

# Financial Capital of Founders and the Scale of Entrepreneurial Corporations in Taiwan

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## Abstract

The result of this study shows that the asset scale of entrepreneurial enterprises is significantly associated with firms' background variables, strategic variables, and financing variables. The asset scale of entrepreneurial enterprises is strongly affected by the founder's educational level, internationalization, and business age. The sample studies 96 entrepreneurs. In the spring of 2000, approximately 412 questionnaires were distributed to members of the Chinese Youth Entrepreneurs Association in Taiwan. Of those we use, 76 entrepreneurs came from the manufacturing industry and 20 entrepreneurs came from the high-tech industry.

## Introduction

One of the most critical issues facing those who want to realize the successful experience of economic development in developing countries is understanding where entrepreneurial firms originate from and what characteristics are relevant to their success. Compared to people in general, entrepreneurs are significantly higher in scale, reflecting a need for achievement, independence, and effectiveness of their leadership, and are lower in scale, reflecting emphasis on need for support (Hornaday and Abound, 1987). Note some of the differences between an entrepreneur and manager. The entrepreneur is energetic, single-minded, and has a mission and clear vision; he creates piles of work for the manager to sort through, implement, or discard. The manager, however, is extraordinarily thorough; professionals who take pride in bottom-line achievements, who love comfort and affluence, and who know how to organize and manage a business.

The ten significant characteristics of successful entrepreneurs, as Silver had observed, are as follows: 1. Outer-directed, middle-class background. 2. Absent father/dynamic mother (reversed for female entrepreneurs). 3. Optimal childhood deprivation, for example, illness, size, ethnic, or financial deficiency. 4. Guilty that he has not fulfilled the American dream and become a professional. 5. Able to focus intensively on a single subject for a sustained period of time. 6. Courage; no fear of failure, but several failsafe plans. 7. Creative; always problem-solving. 8. Insightful; can see a problem as a market. 9. Happy; never sick, bitter, or depressed. 10. Communications skills; persuasive abilities ( Silver, 1987).

Basically, most professional corporate managers do not have the capability to start and nurture small corporations, but neither can many entrepreneurs go it alone in managing larger, more mature corporations. An enlightened entrepreneur who hires good professional managers and uses them well has a very good chance for successful expansion of the company. Entrepreneurs are reflected in risk taking with regard to investment decisions and strategic actions. They face environmental uncertainty, the extensiveness and frequency of product innovation and related tendency toward technological leadership, and the firm's pioneering nature as evident in the propensity to aggressively and proactively compete with industry rivals ( Zahra 1991, 1993).

In a perfect capital market, there would be no difference between internal and external funding of any investment project under Modigliani-Miller's theorem (1958). However, when the capital market is no longer perfect (e.g., under the presence of asymmetric information and agency problems), the cost of external funds can be much higher than that of internal funds and can lead to under-investment. This is especially true for those entrepreneurial firms in which entrepreneurs are accustomed to complaining that they cannot obtain enough external funds to exploit profitable investment opportunities.

Although entrepreneurship has been linked theoretically with economic development for quite some time, few studies have systematically attempted to examine the relationship among performance, financing, background, and strategic variables for entrepreneurial firms. Little is known about the micro variables that influence success for Taiwanese entrepreneurs. Is education important, or is practical experience more helpful? Is success impacted by constraints on starting capital, or is it more important to belong to a better business strategy?

Human capital theorists hypothesize that education is an investment that yields a higher wage compensation in return for individual variations of skills, training, and experience ( Mincer, 1974). Taken collectively to the national level, they theorize that investment in education leads to economic growth (Psacharopoulos and Woodhall, 1985). Educational investment in individuals or firms may yield vastly different results with unique environmental conditions. The educational levels of entrepreneurs and employees in firms predict an increasing likelihood of entrepreneurial activity, productivity, and relative success associated with education and experience.

Access to financial capital is particularly important for entrepreneurial firms, because research has shown that even in developed countries, where

financial markets are more accessible, constraints of credit are one of the most significant causes of small business failures (Peterson and Shulman 1987).

Owners of entrepreneurial firms rarely keep correct financial records and typically fail to set up a perfect accounting system compared to big firms. Due to this lack of perfect accounting records, detecting fully how much, if any, return of capital has occurred over a specific period is difficult, if not impossible. The most available approach to assessing successful entrepreneurial firms is to evaluate its scale of assets, revenue growth, and how many years after a new firm's setup until it earns a profit.

This study will show the effects of financing, background, and strategic variables available to successful entrepreneurs that are found to have a differential impact on firms' performance. Certainly, we examine the hypothesis that the financial capital of the founder is related to the scale of the entrepreneurial corporation.

## Literature Review

Honig (1998) examines the performance of 215 informal micro-enterprises in Jamaica, studying the influence of owners' human capital, social capital, and financial capital on their business profitability. He found that several factors were determined to enhance the businesses' profitability in all categories. Vocational training demonstrated consistently strong and positive effects. Years of experience in the business were consistently positive and strongly associated with increasing profits. The variation in starting capital had little effect on profits in the higher technological firms. Although additional starting capital played an important role for both businesses with and without employees, increasing amounts failed to differentiate the success of those firms that were already operating in the higher technological tier. Obtaining a small business loan enhances the profitability of all firms, except those segmented into a high technological tier. One interpretation of this finding is that the role of technological choice is extremely important, and appears to dwarf that of varying amounts of starting capital.

Cooper, Gimeno-Gascon and Woo (1994) utilized a longitudinal study of 1053 new ventures and found that measures of general human capital (the entrepreneur's education) influenced both survival and growth. Management know-how variables (having had parents who owned a business or work experience in a business organization) had a more limited impact. Industry-specific know-how (entrepreneurs starting business closely related to what they did in the past) contributed to both survival and growth. Amount of

initial financial capital also contributed to both.

Covin, Prescott, and Slevin (1990) studied the differences between the operations of high-tech and low-tech small firms, employing a distinction between macro- and micro-strategy variables. At the macro level, they found that high-tech firms tended to have more entrepreneurial management styles as well as organic structures; at the micro level, innovative marketing, patents and copyrights, new product development, and customer service and support were all considered important.

Warren and Hutchinson (2000) studied success factors for high-technology SMEs. They found that the firm's success factors identified by the founders were the following items: (1) the firm never borrowed money, (2) good partnership between co-founders, with trust previously established, (3) high skill-level of employees, (4) sound knowledge of the business, (5) good technical back-up, which fosters trust and confidence from customers, (6) good after-sales support, (7) luck-right time, right place, (8) ability to spot a gap in the marketplace, (9) good social atmosphere, (10) did not expand internationally too fast and thereby compromise the local market.

Technological capabilities are among the most recognized determinants of the success of new ventures, as they allow these firms to pursue those strategic options that can best maximize their chances for survival and achieve superior performance (Zahra, 1996). Zahra and Bogner (2000) examined the relationships between technology strategy and new venture performance. The results suggest that new ventures should pursue a formal technology strategy to achieve successful performance.

Chandler and Hanks (1998) studied the substitutability of founders' human and financial capital in emerging business ventures. The analysis shows that, on average, firms with high levels of founder human capital and low levels of initial financial capital perform similarly to firms that have low levels of founder human capital and high levels of financial capital. This finding suggests that founders with a strong background experience may be able to start businesses that survive and thrive with less financial capital than their less-experienced counterparts. The proportion of initial capital provided by the founder differs significantly across industry types. In more capital-intensive industries, founders provide a smaller proportion of the start-up capital. Interestingly, the amount of initial capital provided by the founder does not vary significantly across industry types. This suggests that the amount of initial capital provided by the founder may result from contributing all they can give to the business, which appears to be similar across business types.

# Methodology

## Sample

The sample is a study of 96 entrepreneurs and their firms tracked over the past. In the spring of 2000, approximately 412 questionnaires were distributed to members of the Chinese Youth Entrepreneurs Association. At the time of the questionnaire, the average entrepreneur had been in business for 15 years. The sample represented manufacturing and high-tech industries in Taiwan, with 76 entrepreneurs coming from the manufacturing industry and 20 entrepreneurs coming from the high-tech industry.

## Model Selection

The equation for this model is as follows:

$$\text{Log A} = \beta_0 + \beta_1 \text{UH} + \beta_2 \text{OH} + \beta_3 \text{YT} + \beta_4 \text{YM} + \beta_5 \text{BD} + \beta_6 \text{TF} + \beta_7 \text{I} + \beta_8 \text{FE} + \beta_9 \text{SG} + \beta_{10} \text{BA} + \beta_{11} \text{NE} + \beta_{12} \text{FC},$$

where A: Total asset at the end of 1999

UH: % with less than high school degree in employee education

OH: % with more than high school degree in employee education

YT: Years of technology experience for founder

YM: Years of management experience for founder

BD: Private brand owned

TF: % training fee in sales

I: Degree of internationalization (those entrepreneurial firms that frequently conduct technical cooperation with foreign firms or overseas investment.)

FE: Founder's educational level (number 1 is junior high school; number 6 is more than master's degree.)

SG: Sales Growth (average growth in the past three years)

BA: Business age

NE: The number of employees

FC: % of founder's capital to equity at the end of 1999

## Financing Variables

The financing factor of independent variables is the percentage of founder's capital to equity at the end of 1999. In addition, we investigate the number of years from a new firm's setup to when it earns a profit and the percentage of founder's capital to equity in the starting year. On average, the number of years from a new firm's setup to earning a profit is three years; the percentage of founder's capital to equity in the starting year is nearly 70%.

## Background Variables

The background factors of independent variables include entrepreneurial years, the educational degree of founder, years of experience in the technological field, years of experience in administrative jobs, and the educational degree of employees. In addition, we investigate the number of employees in the founding year and at the end of 1999, the male percentage of entrepreneurs, and the marital status for founders. On average, the number of employees in the founding year and at the end of 1999, respectively, is 18 and 700. The male percentage of entrepreneurs is 94%; the percentage of marriage for founders is 97%.

### **Strategic Variables**

The strategic factors of independent variables include the average growth rate of revenue in the past three years, whether or not the firm owns its own brand name, the percentage of employee training expense to revenue and the degree of internationalization. Furthermore, we investigate the source of technologies for the firms. On average, the percentage of the source of technology coming from individual research and development is about 85%.

### **Performance Variable**

The dependent variable used in this study is total assets at the end of 1999. As stated before, issues such as income or return of capital is sensitive to the respective regulation and taxation agency for entrepreneurs. It is thus easier for founders to answer questions related to assets or revenues, as compared to the income or return of capital.

## **Results**

1. Most entrepreneurs have a majority of ownership in the firms' equity.

The results of this study reveal that: (1) Entrepreneurs owned 70% ownership of firms at the starting year and increased up to 74% by the end of 1999 on average; (2) There is no difference between the manufacturing industry and the high-tech industry for entrepreneur ownership in firms. Entrepreneurs in high-tech industries owned about 59% ownership of the firm, while entrepreneurs in manufacturing industries owned about 71% ownership of a firm (See Table1).

2. Basically, the asset scale of entrepreneurial enterprises is significantly associated with firms' background variables, strategic variables, and financing variables.

The relationship between independent variables (background variables, strategic variables and financing variables) and the dependent variable

(performance variable) was tested in this research. The results showed that there is a significant relationship between the dependent variable and independent variables (see Table 2). The asset scale of entrepreneurial enterprises is strongly affected by the founder's educational level, internationalization, and business age. In general, A higher educational level for entrepreneurs and higher business age will show a larger asset scale in entrepreneurial enterprises. Larger firms have more experience in overseas investment and technical cooperation with foreign firms.

3. Educational level of entrepreneurs is on average at the level of senior high school or community college.

The results of this study reveal that: (1) The educational level of entrepreneurs in manufacturing industries is between senior high school and community college (mean statistic is 3.62); (2) There is no difference between the manufacturing industry and the high-tech industry in educational level of entrepreneurs. Entrepreneurs in high-tech industries have a higher educational degree compared to entrepreneurs in manufacturing enterprises on average. The educational level of entrepreneurs in high-tech industries is between community college and university (mean statistic is 4.46) (see Table 3).

## Conclusion

As hypothesized, there is an insignificant difference between the financial capital of a founder and the scale of entrepreneurial corporation. The asset scale of entrepreneurial enterprises is significantly associated with firms' background variables, strategic variables and financing variables. The asset scale of entrepreneurial enterprises is strongly affected by the founder's educational level, internationalization, and business age. In general, a higher educational level for entrepreneurs and higher business age will have a larger asset scale in entrepreneurial enterprises. Larger firms have more experience in overseas investment and technical cooperation with foreign firms. This shows that the intellectual capital (educational level of founder and internationalization of entrepreneurial corporation) plays a key role in enlarging the scale of the corporation in comparison to financial capital. It is clear that entrepreneurial firms have core human capital comprised of a small number of individuals (including founder) whose creativity or productivity are crucial to the

firm's ability to generate either current or future revenues and profits. Certainly, the asset scale of an entrepreneurial firm grows through qualified managerial efforts.

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Table1. Descriptive Statistics and Correlation (n=96)

Variables	Means	SD	1	2	3	4	5	6	7	8	9	10
1.Business age	15.28	7.93										
2.Employees in founding year	17.67	38.90	0.18									
3.No. of years to make a profit	3.12	3.21	0.18	0.24								
4.% of founder's capital to equity in 1999	73.87	26.47	0.05	0.09	-0.25							
5.% of founder's capital to equity in founding year	69.66	32.07	0.01	0.08	0.01	0.35						
6.Founder's educational level	3.74	1.71	0.14	0.21	0.29	-0.13	0.03					
7.Years of management experience for founder	7.43	7.80	0.19	-0.12	-0.16	0.04	-0.06	-0.13				
8.Years of technology experience for founder	10.31	9.54	0.08	-0.22	-0.01	-0.01	-0.06	-0.16	0.66			
9.Private Brand owned	0.51	0.50	0.24	0.07	0.18	-0.06	0.07	0.01	0.22	0.13		
10.Sources of technology	1.23	0.74	-0.05	-0.11	0.13	0.21	0.01	-0.14	-0.01	0.01	-0.16	
11.Internationalization	1.50	1.13	-0.45	-0.26	-0.03	-0.04	-0.02	-0.13	-0.21	0.01	-0.23	0.18

**Table2. Regression Analysis of Log Assets in 1999 for Full Sample and Manufacturing Firms**

Variables	Full Sample	The Sample of Manufacturing Firms
Intercept	7.592(0.029)	7.781(0.010)
% of lower than high school degree in employee education	0.005(0.885)	-0.005(0.868)
% of higher than high school degree in employee education	0.005(0.874)	-0.005(0.839)
Years of technology experience for founder	-0.008(0.819)	-0.015(0.612)
Years of management experience for founder	0.020(0.659)	0.035(0.401)
Private brand owned	0.473(0.386)	0.719(0.150)
% training fee in sales	0.006(0.932)	-0.074(0.313)
Internationalization	0.623(0.027)**	0.483(0.048**)
Founder's educational level	0.423(0.014)**	0.447(0.005)***
Sales growth	0.015(0.219)	0.014(0.304)
Business age	0.075(0.087)*	0.107(0.010)***
The number of employees	-0.001(0.985)	-0.001(0.923)
% of founder's capital to equity at the end of 1999	-0.01(0.326)	-0.015(0.119)
F	2.801	3.892
P	0.004	0.0004
Adjusted R <sup>2</sup>	0.2359	0.3703
N	96	76

Note: \* Significance  $p < 0.1$ ; \*\* Significance  $p < 0.05$ ; \*\*\* Significance  $p < 0.01$ .

**Table 3. Distribution of Educational Level for Entrepreneurs**

	Preliminary School	Junior High School	Senior High School	Community College	University	Master and above
N.	3	2	40	25	16	10
%	3.13	2.08	41.67	26.04	16.67	10.42

Note: "N." represents the number of entrepreneurs in sample.