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THE CHINESE ARMY'S FIRM IN BUSINESS: THE SANJIU GROUP

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INTRODUCTION

The emergence of a rapid-growing market economy in China from the late 1970s provided opportunities for existing large plants to grow into more complex big businesses, stimulated especially by booming demand for their "upstream" products, such as steel and petrochemicals (Nolan 1995, 1996a, 1996b; Nolan and Wang 1996a, 1996b). However, large firms emerged also from among the ranks of new entrants and small producers. The object of this study, the Sanjiu (Three Nines) group, only came into existence in 1987.[1] By the early 1990s it had risen to become China's largest pharmaceutical firm (by value of output) and one of the top 100 firms in China (by sales value) (DRC 1993, p. 3). Its ambition is to become one of the world's top ten pharmaceutical firms.

One of the first sights that greets the arriving traveler at Beijing International Airport is a huge advertisement for Sanjiu's main product, Sanjiu Weitai stomach medicine, placed prominently on the airport control tower. On a big billboard at the southeast corner of Seventh Avenue and Forty-eighth Street in New York, Sanjiu has replaced the advertisement for Union Bay Sportswear. It is the first Chinese firm to advertise in Times Square, at an estimated cost of U.S.$240,000–300,000 per year (*New York Times*, May 1, 1995). Zhao Xinxian, the chief executive officer of Sanjiu, is reported to have been the first Chinese military figure to have been listed in the *Cambridge Dictionary of National Biography* (*China Daily*, June 22, 1993).

By 1995, Sanjiu had over 1,000 employees in the core firm. There were over 1,000 employees in Sanjiu-owned "second-tier" companies (*erji gongsi*), who

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[1] It was registered in November 1986 (*Jiefangjun bao*, April 11, 1986).

were paid their wages directly by Sanjiu, and as many as 40,000–50,000 employees working for second-tier firms, who were paid their wages by these firms, rather than by Sanjiu headquarters.

Sanjiu presents an apparent puzzle. In 1995 Sanjiu was still a 100 per cent state-owned firm based in Shenzhen Special Economic Zone in South China. Not only was it state-owned, it was also administratively controlled from the distant Beijing headquarters of the General Logistics Department (Zonghou Qinbu) of the People's Liberation Army (PLA). The firm has no private property rights at all. In the absence of such rights, it is tempting to explain the growth of Sanjiu in terms of "nepotism" and "army connections."[2]

The apparent puzzle is reinforced by the fact that the sector in which Sanjiu made its initial growth, traditional Chinese medicines, is one that depends greatly on entrepreneurial skills rather than advanced technology, as is the case in the steel industry, petrochemicals, or even Western pharmaceuticals with their high outlays on drugs research. Management motivation, product choice, quality control, marketing, and brand imagery, rather than scientific skills, were the key to Sanjiu's early growth within pharmaceuticals. Moreover, Sanjiu's subsequent growth was realized increasingly through diversification into a wide variety of other areas, including hotels, real estate, food and drink, construction, and printing, far removed from the core business. In these areas, Sanjiu's headquarters applied the business skills developed in the core business. This is the classic path to growth of the diversified East Asian capitalist conglomerate (Amsden and Hikino 1994). Takeovers and mergers were also a critical part of Sanjiu's expansion mechanism. In their execution, Sanjiu's leadership operated in a fashion that would be readily recognizable to a capitalist firm, seeking out "hidden value" to be "dug out" of the firms it was taking over.

This paper attempts to inquire more deeply into the nature and sources of growth at Sanjiu. Section I analyzes the relationship between Nanfang (Sanjiu's former company name) and its administrative superiors. Section II examines the way in which Nanfang's core business expanded. Section III analyzes the transition from a specialized pharmaceutical firm (Nanfang) to a diversified conglomerate (Sanjiu). Section IV briefly summarizes Sanjiu's business structure in the mid-1990s. The conclusion makes some suggestions about the sources of growth at Sanjiu and ends with a challenge.

I. AUTONOMY WITHIN CONSTRAINTS

Nanfang was established in 1985 by the Guangzhou Army Hospital. This was the

[2] At seminars where we have presented this paper, there are always members of the audience who assert confidently that this must be the "real" explanation for Sanjiu's explosive growth.

PLA's No. 1 Medical University, which was responsible to the PLA's General Logistics Department in Beijing. The decision to set up the firm was strongly influenced by the chance factor of the location of another highly successful business, Baiyunshan, which was one of the most dynamic new businesses established during the early reform period. It was a collectively owned pharmaceutical enterprise which grew from nothing to be the largest pharmaceutical manufacturer in China by the late 1980s. In the early 1990s it was placed in the top 100 Chinese firms (by value of sales).[3] The top two Chinese pharmaceutical firms in 1995 were both firms which were founded during the reforms.

Baiyunshan was located opposite the Guangzhou Army Hospital. The hospital was run by the General Logistics Department of the PLA. The army hospital had its own laboratories that made traditional Chinese medicines. The leadership of the hospital were impressed by the explosive growth achieved by Baiyunshan sitting virtually on its own doorstep, producing the type of medicines that it produced itself on a smaller scale for internal use within the hospital. The leadership, in consultation with the headquarters in Beijing, decided to establish a factory of its own which made use of its own experience in making pharmaceuticals to enter this rapid-growing market. The choice of Shenzhen as the site for this facility was strongly influenced by the General Logistics Department's headquarters in Beijing, which already owned many other plants in Shenzhen. The army's strong presence in Shenzhen had much to do with the fact that there was a great deal of land already occupied by the army, due to the proximity of Shenzhen with Hong Kong. The land on which Nanfang was established had formerly been an area where the army police (*wujing*) had bred dogs.[4]

In the early phase of construction of the plant, Nanfang was under the supervision of a sanatorium in Shenzhen run mainly for overseas Chinese and subordinate to the Guangzhou Army Hospital. However, the sanatorium ceased operation shortly after the construction of Nanfang was begun, and was later turned into a hotel (see below). From then until 1992 Nanfang was placed directly under the supervision of the army hospital.

The Guangzhou Army Hospital reached an agreement with Professor Zhao Xinxian, a leading researcher at the hospital. Under the agreement, Zhao selected a small group of coworkers from the hospital (five in all, apart from Zhao himself) to form the management team of the plant under his command. The group were all "military intellectuals." They were to organize the building of the plant, for which the hospital loaned them five million yuan. From 1987 to 1991 Nanfang's reported after-tax profits totaled 154 million yuan. Official data (Table I) show that over 35

[3] Curiously, in 1992 it was ranked seventy-third by sales volume, and Nanfang was ranked seventy-fourth within the top 100 firms in China (DRC 1993, p. 3).
[4] Nanfang thereafter paid land rent to both the *wujing* and the Shenzhen City government.

TABLE I

PRINCIPAL FINANCIAL INDICATORS FOR NANFANG PHARMACEUTICAL FACTORY

	Value of Output (Mil. Yuan)	After-Tax Profits		Taxes		Remittances to Superior Authorities		Profits Distributed as Bonuses[a] (Mil. Yuan)
		Mil. Yuan	% of Output Value	Mil. Yuan	% of Pretax Profits	Mil. Yuan	% of After-Tax Profits	
1987	11	1.65	15.0	0.13	7.3	1.0	60.6	0.25
1988	65	9.75	15.0	4.56	31.9	5.0	51.3	1.46
1989	161	22.5	13.9	5.20	18.8	9.1	40.4	3.38
1990	381	45.6	12.0	18.2	28.5	17.0	37.3	6.84
1991	639	74.2	11.6	24.0	24.4	22.0	29.6	11.13
1992	1,011	137.6	13.6	26.2	16.0	50.0	36.3	20.64
1993	1,869	254.8	13.6	30.9	10.8	70.0	27.5	—
1994	1,809	382.0	21.1	25.1	6.2	80.0	20.9	—
1995[b]	1,124	240.2	21.3	21.6	8.3	—	—	—

Sources: Li and Li (1995, p. 69), except for 1994 figures, which are from interviews at Nanfang.

[a] Fifteen per cent of after-tax profits were distributed as bonuses.

[b] January–October only.

per cent of after-tax profits were handed over to its superior, the Guangzhou Army Hospital. However, in interviews at Nanfang, leading officials argued that from 1987 to 1991, over 100 million yuan was handed over through different routes from Nanfang's after-tax profits to the authorities at the Guangzhou Army Hospital, amounting to around two-thirds of Nanfang's total after-tax profits. The share of profits handed over to higher authorities was larger than that across the whole of China. In China's pharmaceutical sector during the early 1990s official figures show that around 57 per cent of after-tax profits were handed over to higher authorities and around 43 per cent were retained by the enterprises (see note to Table II). Moreover, the relationship was becoming "more and more tense," with the army hospital asking for greater remittances from Nanfang as the plant prospered.

The army hospital was the sole shareholder in Nanfang and thus able to decide the distribution of profits between the plant and itself. The arrangements for remittances to the army hospital were ad hoc and informal. The removal of such a high share from profits was a source of increasing dissatisfaction among Nanfang's leadership. During the early 1990s Nanfang's leaders found a way to increase the plant's autonomy and retain a higher share of profits.

By 1992 the General Logistics Department had set up around thirty-five enterprises in Shenzhen, many of which were losing money. In late 1991, Zhao Wangqi, head of the General Logistics Department in Beijing, visited Shenzhen to try to sort the problem out, and a deal was struck with the Nanfang leadership. Nanfang would no longer have to answer directly to the army hospital in Guangzhou. In-

TABLE II

TOP TEN FIRMS (BY SALES VALUE) IN CHINA'S PHARMACEUTICAL INDUSTRY, 1992

	Sales (Mil. Yuan)	After-Tax Profits (Mil. Yuan)	After-Tax Profits / Sales (%)	Net Assets (Mil. Yuan)	After-Tax Profits / Net Assets (%)
All China total	52,393	4,100*	7.8	17,879	22.9
Guangzhou Baiyunshan	1,661	84	5.1	169	49.7
Shenzhen Nanfang	1,637	217	13.3	286	75.9
Huabei	745	200	26.8	674	29.7
Xian Yangseng (Jansen)	552	238	43.1	109	218.3
Dongbei	545	35	6.4	262	13.4
Shandong Xinhua	514	89	17.3	194	45.9
Harbin	480	46	9.6	214	21.5
Beijing No. 2 Tongrentang	447	73	16.3	65	112.3
Tianjiin SmithKline and French Labs	435	176	40.5	37	475.7
Tianjin Tradional Chinese Medicines	388	94	24.2	89	105.6
Total for top ten producers (mil. yuan)	7,404	1,252	16.9	2,099	59.6
(% of all China total)	(14.1)	(30.5)	—	(11.7)	—

Sources: DRC (1993, p. 119); SSB, *ZGTJNJ* (1993, pp. 418, 420).

* Pretax profits amounted to 6,438 million yuan, of which 1,772 million yuan (43.2 per cent of total after-tax profits) remained in the enterprises after the completion of remittances to superior authorities.

stead, it was to be placed directly under the supervision of the General Logistics Department. Nanfang would henceforth remit after-tax profits to the General Logistics Department, which was the formal owner of the firm (Li and Li 1995, p. 64). The General Logistics Department made a separate agreement with the army hospital in Guangzhou to allocate a proportion of the profits to them. The general manager of Nanfang was then formally appointed by the General Logistics Department and could be replaced by them if they found his performance unsatisfactory. Zhao Xinxian was reaffirmed in this position. As the general manager he was Sanjiu's "legal person" representing the owners.

Nanfang was permitted to put into practice a new wage system with much enhanced differentials among regular members of the workforce (the 1:18 system). The principal way in which the ownership rights of the General Logistics Department was made manifest was through its control of remittances out of Sanjiu's profits. It was agreed that the share of profits remitted would be reduced and would be made more predictable. From 1992 to 1994 inclusive, Sanjiu made estimated after-tax profits of 1,109 million yuan, of which around 210 million yuan (19 per cent) were handed over to the General Logistics Department. This allowed Sanjiu a much higher share of retained profits than was the case for most firms in the pharmaceutical industry (see note to Table II). Moreover, Sanjiu felt that it was now able to bargain more effectively over the share of profits to be handed over to its superior authorities than before the "deal." The leading cadres felt that they had received encouragement in this from recent government policy statements about the need to separate enterprises from government under the "modern enterprise management system" in China.

Under the "deal" Sanjiu was allowed operational autonomy, subject only to requiring the approval of the General Logistics Department for very large-scale investments. Zhao Xinxian, the "legal person" who was responsible for the firm, had complete autonomy from the General Logistics Department in the appointment of his management team. Sanjiu did not need to seek permission from the General Logistics Department for the proposed joint venture with Merck (see below). Sanjiu has been praised by the Shenzhen City government for the clarity with which the line of responsibility is drawn between the enterprise and its superior administrative organ, the General Logistics Department of the PLA. It is regarded as a good example of the modern enterprise management system in China.

There was strong interest shown in the firm by the General Logistics Department and the armed forces in general, as shown by the regular visits made by senior figures from Beijing.[5] The principles governing the remittance of profits were not formalized, and they were still the subject of "negotiations." The General Logistics Department could still require Sanjiu to make large ad hoc "handovers." For example, in 1995, Sanjiu was required to hand over twenty-three million yuan, in addition to the agreed sixty million yuan remittance, to help build a new meeting hall for the department in Beijing.

The second part of the deal was that Nanfang would take over the General Logistics Department's mainly loss-making enterprises in Shenzhen. Nanfang would become the "core" enterprise in a newly formed "Sanjiu group." During the years 1992–94 Sanjiu injected around 200 million yuan into these enterprises. Their takeover was to have great significance for the future path of development of Nanfang, helping to push it toward a "conglomerate" form much more rapidly than might (if ever) have happened without the move. Sanjiu controlled and supervised its subordinate companies in the "second and third tier" ("legal persons" and "quasi-legal persons" respectively) in the same way as Sanjiu was supervised and controlled by the General Logistics Department. However, whereas Sanjiu itself could be regarded as having become the "quasi owner" in place of the General Logistics Department, the "second- and third-tier" companies within Sanjiu did not

[5] Nanfang's main plant has been visited by General Liu Huaqing and General Zhang Zhen, both vice-chairmen of the Central Committee of the PLA; Chi Haotian, Chinese national defense minister; General Fu Quanyu, minister of the General Logistics Department of the PLA; Zhou Keyu, party leader of the General Logistics Department of the PLA; and General Zhang Aiping, former Chinese defense minister.

TABLE III

CHINESE PHARMACEUTICAL PRODUCTION

(1,000 tons)

	Western Medicines	Chinese Medicines
1980	40	103
1990	221	226
1994	331	379
1994 (1980 = 100)	828	368

Sources: SSB, *CSY* (1981, p. 235); SSB, *ZGTJNJ* (1991, p. 429; 1995, pp. 411, 416).

possess such independence. Rather the managers of these companies were merely "managers" (*jingyingzhi*) under Sanjiu (Li and Li 1995, p. 65). Moreover, upon taking over the second-tier firms, Nanfang advertised for new general managers and new department heads. The existing incumbents had to compete openly for their old jobs, though only two or three of them failed to be reappointed. After their appointment Nanfang monitored their performance closely, practicing the system of "elimination of personnel through selection and competition" (*renyuan taotaizhi*). Existing managers who stayed on in their jobs had to undergo extensive retraining and were dismissed if they did not pass their exams.

The management team has debated whether the firm should attempt to be floated on the domestic stock market, but has decided against this. The market is thought by them to be too immature and volatile.

II. GROWTH OF THE CORE BUSINESS: CHINESE MEDICINES

A. *Market Structure*

In the early 1980s, China's pharmaceutical industry was under tight state control. There were no "firms," just state-administered plants. Of these much the largest were the traditional state producers of Western medicines, mainly antibiotics. The largest of these were the Huabei plant at Shijiazhuang and the Dongbei plant in Shenyang. In 1984 they had 8,993 and 7,086 employees respectively.[6] In the 1980s, as incomes rose demand for medicines increased more than proportionately. Output of Western medicines rose by more than 16 per cent per annum from 1980 to 1994,[7] and output of Chinese medicines rose by 10 per cent per annum over the same period (Table III).

[6] SSB, *ZGGYJJTJZL* (1985, p. 294). The next largest plants were Beijing Pharmaceuticals, Shanghai No. 4, and Shanghai No. 6, each with under 3,000 employees.

[7] A substantial proportion of Western medicines was produced for export.

TABLE IV

SELECTED DATA ON CHINA'S PHARMACEUTICAL INDUSTRY, 1995: INDEPENDENT ACCOUNTING ENTERPRISES

	Total	State Enterprises	State Enterprises as % of Total
No. of enterprises	4,453	1,861	41.8
Gross value of output (mil. yuan)	87,456	46,025	52.6
Value-added (mil. yuan)	25,155	12,248	48.7
Fixed assets (net value, mil. yuan)	28,435	15,913	56.0
Sales value (mil. yuan)	74,083	40,363	54.5
Current liabilities (mil. yuan)	56,476	34,222	60.6
Long-term liabilities (mil. yuan)	20,583	14,015	68.1
Profits prior to value-added and sales taxes (mil. yuan)	14,643	7,660	52.3
Profits prior to profits tax (mil. yuan)	9,561	3,609	37.7
After-tax profits (mil. yuan)	4,905	1,277	26.0

Source: SSB, *ZGTJNJ* (1996, tab. 12.12).

In the mid-1980s, the government relaxed state controls over the pharmaceuticals industry, leading to a wave of new plants established across the country. A common saying was: "If you want to be mayor go for pharmaceuticals." Baiyunshan was a symbol of the high profits to be earned in this sector. It was a collective enterprise which quickly grew from nothing to take over the number one position in the pharmaceuticals industry, displacing the old state enterprises. Baiyunshan principally produced traditional Chinese medicines.

By 1987 there were over 2,600 independent accounting enterprises producing medical and pharmaceutical products, with almost 700,000 employees (SSB, *ZGGYJJTJNJ* 1988, p. 298). By 1990 Guangdong Province alone (in which Shenzhen is situated) had over 260 pharmaceutical plants; and by 1989, Guangzhou City had sixty-eight plants, while Shenzhen had twenty-three (SSB, *GDTJNJ* 1991, pp. 155–57). By 1995, the number of independent accounting enterprises in the sector over the whole country had expanded to 4,453 (Table IV). The plant-level concentration ratio was low (Table V). In 1987, the top five plants produced just 4.6 per cent of total sectoral output value, and the top twelve enterprises produced 19.3 per cent (SSB, *ZGGYJJTJNJ* 1988, p. 298).[8] Even today, the Chinese pharmaceutical industry is not highly concentrated. Nanfang, the largest producer in the country only accounts for around 6–7 per cent of the total sales value of traditional Chinese medicines, and around 2–3 per cent of total pharmaceutical sales. This is not too dissimilar to the global situation, in which the largest

[8] By 1991 the ratio had fallen even further. The top twenty enterprises now accounted for only 10.8 per cent of sectoral output value (SSB, *ZGGYJJTJNJ* 1993, p. 378).

TABLE V

STRUCTURE OF CHINA'S PHARMACEUTICAL INDUSTRY, 1992: INDEPENDENT ACCOUNTING ENTERPRISES

Size Group	No. of Enterprises		After-Tax Profits		Fixed Assets		Gross Value of Output		No. of Employees	
	No.	%	Mil. Yuan	%	Mil. Yuan	%	Mil. Yuan	%	1,000	%
Total	3,306	100.0	3,075	100.0	19,569	100.0	45,355	100.0	926.9	100.0
5,000–10,000	5	0.2	228	7.4	1,427	7.3	2,540	5.6	40.0	4.3
3,000–5,000	15	0.5	66	2.1	1,169	6.0	2,335	5.1	54.7	5.9
1,000–3,000	133	4.0	656	21.3	5,303	27.1	10,922	24.1	206.6	22.3
500–1,000	310	9.4	959	31.2	4,797	24.5	12,361	27.3	215.2	23.2
100–500	1,457	44.1	984	32.0	5,886	30.1	14,869	32.8	346.8	37.4
< 100	1,386	41.9	181	5.9	988	5.0	2,328	5.1	63.6	6.9

Source: SSB, *ZGGYJJTJNJ* (1993, p. 378).

firm, Glaxo-Wellcome, accounts for only around 6 per cent of the world market (*Financial Times*, November 11, 1995).[9]

The structure of the Chinese pharmaceutical industry in the mid-1990s was changing fast. Foreign investment was growing rapidly. Sales of the top twenty foreign-funded firms accounted for almost 8 per cent of total pharmaceutical sales in China by 1993. Foreign investment was typically carried out in the form of a "joint venture" with an investment company rather than with a pharmaceutical firm, with the point of production frequently located at a new greenfield site. Among the leading joint ventures are Da Zhong (Japan) and SmithKline in Tianjin, Janssen in Xian, Glaxo-Wellcome in Chengdu, Johnson and Johnson and Squibb both in Shanghai, and Merck in Hangzhou. The investment in many of these ventures was relatively large by the mid-1990s. For example, Glaxo's plant in Chengdu received "several hundred million yuan" in investment funds, and Merck invested over 200 million yuan in its plant in Hangzhou. This immediately placed them among the ranks of the largest producers in China in terms of plant size (see Table II).

The world's biggest drugs companies typically generate most of their profits from a small number of patented products.[10] The ratio of profits to sales value in leading joint ventures in China's pharmaceuticals industry are far above the world industry average (Table II). Xian Janssen's after-tax profits in 1994 were thought to

9 "[T]he sector remains extraordinarily fragmented by comparison with other global industries, such as motor manufacturing and aerospace . . . . [M]ore than sixty companies have annual drug sales of more than $500 million. More than 130 have sales of more than $100 million a year" (*Financial Times*, November 11, 1995).

10 For example, Glaxo-Wellcome generates the vast bulk of its sales revenue from around twenty different products (*Financial Times*, April 4, 1996).

be around 450 million yuan, already significantly larger than Nanfang's (Table I). Much the highest profit margins in pharmaceuticals are in the development and patenting of successful new drugs, rather than in generic, unbranded, and off-patent drugs: "Running a low-margin generics operation successfully has eluded many mainstream drugs companies which have grown fat on decades of high profit margins" (*Financial Times*, March 8, 1996).

Even in the mid-1990s China's large, old-established state plants remained quite tightly controlled by the government, with respect to production and sales "tasks" (*renwu*) for its main products. These plants mainly produce relatively capital-intensive "upstream" pharmaceuticals, especially out-of-patent antibiotics, which are then processed by smaller factories. Many of these are on a downward spiral, due to old equipment, a high debt-asset ratio, low salaries, and poor housing and research conditions. Much the largest plants in China in the late 1970s were Huabei and Dongbei. By 1992 their sales were less than half of Nanfang's (Table II). A large number of small producers set up during the 1980s were now being squeezed between successful, emerging new domestic firms, such as Nanfang and Baiyunshan, and the rapidly growing joint ventures with multinational firms.

Some serious competitive threats for Sanjiu were on the horizon in the traditional Chinese medicine sector. One of the most serious was the investment carried out by the Thai investment firm, Zhengda. It had already bought several Chinese traditional medicine factories, and approached Nanfang in an attempt to buy the firm, but was turned down. A product of one of these factories, Yangwei Chongji, is included in the government's free medicine program, while Nanfang's main product, Sanjiu Weitai, is not.

To compete globally in high-profit margin new Western drugs requires huge expenditure on research and development. The cost of bringing a new drug to market is estimated to be around U.S.$600 million (*Financial Times*, January 3, 1998). A leading Western pharmaceutical company needs to spend around one billion dollars annually on research and development. This is far beyond the capability of any indigenous Chinese pharmaceutical firm. In 1994 China's largest pharmaceutical firm, Nanfang, had a total sales value equivalent to only around U.S.$190 million. A typical new traditional Chinese drug might cost Nanfang around two million yuan (around U.S.$200,000) to develop. Thus, leading Chinese indigenous pharmaceuticals firms cannot compete directly with international firms in the high-profit margin sector of the market for Western medicines. If they wish to participate in this sector, it must be either as agents to sell Western patented medicines or through production in a joint venture with an international firm. The sectors in which they can compete are traditional Chinese medicines and the production of out-of-patent, generic drugs with low profit margins. A major reason for the decision of Nanfang to diversify out of pharmaceuticals into non-related lines of business was that even China's largest pharmaceutical producer could not match the huge research and development expenditures being made by the multinationals. Zhao Xinxian put this bluntly: "We must diversify because we simply cannot match the multinationals in proprietary technology" (interview by authors, December 4, 1995).

B. *Getting Close to the Market*

When Zhao Xinxian and his colleagues set up Nanfang, none of them had any experience in business. However, they knew instinctively that to be successful they needed to "get close to the market."

1. *Product choice*

In China during the 1980s a common route into pharmaceuticals was via the production of vitamin C in a joint venture with an international company. By 1993, China was producing over 23 per cent of total world output. Between 1985 and 1993, output had risen from 3,250 tons to 11, 650 tons, and exports had risen from 1,840 tons to 8,490 tons. In the late 1980s when Zhao Xinxian and his colleagues set out to establish Nanfang, they carefully considered taking the vitamin C route into pharmaceuticals. They decided instead to take the traditional Chinese medicine route for a number of reasons. First, they obviously could not compete with Western drug manufacturers in making their own patented medicines. Second, if they chose to take the vitamin C route into pharmaceuticals, they would face stiff competition from the large number of existing vitamin C factories. Moreover, the selling price and marketing system of vitamin C was tightly controlled by the joint venture partner. Third, Zhao had developed a strong research base and large collection of patient histories for traditional Chinese medicines during his years at the army hospital. In traditional Chinese medicines there was no direct competition from multinational firms. Zhao and his colleagues tried to select for their main product one with a wide market potential. They were strongly impressed by the fact that Baiyunshan mainly relied on a single product, Ganmaoqing, a medicine to treat the common cold.

The Chinese pattern of food consumption leads to widespread stomach acidity due to an excess of glucose arising from high grain consumption. For many years the Guangzhou Army Hospital had produced a stomach medicine, Sanjiu Weitai ("stomach healthy Three Nines"), designed to relieve this condition. Zhao had accumulated over 10,000 patient histories of treatment with this drug. This type of product was thought by Nanfang's leaders to have a large potential market, but there were many other producers of similar stomach medicines. Finding a good stomach medicine was not enough for Nanfang to succeed. In 1995 Sanjiu Weitai was still Nanfang's best-selling drug, accounting for 60–70 per cent of Sanjiu's total revenue from pharmaceuticals (see below). Sanjiu accounted for around 37 per cent of the total national market for stomach medicines. Its closest competitor in this field was Lizhu (Zhuhai), with around a 17–18 per cent national market share.

Sanjiu's other main products in 1995 were Ganmaoling for treating colds and Piyanping, a skin treatment ointment. The production of Ganmaoling was an explicit attempt to capture a share of the market from Baiyunshan in its "own" product area. Ganmaoling was formerly produced by a small pharmaceutical factory from which Sanjiu purchased the prescription for "several hundred thousand yuan." Benefiting from the Sanjiu's quality control, advertising, brand name, and sales system (see below), sales of this product grew from "a few million yuan" at the time of purchase to around 200 million yuan in1995, accounting for around 10 per cent of Nanfang's total sales. Piyanping is a skin ointment developed by the army hospital in Guangzhou. The prescription was sold to a small factory in Shunde (in the Pearl River Delta), but the factory was unsuccessful with the product. Nanfang has "made a success of the product" since they purchased the prescription from the Shunde factory.

2. *Advertising*

Nanfang's location adjacent to Hong Kong had a big impact on the way it used advertising. It quickly became one of the most innovative firms in China in the way in which it used the mass media. Nanfang ran its own advertising campaign, and its style has had a substantial impact on the methods of advertising across China. Zhao Xinxian frankly acknowledges: "like Coca-Cola, Nanfang's products are simple, and our competitors' products are not fundamentally different from ours." It is relatively easy to identify the chemical composition and the herbs used in making the product; nor is the production process especially complex. Consequently, advertising is a centrally important aspect of the growth of the firm.

Nanfang established its own advertising firm, and hired staff from Chinese film studios to make their advertisements. It is illegal in China to use doctors in advertisements to endorse the safety and effectiveness of pharmaceutical products. Nanfang had to search for more subtle ways to convince consumers of the quality and reliability of their brand. They hired Hou Dejian, a Taiwanese film star, with a huge following in Hong Kong and Taiwan for his "touching" and sentimental film roles. Their advertising campaign was especially important after the conclusion of the court case (see below) in which Nanfang felt they had been wrongly treated by the Chinese legal system. They hired Li Moran, an actor who was famous for his portrayal of roles in traditional Chinese films in which he was associated with "justice." The combination of the publicity given in the press and the effectiveness of their advertising campaign had a "huge impact" on Nanfang's sales.

3. *The trademark battle*

Subsequent to Nanfang's initial market success with Sanjiu Weitai, several other firms started to produce it, using more or less the same ingredients as Nanfang. In 1989 Nanfang was allowed to register Sanjiu Weitai as its trademark with the National Bureau of Industry and Commerce.[11] The bureau ruled that Nanfang's competitor factories should cease making the product. However, Sanjiu Wentai's main competitor, Haikou Weitai, produced by the Haikou Pharmaceutical Company, refused to do so. They were supported by the local Hainan government, who intervened on their behalf with the National Ministry of Public Health. They argued that Sanjiu Weitai could not be patented, since it was a generic drug, the production of which did not require research and development, and therefore other firms ought not to be prevented from making it. The Ministry of Health upheld their position.

Nanfang took the issue to a national-level court investigation. The court ruled that the word Sanjiu could be registered as Nanfang's trademark, but not the word Weitai. In other words, other firms could legally produce and sell stomach medicines with the same chemical composition as Nanfang's Sanjiu Weitai, but they could not market it as Sanjiu Weitai. They had to use a different brand name, albeit with the word Weitai. The court ruled also that the rival firms were not allowed to conduct a press campaign against each other, and that each should use their own trademark, Sanjiu and Baodao. However, Haikou continued to produce its own Sanjiu Weitai, in defiance of the court ruling, and both firms enormously increased their sales as result of the national-level court battle and the associated press coverage.

4. *Selling methods*

Until the late 1980s, all pharmaceutical products, whether imported or domestically manufactured, were sold in China through state-owned wholesale and retail channels. There were three levels of distribution. Level 1 consisted of buyers and sellers directly under the State Pharmaceutical Administration of China. All pharmaceutical products were allocated directly to them, and they in turn sold them to Level 2 distributors. They were buyers and sellers in the different regions, including some large cities. They in turn sold the pharmaceuticals to Level 3 buyers and sellers, who operated on the county (*xian*) level. From the late 1980s, it became possible for pharmaceutical producers and importers to establish their own distribution network, and sell directly to Level 3 distributors or even to hospitals and retailers. This change is still far from complete. Official state policy still restricts selling outside the state supply system. Many of the state distributors are turning themselves into joint-stock companies, and trying through many means to preserve their monopolistic position. Joint ventures between domestic and foreign firms are not permitted to set up their own distribution system, or to buy shares in the newly marketized state distribution companies.

[11] China's trademark law was promulgated in 1982.

The changes made so far are large indeed. They provide opportunities for larger firms to benefit from economies of scale connected with constructing effective selling networks. This is a major area of worldwide competition among large Western pharmaceutical producers. Indeed, the benefits to be derived from a common selling network for many different drugs has been a major element of the merger movement in the world pharmaceutical industry over the past few years.

As controls over the distribution system were relaxed, Nanfang moved quickly to set up its own sales network, the Sanjiu Trading Company. In 1990 there still were only 20 sales personnel directly employed by Nanfang, but by 1995 Sanjiu had 62 senior business representatives in charge of regional markets and 229 permanent representatives in charge of regional promotion. In addition, there were 1,017 "market information collectors" working on commission for their supervisors. There were sales branches in over 100 cities across the whole of China, forming the largest sales network of any Chinese pharmaceutical company.

To further promote the sales of its medicines, Sanjiu Trading Company purchased the majority shares of three large state pharmaceutical trading agencies, which were turned into joint-stock companies.[12] These were the Ningbo Medical Materials Company, the Changsha Medical Materials Company, and the Wuxi Pharmaceuticals Company. The total sales of these companies in the mid-1990s came to around one billion yuan.

Sanjiu has established "direct and close relationships with all the large and medium-sized hospitals in these cities." The members of the sales network maintain "close business and nonbusiness relationships with pharmacists and doctors in the hospitals." The company also "maintains close business relationships with nearly 3,000 domestic distributors." Each local branch "maintains frequent contact with clinical doctors, and provides technical materials and services to these doctors." Pharmacies and doctors are "encouraged to use Sanjiu products." The marketing staff collect information from the users of the medicines and regularly feed the results back to the headquarters.

All those employed in the marketing system are university graduates, 90 per cent of whom are either specialists in pharmacy or doctors. Sanjiu sets strict standards for the appearance of its sales staff. It has an advanced computerized system for information collection and processing, and for assisting decision making. Sanjiu regards the creation of "an immense sales system" as "the guarantee of the healthy development of Sanjiu pharmaceuticals." It has aimed to raise Sanjiu's pharmaceutical sales from around two billion yuan in 1995 to around twenty billion yuan in "the shortest possible time."

Sanjiu has set up sales offices abroad, including the United States, Germany, Russia, South Africa, and the Middle East. It has a sales network over most of

[12] Neither the price nor the method of purchase were disclosed to us.

Southeast Asia, where products are popular among overseas Chinese, who constitute a large potential market for traditional Chinese medicines. It also has factories in Malaysia and Hong Kong. Sanjiu has serious ambitions to develop the international sale of its pharmaceuticals. Not only is there a large potential market for traditional Chinese medicines among overseas Chinese, who total around fifty million, but also among Western consumers who wish to use Chinese medicines as a complement or even as a substitute for Western medicines. In 1994, the Federal Drug Administration gave Sanjiu permission to sell its main product, Sanjiu Weitai, in the United States.

Like many Chinese firms, Sanjiu also acts as an agent for international firms to sell Western medicines in China and Asia. It is the agent for Upjohn (the United States) in the sale of examethasene and for Amgen (the United States) in the sale of EPO and ENU.

C. *Modernization*

Nanfang's profits has risen rapidly (Table I). However, after the increase from 96 employees in 1987 when the plant opened to 1,163 in 1990, the workforce remained at around the same level thereafter. (There still were 1,233 employees in 1994.) However, alongside this employment peak occurred huge increases in output value, with the gross value of output per employee rising from 115,000 yuan in 1987 to 328,000 yuan in 1990, then reaching 1,468,000 yuan in 1994. This was achieved through plowing back a large portion of retained profits into the purchase of new equipment. Then, the number of workers on the production line fell from 1,500 (including temporary workers at peak periods) to just 160 in 1995 (see below).

In order to meet the internationally set GMP (good manufacturing standards) for the world's pharmaceutical industry, Nanfang needed to have a comprehensively modernized production process. It set about reaching these standards with a two-year comprehensive modernization program from 1991. Nanfang was the first firm in China to produce Chinese medicines in a Western fashion. The GMP standards that China follows are those of the U.S. Federal Drug Authority and the equivalent body in Japan, which are the strictest worldwide. The GMP requirements apply to all aspects of the production process, including such matters as quality of raw materials, dust levels, and quality of floor and wall tiles.

Meeting the GMP standards also necessitated high work skill levels. Production workers were each given half-a-year's training in GMP standards, and if they failed to meet the strict standards set by GMP, they were dismissed from the firm. The tightness of the labor market in Shenzhen made dismissal of workers much less of a problem than would be the case elsewhere in China. Failure to meet these standards was a method through which Nanfang was able to legitimate reducing the number of production line workers. Nanfang placed great emphasis on upgrading the technical skills of its permanent employees. In order to have any kind of job at Nanfang in the mid-1990s, it was necessary to have at least an upper middle school education. Existing cadres were given training courses in GMP methods, and they were removed from the front line if they failed the examinations.

Its core staff of around 500 cadres mostly have university science degrees. They all have been required by company policy to attend training in order to become computer literate, and there is a special training course to bring the skills of older entrants up to date. Moreover, the cadres all are required to develop proficiency in at least one foreign language by 1998. By 1995 one-third of the senior staff had already learned a foreign language. Cadres are strongly encouraged to obtain a postgraduate qualification. Nanfang has a part-time MBA program in which all of its cadres are encouraged to participate. In order to construct a strong image for the company, all new recruits must meet strict physical requirements. Females must be over 1.60 meters and males over 1.75 meters tall. Nanfang's success with good welfare conditions and work conditions has enabled it to attract excellent personnel from elsewhere in China. The head of the Checking Centre used to be the head of Changchun City Pharmaceutical Checking Department. Two senior employees in the International Finance Department were recruited from Beijing. The head of the Instruments Room studied at Loughborough University in the United Kingdom, and was subsequently associate professor at Hubei University.

Meeting GMP standards also necessitated the introduction of corresponding management systems. In order to meet the GMP standards, Nanfang in the early 1990s introduced meticulous checking and recording procedures so that if quality problems arose, they could be traced back quickly and accurately to their point of origin in the production process.

The high technical and linguistic skills achieved by Nanfang's cadres were most important in enabling Nanfang to select appropriate equipment and use it effectively. The main imported pieces of equipment were made according to Nanfang's engineering specifications.

Modernization of equipment was essential to meeting the strict standards of GMP. Consequently, in the early 1990s Nanfang began a program of comprehensive upgrading of its equipment, largely through imports. Nanfang was exempt from import duties due to its location in Shenzhen Special Economic Zone. It invested a total of around seventy million yuan, raised entirely from its own funds. There was "simply no alternative" to such large, self-funded investment, if they wished to meet the strict GMP standards. Despite this large investment, the debt-assets ratio at Nanfang Pharmaceutical Plant is only 15 per cent, which is extremely low compared to other Chinese enterprises.[13] By the mid-1990s all the

[13] For state-owned enterprises in Shenzhen the ratio is 76 per cent. For the whole Sanjiu group the ratio is around 46 per cent.

main pieces of production equipment were of 1990s vintage. The main items are as follows:

NF-B automatic traditional Chinese medicine extraction line. This is wholly automated and computerized, and all the components were made within China. The purchase price was 2.4 million yuan. The output capacity is fifty tons of extracted product per month.

Automatic packing line for granules. This was imported at a cost of around seven million yuan from the Italian Unlogo Company. It packs granules at a speed of one box/minute, with a monthly capacity of 40,000 boxes of Sanjiu Weitai granules.

Capsule production line. This uses a Japanese Freund pilling machine, and a German Bosch capsule-filling machine. The monthly capacity is 7,000 boxes of Weitai capsules.

Ointment production line. This is fitted with a Swiss Fryna ointment composer, a German IWKA injector-seamer, and a packing machine. The monthly capacity is 10,000 boxes of Piyanping ointment.

Plastic container packing line. This uses a U.K.-made machine supplied by King. It has a monthly capacity of 30,000 boxes of Zhuang Gu Guan Jie pills.

Tablet production line. This uses a German Kilian RX55AM tablet-expresser. The production capacity is 500,000 tablets per hour.

Quality-checking center. Over twenty million yuan was spent on imported equipment for the center, installed in large new, purpose-built building. The total cost of the center was around thirty million yuan.

D. *Management*

In the early phase of the construction of Nanfang, Zhao Xinxian brought five army colleagues with him. They took a gamble, accepting much lower salaries than they would have received had they stayed in Guangzhou Army Hospital. They earned around 140–50 yuan per month during the two years it took to construct the plant, compared to around 250–300 yuan, including bonuses, at the hospital. They lived in poor conditions during the years of plant construction. Much of their time was spent physically involved in the construction of the plant. Their slogans were: "production first, life later" (*xian shengchan hou shenghuo*) and "the hard and arduous struggle" (*jianku fendou*). Zhao considers their army background as very helpful in sustaining their spirit and discipline during this difficult and highly uncertain phase of building their business.

During these years a close bond built up among this group, which still remains at the center of the firm's management in the mid-1990s. When the endeavor began, they were all young people, recent university graduates, led by Zhao, who himself was in early middle age. Up until 1989, all management-level personnel were members of the PLA. Zhao Xinxian is a powerful motivator, who was able to weld together a strong management team and provide a vision and sense of purpose to the firm. His entrepreneurial and leadership abilities (demonstrated dramatically by the subsequent growth of the firm) had been repressed under the command economy, but has now been given the chance to flourish.

All the leading cadres have subsequently been offered lucrative positions with other pharmaceutical firms, but they have all chosen to stay with Nanfang. This is partially a financial decision. Their income at Nanfang is high by the standards of Chinese state industry (see below), and there are plenty of fringe benefits, such as good quality, highly subsidized housing, and extensive foreign travel. However, the income available to similarly skilled people in a pharmaceutical joint venture are considerably above even those available at Nanfang. When questioned closely about their reason for staying with the firm, they answered that it is mostly due to their sense of involvement in an exciting endeavor which they have helped create under Zhao's leadership. His personal influence on the firm is fully apparent. He is a powerful personality, who talks with great clarity about the firm's strategy. All leading cadres speak of him with great respect, recognizing the key role he has played in the firm's successful growth and modernization.

The Chinese Communist Party still plays an important role in Nanfang. Around one-quarter of Nanfang's cadres are party members, compared to only around one-eighth of the line workers. Zhao Xinxian is party secretary of Nanfang. Ninety-five per cent of all department heads and general managers throughout the whole Sanjiu group are party members.[14] Political and administrative power in each of the subordinate "second-level" firms resides in the hands of the party secretary. All have to report regularly to Zhao Xinxian for the purpose of coordinating the work done in the different parts of the group.

The party plays an important role in ensuring that the organization "coheres" (*ningju*). Branch meetings are held regularly. The party plays a central role in implanting and spreading the "Sanjiu spirit." This centers around serious attention to quality, which is an integral part of success in any modern pharmaceutical firm. The party is actively involved in the motivational aspects of work quality, having clear functions in relation to checking work and ensuring work discipline. The party still has a role in supervising the work of non-party cadres. The plant is still emphatically a part of the army, even though the bulk of the workforce is now civilian. The premises are governed by army regulations.

E. *Employment Structure*

Alongside the rapid automation of production in Nanfang's core plant in Shenzhen, there was a large change in its organizational structure. Instead of being

[14] There are 9 party committees, 36 party branches with 428 party members, totaling 14 per cent of the permanent employees in the group.

TABLE VI

CADRES AT NANFANG PHARMACEUTICAL FACTORY, 1995

	Number of Cadres	%
Total	236	100.0
MA degree	21	9.0
BA degree	136	57.0
College graduate	31	13.0
Professional high school graduate	48	21.0
Over 40 years old	5	2.1
Over 30 years old	21	9.0
Under 30 years old	210	88.9
Average age	26.3	—
Employed before 1991	74	31.4
Leaving Nanfang	6	2.5
Cadres / total employees	236 / 1,145	20.6

Source: Nanfang Pharmaceutical Factory (1996, p. 310).

TABLE VII

LINE WORKERS AT NANFANG PHARMACEUTICAL FACTORY, 1991

	Number of Workers	%
Total	909	100
Temporary workers	846	93
Contract workers	63	7
Number of new entrants	118	13
Number leaving	349	38
Total of new entrants and leaving Nanfang	467	51

Source: Nanfang Pharmaceutical Factory (1996, p. 311).

a factory with a minority of management staff and a large majority of production line workers, it became one that combined a highly automated plant with the headquarters of a large multi-plant, multi-product firm.

The core of Nanfang's business is formed by around 240 managerial cadres, almost all of whom are highly educated (Table VI). Within this core there is an inner group of managers who control the destiny of the business. Of this group, the key members are the half-dozen who founded the business, led by Zhao Xinxian. All of the 900 line workers at the main plant are either temporary or "contract" workers, with a very high turnover rate, almost 40 per cent per annum (Table VII).

The difference between the "inner" and the "outer" firm is symbolized by the wage system put into effect after Nanfang shifted to being directly supervised by the headquarters of the General Logistics Department in Beijing. Ordinary workers were now paid according to a regular manual workers' wage scale. In 1995, their monthly wages ranged from 500 yuan[15] to around 1,800 yuan. The cadres were remunerated according to the 1:18 wage scale for cadres. The greatly enhanced differentials were a key part of the "deal" won by Zhao Xinxian for Nanfang. In 1995, actual wages paid to cadres ranged from 900 yuan to around 4,000 yuan per month for Zhao. Even Zhao's wages were not especially high compared to the average CEO in Shenzhen.[16] The extra income to which cadres were technically entitled was retained in a special interest-bearing fund run by Nanfang, which could be used to buy shares in the firm at a future date should the need arise. Cadres who left the firm were entitled to draw out their savings accumulated in this fund.

In addition to their regular wage income, under the deal with the General Logistics Department, Sanjiu is allowed to allocate as bonuses 15 per cent of the after-tax profits retained by the firm. These are allocated on a much more egalitarian basis than the 1:18 wage scale. The ratio between the maximum and the minimum bonus is around 3:1.

A significant share of Nanfang's retained profits have been invested in the building of high-quality housing in the plant's quiet semi-suburban surroundings. All the regular workers at the main Nanfang plant live in company apartments. Rents are nominal, "a few tens" of yuan per month. Open market rents for equivalent apartments in Shenzen come to around 3,000–4,000 yuan per month. This amounts to a large addition to the real value of workers' incomes, and constitutes a major incentive to remain at Nanfang. There is little difference in the size or quality of apartments among Nanfang's permanent workers, so the subsidy is a fairly egalitarian one, just as in most state-run plants in China.

F. *Expansion of Pharmaceutical Business outside the Core Plant*

1. *Joint venture to produce Western medicine*

In 1993 Sanjiu set up a joint venture, the Sanjiu Pharmaceutical Company. Nanfang accounted for 39 per cent of the share capital, and the remainder was held by seven foreign investors including Chai Tai Company (Thailand), Everbright Group and Cathy Clement (Hong Kong), Paloma Partners, Citicorp, and Tutor Pharmaceutical (the United States). Zhao Xinxian is the chairman of the board of directors and the general manager. The firm owned a Jiuxin pharmaceutical plant,

[15] The minimum wage necessary to survive in Shenzhen is thought to have been around 400 yuan in 1995.

[16] Shenzhen's wage levels are far above those elsewhere in China, partially due to the fact that Shenzhen's labor market is not fully integrated with the rest of China. Rather, it was becoming more and more integrated with that of Hong Kong over the course of the reform years, with the impact of Hong Kong forcing up the real value of incomes there compared to elsewhere. However, to a considerable degree, the higher monetary value of earnings in Shenzhen reflects the much higher costs of living in the zone. The average monthly family income in the zone in 1995 was reported to be around 3,700 yuan (Yeung 1996, p. 19).

which is a modernized facility producing Western medicines. The main product was Locekin (Ceftriaxon), which had sales of 22.5 million yuan in 1994, still a small fraction (around 2 per cent) of Nanfang's total sales. It also contained half a dozen of the small pharmaceutical companies that Nanfang had acquired, a domestic genetic engineering laboratory, and the genetic engineering laboratory set up by Nanfang in Singapore (see below). In 1995 the joint venture was the eighth largest in the pharmaceutical sector in China, with a paid-up capital of two billion yuan (*Hong Kong Standard*, May 4, 1996).

In 1996 there was discussion with the partners about the possibility of floating the firm on international markets. It was reported that the Sanjiu Pharmaceutical Company would list in Hong Kong in 1997, but only after Sanjiu had "regained a controlling stake in Sanjiu Pharmaceutical, the listing vehicle" (*Hong Kong Standard,* May 4, 1996). It was hoped that the listing would raise around HK$650 million. The main goal was reported to be the expansion of capacity to produce drugs for the treatment of arthritis and cancer.

Sanjiu had held long discussions with Merck to expand the joint venture. Merck required that it own 75 per cent of the joint venture, that it choose the general manager, select the chairman of the board of directors and the financial manager, and that only Merck medicines with a Merck trademark be made in the plant. Sanjiu agreed to all these terms, since it felt that the joint venture with Merck would improve Sanjiu's ability to produce Western medicines, and would enhance its image, since Merck has a high international reputation.

It had also carried on "very lengthy" negotiations with Bayer about a possible joint venture, but nothing emerged.

2. *Biotechnology*

Sanjiu has set up a biotechnology research company in Singapore. The Shenzhen City government put Sanjiu in touch with a group of around ten Chinese postdoctoral scientists in biotechnology, who were at the leading edge of world research, but did not wish to return to work in China. The Singapore government offers highly advantageous conditions for biotechnology firms, including the use of laboratories at the National University of Singapore. Sanjiu pays the researchers internationally competitive salaries. It had invested around ten million yuan in the firm by 1995. Sanjiu's hope was that it would produce successful products which could be sold through the Sanjiu marketing system.

3. *Pharmaceutical industry mergers and acquisitions*

Nanfang took over a dozen smaller pharmaceutical firms across the country, including plants in Hebei, Shanghai, Jiangxi, Anhui, Sichuan, and Beijing (Table VIII). Three of these were state-owned firms, to which Sanjiu acquired majority share ownership and was given operational autonomy and rights to profits for a

TABLE VIII

SANJIU GROUP BUSINESS STRUCTURE, 1993

Core plant:	Shenzhen Nanfang Pharmaceutical Plant
Pharmaceuticals:	Shenzhen Jiuxin Pharmaceutical Co. Zongcan Hebei Province Taihang Pharmaceutical Plant Beijing Military District Shijiazhuang Beifang Pharmaceutical Plant Nanjing Military District Shanghai Jinkang Pharmaceutical Plant Nanjing Military District Jiuxi Qingyun Pharmaceutical Plant Nanjing Military District Shangrao Xinxing Pharmaceutical Plant Guangzhou Military District Luofoushan Baihou Pharmaceutical Plant Chengdu Military District Jinhua Pharmaceutical Plant Navy Anhui Chaohu Pharmaceutical Plant Zonghou Beijing Jiandu Pharmaceutical Plant Sanjiu Germany Pharmaceutical Co. Sanjiu Pharmaceutical Plant (Malaysia) Co. Hong Kong Sanjiu Xinke Pharmaceutical Plant
Health care products:	Shenzhen Jiusheng Biotechnology Products Plant Shenzhen Jintai Household Healthcare Products Plant Zhuhai Jinyang Natural Healthcare Products Plant
Research institutions:	Shenzhen Pharmaceutical Research Institute Shenyang Pharmaceutical Institute
Real estate:	Shenzhen Sanjiu Business Management Co. Chongqing Real Estate Co. Chengdu Real Estate Co. Wuhan Real Estate Co. Dalian Real Estate Co. Shanghai Real Estate Co.
Tourism:	Shenzhen Sanjiu Tourism Co. Sanjiu Hotel Beijing Sanjiu Taxi Rental Co.
Printing:	Shenzhen Sanjiu Printing and Packaging Co. Shenzhen Jiutong Packaging Industry Development Co.
Import-export:	China Xinxing Shenzhen Import-Export Co.
Automobiles:	Shenzhen Automobile Trade Co. Shenzhen Automobile Industry General Co. Sanjiu Sihui Automobile General Co.
Advertising:	Beijing Sanjiu Advertising Co. Guangdong Sanjiu Advertising and Information Dissemination Co.
Others:	Shenzhen Liuhui Industrial and Commercial Co. Shenzhen Sanjiu Trade Co. Shenzhen Sanjiu Transportation General Co. Shenzhen Sanjiu Garment Co. Sanjiu Construction Development Co. Shenzhen Sanjiu Electrical Equipment Co. Sanjiu Hainan Co. Beijing Sanjiu General Trading Co. Guangzhou Sanjiu Economics and Trade Development Co. Beijing Scientific Information Centre Sanjiu (U.S.) Co. Sanjiu Dulianti International Co. Sanjiu (South Africa) Co. Sanjiu (Latin America) Co. Sanjiu (Middle East) Co. Hong Kong Sanjiu Business General Co. Sanjiu (Thailand) Co. Sanjiu (Europe) Co. Sanjiu Newspapers (Morning Post)

Source: Unpublished materials provided to the authors.

contracted period. It could exercise those rights in order to purchase shares out of future profits if it chose to do so. They each had sales of around 100 million yuan and a total workforce of around 2,000–3,000 employees. The majority of the newly acquired plants were operated under various units of the PLA. Nanfang's army connections most likely played a role in facilitating the takeover of these plants. Sanjiu reformed the management system of the newly acquired plants, re-specialized their production to make Sanjiu products, and sold their products through their marketing networks using the Sanjiu trademark. Nanfang had considered the possibility of merger with Baiyunshan, but had not entered formal negotiations. Sanjiu considered that the fact that Baiyunshan is listed makes a possible merger "more complex," since it would be impossible for a less transparent, state-mediated, administrative merger to take place. Sanjiu has considered merger with a large state enterprise, but thinks the complexities of dealing with so large a workforce (Dongbei, for example, now has around 20,000 employees) would be too great. Consequently, the preferred method is to acquire small- and medium-sized non-listed firms.

III. GROWTH OF NON-CORE BUSINESS

A. *General Philosophy*

Sanjiu believes that there are considerable prospects for growth of its pharmaceutical business. Its market share is still small, despite being the industry's largest producer. Moreover, the total market should continue to grow rapidly, since China's population is growing steadily and per capita income is likely to continue to rise quite rapidly.

However, there are risks. The first is that local governments might be able to give great help to local "champions" capable of developing powerful business systems such as Sanjiu's, and thus challenge its position of domestic supremacy in medicine sales. The second risk involves the rapid growth of multinational capital. Multinational firms are not only setting up joint ventures to produce Western medicines, but are also beginning to do so in traditional Chinese medicines. Faced with two possible challenges to its growth, the leadership has decided to diversify through venture capital in various activities, in Zhao Xinxian's phrase, "launching boats on the water" and seeing which of them floated. This repeated the pattern under which Nanfang itself was originally set up.

B. *Non-Core Joint Ventures*

Sanjiu has considered the possibility of entering a wide range of joint ventures with international firms outside pharmaceuticals. These include a leading European furniture maker, motor vehicles (Fiat), a real estate firm, and U.S. department

TABLE IX

OUTPUT AND PROFITS IN THE SANJIU GROUP

	Gross Value of Output		Pretax Profits		Employees		Fixed Assets	
	Mil. Yuan	%	Mil.Yuan	%	No.	%	Mil. Yuan	%
1992:								
Nanfang	1,014	63.3	164	82.0	1,369	67.5	124	87.3
Non-core	588	36.7	36	18.0	659	32.5	18	12.7
Sanjiu	1,602	100.0	200	100.0	2,028	100.0	142	100.0
1994:								
Nanfang	1,809	56.4	407	87.3	1,233	53.0	392	78.1
Non-core	1,400	43.6	59	12.7	1,092	47.0	110	21.9
Sanjiu	3,209	100.0	466	100.0	2,325	100.0	502	100.0

Source: Unpublished materials provided to the authors.

store (J.C. Penny). None of these have come to fruition. In the case of motor vehicles and the department store the problem was government refusal to allow the venture to proceed. There is almost constant discussion going on with one potential joint venture partner or another.

Sanjiu has set up a modern printing center (Jiuxing Printing and Packaging) employing technical experts from across China. This is a joint venture with capital from West Germany and Hong Kong. The center uses modern imported equipment from West Germany (a Mannesman advanced color printing machine), Japan (a paper-cutting machine), and Hong Kong (a pasting machine) to produce high-quality packaging and printing for Nanfang's products, which assists the creation of a high-quality brand image. In addition, Jiuxing services other domestic firms requiring high-quality packaging, such as Nestle for its Nescafe products.

C. *Non-Core Mergers and Takeovers*

1. *The "merger deal"*

As we have seen, a key aspect of the 1992 "deal" struck by Zhao Xinxian with the General Logistics Department in Beijing was that Nanfang would merge with the Logistics Department's thirty-five plants in Shenzhen, many of which were losing money. They included firms in construction, clothing, trade, printing and packaging, taxi renting, tourism, and a hotel (Table VIII). At one stroke Nanfang, now renamed the Sanjiu group, had become a highly diversified conglomerate. The output value of the newly absorbed businesses was 37 per cent of the whole Sanjiu group (Table IX). These businesses were substantially less profitable than Nanfang, and indeed, many were loss-makers. In 1992 their combined pretax profits contributed only 18 per cent to those of the whole Sanjiu group.

One of the most successful of these businesses has been the hotel. In 1991, when

Nanfang took the business over the accommodation was a rest center for overseas Chinese. It lost 0.4 million yuan that year. The General Logistics Department also own a hotel in Guangzhou, administered by the hotel in Shenzhen. Zhao Xinxian selected the manager of this hotel, Huo Shuoping, to run the hotel in Shenzhen. Huo had been running hotels since 1974. As soon as he was appointed, with Zhao's support he radically changed the management method, and within a year had turned the hotel's finances around, making an 8.7 million yuan profit in 1992, rising to 17.9 million yuan in 1993. Huo reduced the number of administrative departments from eleven to six, and dismissed seventy-five "redundant" workers. His approach was to "employ the able and frighten off the troublemakers and lazy workers." Many of those he fired were members of the army's civilian militia. Sacking them was a very difficult task. Under the old system at the hotel it was impossible to fire workers, while "cadres were promoted but never demoted." Huo radically changed this system.

In May 1992, after he had been in the position for a few months, and his capabilities had become apparent, Zhao and Huo had a long discussion about the prospects for the hotel business in China. Huo felt that there was a great opportunity for expansion and profit making given the peculiar conditions of the hotel business in China in the early 1990s (see below). Zhao Xinxian asked Huo, "If Sanjiu agrees to take no profit out of your business for three years, how long it will take you to set up a chain of fifteen to twenty hotels across China and make 100 million yuan in profits?" Huo was "dumfounded," because the hotel had just 300 rooms and no basis for such expansion. Moreover, Zhao said that he would give no financial assistance, just autonomy and the right to plow back profits for expanding the business. Huo rashly promised he could do it within five years. Zhao said he would give him five years to meet the goal, and if he failed Huo would lose his job.

Huo's success in 1992 demonstrated the high potential for strong management to turn around the performance of China's large number of red ink hotels. Huo mapped out a strategy for expansion, concentrating on middle grade, two-, three-, and four-star hotels, since in this sector he could avoid head-on competition with the multinational chains. Moreover, there is a considerable oversupply of five-star hotels, but an undersupply of good quality middle grade hotels for the fast-growing Chinese middle class and foreign tourists at the lower end of the market. Large numbers of hotels had been built in this category, mainly by various state institutions, but most of them were run badly, allowing high possibilities for strong management to turn them around. Inland China by and large had hotels that were even more badly managed than those in the coastal areas, so Huo began in these latter areas. His approach was analogous to a military campaign: build first in the rural base areas, encircle the cities, then march on the coastal cities.

In the first half of 1993 Huo sent a team of his employees to tour China in order to investigate hotels for possible takeover. His goal was to find hotels that had "hidden value" which could be "dug out" (*wa jue*) through strong management. Huo's first acquisition was the Zhufeng Hotel in Chengdu. This was a two-star hotel. The superior authority of the hotel was the PLA in Tibet, to whom each year the hotel handed over around 0.8 million yuan. The hotel was also under the partial administration of the army authorities in Beijing and Chengdu, and army personnel from any of these regions could come and use the hotel free of charge. The general manager at the hotel supported the transfer to Huo, as it gave him a chance to escape military control, and run the hotel as a genuine business. Huo struck a deal with the army in Tibet. Under the contract, he was to manage the hotel for twelve years. He promised to hand over to them each year a fixed sum of 2.88 million yuan, and to make an initial advance of 0.7 million yuan. Huo gave the existing manager a five-month training course at his own hotel in Shenzhen and then sent him back to be general manager of Zhufeng. Huo comments: "It's better to brainwash the prisoner than sack him." A new five-man management team was selected by Huo to work under the new general manager.

The number of administrative cadres was reduced from twenty-nine to thirteen, and the rest either were demoted or had their salary stopped. The latter unpaid group were allowed to work outside, but retain their other rights in the enterprise. The new management did fire "quite a few" workers. Many "surplus" workers were sent home with a basic minimum wage sufficient for bare livelihood, around sixty yuan per month.[17] The staff were now required to display good manners, obey strict discipline, stand up while working rather than slump in a chair, and "be complacent." Huo makes great use of slogans. "A hotel without greeting is a forest without birds"; "A hotel without smiles is a garden without flowers." Huo says he is building on the Maoist mobilizatory tradition, of which he was an army personnel from 1970 to 1989. In just one year Zhufeng's profits soared to seven million yuan, without even any change in decoration. Instead of taking the profits out, Huo decided to reinvest the profits in redecoration and upgrading the hotel, so that it could shift up from two to three stars. The precise long-term arrangements under which Zhufeng will hand over profits to the headquarters in Shenzhen are still under consideration.

The early success of Zhufeng greatly encouraged Huo in his plan. He felt that he had simply applied to Zhufeng the same principle that Zhao Xinxian had applied to his business. He subsequently took over another sixteen hotels, which increased to eighteen by December 1995. Each of them was taken over under a basically similar arrangement as the one at Zhufeng, with the administrative authority typically being the local government. All the hotels have the "Sanjiu" brand name. The "Sanjiu" chain is already as large as the former dominant player in the Chinese hotel market, Holiday Inn, which took ten years to build up to eighteen hotels. The

[17] The average monthly wage of China's staff and workers in 1993 was around 290 yuan (SSB, *ZGTJNJ* 1995, p. 113).

largest domestic hotel chain is Golden Palace with twelve hotels. In 1996 Huo intends to have expanded to thirty hotels, and Huo's eventual goal is a chain of perhaps one hundred or so "Sanjiu" hotels across the whole of China. Already he has a hotel in most provinces, with a total workforce of around 6,000 employees.

Sanjiu's strategy is to quickly gain a central place in the hotel market before other chains can improve their position as the market economy develops. Huo specifically wants Sanjiu to become the Chinese equivalent of the Holiday Inn in the United States. Huo also successfully recruited a leading Holiday Inn manager, Henry Liu, who had managed the Hawaii Holiday Inn for four years and then returned in 1993 to manage the Holiday Inn in Xian. Liu's income with Sanjiu is only around one-fifth of that he received from the Holiday Inn, but he was attracted by the idea of joining such a potentially powerful firm with such a far-sighted strategy. Also he can enjoy a far higher position at Sanjiu than if he remained with the Holiday Inn.

Huo wants to build the chain rapidly until it is several times larger than the closest competitor and "as close to an monopoly" as he can get. He wants to do this before the potential competitors realize what is happening, and before they are in a position to fight back. Sanjiu has so far not spent much on advertising, since it does not wish to advertise its strategy to competitors before its market position is secure. It plans to expand its advertising once the chain has built a critical mass of around thirty hotels.

Huo's wage is not high by local standards. His monthly income in 1995 was around 3,500 yuan, which is close to the average family income for Shenzhen (see footnote 16). Moreover, Henry Liu was paid around double Huo's salary. However, there are extra-wage elements in his income, such as housing, food, and perhaps others, such as travel and use of company vehicles. Huo owns no shares in the company he is building up. He argues that he has no thought of owning the company for himself: "The company is my *shiye* (undertaking), my life purpose, my dream."

2. *Mergers and takeovers initiated by Nanfang*

After the group was set up, Sanjiu acquired further non-core businesses, and some of the newly merged businesses grew rapidly. By 1994 the share of the non-core businesses had risen to over 43 per cent of Sanjiu's total output value (Table IX). By the mid-1990s Sanjiu was doing business in around eight different sectors other than pharmaceuticals. There was considerable discussion under way at Sanjiu's headquarters about the group's structure. It is thought to be quite likely that Sanjiu would divest itself of the losing businesses in sectors furthest removed from its core business and focus on only around three or four sectors outside pharmaceuticals.

By the mid-1990s Sanjiu was receiving "many many" requests from the administrative authorities with losing firms to take them over and use their investment capital, management skills, brand name, and marketing network to turn them around. The General Logistics Department also asked Sanjiu to take over more of its businesses in addition to those involved in the 1992 "deal." Sanjiu "very carefully" investigated requests for merger/takeover, evaluating the possibilities of being able to effectively manage and turn a firm around. Sanjiu turned down most of these requests, because on investigation they found that the firm had "negative net worth" and/or could not be effectively run by Sanjiu.

By and large, Sanjiu prefers to diversify through takeovers in the food and drink sector, since it feels that the technical characteristics of firms in these sectors are not too far removed from those of the core business, and it is therefore better able to evaluate their business prospects and to run them effectively. By late 1995 Sanjiu had taken over firms in non-core business employing "many thousands." Its takeover methods have embraced all possible forms, including government administrative merger (*jian bing*), outright purchase (*shougou*), mixed share ownership (*cangu*), and purchase of controlling share ownership (*kongzhi gufen*). The major trend in Sanjiu's takeovers has been toward gaining the controlling share of the firms which it acquires.

A good example of takeovers of this last type is the Shijiazhuang Brewery in Shijiazhuang City, Hebei Province. When this firm was taken over in 1995, it had around 2,000–3,000 employees and was losing money under management by the local city government. The takeover deal was as follows. Sanjiu was assigned an option to gain a 51 per cent controlling share of the firm, in recognition of the Sanjiu image, marketing network, trademark, and capital that would be injected into the business. Sanjiu took a five-year contract on the business. If, at the end of the five-year period, the firm was making sufficiently large profits, Sanjiu could exercise the right to use the profits to purchase the shares that had been reserved for this purpose, and could become the majority owner of the business. Sanjiu was given a high degree of autonomy in management, and as in other Sanjiu takeovers, the company head (*yibashou*) was appointed by Sanjiu headquarters. Here, Sanjiu advertised for an expert in the beer industry to replace the existing manager. Sanjiu cannot simply dismiss "surplus" workers, so it developed the idea of providing surplus workers with an incentive of lump sum severance pay (*qiansanfei*) on the condition that the workers concerned had to sign a contract formally severing their connection with the factory, though this did not necessarily mean they would forfeit their rights to company housing or a pension. "In all affairs in China one has to proceed carefully."

A further example is the takeover of a biscuit and chocolate manufacturer in Shanghai. This was originally a private business (*getihu*), which had expanded into a small firm with several hundred workers. Sanjiu took controlling share in the firm's ownership and invested around thirty million yuan to modernize the plant.

The firm then was able to use the Sanjiu brand name and have access to the Sanjiu marketing network.

D. *Non-Core New Businesses*

1. *Real estate*

This is now regarded as a second "mainstay" branch of activity for Sanjiu. After several years this business has grown to considerable size. Sanjiu has constructed several residential areas, including the Liantang and Xiangmihu Zones in Shenzhen, a residential area in Baoan County, and an eighty-one-story building in Shenzhen (Sanjiu skyscraper).

2. *Construction*

At the time that the Sanjiu group was formed, it inherited a small construction company. This was rapidly built into a powerful enterprise. Although it has only around thirty regular employees working out of the group's headquarters, they have organized a huge company with "several tens of thousands" of contract workers. The largest contract is for construction work on the Three Gorges Dam. Other projects include work at the port of Yantian and the Nanhuan (southern orbital) Motorway Project in Shenzhen.

3. *Agricultural technology*

Sanjiu has just begun an enterprise to construct an economic development zone in Hebei Province. The General Logistics Department has the occupancy rights to a large tract of land in Zhoulu Xian, a mountainous area within close reach of Beijing.[18] This was formerly used by the army as a state farm. The General Logistics Department has allocated land-use rights to Sanjiu. The project has the support of the central government's Office of Experimental Areas for Agricultural Reform. The authors were informed that the goal is to turn the area into a large high-technology agricultural science park.

IV. THE SANJIU GROUP'S BUSINESS STRUCTURE

By 1995 Sanjiu had become a very different organization from the original Nanfang Pharmaceutical Company. Prior to 1992 the business was 100 per cent pharmaceuticals. By 1994, over 43 per cent of the firm's output value came from outside the pharmaceutical sector (Table IX). From a firm of around 1,200 employees, mostly employed at a single site, it had grown into a vastly more complex organization. The group now owned a second tier of around 100 enterprises (*erji gongsi*) with a total of around 3,000 employees in the first- and second-tier firms,

[18] The *xian* is to the west of Beijing, around seventy-five kilometers from downtown Beijing.

who were by and large paid their wages directly by the core firm and had their "files" (*dangan*) kept at Nanfang. However, it also had a third and much larger tier of employees, who were not paid their wages by the core firm and whose "files" were not kept at the firm's headquarters, despite the fact that they were working directly for the Sanjiu group. They included over 1,000 pharmaceutical salespeople working on commission, around 3,000 employees in the Sanjiu hotel chain, several thousand employees in such merged businesses as the Shijiazhuang Brewery, and "several tens of thousands" of workers in the construction firm. By 1995 the total number of employees working for the group may have been over 50,000.

CONCLUSION

A. *The Debate over the Causes of Nanfang's Growth*

A number of arguments can be advanced to explain Nanfang's exceptional growth and modernization. First, it enjoyed special advantages regarding its location in the Shenzhen Special Economic Zone, adjacent to Hong Kong. Secondly, it enjoyed the advantage of starting from scratch without the burden of reforming a long-established state enterprise, such as having to deal with a large number of retired workers. Lastly and most importantly, it enjoyed the advantage of being supported by the army's General Logistics Department. However, none of these arguments is wholly convincing.

Like all the businesses in the Shenzhen Special Economic Zone, Nanfang certainly derived benefits from its location. Moreover, it is rumored that its "automobile" business is heavily involved in smuggling. If this is indeed true, such activity would certainly be assisted by the firm's location in Shenzhen. It was allowed to import capital goods free of import duties due to being in a special economic zone. Also, the close proximity to Hong Kong had a big impact on Nanfang's approach to business, like in the way it approached advertising. It was also able to dismiss surplus or poor performance employees relatively easily, due to the tight labor market in Shenzhen. However, location is far from a sufficient explanation for Nanfang's success, since Shenzhen contains thousands of firms, but only a few have grown as fast as Nanfang. It took the lead in the way it used Hong Kong–style advertising to promote its products. Nanfang is far from being specially supported by the local government, as the Shenzhen municipal government has become suspicious due to the fact that its superior authority is the army rather than the locality. The value of having powerful support from the local government was strongly brought out by its battle with Haikou Pharmaceuticals. In this battle Haikou was resolutely supported by the local Hainan government, while the support for Nanfang came from the Shenzhen government, which does not appear to have been as strong.

The fact that Nanfang was set up from scratch did mean that it had a small burden in terms of pensions and initially had no workers in company housing. Also, it was able to recruit a mainly young, highly skilled workforce for core permanent jobs. For the non-core jobs it was able to employ mainly temporary workers who could easily be laid off. However, this also is not sufficient to explain its growth. Thousands of small businesses were begun during the reform years, but few of them grew in the way that Nanfang did. Moreover, Nanfang quickly reproduced many of the "problematic" features of long-established state enterprises. For example, within a short period of time all permanent staff were allocated company housing. The 500 or so cadres all had secure lifetime employment. The greatest advantage stemming from the fact that Nanfang had to start from scratch may have been that the inner core who ran the firm developed a powerful sense of mutual support and trust, derived from building a highly successful business together.

The fact that Nanfang was and still is owned by the army's General Logistics Department provided several advantages. The department provided the initial capital, and it assisted in making available the initial site in Shenzhen. It helped to provide outlets for medicine supply in the army's network of hospitals. It also probably assisted in the acquisition of new plants and in setting up new businesses, such as the planned agricultural science park in Hebei Province.

However, in some respects it was disadvantageous to have the General Logistics Department as the administrative superior. The Guangzhou Army Hospital provided only a small amount of the initial capital, yet it claimed a large portion of the profits earned by Nanfang. Nanfang had to fight hard to gain a greater degree of independence through skillful negotiations, in order to be released from supervision by the Guangzhou Army Hospital and direct administration by the headquarters of the General Logistics Department in Beijing. Even after the reorganization, the Beijing General Logistics Department demanded a large share of the profits from Sanjiu. It required also ad hoc remittances, for such purposes funding the construction of the General Logistics Department's new meeting hall in Beijing in 1995. Moreover, the deal struck with these authorities forced Nanfang to take over many red ink firms, inject capital into them, and diversify into areas that it had no desire to enter. The General Logistics Department owned hundreds of firms across China, but none was as successful as Nanfang. Furthermore, the army "connections" to the Nanfang leadership was very limited when the plant was initially set up. After all, Zhao Xinxian was simply a research professor, not some high-ranking general able to pull strings on behalf of his pet project. He grew in importance only because the firm he ran grew so successfully.

In sum, none of the above factors is sufficient to explain Nanfang's rapid growth and modernization. The answer instead lies much more in the complex set of factors that helped produce a powerful, modern, distinctively East Asian (Amsden and Hikino 1994) business organization in Nanfang.

B. *Modern Business Organization at Nanfang*

Nanfang Pharmaceutical Plant and most of the plants merged into the Sanjiu group were owned by the Chinese people as a whole. The army's General Logistics Department was their administrative authority with rights to use the property under its control. When Sanjiu took over 51 per cent of the ownership of the Shijiazhuang Brewery it was taking over a firm the use of whose assets was supervised by the Shijiazhuang City authorities, which in turn was exercising supervision over the assets on behalf of the Chinese state, which in turn was supervising the use of the assets on behalf of the Chinese people, the ultimate owners. The company taking over the Shijiazhuang Brewery was itself supervised by the General Logistics Department of the PLA. The General Logistics Department was supervising the use of these assets on behalf of the whole army, which was in turn supervising them on behalf of the Chinese state, which was in turn acting on behalf of the ultimate owners, the Chinese people. Technically, the Chinese people were taking over an asset owned by the Chinese people.

Despite the fact that the formal ownership rights to the property within the Sanjiu group resided with the Chinese state representing the Chinese people, Nanfang's struggle for autonomy and the manner of its takeover of other firms demonstrates a clear concept of use rights and rules governing the use of the income stream derived from the use of assets. Nanfang's leadership struggled to obtain autonomy first from the Guangzhou Army Hospital, and then from the General Logistics Department in Beijing. This struggle was for autonomy in the way that assets were to be used, for rights to a larger share of the income stream from those assets, and greater autonomy over the way in which that income stream was to be used.

Nanfang Pharmaceutical Company used its autonomy to act in a drastically different fashion from the typical Chinese plant under the command economy. Nanfang used its autonomy to make a careful selection of products in order to maximize the size of their potential markets. It adopted marketing practices similar to Western pharmaceutical firms. This involved the construction of a large network of salespeople and collectors of feedback from customers. The construction of the marketing system relied also on East Asian patterns of networking, in which Nanfang made strong use of its main institutional support, namely the PLA. Nanfang spent large amounts on advertising,[19] which was highly effective, compared to the standard practiced in Hong Kong. It exercised strict quality control in order to be able to convince its customers of the high degree of reliability of its brand of medicine. This involved employing skilled technicians, constructing a strict system of quality control, and investing large amounts of profits in modern

[19] Like many Western firms, Nanfang was reluctant to disclose the amount it spent on advertising.

equipment. Only in this way could the firm achieve internationally accepted quality control (the GMP standard). It involved the creation of a strong company ethos among the several hundred core personnel in the firm, building on the army traditions of discipline and using the mobilization skills of the Chinese Communist Party. The firm's ethos included meticulous attention to personal appearance and strong emphasis on the acquisition of human skills, such as computer literacy and foreign languages. The coherence and purpose of the inner core of leadership was powerfully affected both by party and army values and by the bonding experience of building the firm from scratch in both a physical and business sense. Nanfang was the first firm in the Chinese pharmaceutical industry to adopt the full range of practices associated with Western pharmaceutical firms. This gave it a "first mover" advantage among domestic firms in China's fast-reforming pharmaceutical sector.

Subsequently, Nanfang expanded in the fashion typical of capitalist East Asian conglomerates. Unable directly to challenge the multinational firms in patented Western medicines, Sanjiu diversified rapidly into a variety of related areas of business. Initially this action was stimulated by the "deal" to take over the General Logistics Department's Shenzhen businesses, but subsequently it stemmed from Sanjiu's own volition. The acquisitions involved careful consideration of the condition of the firm to be taken over and involved typically an insistence on establishing majority control for Sanjiu. These acquisition also required the application of Sanjiu's management skills to the newly taken over businesses, the use of its marketing network and its brand name to help turn them around into money-making enterprises.

C. *A Challenge*

The formal ownership structure at Nanfang and Sanjiu might appear to be incompatible with effective business behavior, since the firm's assets all were and still are owned by the Chinese people.[20] Moreover, the intermediary body charged with the exercise of control over those assets, namely the General Logistics Department of the PLA, is of a character that would appear likely to have little understanding of how to stimulate effective business performance in its subordinate units. The subordinate enterprise, Nanfang and subsequently Sanjiu, paid a substantial share of profits in "dividends" to the sole shareholder, the General Logistics Department, which represented the Chinese state and the Chinese people.

[20] Apart from joint ventures. Moreover, in May 1996, Sanjiu was given permission to list its joint venture company, Sanjiu Pharmaceutical Co., in Hong Kong. The listing was planned for mid-1997. Sanjiu was reported to be attempting to regain majority control before the listing went ahead (*Hong Kong Standard,* May 4, 1996). It was reported that Sanjiu hoped to raise around U.S.$650 million from the listing, though the listing had not gone ahead at the time of writing, apparently postponed due to the turbulence in East Asian stock markets.

However, this apparently unpromising environment was made consistent with the construction by the subordinate firm of a highly effective business organization that would be readily recognizable to any Western pharmaceutical firm or diversified East Asian conglomerate. The enterprise's management was given a high degree of operational autonomy, including the right to take over and merge with other businesses. The main reason for Nanfang/Sanjiu's success did not result from special help from the army, but rather the fact that its leadership used their autonomy to construct a highly effective business organization.

Was the incentive structure fundamentally different from that of some large, wholly family-owned capitalist firms? In such a firm the family appoints professional managers to run the business which it owns. It sometimes takes out more profits from the business than the management is happy with, and it sometimes interferes in detailed decisions to a greater degree than the management likes. However, it leaves a sufficiently high degree of managerial autonomy to those appointed to run the business for them in effective fashion. Is ownership less important than autonomy?

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