
The Development of Modern Entrepreneurship in China

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Entrepreneurship in China used to be an oxymoron. An ideologically Marxist country since Mao Zedong took over in 1949, the Communist regime has actively suppressed and stifled capitalist activities for decades. Yet, was entrepreneurial activity really terminated even in a time when capitalist suspicions could easily mean public humiliation and persecution? In this paper, we will study Chinese entrepreneurs in China and the issues they face in venturing into business independently. Touching briefly on the history since Mao but focussing on the past two decades since Deng took over, we hope to reveal whether entrepreneurship is something that can survive and flourish in China. We will examine prevailing theories regarding Chinese culture and whether it supports capitalist behavior. We will describe the three major waves of entrepreneurial activity, the environment facing and constraining entrepreneurs, and the characteristics and strategies that have evolved. Our research consists primarily of interviews and secondary resources. Because of the difficulty of conducting research in China, our paper is an exploratory study into Chinese entrepreneurship.

So what is entrepreneurship? It has been defined as “the process that takes place...that causes changes in the economic system through innovations brought about by individuals who generate or respond to economic opportunities that create value for both these individuals and society.”¹ However, it is useful to differentiate between *entrepreneurial management*, which may take place in the context of large established organizations, and *entrepreneurship* in terms of starting and running one’s own business, with the higher degree of risk and independence that this implies. For the Chinese, the pertinence of entrepreneurship is particularly relevant in the proverb: “It is better to be a chicken’s head than a phoenix’s tail.” There is a large consensus on the belief that every Chinese person wants to be his own boss. We shall see if this is indeed true.

ENTREPRENEURSHIP IN CHINA: 1949-2000

After the Communists rose to power in 1949, China’s existing market economy was gradually transformed into a socialist economy. Agriculture was collectivized, industry was nationalized, and the private sector was eliminated by

1956. Under the central plan, the state determined the allocation of economic inputs and outputs, and maintained a monopoly over production and distribution. As well as the ‘Iron Rice Bowl’ of lifetime employment, under the *danwei* system, enterprises provided housing and benefits to employees, restricting their ability to live outside of the system. Despite official efforts, however, entrepreneurship was never entirely suppressed and continued to exist on a small scale, particularly in the form of the black market and underground economy. Unfortunately, much of this activity was unproductive rent-seeking taking advantage of the inefficiencies in the economy.²

After the Cultural Revolution, with China’s economy in ruins and facing a crisis of legitimacy, Deng launched the ‘Four Modernizations’ reform program in 1978 to stimulate economic growth. The first step was decollectivisation of agriculture. The resulting rural unemployment and disappearance of local-level revenues created the impetus for the rapid development of township and village enterprises (TVEs); by 1990, TVEs accounted for 20 percent of China’s gross output. These enterprises were not state-owned but collectively owned under local governments.³ While not true entrepreneurs insofar as they were on a contract system, managers of TVEs demonstrated many entrepreneurial characteristics. They chose the product line, found their own funding, labour, raw materials and distribution channels and, most importantly, reacted to prices and costs in pursuit of profits. In one case, the manager decided to switch production from autoclaves to fiber glass and then to fishing rods, achieving sales of \$2 million within two years.⁴ This flexibility stands in stark contrast to the constrained and unimaginative behavior of SOE managers. TVEs can, therefore, be seen as the beginnings of modern Chinese entrepreneurship.

In the 1980s, constraints on private enterprise continued to exist, notably a law limiting employment in a private enterprise to seven people and the difficulty of finding funding as income and savings levels were extremely low and the state-owned banking system lent almost exclusively to SOEs. By 1987 however, a change of policy and repeal of the law saw a surge towards the private sector. Especially as income and savings rose, TVEs started facing new problems, and banks sought to improve their loan portfolios.

The number of private enterprises grew 93 percent in 1987 alone. In addition, the central government's recognition of the tremendous waste and inefficiency generated by SOEs helped motivate individuals to move into entrepreneurship. Specifically, SOEs have been forcefully shrunk by the government in the late 80's and 90's. One study claims that "the state-run sector is contracting at a rate of at least three million workers a year"⁵ while fifty million join the work force per year. SOEs are also encouraging employees to go back to school to pursue advanced degrees. While this new policy is socially uplifting, a problem exists with employing these students after they graduate. Hence it is quite obvious in the statistics and more so in the daily lives of Chinese people that the iron rice bowl is no longer a reliable method of survival.⁶

TYPES OF ENTREPRENEURSHIP

It is important to note that entrepreneurship in China took many different forms. Three main varieties can be identified. The first occurred before reform and through the 80's, consisting of very small-scale activities in retail and services such as street vendors, businesses known as *getihu*. Perhaps more accurately referred to as 'self-employed' rather than 'entrepreneurs', those involved were of low social status, often criminals and illegal migrants, and low education. They started out on their own because they were excluded from the state system. Some achieved success beyond their expectations. But for most, business was a means of subsistence.⁷ The second group emerged in the late 1980s, with more highly educated individuals, often engineers or SOE managers, operating on a larger scale out of choice rather than necessity. These businesses, known as *siying qiye*, operated in all sectors, ranging from restaurants to transportation to manufacturing, especially the production of inputs for SOEs. The third type is the foreign-educated or trained Chinese returning to China to start businesses. This type of entrepreneurship has been evident recently in the flourishing Internet sector. Each of these types of entrepreneurs operates in a somewhat different environment, under different constraints and has distinctive characteristics. We focus primarily on the second type, which we believe is the most interesting group. After all, for those who have no other choice, starting a business carries no risk, while for others the risk can be tremendous.

ENVIRONMENTAL BARRIERS

Despite the trends driving the shift to the private sector, Chinese entrepreneurs still face considerable environmental barriers to starting and running successful businesses. The first problem is that of political and legal uncertainty. While the government has begun to promote policies

favouring entrepreneurial activity, Chinese government policy has been notoriously volatile. Property rights are insecure and the rule of law is still in its infancy: businesses remain subject to unpublished (*neibu*) regulations and the caprices of courts.⁸ They must deal with local, provincial, and central governments, which often have different and sometimes conflicting agendas and demands.

The second obstacle is one of access to resources, in particular funding, labour and technology. Funding for most entrepreneurs comes from personal savings, family, and friends. Although the increase in non-performing SOE debt has provided some motivation to increase lending to private business, bank loans remain rare.⁹ Venture capital is barely two years old in China and is still too small to provide enough funding for most start-ups. Moreover, entrepreneurs in China are not accustomed to the idea of writing business plans and approaching VC's. Confucian principles may also play a role in deterring entrepreneurs from seeking funding from non-kin members. Tight kin relationships—as customary in Confucian cultures—tends to make the average Chinese person hesitant in accepting money and sacrificing equity control to a stranger.

Attracting labour has also posed a problem. Asia is recognized as having a lack of skilled labor. Many foreign companies in Asia have no choice but to hire expensive expatriates because they need a finance manager or an experienced CEO. China is no exception. While unemployment is high, those unemployed are, to a large extent, poorly educated peasants from the countryside. In addition, although university graduates have academic expertise, few have work experience. Even worse, those who have experience tend to be less loyal because they are such highly valued scarcities, moving easily to the highest bidder. In addition, many Chinese workers are risk-averse, unwilling to throw away their iron rice bowls for high-risk jobs in the private sector, even if the pay is higher.¹⁰ This places a constraint on the technological level of enterprises.

The third barrier is that of the low social status attributed to private business in China. Traditionally, merchants have occupied the bottom rung of Chinese society, and this position was reinforced under the Maoist persecution of the bourgeois. Until recently, starting one's own business still carried negative social connotations, and although attitudes are changing rapidly, some preconceptions linger.

The Internet has spurred on radical change. The Chinese government aspires to make China a leader in high-technology¹¹ as modernization and innovation will be necessary conditions for development. As a result it has been particularly encouraging of high-tech entrepreneurship, establishing many high tech parks throughout the country. Tax incentives, monetary grants, and relaxed laws have engendered a more welcoming environment for growing technology enterprises. "The high tech park in

Zhongguanchun, Beijing, is so successful that it is called 'China's Silicon Valley.' In 1989, there were about 15,000 high tech ventures in China, providing 400,000 jobs and \$700 million in products¹². As noted, many of these high tech ventures are foreign-funded or are seeking foreign funding because of the lack of capital resources in China. The problem, however, becomes the accessibility of foreign sources. The average Chinese person has never travelled outside of China, let alone accumulated foreign business contacts. The result is that most high tech ventures are started and controlled by foreign-educated Chinese who have spent several years in the West, have the contacts, and have received funding commitments before returning to China. A number of our interviewees named friends who are graduates of American business schools and decided to return to China to start Internet companies. The interviewees themselves are considering similar options.

While funding is perhaps less of a problem for Internet entrepreneurs, access to labour is more of one. The labour issues described previously are also problems Internet entrepreneurs must deal with. However, in addition to those, a 'brain drain' reduces the rapidity in technological advancement. International demand for technical graduates means an inadequate supply in China, especially given the number of technically skilled students who move abroad and never return. Finally, the potential value of stock options, a key incentive of Internet start-ups, is not always understood in China.¹³

While the phenomenon of foreign-educated Chinese returning to their home country to start businesses alleviates the 'brain drain' problem, at the same time, many of these returning Chinese entrepreneurs have "back-up plans."¹⁴ The precariousness and political uncertainty of doing business in China has prompted many of these entrepreneurs to create 'safety nets' independent of the success or failure of their businesses. Examples of such safety nets include dual citizenship, green cards, and even going so far as leaving one's wife and children in North America while spending months away from them to work in China.¹⁵ In such circumstances it is profit rather than pure patriotism which draws them back. If environmental instability were to increase, it is possible China could again see a worsening of the brain drain problem.

An alternative "back-up" plan indigenous Chinese entrepreneurs employ is having each foot on different boats; in a working couple, the wife will continue on at her SOE job while the husband ventures into entrepreneurship. In this way, the family's risk is reduced because they can continue to enjoy state benefits of housing and health plans while they also reap the profits of a private business.

DOES CULTURE MATTER?

Confronted with a China that had historically produced

many important inventions, and yet had lagged behind the West economically, Weber attributed the difference to Confucianism. This social behavior system condemns pure profit-seeking as well as advocates group orientation, conformity and respect for authority. Following the success of the East Asian countries, however, driven to a large extent by a diaspora of overseas Chinese entrepreneurs, opinion focussed on the Confucian values of persistence, diligence, thrift, and the strong role played by the family as key *supporting* factors for entrepreneurial development. In his seminal research into the role of culture, Hofstede added a fifth cultural dimension, 'Confucian Dynamism,' to take into account East Asian growth.

This raises several issues over the question of entrepreneurship: what role can be ascribed to culture in relation to entrepreneurship in China? Has the political history of Communism suppressed, added to, or changed traditional values? Are the values of Chinese entrepreneurs different from 'standard' Chinese values and similar to those of entrepreneurs elsewhere or are they more Chinese than entrepreneurial?

Kirby and Fan compared a list of sixty traditional Chinese cultural values constructed from research surveys and a list of entrepreneurial attributes as identified by various authors to determine whether Chinese culture is conducive to entrepreneurship.¹⁶ They found considerable overlap between the two sets of values, including perseverance, diligence, resourcefulness, emotional stability, integrity, intelligence, and harmony. But some entrepreneurial attributes – a positive response to change, initiative, profit-orientation, and so on—appeared to be in conflict with Chinese values. Moreover, the most important entrepreneurial values—creativity, innovation, and flexibility—were lacking in the Chinese set of values. This leads to the conclusion that Chinese culture would appear to be only partially conducive to entrepreneurship, while some strong cultural barriers may exist. Such a conclusion seems reflected in the historically low social status of entrepreneurs in China. The role of traditional culture is also influenced and directed by other factors, such as political ideology, and the degree of openness to foreign values. Furthermore, using such lists is not exhaustive. One value not mentioned is the strong Chinese desire to be one's own boss, for example.

David Holt conducted a more analytical study comparing traits of Chinese managers of SOEs, Chinese entrepreneurs, and U.S. entrepreneurs.¹⁷ Based on survey responses taken from managers in Guangdong province he compared the three groups along Hofstede's dimensions. Overall, a sharp contrast existed between Chinese entrepreneurs and Chinese managers regarding individualism, risk, and openness to change. Interestingly, the Chinese entrepreneurs scored higher than their American counterparts on some dimensions, particularly risk tolerance. This perhaps reflects the environmental barriers to entrepreneurship in

China which entrepreneurs must overcome. Holt concludes that the similarity between Chinese and U.S. entrepreneurs, and the difference between Chinese entrepreneurs and managers, provides strong evidence for the convergence of entrepreneurial values universally.¹⁸ However, this still leaves unresolved the question of how and to what extent the dominant *collectivist culture* affects entrepreneurs' personal *individualist values* and inclinations.

Therefore, we can tentatively conclude that the overall Chinese culture is, if not antithetical to entrepreneurship, at least unresponsive of it. On the other hand, a strong sub-culture of entrepreneurialism with values similar to those of western entrepreneurs does exist. Entrepreneurs are flourishing *despite* the dominant culture, and the additional barriers which this culture erects means that entrepreneurs who emerge must possess especially strong countervailing individual attributes. We must, however, be wary of drawing overly simplistic conclusions which ignore factors such as education, exposure to foreign values, and indeed changing values.

CHARACTERISTICS OF ENTREPRENEURS

Our interviews confirmed the conclusion that Chinese entrepreneurs share many characteristics with entrepreneurs worldwide. However, there were some characteristics of management style that were unique to China. Among the universal attributes, comfort with risk and even an enjoyment of risk is most obvious. In China, however, where quitting one's job at an SOE means sacrificing not only a stable income, but also significant fringe benefits such as housing, going into business for oneself is a major undertaking. While successful American entrepreneurs such as Jim Clark and Scott McNealy have been deified in American culture, entrepreneurs in China have only recently become respectable figures. Holt's study suggests perhaps that Chinese entrepreneurs might have to be *more* risk-loving than their American counterparts in order to overcome environmental barriers.

Business acumen is another oft-quoted characteristic universal to successful entrepreneurship. Given the fairly low education levels of many entrepreneurs in China, however, their success has been comparatively more surprising. Whether or not they have more natural 'business instinct' is difficult to establish however. Chinese entrepreneurs work as long and hard as their counterparts in other countries. On the other hand, hard work is not always enough. Luck and fate were also quoted often as "keys" to success. While luck certainly plays a role for entrepreneurs worldwide, Chinese people traditionally place greater belief in fate than many Westerners. Such trust in fate may also partially explain the reliance on opportunism over long-term strategy, which we consider below.

There are a number of characteristics that are more unique

to entrepreneurs in China. The two major ones are political nimbleness and interpersonal harmony. The first is easily understandable considering again the political uncertainty of China as an evolving Communist state. Historically, China has been unpredictable. For example, Deng opened the doors to greater economic freedom, but also ruthlessly cracked down on demonstrators in Tiananmen Square. Marxism is the official state ideology, but any visitor to Shanghai can attest to the burgeoning materialism and capitalism of the city's inhabitants. Even in Shanghai a man can be sentenced to jail for sending email.¹⁹

Flexibility and liquidity are subsets within the need to be politically nimble. Flexibility is the ability to stand up after being knocked down again and again. Being able to weather setbacks due to unexpected legal restrictions is integral to survival. Likewise, liquidity is a valued intangible asset of Chinese entrepreneurs. Back-up plans, dual citizenship, and low capital-requirement startups all allow for desired liquidity. This is similar to overseas Chinese businessmen's obsession with liquidity. According to Henri-Claude de Bettignies, mobility and quickness are priorities in the "philosophy" of overseas Chinese entrepreneurs. As the most economically powerful ethnic group in countries like Indonesia and Malaysia, the social environment is unstable for these overseas Chinese minorities. Liquidity under those circumstances is indispensable not only for rescuing profits but also in surviving physically unscathed. Therefore, most Chinese entrepreneurs, including those overseas, tend to emphasize short-term profits and opportunism instead of long-term strategy. "There is no long-term strategic planning because you don't know what's going to happen from one day to the next.... You just take it one step at a time," said Fu.²⁰ Another interviewee mentioned the difficulty from the established business perspective of finding suppliers given the speed with which entrepreneurs move from one business to another: "You don't know if they'll still be around in a year or two. They're very slick."²¹

So far, we have seen that hard work and liquidity are factors Chinese entrepreneurs use to hedge for an unpredictable environment. Additionally, interpersonal harmony and *guanxi*²² are important factors for further reducing risk. *Guanxi* is decidedly Eastern with roots in Confucianism. While good business contacts are important in the Western business world, merit and innovation alone can also carry a business to success in the U.S. Implicit in *guanxi* are corruption, bribery, and other "under the table" activities to ensure receipt of licenses and speedy governmental approval. These practices are not unknown in China and Wang even goes farther to say that an entrepreneur needs to be thick-skinned for he needs to be able to accept humiliation, drink heavily, sing karaoke, and smoke with his politician "buddies." "You don't just need connections, you need the

right kind of connections.”²³ An extremely successful Chinese entrepreneur in the early 90’s, Lei Chen asserts that her success was due in part to the clients she interacted with, her Japanese friend who became an investor, and her contacts in the import and export industry after working with an SOE for five years.²⁴ Some prospective entrepreneurs may even join SOEs for a few years specifically for the purpose of building up contacts.²⁵

In contrast, Fu argues that the degree of importance of *guanxi* is debatable. “It’s a chicken and egg question because you can become successful on your own and the publicity draws people who want to be connected to you. Or on the other hand, you can have the *guanxi* first and then become successful.”²⁶ He cited a friend and former classmate who had both the business sense and good luck but not the *guanxi* to work his way to success. This man from Shandong worked with an SOE for two years, during which time he bought the SOE’s convenience store and ran it independently. Within five years his store had total revenues of \$100 million RMB.²⁷

Regardless of the exact importance *guanxi* plays in the forming of private businesses in China, it is acknowledged that knowing the right people can accelerate growth and even trigger success, especially for fledgling businesses with little history or guarantees. Our Shandong entrepreneur did after all work for the SOE before buying the convenient store from the SOE. It presents the question of whether a similar man could have walked in off the streets and convinced the same SOE to sign a contract to allow him to run the convenient store even though he personally had no affiliation with the SOE.

The management structure of entrepreneurships in China reveals another role of interpersonal relationships in hedging risk. Resembling Chinese overseas, China’s start-ups are controlled by families. The Confucianism-steeped Chinese culture is believed to be the main reason why most private Chinese companies are structured so that the entrepreneur himself is the benevolent patriarch while his kin fan out below him in secondary management roles. In China especially, lack of legal enforcement and unpredictability give rise to concerns about trust. Considering how difficult it already is to start a business in China, the entrepreneur would be most comfortable employing his wife and siblings in helping him build his company. For instance, Wang Zhidong, CEO of Sina.com, ran Stone Rich Sight Information Technology Company (SRS)²⁸ with his wife and brother. It was not until he began receiving Silicon Valley funding that he re-organized the management team.²⁹ An added benefit of family is that family tends to be more willing to accept minimal compensation in return for future gains. On the other hand, a fresh university graduate would leave immediately if he were told to wait three months for a paycheck. Both the low availability of funds

in China and the importance of capital in initial stages indicate how important this benefit from kin can be to a growing business.

GOING FORWARD

As China stands at the brink of a new millennium, entrepreneurship has been recognized as an integral element of economic advancement. Foreign businessmen have also created a new pool of capital resources for Chinese talent that previously had few monetary options beyond their family and friends. The high tech boom has hit China and Internet start-ups are popping up in major Chinese metropolises.

Whether China continues to progress smoothly towards technological modernization and innovation³⁰ rests largely upon political and social developments. Profit-seeking behavior and private businesses are contradictions in an ideologically Communist state. Whether ideology will clash with reality and social desires remains to be seen. Entry of China into the World Trade Organisation will hasten economic advancement but may also close off many opportunities for indigenous Chinese as wealthy foreign competitors rush into the Chinese market.³¹

Recent events show that there is hope. Multiple high-tech research and development parks have been set up to lure talent back and to keep talent in China. The China Daily reported that “returnees opening ventures...with an investment of less than 1.2 million dollars can enjoy income tax exemption for three years and another three years of reduced taxes as well as two years of free rent for office space.”³²

Early in the new year of 2000, Zeng Peiyan, minister at the State Development Planning Commission, issued a statement saying the government will actively guide and encourage private investment. Zeng said, “[We will] eliminate all restrictive and discriminatory regulations that are not friendly towards private investment and private economic development in taxes, land use, business start-ups, and import and export. In the area of stock listings, private enterprise should enjoy equal opportunity which was enjoyed by the state-owned enterprises.”³³ This statement virtually created a level playing field for all businesses for the first time since the 1949 Communist revolution.

On a microeconomics level, entrepreneurs will continue to face the issues of finding and retaining skilled workers, lack of infrastructure, and the question of whether potential in China will be realized. As illustrated previously, China is short on skilled labor. Increasing education and greater understanding about entrepreneurship will hopefully alleviate this problem.

Lack of infrastructure may limit areas of future entrepreneurial growth. Technology is a relatively labor-intensive

and capital-unintensive industry. Likewise, service industries typically require little initial capital input. Yet other areas that will require privatization in the future may face obstacles due to the lack of an efficient credit system and lack of necessary infrastructure.

Finally, whether potential can be translated into reality is a question everyone awaits for a country whose 1998 per capita income was \$3600.³⁴ In the automotive industry, overly optimistic foreign companies scrambled to enter the China market in the 1980's because of reports about a huge, burgeoning market. By the late 1990's Peugeot Citroen left China partially because of poor management but also because potential was not realized.³⁵

With accelerating reform and increased exposure to the West, values in China are also changing. Perceptions of entrepreneurs are improving, and people are rushing to 'xiahai'.³⁶ Successful entrepreneurs are upheld as role models and idols. The Internet is changing the nature of entrepreneurship by introducing stronger foreign involvement through foreign-educated entrepreneurs and foreign funding. It is evident that Chinese entrepreneurs will continue pursuing their dreams and ambitions of becoming the chicken's head. Just as they were undaunted and unsuppressed during Maoist China, their resilience and resourcefulness will continue to elevate them towards success.

1 G.E. Hills, Market and Entrepreneurship: Research Ideas and Opportunities (Westport, Connecticut: Greenwood Press, 1994).

2 Lu Ding, Entrepreneurship in Suppressed Markets (New York: Garland Publishers, 1994).

3 Jean Oi, Rural China takes off (Berkeley: University of California Press, 1999).

4 John Wong, Ma Rong, and Yang Mu, China's Rural Entrepreneurs (Singapore: Times Academic Press, 1995).

5 John Pomfret, "Private Enterprise Gets a Beijing Endorsement," International Herald Tribune, 5 January 2000.

6 In fact, reality is much graver than these statistics reveal. Lin Wang, an interviewee, related several stories regarding the desperate circumstances many people in China live under. One family of three consisted of two unemployed parents and a daughter. The daughter stole some meat from a store one day and ended up getting caught and beaten. Following the incident, the father poisoned the entire family's food and the three died soon after. "This is a common story throughout China where many people are jobless and/or living below the poverty line," Wang added. (Interview with Lin Wang.)

7 One well-known entrepreneur from Shandong started his own business because he failed the university entrance examination twice. Idolizing Hong Kong entrepreneurs, he started with a small clothes stall and then grew and diversified into restaurants and leisure centers. Cited in Tomisaka S., Heirs of the Dragon (San Francisco: Cadence Books, 1995).

8 Most judges are ex-army officers with no legal training. Enforcement is also extremely weak.

9 According to an interview Nicholas Lardy, only 0.9% of working capital loans went to the private sector in 1999.

10 Edward Gu, "From Permanent Employment to massive layoffs," Economy and Society 28, no. 2 (1999).

11 Evan Feigenbaum, "China Gags the Web and Stifles Its Own High-Tech Ambitions," International Herald Tribune, 5 February 2000.

12 "Beijing to Further Develop Zhongguancun Area," China Daily, 15 June 1999.

13 Julie Schmit, "Internet Revolution Rolls Through Asia," USA Today, 11 February 2000.

14 Interview with Lei Fu.

15 Interview with Lei Fu.

16 David Kirby and Fan Ying, "Chinese Cultural Values and Entrepreneurship: A Preliminary Consideration," Journal of Enterprising Culture 3, no. 3 (1995).

17 David Holt, "A comparative study of values among Chinese and US entrepreneurs: pragmatic convergence between

contrasting cultures," Journal of Business Venturing 12, no. 6 (1997).

18 But Holt also adds caveats about the representativeness of a regional study and the danger that the Chinese entrepreneurs may have responded to *perceived* rather than actual personal values. Cited in Holt, "A comparative study in the values among Chinese and US entrepreneurs."

19 The guilty party had sent 30,000 email addresses to an American electronic publication and was thus sentenced to two-years in jail. Cited in Seth Faison, "Chinese Entrepreneur Sentenced for E-mail," The New York Times, 24 January 1999.

20 Interview with Lei Fu.

21 Interview with Michael Wenderoth.

22 Roughly translated as connections or affiliations.

23 Interview with Lin Wang.

24 Interview with Lei Chen.

25 Interview with Michael Wenderoth.

26 Interview with Lei Fu.

27 Incidentally, this friend is now attempting to start an Internet company and is seeking foreign funding to supplement his own resources.

28 SRS was Wang Zhidong's startup in Beijing before the company merged with Sinanet.com to form today's Sina.com. This information is available at the Sina.com website, <http://www.sina.com>.

29 He re-organized the team due mainly to pressure from investors.

30 Technological innovation assumes the role of privately spurred entrepreneurial activity. Many people including Feigenbaum believe that "innovation cannot be managed by bureaucrats. It is bottom up, not top down.... Three decades into the Silicon Valley miracle, American entrepreneurs and venture capitalists take it for granted that innovation thrives best where government lets markets work unfettered." Cited in Evan Feigenbaum, "China Gags the Web and Stifles Its Own High-Tech Ambitions."

31 Lee Siew Hua, "Beijing Ready for Risks of Net Savvy People," Strait Times, 5 May 2000.

32 "Beijing opens high-tech center to lure back talent from overseas," Agence France Presse, 18 December 1999.

33 James Kynge, "China Plans Support for Private Sector," Financial Times, 5 January 2000.

34 In contrast, Malaysia's per capita GDP \$10,300, Taiwan's \$16,500 and Korea's \$12,600. Cited in CIA World Factbook. The internet version is available at: <http://www.cia.gov/cia/publications/factbook/index.html>

35 With regard to the penetration of technology, one study indicates that the percentage of residents with fixed-line phones in China is only about 11 percent, in contrast to the U.S.' 95 percent and Hong Kong's 61 percent. The percentage of Chinese households with personal computers is even more disheartening. Only about 1 percent of Chinese residents owns PCs in contrast to 50 percent of U.S. residents and 29 percent of Hong Kong residents. Cited in Julie Schmit, "Internet Revolution Rolls Through Asia."

36 This phrase literally means go into the sea. Figuratively, it means get rich by working in the private or foreign sectors.

