time, became a pioneer company for implementing these new procedures.

Importers benefited. For example, a food group had found that, up until that point, a product with 12 months of shelf life would spend one month in shipping, one month in commodity inspection, and one to two months in domestic logistics (e.g., packaging, labelling, local distribution, etc.). Therefore, the effective shelf life was reduced to six months or so. The government’s streamlined policy and SLC’s pioneering implementation added about a month to the products’ effective shelf life, thereby increasing sales by about 15 per cent.

With the implementation of the pilot policy of co-operation with customs, excise, and national inspection, SLC had played an important role interfacing between the enterprises and the government entities. The company also used its understanding of enterprises’ actual working situations to help the government better grasp the practical needs of the enterprises, thus serving the customers better and more effectively evolving the regulatory environment to create winning outcomes for all stakeholders.

A Network of Service

SLC was often working in partnership with general and local customs, the Administration of Quality Supervision, Inspection and Quarantine, commodity inspection leaders, and business teams to solve issues and improve outcomes. As more enterprises in the Shanghai FTA were willing to entrust their integrated logistics management to the company, SLC’s operations gradually radiated from Shanghai to the whole country. The company, therefore, began to establish logistics networks in major cities throughout China.

Since establishing its first ex-Shanghai branch in Shenzhen in 2006, SLC had set up 26 branches throughout the country, employing more than 1,500 people. With the spirit of “follow the customer,” the branches covered north, northeast, east, south central, and southwest China. SLC’s national logistics service network covered Shanghai, Beijing, Tianjin, Shenyang, Ningbo, Guangzhou, Shenzhen, Zhengzhou, Changsha, Wuhan, Hefei, Chengdu, Hong Kong, and other major hub cities, to meet customer demand, expand the local and surrounding markets, and establish regional operating platforms.

To strictly control operating risk in far-flung locales, SLC adopted a “one centre, three unified” organizational design and business philosophy. The “one centre” referred to a profit centre; SLC maintained just one, focused on overall business development, thus avoiding the disunity and lack of focus that would come from having every local branch be a profit centre. “Three unified” referred to three coordinated concepts: the information system and customer operations, the enterprise culture and management thinking, and the service standard and quality system.

The “one centre, three unified” approach ensured that all branches maintained a high degree of consistency in information systems, internal management, and quality of service, providing standardized, unified logistics services to customers. For example, when an international food enterprise customer in northern China had reached a considerable scale and showed good growth potential, SLC sent a project support team from Shanghai headquarters to the company’s northern branch. Through an initial setup and demonstration operation of four to six months, the branch developed the ability to manage the food enterprise project independently. This was a common system evolution. At the initial stage, the branch required support from headquarters’ project support team. After the two teams worked together for several months, the enterprise culture and employee behaviour expected by headquarters had become well replicated at the branch level.

Climate, Geography, and People

The company started with no more than some old vacant warehouses and no customers. Nonetheless, 18 months after its establishment, SLC began to profit. Thereafter, annual revenue began to grow by about 40 per cent per year. By 2016, the company’s revenue had reached ¥1.17 billion (about US$176 million),[[17]](#footnote-17) while net profit had reached ¥130 million (about US$20 million). Xu summarized the company’s success factors as “climate, geography, and people.” By “climate,” Xu was referring to the Chinese economy in the past 30-plus years of high-speed growth, coupled with the 2013 establishment of the Shanghai FTA, which led to massive growth for the logistics industry. Xu’s “geography” referred to SLC’s location in the Waigaoqiao FTA, where the company could grow by partnering with world-class global enterprises and learning from world-class logistics providers. His “people” referred to support from the FTA’s major shareholders plus a visionary board of directors and a healthy corporate governance that fostered trust and empowered management (see Exhibit 4). In return, good business results brought substantial returns to major shareholders and career development opportunities for employees.

Current situation and development trend of China's logistics industry

Since China’s era of reform and opening-up began more than 30 years earlier, the economy had grown steadily and rapidly, providing a good macro environment for the rapid development of a modern logistics and supply chain management service industry. The logistics business sentiment index, which had remained above 50 per cent since 2014, suggested that the logistics industry was still in a stable and rapid development cycle. In 2017, logistics transactions nationwide reached about ¥252.8 trillion (about $37.4 trillion), 6.7 per cent higher than the 2016 figure, making 2017 another year when overall logistics demand rose steadily.[[18]](#footnote-18)

During the rapid development of China’s economy, the cost of logistics as a percentage of GDP increased substantially; however, the actual cost of logistics may not have increased as much as the gross profit margins.

Logistics had gained attention in China as a third source of profit, with natural resources and human potential being the first two sources. After years of development, China’s total logistics costs in 2017 were about ¥12.1 trillion (approximately $1.8 trillion), including transport costs of about ¥6.6 trillion (approximately $1 trillion), storage costs of about ¥3.9 trillion (approximately $600 billion), and management costs of about ¥1.6 trillion (approximately $237 billion). Logistics cost as a proportion of GDP had fallen from 23.8 per cent in 1991 to 14.6 per cent in 2017.[[19]](#footnote-19)

Despite the progress, there was still some way to go; developed countries commonly had a logistics cost to GDP ratio of about 8 per cent. One explanation for China’s increased ratio was that China’s secondary sector, manufacturing, was logistics-heavy and accounted for a larger percentage of China’s total GDP than manufacturing did in fully developed economies. China’s actual costs for transport and information transfer, and a relatively lower level of standardization, also affected the ratio. For example, developed countries typically had more efficient multimodal transport, leveraging rail and waterways, while China was still heavily reliant on truck transport. In addition, only about 5 per cent of China’s logistics volume was containerized, while the figure in Europe and the United States was 30–40 per cent.[[20]](#footnote-20)

The main driving factors for the future development of China’s logistics industry were industry integration, expansion of service scope, general logistics, and professional logistics differentiation. Mergers and acquisitions would continue to consolidate the sector. The lack of industry consolidation limited the pricing power of leading companies, leading to overly price-focused competition and hampering the industry’s ability to develop differentiated products and services. The increased economies of scale that came with greater consolidation would enhance operational efficiency and reduce costs.

National policy encouraged and supported logistics enterprises to extend the scope of service to high-end value added service and integrated supply chain management solutions, and standard warehouse storage and transportation service that compete on price and economy of scale, establishing a deep co-operative relationship between logistics providers and their clients. Upstream, comprehensive logistics enterprises could provide raw materials, parts procurement, and inventory management services, while downstream, the logistics enterprises could provide production line back-end logistics processing, finished goods sales logistics, and aftermarket logistics services.

Specialization was an inevitable trend. General logistics providers competed mostly on price, but with the increasing demand on enterprises to reduce logistics costs, logistics enterprises that could optimize the supply chain through specialized solutions were better able to reduce costs and increase profit (see Exhibit 5). All logistics enterprises faced an increasing challenge of how to combine their own advantages and customer resources and choose a suitable path for their own development.

SLC’s Development

After 16 years of hard work, SLC was listed on the Shanghai Stock Exchange in September 2017, but the company’s strategic-level management challenges remained. Continuing to develop an immature domestic market and promote lean supply chain management to more enterprise customers could take longer than projected. The continuing rollout of SLC’s national logistics network—an asset-light warehouse leasing model—land planning changes and other factors might restrict access to adequate storage space. Another issue for SLC was how to effectively manage the risk of a higher concentration of customers, considering, for example, that, in 2016, the company’s business with one key account accounted for nearly 44 per cent of the total company business.

At the same time, China’s logistics market had provided exceptional development opportunities for companies such as SLC, so it was actively exploring new market opportunities.

Some niche market areas had unusual growth potential. For example, the domestic dental market, which had a market size of about ¥20 billion (approximately $2.95 billion) in 2017, was growing at a rate of 25–30 per cent per year.[[21]](#footnote-21) Considering that there were more than 200,000 dental clinics in China, SLC had targeted integrated dental supplies logistics services for about 30,000 clinics in China’s first-tier cities, featuring products from Danaher Corporation, the world’s second largest dental implant products and supplies enterprise.[[22]](#footnote-22)

The rapid development of China’s e-commerce sector was well known, especially for the overwhelming volume of transactions on two days each year. The first, China’s “Singles Day,” held annually on November 11 (numerically written as 11/11), was an annual shopping holiday, launched by Alibaba Group Holding Ltd., on which young people celebrated their pride in being single by shopping. The second shopping extravaganza, held annually on June 18, was launched by Alibaba’s arch-competitor JD.com Inc. to celebrate its founding on that date. The explosion of buying during these periods created a level of demand on warehousing management and distribution unmatched elsewhere in the world. SLC aimed to support both Alibaba and JD.com, offering integrated logistics expertise to help not only them but also their network affiliates with improved logistics efficiency and reduced costs.

SLC’s principle of “follow the customer” was also providing the company with new markets. It had begun to extend its services beyond China’s borders to support Chinese enterprises overseas, largely with shipping solutions and, in part, through strategic co-operation on specific routes.

Offering financing solutions to supply chain players was another area where SLC saw opportunities. In a heavily globalized supply chain environment, accounts receivable were often extended, driving working capital costs up—a daunting prospect for small and medium enterprises. To cope with the extended time to receive payment, industry sectors worldwide would finance the receivables so the supplier could receive payment right away. SLC could finance their customers’ receivables, earning interest on the extended loans. For example, 10 per cent of the total revenue SLC earned from a Nordic children’s wear enterprise came from a three-month, €2 million[[23]](#footnote-23) (about $2.3 million) bridge loan that SLC extended to the children’s wear company.

Liu and Xu knew it was time to convene the company’s board of directors to consider the company’s future. With so many opportunities and risks in front of them, good decision-making was essential to their prospects.

**Exhibit 1: leading supply chain solutions providers**

Major International Providers

DHL Global Forwarding Inc. (DHL): DHL was a global leader in express, intercontinental, and air freight, and was the world’s number one shipping and contract logistics provider, operating more than 500,000 square metres of warehouses in China for supply chain customers. DHL offered a full range of customized solutions from document express to supply chain management, providing value-added services such as supply chain infrastructure services, sub-components, co-packaging, customized services, deferred completion, subcontracting, sequencing, and retail preparation procedures. DHL service industries included automotive, life sciences, high-tech, fast-moving consumer goods, retail, and fashion.

DB Schenker: DB Schenker was a world-leading global logistics provider, with nearly 750 offices in more than 50 countries and employing approximately 20,000 people, with a storage space of up to 8 million square metres. Through land transport, global air and sea freight, contract logistics, and supply chain management services, DB Schenker offered industry solutions in the fields of aerospace, automotive, beverage, apparel, electronics, medical, raw, and other industries to support global cargo transactions. Services offered ranged from procurement, production, distribution to after-sales service, through every step of the value chain.

DB Schenker entered the Chinese market in the late 1970s and became the first major international freight forwarder to open an office in China. It has since established offices and warehousing and logistics facilities in more than 60 major cities in China, employing more than 5,000 people.

Kerry Chase Logistics Ltd. (Kerry Chase): Founded in 1985, Kerry Chase was the first international freight forwarder in mainland China. The parent company, Kerry Logistics Network Ltd., was headquartered in Hong Kong; it provided end-to-end supply chain solutions for multinational and international brands to meet customer needs for sourcing, production, and global sales. In China, Kerry Chase had 130 branches in 32 provinces, covering 1,100 cities nationwide and employing more than 4,500 people. The company operated about 2,000 transport vehicles and 386,000 square metres of warehousing and logistics space, providing integrated logistics and international freight, express, and supply chain solutions. Kerry Chase had particular strength in dealing with electronics products.

Kintetsu World Express, Inc. (Kintetsu): Founded in 1910 and headquartered in Tokyo, Kintetsu was Japan’s second-largest professional logistics company. The company had subsidiaries and affiliates in more than 60 countries and regions, in 178 major cities around the world, employing more than 18,000 people. Kintetsu provided specialized transportation, warehousing, freight forwarding, and other integrated logistics services to customers around the world.

With the establishment of Beijing Kintetsu Express Transportation Co., Ltd. in Beijing in November 1996, the company served hundreds of foreign invested enterprises in China, including Hewlett Packard Enterprise, General Motors Company, International Business Machines Corporation (IBM), Panasonic Corporation, Mitsubishi Corporation, Nokia Corporation, and other Fortune 500 companies.

DKSH Holding AG (DKSH): Headquartered in Zurich, Switzerland, DKSH operated in 36 countries around the world, with 740 locations in the Asia Pacific region alone and 30 locations in Europe and the Americas. The company’s services covered every aspect of value chain management, including procurement, market research and analysis, marketing, sales, distribution, logistics, and after-sales service, providing customers with professional advice, localized logistics, and customized service solutions.

In China, DKSH specialized in consumer goods, medical care, specialty raw materials, and technology businesses, with major presences in Shanghai, Beijing, Tianjin, Chengdu, Guangzhou, Shenzhen, and Xi’an, along with other branches in the country.

Nippon Express Co., Ltd. (Nippon Express): Founded in 1937, transformed into a private enterprise in 1950, and headquartered in Tokyo, Nippon Express was Japan’s largest integrated logistics service provider. The company provided one-stop solutions for customers from sourcing and production logistics to finished goods logistics and advisory. It helped customers optimize supply chain efficiency by integrating information systems, logistics infrastructure, and various modes of transport. Nippon Express China was established in 1995, forming a 30-branch business network and providing international air transport, international shipping, domestic warehousing and transportation, vendor-managed inventory management, information query, and multimodal transport solutions.

Exhibit 1 (continued)

Major Domestic Providers

Eternal Asia Supply Chain Management Ltd. (Eternal Asia): Founded in 1997, Eternal Asia was China’s first listed supply chain enterprise, with more than 600 branches and a global headcount of more than 30,000 people. The company focused on non-core business outsourcing for global enterprises, such as effective logistics, business processes, settlement, or information systems. The company covered fast-moving consumer goods, information technology, communications, medical supplies, and more than 20 other sectors, serving more than 100 of the Fortune 500 and more than 2,000 well-known enterprises at home and abroad. In 2017, the company achieved revenue of ¥68.5 billion (about US$10 billion).

Jiangsu Feiliks International Logistics Inc. (Feiliks): Established in 1993 and listed on the Shenzhen Stock Exchange in 2011, Feiliks began by offering freight forwarding, customs, and other basic logistics services. The company later focused on modern warehousing as the core supply chain management element. Integrated services became the company’s core profit source. Feiliks covered the information technology, communications, automotive, precision instruments, and other sectors, providing import and export, sea and air freight forwarding, and logistics from raw materials and the factory to production, finished goods, and aftermarket spare parts.

CTS International Logistics Corporation Ltd. (CTS International): With cross-border modern integrated third-party logistics as its main business, CTS International had 84 wholly-owned subsidiaries covering China’s major ports and inland economically developed cities, as well as locations in more than 160 countries and regions. Its international services included air and sea transport, integrated cross-border logistics solutions, and manufacturer procurement, implementation, and distribution.

Jiangsu Xinning Modern Logistics Co., Ltd. (Xinning): Founded in 1997, Xinning imported and exported electronics components, leveraging bonded goods warehousing as its initial core business. More recently, the company expanded its service range to include home appliances, consumer goods, and supply chain integration solutions, including design and implementation, for other sectors. In 2015, Xinning engaged in mergers and acquisition activities to enter the satellite navigation and positioning sector, and developed its business in new energy vehicle leasing, cross-border e-commerce, and supply chain services. The company was headquartered in Kunshan, Jiangsu, with more than 60 branches and more than 3,000 employees.

Shenzhen Prolto Supply Chain Management Co., Ltd. (Prolto): The company was founded in 2005 and, in 2015, it was listed on the small and medium enterprise board of China’s A-share market. Prolto offered integrated supply chain management services, including design and optimization, procurement and distribution, inventory management, fund settlement, customs clearance and logistics, information systems, and other support. Through the development and implementation of information systems, the company integrated the Internet, finance, and traditional supply chain management to help clients manage their business flows, capital flows, logistics, information flows, and workflows. Prolto expanded from their initial information and communications technology sector to encompass health care and cross-border e-commerce supply chain solutions.

Notes: ¥ = CNY = Chinese yuan renminbi; average of ¥6.7518 = US$1 in 2017; all other currency amounts are in US$.

Source: “Home Page,” DHL International GmbH, accessed April 9, 2019, www.dhl.com/en.html; “Home Page,” DB Schenker, accessed April 9, 2019, www.dbschenker.com/global; “Home Page,” Kerry Logistics Network Limited, accessed April 9, 2019, www.kerrylogistics.com; “Home Page,” Kintetsu World Express, Inc., accessed April 9, 2019, www.kwe.com; “Home Page,” DKSH Holding AG, accessed April 9, 2019, www.dksh.com/global-en/home; “Home Page,” Nippon Express Co., Ltd., accessed April 9, 2019, www.nipponexpress.com; “Home Page,” Eternal Asia Supply Chain Management Ltd., accessed April 9, 2019, www.eascs.com/en; “Home Page,” Jiangsu Feiliks International Logistics Inc., accessed April 9, 2019, www.feiliks.com/Home/List/B\_EN; “Home Page,” CTS International Logistics Corporation Ltd., accessed April 9, 2019, www.ctsfreight.com/en; “Home Page,” Jiangsu Xinning Modern Logistics Co., Ltd., accessed April 9, 2019, http://en.xinning.com.cn; “Home Page,” Shenzhen Prolto Supply Chain Management Co., Ltd., accessed April 9, 2019, www.prolto.com/en.

Exhibit 2: Shanghai Shine-Link International Logistics Co. Ltd.   
Products and Services

Shanghai Shine-Link International Logistics Co. Ltd. (SLC) provided lean supply chain management solutions for sourcing, production, and sales at leading multinational enterprises as well as at prominent domestic enterprises. SLC helped customers to coordinate and optimize each aspect of their supply chains, improve operational efficiency, and reduce operating costs.

Featured among the company’s offerings were lean manufacturing-related and line-side supply chain management solutions for the automotive and high-tech electronics manufacturing sector; full cold chain, Internet of Things (IoT), intelligent air transport, and other 21st-century technology solutions for the medical industry; and one-stop integrated logistics services and comprehensive end-to-end solutions for the consumer product sector.

The supply chain related trading service used vendor-managed inventory (VMI), just-in-time production (JIT), international procurement office (IPO), and other proven supply chain practices to provide comprehensive, high-quality, supply chain solutions, both domestically and globally. These practices assisted customers in achieving zero inventory manufacturing.

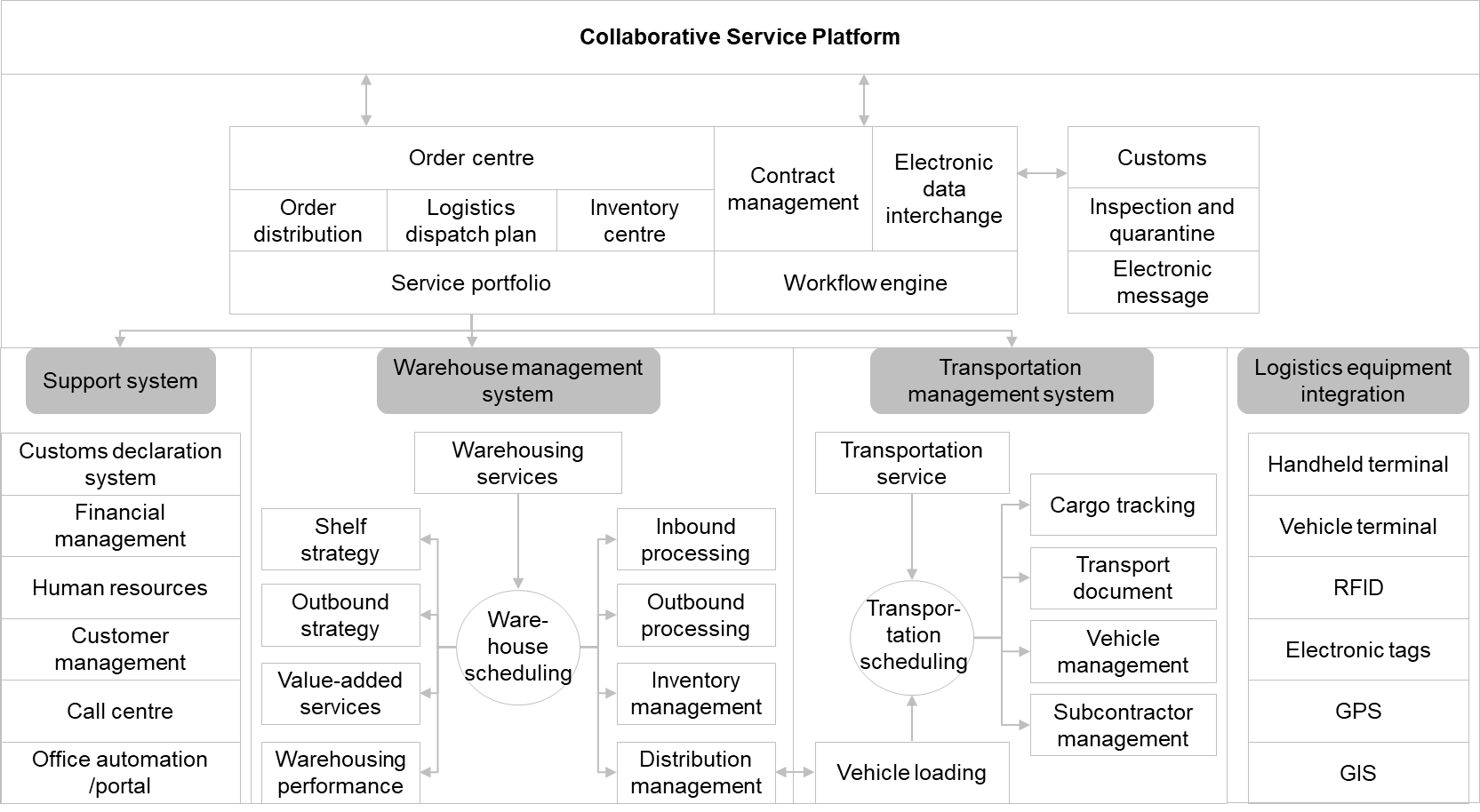
* VMI: Manufacturers and their supply chain partners used VMI not merely to respond to orders from customers, but also to monitor customer inventory and then manufacture and deliver according to actual demand, reducing inventory and delivery time throughout the supply chain. Leveraging leading-edge information technology applications such as a warehouse management system (WMS), manufacturers and their customers had real-time understanding of the entire supply chain, from raw materials to finished goods. Using SLC’s warehouse management system, customs could monitor the bonded warehouse inventory status in real-time.
* IPO: SLC leveraged its domestic and overseas distribution centre logistics integration to achieve world-class, door-to-door IPO for customers. The company employed its bonded area logistics facilities, its non-bonded warehouse capacity, and paperless declaration and other innovative customs clearance methods to offer domestic and multinational customers the greatest convenience and a broad menu of supply chain solutions.
* Aftermarket Repair Parts Logistics: These specialized logistics were typically not among the core capacities of customers, so they entrusted SLC to manage such things as imported parts clearance, warehousing management, and door-to-door distribution services. Convenient customs clearance, effective management of both import and export of bonded maintenance parts, and 24/7 uninterrupted service support were also key attributes of SLC’s targeted solutions for customers. As of 2017, the company managed hundreds of thousands of types of parts.
* JIT: SLC designed JIT inventory management for its customers. For example, SLC helped design a support solution for Delphi Technologies (renamed Aptiv PLC), an auto parts manufacturer with Shanghai General Motors Co., Ltd. as its downstream customer. Delphi and SLC created a custom, order-based production model for Delphi’s four area branches and several factories, consolidating all imported and domestic materials in SLC’s warehouses, and establishing a customized information system to ensure the accuracy of inventory data.
* Intelligent Air Transport System: SLC’s air transport services ranged from door-to-door, door-to-port, and port-to-port 12-hour and 24-hour express delivery services to transportation of goods, warehousing, and off-site delivery. The company leveraged intelligent online tracking and status updates so that customers understood the flow of their goods in a timely manner.
* Radio-Frequency Identification (RFID) and IoT: SLC used RFID to automatically scan inbound and outbound items. In the medical sector, for example, the RFID asset management system combined GPS positioning and RFID technology to build a medical device IOT platform. Through close strategic partnerships, SLC brought medical device customers a full range of services so their products could gain fast and secure access to the Chinese market. SLC expected to complete a dedicated professional medical device management service system by about 2022, which would integrate technology, transportation, professional logistics team, logistics services, regulatory compliance management, and special medical equipment warehouses.

Source: Company documents.

Exhibit 3: Shanghai Shine-Link International Logistics Co. Ltd.   
Information System

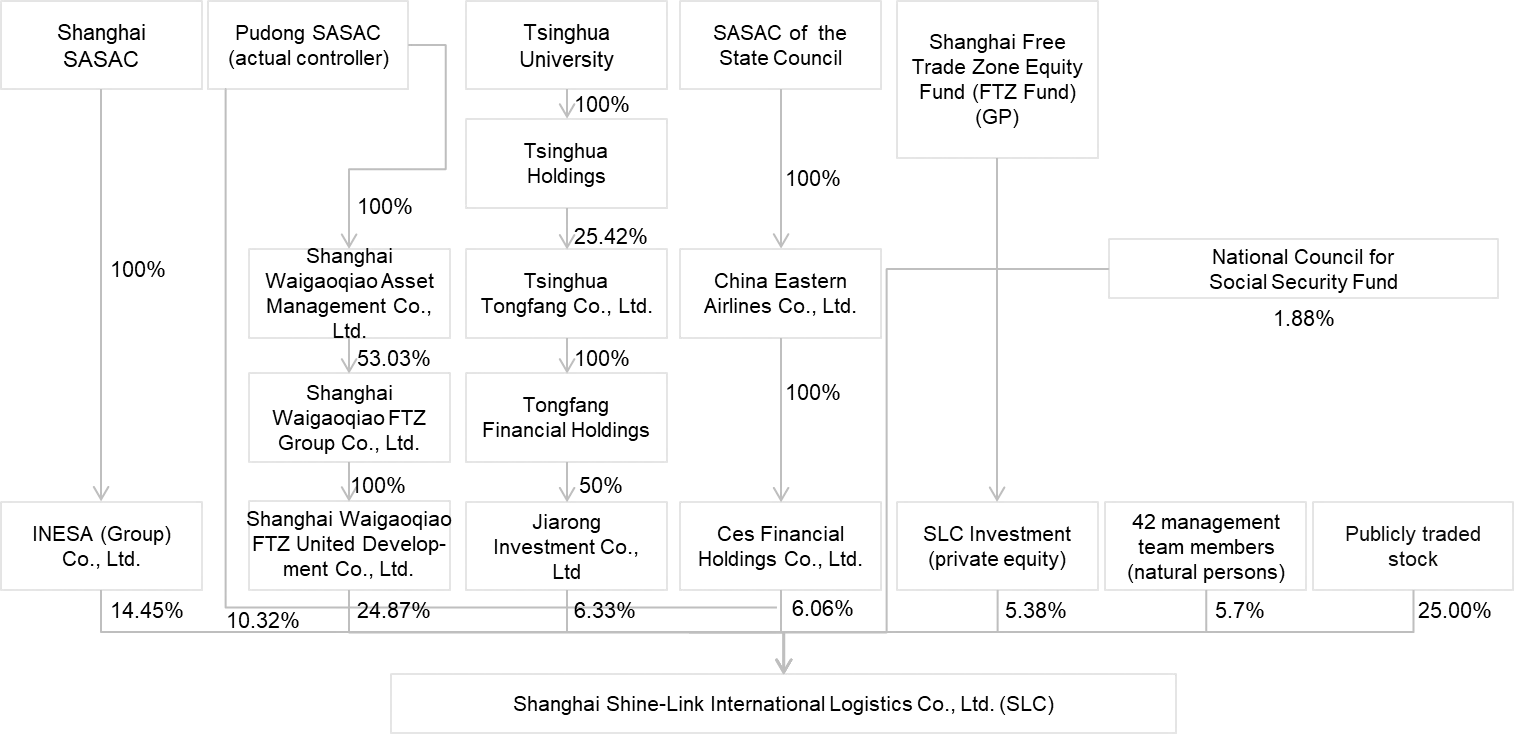
Shanghai Shine-Link International Logistics Co. Ltd. (SLC)’s logistics network information technology (IT) support system combined the Internet and mobile Internet, global positioning system (GPS) and geographic information systems (GIS), radio frequency identification (RFID), bar code, and other related applications to support the company’s increasingly sophisticated information management requirements, which in turn were an essential component in the company reaching its strategic goals and supporting customers in reaching theirs.

SLC’s Collaborative Service Platform



Source: Created by the case authors using data from company documents.

Exhibit 4: Shanghai Shine-Link International Logistics Co. Ltd.   
Ownership Structure



The Evolution of SLC’s Ownership Structure:

* In 2005, the company acquired all the shares of Shanghai Industrial Corporation and became a wholly-owned business division of the Waigaoqiao Group.
* In 2008, the INESA (Group) Co., Ltd. acquired a portion of the shares of SLC and became a shareholder; the company changed its name from Shanghai Industrial Wailianfa International Logistics Co. Ltd. to Shanghai Shine-Link International Logistics Co., Ltd.
* In 2011, Pudong New Area SASAC acquired part of SLC’s stake and became the largest shareholder.
* In 2012, Pudong New Area SASAC increased its capital to become a controlling shareholder of SLC.
* In 2013, with the introduction of additional investment, SLC completed the shareholding system structure to become a joint stock enterprise.
* In 2015, SLC secured investments from China Eastern Airlines Corporation Ltd., Shanghai Free Trade Zone Equity Fund, and SLC Investment.
* In 2017, SLC was listed on Shanghai Stock Exchange A-share Market with the company stock abbreviation “Chang Lian” shares, stock code 603648.

Note: FTZ = free trade zone; SASAC = state-owned assets supervision and administration commission

Source: Company documents.

Exhibit 5: revenue and profit comparison of leading domestic supply chain solutions providers



Note: Shanghai Shine-Link International Logistics Co. Ltd. revenue (bar, left scale), net income (solid line, right scale), and net margin (dotted line), compared with other key companies in China's logistics industry, 2017 (in ¥100 million); ¥ = CNY = Chinese yuan renminbi.

Source: Created by the case authors using data from the various companies’ 2017 annual reports, all accessed June 7, 2018: Shanghai Shine-Link International Logistics Co. Ltd., Annual Report 2017 [in Chinese], http://pg.jrj.com.cn/acc/CN\_DISC/

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