The Life-cycle Growth and Development Approach to Analyzing Entrepreneurship in China

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It has been long recognised that a critical contributor to economic growth and development in a country is private sector entrepreneurial activity (Schumpeter 1934, McLelland 1961, Kilby 1971 and Kirchhoff 1991). Consequently, there has been a large and growing body of research into the nature and characteristics of entrepreneurs and into the social, economic and political environments that promote or hinder entrepreneurial activity.[1] This paper contributes to this literature by analysing small and medium-sized entrepreneurs in China. Specifically the paper addresses three questions: firstly, what are the characteristics of Chinese entrepreneurs; secondly, what are the problems faced by Chinese entrepreneurs as their business ventures develop and grow; and thirdly, what competencies are important for these entrepreneurs to remain successful as their businesses grow?

Literature review

The analysis of the development and growth of Chinese entrepreneurs in this paper is based on two aspects of entrepreneurial researchCstages of development models and theories of firm competenceCthat are outlined below.

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[1]See Hornaday and Abound (1971), Gartner (1989a, 1989b), Gnyawali and Fogel (1994) and Zapalska (1997)

Stages of development models

Several models have been advanced that attempt to label and explain the various stages of development of entrepreneurial firms (Cowan, 1990; Galbraith, 1982; Smith, et. al., 1985). Models of organizational life cycles and stages of development provide information on the types of problems encountered by firms over time, and suggest that each stage of development (start-up, growth, maturity) is associated with a unique set of problems (Ackoff, 1963; Zapalska, 1997; Kazanjian, 1988; Kuratko, et. al., 1989). Several authors proposed different categorisations of organisational problems encountered by emerging entrepreneurial firms. The start-up stage is more often associated with problems related to the creation and development of products and services and to external problemsCfor example securing financial resources. Sales, marketing and organisational system problems, however, are more common in the growth stage of entrepreneurial firms in a capitalist economy.

This paper uses Kazanjian=s four-stage life cycle model on entrepreneurial growth and development (Table 1). The four-stage life cycle approach enables the examination of the growth and development of the Chinese entrepreneurial firms in the context of an economy reforming from a centralized to a more decentralized way of resource allocation. The model examines problems confronted by Chinese entrepreneurial firms at their different levels of growth and development and measures how those problems differ from those problems that are encountered by the firms that operate within a market system of resources allocation.

Models of firm competence

Firm competence plays an important role in strategic management and in the success of businesses in general. A firm=s competence is understood in terms of how it matches the basic requirements for success arising from the firm's external business

Table 1.

Stages of Growth and Development of an Entrepreneurial Firm

Conception and Development Stage	Stage	I
Commercialization Stage	Stage	II
Growth Stage	Stage	III
Stability Stage	Stage	IV

Source: Kazanjian (1988)

environment, with its own skills and capabilities. Therefore, competence represents entrepreneurial skills and capabilities that can be applied toward strategic performance. These include financial, managerial, functional, and organisational skills and capabilities.

According to Andrews (1987), distinctive competence arises from strengths and weaknesses of individuals in the firm, the degree to which an individual=s capability is effectively applied to a common task, and the coordination of a group to a particular task. In order to provide a wider definition of competence, Kay (1995) refers to four types of general competence that a firm may possess: architecture; reputation; innovation; and control of strategic assets. These are outlined in Table 2.

According to Bruderl et al (1990), if an entrepreneurial firm has limited competence it indicates that the firm lacks important contacts,

credibility with buyers and other industry-specific information, and that this may increase the likelihood of failure in the early stages of the firm's development. Further, according to Burderl et al (1992), the presence or absence in the firm of industry-specific capital is a significant determinant of venture survival or failure. New venture performance, whether seen in terms of survival or probability of survival, appears to be enhanced by a management team with high levels of industry-related competence. Success is more likely to be achieved if those entering an industry have prior experience of that industry (Chandler et al. 1991, Vesper 1990).

In this paper the analysis of Chinese entrepreneurship using the life-cycle model is enhanced through the evaluation of the competencies which are important at different stages of the life cycle given the problems that Chinese entrepreneurs face.

Background on China

Since 1979, China has devoted a great deal of effort to reforming its economic system so that it better serves the country=s development objectives. The urban economy in the reforming Chinese economy is still dominated by state-owned enterprises renowned for their inefficiency. The policy objective has been to retain the predominance of the public sector in the economy supplemented by non-state and private ownership, while achieving an effective separation between state ownership and control of enterprises. In order to survive, state-run enterprises are beginning to operate on the same profit-motivated basis as individually owned businesses, joint ventures or

Table 2
Types of General Competence That a Firm May Possess

Type	Characteristics
Architecture	A firm=s ability to: create knowledge and to respond to changing circumstances; foster easy and open exchanges of information within the firm and other groups of firms; know where critical interactions occur for a venture and collecting information about such interactions in the most timely and cost-effective manner.
Reputation	Involves the positioning of the venture and its managers in external status hierarchies that communicate information to customers and shareholders on quality, efficiency, dependability, and related performance attributes. Possession of a positive reputation serves to lower the search costs of customers, buyers, and supplier and thus aids them in their decisions regarding doing business with the venture.
Innovation	The innovations that a firm generates are themselves resources which when skilfully developed and marketed can lead to strong advantages. The capabilities involved in bringing new innovations to market, including the limiting of bureaucratic pressures during product development, providing a place within a firm where new products can mature without being stifled by standardized control systems, and creating channels through which innovations can be matched to customer needs are major capabilities.
Control of Strategic Assets	Skills at exploiting market situations that limit the extent of price competition, restrict entry or imitation, or raise the price of switching to substitute products can provide long term advantages to the firms that possess them. Competence in controlling strategic assets will enhance firm profitability.

wholly foreign-owned enterprises. Control of state enterprises has been transferred to enterprise managers who are responding increasingly to market pressures rather than official directives. Foreign investors are now allowed to take an interest in certain state-run enterprises and performance records are undergoing significant improvement. While maintaining the overall framework of predominantly public ownership, China has adopted a policy of opening up trade and investment links with the rest of the world and has begun to reform its domestic economic structure. It has gradually relaxed mandatory planning, decentralised economic decision-making and allowed market forces to influence an increasing number of prices. It has also permitted a larger role to the non-state sector and begun transforming institutions and structures critical for the conduct of macroeconomic policy.

Non-state entrepreneurs are playing an increasingly growing role in China=s economic development. The growth of private sector output comes especially from *collectives, individual businesses* and *other businesses* such as town and village enterprises, and joint ventures between domestic and non-resident businesses, including those from Hong Kong and Taiwan. They have all grown extremely rapidly in recent years, and have started producing a considerable share of total industrial output.

The success of China=s reform efforts is attributable to impressive growth of the non-state sector during the past decade and a half; particularly of the collectives, individual businesses, and such other businesses as township and village enterprises. The non-state sector has contributed to the reform process not only through its strong performance but also by absorbing surplus labour and providing competition to the state enterprises. Much of the growth of the non-state owned sector has been in light manufacturing and service industries. These industries were severely neglected in China=s industrialisation strategy, which focused primarily on the development of heavy industry. Thus, one explanation for the rapid rise of collective and private enterprises was their ability to exploit successfully gaps in

China=s industrial structure and to respond to substantial unsatisfied demand in sectors previously repressed.

Results

Characteristics of entrepreneurs

The data for the analysis that follows was generated by questionnaire interviews undertaken in April 1999. A random sample of 100 entrepreneurs (18 female and 82 male) was selected from a list of small businesses in Liaoning province in China. Liaoning province is the 3rd largest exporting region in China.

The entrepreneurs included in our interviews are typically small, with employees ranging from one through one hundred, and have low sales volume, inadequate assets, and low profit margins. Ten percent of entrepreneurs interviewed were in *collectives*, 30 percent owned *individual businesses*, and 60 percent involved in *other businesses* that include town and village enterprises, as well as joint ventures. These entrepreneurs engaged in a variety of fields but predominantly retail trade, manufacturing, personnel and business services, distribution, restaurant and catering, and others.

Approximately 38 percent of the entrepreneurs surveyed produce for local markets, 22 percent for national markets, 27 for both national and local markets, 8 percent for national and foreign markets, and 5 percent for foreign markets. The overall education level of the entrepreneurs was above the national average. Thirty-nine percent of respondents had graduated from high school, 28 percent had two-year college degree, 23 percent had four-year college degree and 3 percent had a Master=s degree. The remaining group of respondents had not completed a high school education.

The reasons given for going into business were diverse. The most common reason was Ato let an entrepreneur do the kind of work he/she wanted to do@ (60 percent). Only 29 percent of the entrepreneurs expressed that they wanted to become wealthy and have steady employment. Sixty-nine percent of the respondents had some previous business experience in the business in which they were engaged while 20 percent had some business experience but unrelated to their present business interests. Sixty-six percent of the entrepreneurial firms started with funds provided solely by their owners, 20 percent from funds secured from the Insurance Companies, 1 percent from bank funds, 5 percent from Small Business Investment Companies, and 38 percent from private venture firms and private foundations. Despite many difficulties with funding their businesses most entrepreneurs were able to generate sufficient capital to cover both start-up and initial operating costs.

Life-cycle model analysis of Chinese entrepreneurs

Placing Chinese entrepreneurs in the categories developed by Kazanjian (1988) indicated that 10 percent of non-state entrepreneurs operate their businesses at the Conception and Development stage, while 51 percent of entrepreneurs operated at the Commercial stage, 22 percent at the Growth stage, and 17 percent at the stability stage. The firms operating at the second stage have been in business for about five years.

Respondents were also asked to identify important economic concerns while running their businesses. Several possible factors for concern were suggested and they are presented in Table 3 ranked from the highest to the lowest percentage of their total occurrence.

From respondents= ranking, the following factors were mentioned as important economic concerns: domestic competition, availability of long-term capital, growth of the economy, state or local taxes, labor costs and labor quality, energy costs, and low demand among many others. The respondents argue that competition is due to the increasing level of business competition not only from other provinces in China but also from the other regions of the Pacific Rim. Table 3 also presents the relative frequencies of occurrence of each type of problem encountered at the four different stages of firm development. A study of the problems that emerge from prior research

Table 3.
Important Economic Concerns While Running the Business
According to the Stage of Firm=s Development

Name of Activity in Percentage of Occurrences	Total	According to the Stage			
		I	II	III	IV
Domestic competition	72	20	34	22	24
Availability of long-term capital	69	47	25	21	7
Growth of economy	60	29	35	24	12
Inflation	56	11	56	24	9
State or local taxes	49	37	38	20	5
Wage costs and other outlays	45	54	24	14	8
Weak collateral position	42	65	25	4	6
Raw material costs	39	15	45	24	16
Quality of labor/untrained labor	39	10	34	45	11
Low demand	38	36	46	14	4
Energy costs	30	24	41	27	8
Ability to pass on price increases	30	73	19	8	-
Lack of quality control	28	78	14	11	15
Regulatory environment	20	17	54	23	6
Availability of short-term capital	12	52	37	10	1
Foreign Competition	8	45	34	12	9

contrasted with those emerging from this research indicate that Chinese entrepreneurial firms encounter more problems than those experienced by entrepreneurs in capitalist and East-central European transitional economies.

Over the life cycle, growth constraints on the small Chinese businesses have operated at both the macro- and micro-economic levels. At the macro level, rising levels of inflation hampered financing, pricing and exporting. High interest rates discouraged investment in small business and the upgrading of capital stock. At the microeconomic level, the constraint to small firm development have been observed in many areas and with differing levels of intensity in accordance with the firm=s position in the life cycle.

The survey results do show dramatic changes from the first three stages of development to the stability stage. Despite the fact that the majority of problems constraining entrepreneurs occurred during the first three stages: conception and development (stage 1), commercialization (stage 2), and growth (stage 3), almost ninety percent of firms managed not only to survive but to intensify their entrepreneurial activities and increase their growth.

According to respondents, the Chinese entrepreneurial firms have not been subject to state planning norms, price setting, or other forms of state intervention for the last few years. They also do not have preferential access to credit or material supplies, nor do they benefit from investment from the central government or from guaranteed sales to the state. The Chinese small enterprises operate largely in a market-oriented manner, facing a highly competitive environment and hard budget constraints.

Entrepreneurs expressed that problems related to the investment environment include: inadequate energy supply, red tape, non-convertible currency which creates problems for balancing currency requirements, lack of exposure to international concepts of accounting, taxation and business, lack of a proper judicial system, and language and cultural differences.

They repeatedly expressed that the greatest hurdle to economic growth of the non-state sector is infrastructure bottlenecks. Raw materials, electricity and skilled labor are inadequate. According to entrepreneurs, in response to the pressure of supply and demand the government should turn its attention to addressing these problems as soon as possible. The poor infrastructureBfor example, the transportation falling far short of demand - is facing enormous strains with the growth of the economy and its limitations act as a deterrent to foreign investment in many areas of Liaoning, China (Table 3).

Entrepreneurs stated that what is required for their growth, success and staying competitive is to meet certain quality standards, promote production safety, improve management and efficiency and quality of production, the technology must be advanced appropriate to entrepreneurial needs. The entrepreneurs were enthusiastic about receiving support from foreign experts in managing their firms and also were supportive of the government establishing information technology centres. Promoting environmental protection has also been mentioned as an important element of their concern.

Table 4 presents the primary causes of business problems, first by the relative frequencies of occurrence of those causes, and then according to the stage of development and growth. Lack of management expertise and contracts, competition, economic situation, cash flow, undercapitalization and immature infrastructure were the most frequently mentioned problems faced by the Chinese entrepreneurs.

The commercial banking system is not equipped for dealing with small firms= financing needs. Commercial banks operate within the framework of fixed credit ceilings and interest rates. Banks still prefer to deal with state-owned enterprises. Small entrepreneurial Chinese firms perceived as high-risk with low-level repayment records encourage conservative lending policies. For small firms early in the lifecycle and with no assets to offer as collateral, this is a major obstacle.

Table 4.
The Primary Causes of Business Problems

Name of Activity		Percentage of Occurrences					
		Total		According to the Stage			
				I	II	III	IV
Lack of management expertise		66		36	45	12	7
Competition		59		24	36	22	18
Recession		40		29	34	14	23
Cash flow		40		57	26	16	1
Lack of contracts		34		87	13	-	-
Tax system		23		41	24	12	23
Undercapitalization		23		51	27	14	8
Immature infrastructure		22		35	37	21	7
High interest rates	21		47	36	12	5	
Lack of commercial advertising		16		68	28	4	-
Availability of equity capital	15		46	40	8	6	
Unavailability of financial assistance		14		63	29	7	1
Low demand		12		32	33	24	11
Lack of access to technology/products relative to state-owned enterprises		9		47	32	12	9

Moreover, entrepreneurs stated that they would like to enjoy having more of the following rights: to make production and business decisions on their own, to set their own prices and market their own products, to purchase materials, to be able to import and export, to make investment decisions, to decide on the use of retained earnings, to dispose of assets in accordance with production requirements, to form partnerships, joint ventures and merge, to set wages and bonuses, to determine internal organization, and to refuse arbitrary levies and charges, among many others. In return for these rights, entrepreneurs are expected to be accountable for their performance or to be closed in accordance with the bankruptcy law. The various department and provincial authorities have started to implement these new regulations. However, implementation of the regulations has been resisted.

Firm Competence

Chinese entrepreneurs were questioned about the competencies they thought were important at different stages of production and their responses are outlined in Table 5 using the taxonomy of firm competence developed by Kay (1995).

According to Table 5, *innovation* is one of the key elements of competency at all stages of growth and development of the Chinese entrepreneurial ventures. However, the new entrepreneurial Chinese firms that are innovative or oriented towards *innovative* strategies are typically resource poor (i.e., low in key resources, such as financial, human, and social capital). Although the resources that a start-up Chinese venture has at its disposal may be

Table 5.
Occurrence of Competencies Expressed as Necessary for Success by a Stage of Development

	Type of Competency (In percentages)			
	Architecture	Reputation	Innovation	Control of Strategic Assets
Stage I:				
Conception and Development	98	15	94	95
Stage II:				
Commercialization	85	46	89	89
Stage III:				
Growth	64	89	85	69
Stage IV:				

Stability	55	99	95	65

sufficient to launch the enterprise, growth often incurs a considerable and dangerous strain on these resources. In these circumstances, *architecture* plays an important role. According to the respondents, *architecture* involves skills at knowing where critical interactions occur for a venture and collecting information about such interactions in the most timely and costBeffective manner. In particular, this competency plays a very important role at the earlier stages of firm growth and development.

Reputation plays an important role at the later stages of firm=s growth and development, for example the growth and stability stage (Table 5). According to respondents, possession of a positive reputation serves to lower the search costs of customers, buyers, and suppliers and thus aids them in their decisions regarding doing business with the entrepreneurial venture. Since it takes a long time to develop and since it is difficult to imitate, reputation of Chinese firms can be a source of sustainable competitive advantage in the very difficult business environment of a reforming economy.

Competence in *controlling strategic assets* enhances firm profitability. Chinese entrepreneurial firms have been operating in increasingly competitive conditions since the economic and political reforms were implemented. According to our results, *control of strategic assets* has been mentioned as more important at the earlier stages of growth and development. Controlling these assets in the early stages of development enable firms to limit the extent of price competition, restrict entry of new firms, or raise the price of switching to substitute products and, therefore, provide long-term advantages to the firms that possess them.

The specific set of competencies that are necessary for success vary widely across Chinese entrepreneurial firms, and are difficult to know in advance of entry. Different competencies are needed at different stages of firm=s growth and development. A new entrepreneurial firm may be successful with largely industry-specific competencies at the time of initial entry but may require organizational and marketing capabilities to grow and prosper. Similarly, later entrants may need to enter with significant entrepreneurial and organizational capabilities, whereas pioneers may be able to develop such skills as the new entrepreneurial venture matures.

Conclusions

This paper has outlined the characteristics of Chinese entrepreneurs, analyzed the problems they face as their organisations developed and examined the competencies, which a firm requires to be successful throughout its life cycle.

According to our results, the chances of small business entrepreneurial Chinese firms= survival and growth at their different stages of development are a function of the amount and type of barriers to operation that they have been likely to encounter. Despite the many problems and obstacles encountered at different levels of their development many firms were able to grow. At all of stages of growth and development, the Chinese non-state entrepreneurial firms had to operate under a hard budget constraint, uncertain and poor economic conditions, unfair and poor banking conditions and preferences, a low level of capitalization, poor infrastructure, and increasingly growing competition not only from domestic but from foreign firms.

As far as competencies are concerned, it is apparent that *architecture* and *control of strategic assets* are important in the earlier stages of development while *innovation* is important throughout all stages. Reputation, however, becomes more important as a firm progresses through the life cycle.

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