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Sf express: data wars[[1]](#endnote-1)

Willow Yang and Jiaxin (Crystal) Wang wrote this case under the supervision of Professor Xin (Shane) Wang 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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At about 4:00 a.m. on June 3, 2017, Lo Sai Lai, vice president and chief information officer (CIO) at SF Express Group Co. Ltd. (SF Express) finally reached an agreement with his counterpart at Cainiao Network Technology Co. Ltd. (Cainiao), to mark an armistice between the two titans in China’s express delivery market. Over the past week, the number-one courier in China had battled with Cainiao, the logistics-tracking platform controlled by e-commerce giant Alibaba Group Holding Limited (Alibaba), over proprietary data sharing.[[2]](#endnote-2)

The dispute had broken out in late May, when Hive Box, an SF Express–backed smart package locker company, declined a data-sharing request from Cainiao, which insisted on having access to details about all packages handled by the locker, even those that were unrelated to Cainiao or Alibaba. As a result, Cainiao and SF Express had disconnected from each other’s data interfaces on Hive Box. Alibaba also removed SF Express as a shipping option from all of its online marketplaces, including Tmall and Taobao, which controlled three-quarters of the overall online shopping market in China. The dispute led SF Express’s share price on the Shenzhen Stock Exchange to drop by 3.45 per cent in a single day, resulting in a loss of about ¥8 billion.[[3]](#endnote-3) It also caused a great disruption to China’s e-commerce sector, delaying the deliveries of thousands of packages, and China’s State Post Bureau (SPB) had to step in to mediate between the two sides on the evening of June 2.[[4]](#endnote-4)

After prolonged negotiations, SF Express and Cainiao agreed to resume sharing data at noon on June 3 and to work together over the following month to seek solutions to their data dispute. This resolution caused a great surge in the media’s attention to data security. During this incident, Cainiao and Alibaba’s near obsession with getting control of all possible data in order to build a big data empire had become even clearer than before.[[5]](#endnote-5) As the CIO of SF Express, how could Lo prepare his team to negotiate with Cainiao in two days or to find an ultimate solution by July? Over the longer term, how should SF Express handle its collaborative and competitive (“collapetitive”) relationship with Cainiao and possibly other players in the market, where data management and security was always a challenging issue? What kind of data strategy should SF Express use to ensure its success in the data-technology era?

THE EXPRESS DELIVERY SECTOR IN CHINA

Like most industries in the world’s second-largest economy, the express delivery sector in China was once monopolized by the state: the state-run postal service, China Post, had launched Express Mail Service (EMS) in the 1980s. International express delivery services United Parcel Service of America Inc. (UPS), Federal Express Corporation (FedEx), and Deutsche Post DHL Group (DHL) entered China in the late 1980s as joint-venture cargo transportation companies with state-owned Sinotrans Group. Although private couriers had emerged in the early 1990s in the eastern and southern Chinese provinces, they were only legalized by the amendment and implementation of the Postal Law in 2009, which marked the establishment of an open express delivery service market in China. In 2016, private express delivery firms had more than 90 per cent of the market by volume and 83.1 per cent based on operating income.[[6]](#endnote-6)

Fuelled by the flourishing e-commerce sector in China, a ¥26.1 trillion market, the express delivery industry had experienced robust growth in recent years. Most express delivery companies, even those that did not have direct transactions with Alibaba, relied heavily on Alibaba’s ecosystem; however, the platform could significantly influence the couriers’ business by indicating a preferred delivery service provider for each online transaction.[[7]](#endnote-7)

In 2016, China topped the world’s express-service market as the total number of parcels delivered in the country increased 51.4 per cent year over year to over 31.2 billion pieces. This represented a 53.5 per cent compound annual growth rate over the previous five years. The total operating income generated by the sector in 2016 reached ¥397.4 billion, a 43.5 per cent increase, but the average price had dropped 5 per cent, to ¥12.7 per item. Such growth was partly powered by an increase in human resources (HR) in the industry: in 2015, more than 1.16 million people were employed as couriers. However, industry observers warned that, as China’s demographic dividend was waning, companies could face future HR challenges and should seek to elevate efficiency to sustain growth.[[8]](#endnote-8)

Inter-city delivery services—representing 74.3 per cent of the volume and 52.8 per cent of the operating income of the entire market—predominated, while intra-city delivery showed stronger year-over-year growth, at 40.5 per cent. Delivery outside of Mainland China remained a small segment, accounting for only 2 per cent of the overall market volume; however, the operating income of this segment contributed more than 10 per cent due to the premium price charged for this service.

Geographically, economically prosperous eastern China, which was also the country’s e-commerce hub, took up over 80 per cent of the market share in terms of both volume and operating income. More specifically, 30 cities in the key economic regions in the Yangtze River Delta, the Pearl River Delta, and the Beijing-Tianjin-Hebei region were among the top 50 cities with the largest express-service volume.

The industry was highly seasonal, with a peak season in the fourth quarter. In recent years, November 11 had been made into a Cyber Monday–like online shopping festival by e-retailers such as Alibaba, which had recorded US$17.8 billion worth in gross merchandise volume on this single date in 2016.[[9]](#endnote-9) The express sector had an operating income of ¥46.4 billion in November 2016, 2.75 times that of February.

The industry’s concentration level was medium. The top five enterprises were forecast to jointly account for just 44.9 per cent of market share in 2017.[[10]](#endnote-10) Of the inland express delivery providers, many large players—such as SF Express; ZTO Express (Cayman) Inc. (ZTO); Shanghai YTO Express (Logistics) Co. Ltd. (YTO); and Yunda Holding Company (Yunda Express), Shanghai STO Express Co. Ltd (STO Express)—had extensive networks and were leaders in the segment.[[11]](#endnote-11) Most of the express companies except for SF Express and EMS had adopted a franchise model, which allowed them to expand rapidly with limited capital. The package centres and hubs were built and operated directly by the companies, while the local collection and delivery networks were operated by franchisees. Since the franchisees were independent entities, this model made it challenging for the franchisers to integrate the networks, manage operation risks, and ensure service quality. The five largest service providers were all publicly listed in late 2016 and early 2017, and analysts expected more intense competition between the major players in the coming years, as they became empowered by the capital markets.[[12]](#endnote-12)

However, competition came not only from within the third-party courier segment. China’s second-largest online e-retailer, JD.com Inc. (JD), had been using its own in-house business-to-consumer (B2C) logistics network for 10 years. Since late 2016, JD had made services such as express, warehousing, and smart supply chain available to corporations and merchants, making JD stand shoulder-to-shoulder with the traditional third-party delivery companies. In April 2017, JD spun off this business unit to establish the JD Logistics Business Group. Leveraging the massive data from the company’s e-commerce ecosystem, the company planned to use artificial intelligence (AI), big data, and automation to refine the logistics experience and gain more momentum in the logistics sector.[[13]](#endnote-13)

Government Policy

The logistics industry, especially the express delivery sector, was a focus for Beijing, and the authorities had introduced a number of supportive policies to promote the development of the sector as well as upstream and downstream industries. For example, in October 2014, the state council issued a Medium and Long Term Development Plan for the Logistics Industry (2014–2020) in order to accelerate the opening up and upgrading of the logistics market.[[14]](#endnote-14) In the plan, the government was determined to improve its administration and to use stimulus measures to reduce the cost of logistics, improve the level of scale, enhance logistics infrastructure and networks, promote green logistics, and speed up the building of a public logistics information platform. In October 2015, the state council issued another document to boost the scale of the express delivery industry to 50 billion pieces and a total income of ¥800 billion annually by 2020.[[15]](#endnote-15) To achieve this goal, the government aimed to establish a network that covered every town and village, to enhance express companies’ air transportation capabilities and cargo terminal facilities, and to cultivate the international competitiveness of key enterprises. Service quality was to be largely improved, with items between domestic cities getting delivered within 48 hours. The government expected the industry would create 200,000 new jobs each year. In its 13th five-year plan, issued in March 2016, the central government further emphasized its support of logistics infrastructure building, third-party logistics services, green logistics, cold-chain logistics, and urban-rural delivery. In December 2016, the SPB introduced a detailed five-year plan specifically on the express delivery industry, highlighting the implementation of a real-name system and open package inspections to ensure safety. The postal authority also encouraged the use of new technologies and facilities such as smart pickup boxes, unmanned aerial vehicles (UAVs), and robots to promote the delivery service. The SPB envisioned that there would be at least two world-class Chinese courier brands and three to four Chinese couriers with more than ¥100 billion in revenue by 2020.[[16]](#endnote-16)

SF EXPRESS

Founded in 1993, Shenzhen-based SF Express was a leading express delivery and logistics solutions provider in China, with a network that covered 334 cities domestically and more than 13,000 branch offices.[[17]](#endnote-17) To serve its international businesses in over 200 jurisdictions, it also had operations in Hong Kong, Singapore, Japan, Korea, and the United States. Targeting middle- and high-end corporate clients, SF Express promised “365 day, 24 × 7” service and offered diversified product lines to realize different client needs. In 2012, SF Express expanded its business scope beyond courier services and launched SF-Best, an e-commerce platform that focused on fresh foods and imported products that were sourced from over 60 countries and regions around the world.[[18]](#endnote-18) In the field of fresh food e-commerce, SF Express was gathering strength by relying on its online platform and offline community outlets.

In 2016, SF Express employed more than 400,000 people and recorded revenue of ¥8.5 billion. The company went public on the Shenzhen Stock Exchange as S.F. Holding through a backdoor listing in February 2017 and had a market capitalization of ¥212 billion as of June 2017.[[19]](#endnote-19)

Supported by its “sky network + ground network + information network,” SF Express provided not only basic services such as express courier services, freight forwarding, and cold-chain transportation, but also services such as warehousing, big-data analytics, and cloud-based supply chain management. The company had consistently achieved the highest scores in SPB surveys of customer satisfaction, timeliness of delivery, and customer appeal since 2009. This could be attributed to SF Express’s utilization of a self-operation business model rather than a franchise model. By owning all of its business units, SF Express was able to have absolute control over every node along the delivery route, including feeder services, transfer hubs, and local delivery. Every cost and income from each delivery was integrated and settled by the headquarters via a unified system. SF Express took pride in its self-operation model and regarded it as the core to ensuring its high efficiency, consistent service quality, customer loyalty, and effective corporate governance. At the same time, the self-operation business model led to a lower gross profit margin compared with the companies that were franchised. The company’s three-year average gross profit was around 20 per cent (see Exhibit 1). Specifically, in the first half of 2017, sales revenue was US$32.1 billion and gross profit was US$68.1 billion, making a gross profit margin of 21.2 per cent.[[20]](#endnote-20)

SF Express was the first private express company to offer air service by chartering five aircraft and leasing cargo space in planes on 230 routes in 2003, when airfare prices dived following the outbreak of severe acute respiratory syndrome (SARS). In 2009, it launched its cargo airline subsidiary SF Airlines, the first and largest private cargo airline in China. This investment in a cargo airline won SF Express a strong competitive advantage in speed for a long time although competitors were trying to catch up by duplicating the model in recent years. As of the end of 2016, the company had a fleet of 51 airplanes, including 36 that were self-owned, to cover the major cities in China, Hong Kong, and Taiwan. The company planned to purchase another 14 planes by 2020. In February 2018, SF Express got approval to build the first freight hub in Asia, which would allow it to build a hub-and-spoke system to ensure efficiency and on-time delivery (see Exhibit 2).[[21]](#endnote-21)

Wang Wei, the chief executive officer (CEO) and founder of SF Express, once said that one of SF Express’s competitive advantages was its differentiation strategy: “We differentiate ourselves with competitors with our service and positioning, also we articulate such differentiation to our customers. Successful positioning is a key factor determining the ultimate success of a company.” Unlike its key rivals, especially Alibaba, whose rise largely depended on the booming e-commerce sector, SF Express had a clear focus on providing enterprise clients with reliable and speedy delivery service, and this made up 70 per cent of its business.[[22]](#endnote-22) In the e-commerce arena, SF Express’s major clients were B2C online retailers, including Apple Inc. (Apple), Xiaomi Inc. (Xiaomi), Huawei Technologies Co., Ltd. (Huawei), and Uniqlo Co., Ltd. (Uniqlo). The consumer-to-consumer (C2C) e-commerce sector, notably individual merchants on Alibaba’s Taobao marketplace, contributed less than 10 per cent to its revenue. Its positioning allowed SF Express more bargaining power in terms of pricing: in 2015 and 2016, its average unit price was ¥23.83 and ¥22.15, much higher than the industry averages of ¥13.4 and ¥12.71. Although its package volume represented only an 8 per cent share of the market, the company captured 20 per cent of market share by revenue.

SF Express’s comprehensive information systems, which were widely regarded as the most advanced among its peers, served as the backbone of the company and allowed it to enhance its reliability and customer experience. The company had been working with solution providers such as IBM and Oracle since 2003 to optimize its information technology (IT) infrastructure and had established 35 systems to empower its operations.[[23]](#endnote-23) In 2009, the company spun off its IT arm as Shenzhen SF Technology Co. Ltd. (SF Technology); this company employed more than 2,000 IT specialists and provided patented IT solutions to the parent group. In 2011–2015, it had dedicated about ¥5 billion in IT spending and had vowed to enhance IT investment following the listing in 2017.

The core information system deployed across SF Express was the Asura operating system, which integrated the entire process of parcel pickup, handling, shipping, delivery, and billing.[[24]](#endnote-24) Individual SF Express staff members were given different degrees of access on the system based on their job functions. When a customer scheduled a package pickup via any of the company’s various channels (e.g., mobile application, WeChat, website, or toll-free telephone number), the courier would arrive at the customer’s place within one hour. Using a wireless handheld terminal device connected to Asura, the courier would generate a bar code instantly and transmit the parcel information to the data centre in real time, even before the package arrived at the 24-hour sorting centre.[[25]](#endnote-25) At SF Express’s 12 hubs, 127 package centres, and 133 small-package sorting facilities, automated facilities assisted sorters with the package handling process based on optimal routes generated by the system. Each of SF Express’s 150,000 ground vehicles was equipped with a global positioning system linked to Asura to enable real-time monitoring and ensure safety. An industry observer was quoted by the Chinese press as saying that SF Express’s database and information systems were so comprehensive that “Wang Wei could easily replicate another SF Express within three days, even if all of its employees [quit] tomorrow.”[[26]](#endnote-26)

In 2015, SF Express launched the big-data product Data Dengta (“Data Lighthouse”), to provide corporate subscribers with data-driven insights and business solutions. The product was powered by SF Express’s massive database and covered a wide range of industries such as apparel, beauty products, home appliances, sports products, food products, and so on. Enterprises could access the product online or via telephone to obtain real-time bespoke analysis of their supply chain and comparisons with industry benchmarks.[[27]](#endnote-27) However, the ubiquitous information system also created great data and system security challenges for SF Express. From 2013 to 2016, there were at least four separate cases of personal data theft involving SF Express staff from different subsidiaries. These staff members had hacked into the Asura system and downloaded and sold an aggregate of over two million customers’ personal information.[[28]](#endnote-28) SF Express told the press that the company had been working to improve the system security to be comparable with bank security and would work proactively and closely with the police to tackle information breaches.[[29]](#endnote-29)

Externally, SF Express continued to face intensifying competition in the market, which was crowded not only with domestic firms but also international mega-firms: in 2012, U.S. companies FedEx and UPS were granted licenses for domestic shipping in China.[[30]](#endnote-30) In response to the market dynamics, SF Express made a list of strategic attempts. In 2012, it expanded into the retail e-commerce sector, with a focus on fresh goods.[[31]](#endnote-31) In 2013, it started to invest in UAVs, or drones, and tested delivery using the new technology. In the same year, Wang, who had previously owned 99.9 per cent of the company, sold a 24.5 per cent stake to four state-backed investors—China Merchants Group, CITIC Capital Holdings Ltd., Ancient Jade Capital Management Co. Ltd., and Suzhou Oriza Holdings Co. Ltd.—for an undisclosed amount.[[32]](#endnote-32) After its 2017 listing, the company planned to increase its spending in IT and equipment to enhance its operational efficiency and reliability.

HIVE BOX

Last-mile or last-kilometre delivery—that is, the portion of transit from the last logistics centre to the customer’s doorstep—was the key problem that troubled logistics companies globally. On average, last-kilometre delivery took five hours in China, accounting for 45 per cent of total delivery time, even though the distance was only 5 per cent of the entire route, according to SPB.[[33]](#endnote-33) Delivery companies generally had two approaches to tackle this problem: some of them used existing widespread convenience stores as pickup points, while others invested in smart lockers installed at the entrances of residential and commercial buildings. After the courier put the packages in the lockers, the system would send a message to the end-customers to let them know the package was ready for them to pick up at their convenience.

In April 2015, SF Express collaborated with STO Express Co. Lt. (STO), ZTO, Yunda Express, and Global Logistics Properties Inc. to establish Shenzhen Hive Box Technology (Hive Box). In February 2017, the self-pickup and drop-off service raised ¥2.5 billion from Series A round fundraising from financial investors including CDH Investments.[[34]](#endnote-34) SF Express further invested ¥980 million in the round, but its shareholding was diluted to 32.03 per cent (or 30.86 per cent).[[35]](#endnote-35) STO had purchased ¥100 million new shares in SF Express, with a less than 10 per cent stake. YTO had yet to exercise its rights to purchase another ¥200 million in shares, and ZTO did not participate in the fundraising.

Although Hive Box was the best received smart-locker service provider in China, its profit model, based on service fees and advertising, was in question. With over 50,000 lockers in 74 cities handling three million packages every day, the business was asset-heavy; each locker cost up to ¥60,000, but the company currently charged only ¥800 per year for each courier to use the service.[[36]](#endnote-36) In 2015, Hive Box’s operating income was only ¥17,000, with a ¥36.8 million loss. In 2016, it recorded a ¥4.8 million operating income and ¥157.2 million in loss.

Hive Box was open not only to its shareholder couriers, and this created a paradox: non-shareholders could enjoy the same benefits as shareholders without having to bear the heavy financial cost. Ironically, SF Express, the controlling shareholder, was not a heavy user itself, but merely saw the locker as a complementary service due to concerns about safety and service quality. The largest users of the services were ZTO (22 per cent), YTO (18 per cent), STO (14 per cent), Yunda Express (14 per cent), Best Express (10 per cent), and SF Express (6 per cent).[[37]](#endnote-37)

CAINIAO NETWORK TECHNOLOGY

Founded by an Alibaba-led consortium in 2013, Cainiao Network Technology Co. Ltd. (Cainiao) created a big-data logistics platform that connected the information systems of Alibaba Group with those of third-party delivery companies, allowing the companies to share information about orders, delivery routes and times, and user feedback.[[38]](#endnote-38) Cainiao described the company’s model as having changed from an existing “N–N” model to an “N–1–N” model; the “1” in this situation represented Cainiao, which provided a cloud-based platform and allowed delivery processes to become more digitized and efficient (see Exhibit 3). Alibaba’s cloud-based platform boasted of processing 70 per cent of all the packages in China, an average of 42 million per day. By integrating the delivery and warehouse networks of logistics companies, it aimed to drive logistics efficiency, enabling 24-hour domestic delivery and 72-hour international delivery.

To collect data, Cainiao introduced electronic shipping labels in 2014. All merchants on Alibaba’s marketplaces were encouraged to use the unified labels, which stored information on merchants, buyers, delivery firms, and route, no matter which delivery service was used. Such labels helped to record recipients’ address details into a four-level address database. With Cainiao’s delivery data and technology solutions, merchants on Alibaba’s marketplaces could choose the preferred delivery company; logistics service providers could receive route-planning alerts and compare their performance against peers; and consumers could track orders, receive delivery time information, and keep in touch with the courier. During the Double 11 (November 11) shopping festival in 2016, Cainiao used big data to help predict regional demands and provided e-commerce merchants with suggested stocking levels, which improved overall logistical efficiency.[[39]](#endnote-39)

Cainiao also provided a nationwide warehousing and supply chain management service to medium to large merchants. It did not invest in any warehouses, transport, or last-mile assets, but leveraged the services of providers on its network to fulfill orders and deliver packages to end-customers. Since 2015, Cainiao had formed strategic partnerships with international postal services including Singapore Post Limited, Royal Mail PLC in the United Kingdom, and the United States Postal Service, to provide one-stop cross-border storage and delivery services that covered 224 countries.

Alibaba remained the largest shareholder, with a 47 per cent stake, after ¥10 billion in funding was raised in March 2016 from investors that included Singapore’s sovereign funds Government of Singapore Investment Corporation (GIC) and Temasek Holdings (Private) Limited (Temasek) and Malaysia’s Khazanah Nasional Berhad. China’s top express delivery companies, including SF Express, were the founding shareholders, but each of their stakes was diluted to less than 1 per cent following the 2016 fundraising.[[40]](#endnote-40) Cainiao was considering an initial public offering (IPO) by 2022, which could value the company at ¥26.8 billion, larger than any of the logistics companies in China.

THE BIG FIGHT

The collaboration between the battling titans started in May 2016, when Cainiao formed an alliance of 12 logistics firms and eight self-pickup service providers, including SF Express and Hive Box.[[41]](#endnote-41) Previously, since the information systems of the express companies and the smart lockers were independent, when a package was put into the smart locker, its status would be shown as “signed and received” on the courier’s system, which caused confusion for end-customers. Under the collaboration, Cainiao would integrate the delivery information of the partner logistics and smart-locker firms. When an authorized courier used a smart-locker service, the courier would need to enter the tracking code for the package in the locker’s interface, and then the locker would instantly pair the shipment information with that on Cainiao. If the shipment was an order from Alibaba’s ecosystem, Cainiao would provide the receiver’s phone number and the locker would send a message via SMS or WeChat message with the code to unlock the box. This saved the courier the effort of entering the recipient’s phone number manually, and the status of the package would be updated on Cainiao and Alibaba’s various platforms. This collaboration could be vital to Hive Box, especially when Cainiao launched the encrypted shipping labels provided to Alibaba merchants in May 2017. The contact details for Alibaba buyers, including their phone numbers, would no longer be shown on the package labels, and the couriers could access this information only through Cainiao.

The relationship between SF Express/Hive Box and Cainiao soured in March 2017, when Cainiao proposed new data-sharing terms during negotiations to extend their co-operation.[[42]](#endnote-42) Up to that time, SF Express and Hive Box would not transmit shipment data if it failed to pair with any of Cainiao’s existing data. The logic behind this was self-evident: SF Express believed the unpaired shipment data involved non-Alibaba merchants and customers as well as SF Express’s trade secrets regarding its delivery routes and should therefore be kept confidential. Cainiao argued that, due to a security update, it should have access to this data as well, since the courier and smart locker had access to Cainiao’s database for pairing in the first place. In fact, some logistics companies had already surrendered such data, enabling customers to check non-Alibaba shipments on Cainiao’s application and website. Cainiao proposed a list of solutions for Hive Box to comply with its data security requirements, including asking Hive Box to switch its cloud computing service provider from Tencent Cloud to Alibaba Cloud—something Hive Box declined to do.[[43]](#endnote-43)

As the negotiations stalled, Cainiao informed Hive Box by email on May 27 that it would disconnect the smart locker’s interface on June 1. Three days later, SF Express sent a similar notice to Cainiao, saying that it would stop sharing data with the data platform on June 1 as well. When the standoff fell into public recriminations on June 1, Cainiao removed SF Express as a shipping option from Alibaba’s marketplaces and appointed YTO (in which Alibaba had a stake) and EMS as “recommended alternatives” to SF Express. While some logistics companies had suspended the use of Hive Box amid the tussle, they were observing with mixed feelings. For one thing, they were hungry to plunder SF Express’s market share; on the other hand, they were hoping that the conflict might become a “David and Goliath” story—that is, that SF Express could somewhat quell Cainiao and Alibaba’s near monopoly in the market.

The reason behind the conflict was that data infrastructure was essential to building an intelligent logistics system. Hive Box collected consumer information about time, pickup location, and so on, and Cainiao needed this data because it was trying to control the last component of the value chain. Backed by Alibaba, Cainiao could gain access to upstream information such as product information, delivery courier, delivery person, and so on. Cainiao needed information from Hive Box to close its data loop. SF Express, on the other hand, as a downstream player, was trying to control the last component of the value chain as well. By doing so, it could not only increase its service quality but also more efficiently manage upstream operations.

The clash had divided the Chinese express delivery and e-commerce sectors. YTO, EMS, and Alibaba-backed electronics retailer Suning Commerce Group Co. Ltd., issued statements endorsing Cainiao. SF Express and Hive Box had JD, Tencent Holdings Limited, NetEase Inc., and food-delivery service provider Meituan-Dianping (Meituan) at its back. JD and Meituan announced on June 2 that they had decided to use Hive Box as their “last-mile delivery” solution. JD, in particular, empathized, noting that the data involved in the co-operation between itself and Hive Box was under a high degree of encryption protection.[[44]](#endnote-44)

MANAGING DATA

The phrase “data security” was at the centre of each company’s statements in this war of words between SF Express and Cainiao and their allies, as each company strove to justify its stand. Cainiao insisted its request of SF Express was to prevent unauthorized access to its customer data by third parties. SF Express said its denial of Cainiao’s “unreasonable request” abided by its “customer-first” principle, and it urged other express companies to be mindful of Cainiao’s “bottomless encroaching to other companies’ core data.”

The tussle coincided with the enforcement of China’s first cyber-security law on June 1, 2017, which was widely welcomed as a milestone effort in data privacy and would bring China in line with worldwide practice. Under the new law, companies were required to prepare statements regarding the collection of personal data and to seek consent for this, and they were prohibited from collecting personal data that was unrelated to the service they were providing. The collected personal data could not be provided or sold to any other person, except with the consent of the individual whose data was being provided or sold or in cases where the data was irrevocably anonymized.[[45]](#endnote-45)

Both SF Express and Cainiao had already had their own privacy policies and user agreements regarding data collection before the new law came into force. By default, customers had to agree to allow the companies to share their personal data with “related parties and reliable partners” before they could successfully register as new users. Lacking a sense of privacy rights, many people might have given up their data unthinkingly in exchange for the convenient services provided by the data collectors. One could doubt the sincerity of SF Express and Cainiao when they boasted about how much they valued the security of customers’ personal data. It was undeniable that data had become the lifeblood of companies and organizations, and its value continued to increase.

Companies like Cainiao and Alibaba, who saw themselves as “data companies,” naturally developed a mind-set of collecting and storing as much data as possible, especially when the costs of data acquisition and storage kept falling. However, companies had to be mindful of becoming compulsive data hoarders. Hoarding massive amounts of data within organizations not only increased the difficulty of protecting data from cybercrimes, it also shut out the possibilities for such data to be capitalized. McKinsey & Company estimated that public information and shared data from private sources could make US$3 trillion in additional value available to the global economy each year.[[46]](#endnote-46) To realize the effective flow of data, much needed to be done by government, the private sector, and individuals to set policies and establish standards.

DECISION

The conflict between SF Express and Cainiao had captured a great deal of attention at China’s postal regulator, so that the SPB had to make an unusual intervention. “Both parties should seek a solution on the basis of the largest possible common ground, abide by market order and consumers’ rights, and refrain from exerting severe and negative social influence because of company feuding,”[[47]](#endnote-47) the bureau said in a statement.

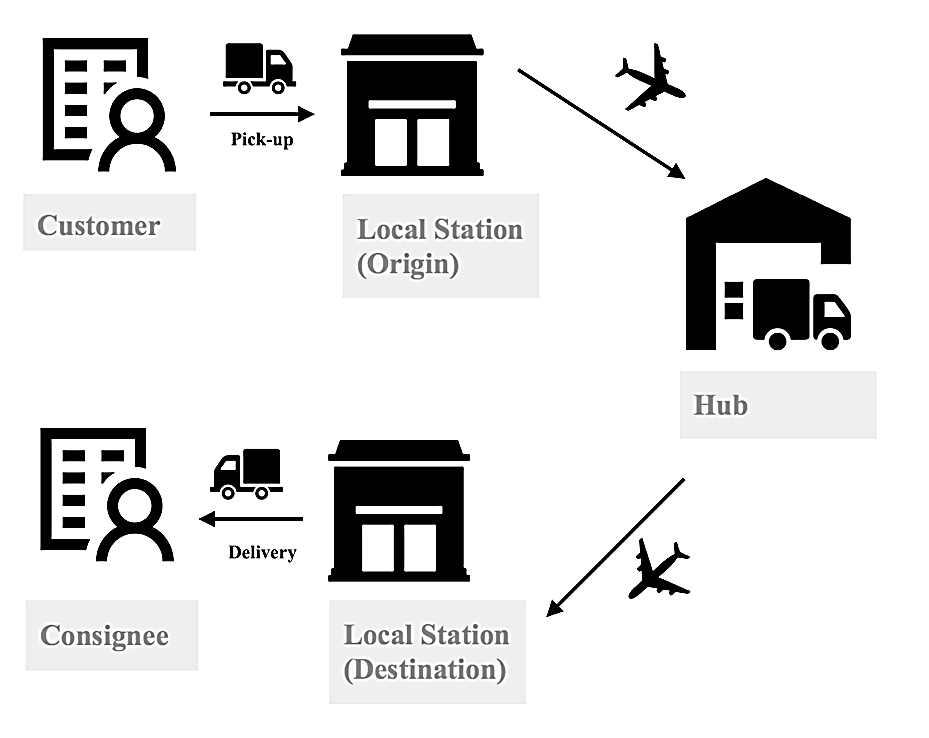
How should Lo suggest SF Express resolve the dispute with Cainiao in the next 30 days? Both companies understood how crucial data was to their exponential growth, and they were fighting a battle over who should own and benefit from this valuable new asset. Therefore, it was critical for SF Express to adapt to a new data strategy to win the data wars.

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Exhibit 1: SF Express Delivery Sales Revenue and Profit Margins

Source: Created by authors using data from “SF Express 2017 Annual Report [in Chinese],” SF Express, March 22, 2018, accessed July 3, 2018, http://www.sf-express.com/cn/sc/download/financial\_statements/1832212017.PDF

Exhibit 2: Key Stages of Express Delivery under the Hub-and-Spoke system



Source: Created by the case author.

Exhibit 3: Cainiao Business Model

**“N-N” Model (Before)**

E-Commerce Merchants

Express Delivery Companies

STO Express

EMS

SF Express

A

B

C

“N” number of merchants

“N” number of delivery companies

**“N-1 –N” Model (After)**

E-Commerce Merchants

Express Delivery Companies

STO Express

EMS

SF Express

A

B

C

Cainiao Network

“N” number of merchants

“1”data platform

“N” number of delivery companies

Source: Created by the case author.

**endnotes**

1. This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of SF Express Group Co. Ltd., Cainiao Network Technology Co. Ltd. or any of their employees. [↑](#endnote-ref-1)
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