



Factors influencing Hong Kong CPAs' entrepreneurship in the accounting profession

Hong Kong
CPAs'
entrepreneurship

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Abstract

Purpose – Entrepreneurship plays a key role in society and is important for economic growth. Despite prior studies of entrepreneurial behavior, no research has been conducted to examine the influence of monetary and personality factors on the entrepreneurial start up of Certified Public Accountant (CPA) firms in Hong Kong. The purpose of this paper is to investigate into factors influencing Hong Kong CPAs in becoming entrepreneurial public practitioners.

Design/methodology/approach – Data are collected through a questionnaire survey and analyzed by binomial logistic regression. A total of 212 CPAs of Chinese origin are randomly selected in Hong Kong. Social capital theory derived from the sociology literature is employed for analysing the findings.

Findings – Results indicate that “profit motivation” and “education level” variables have no significant influence on the entrepreneurial start up, and contradict findings in prior literature. Results further reveal that “social networking” and “internal locus of control” variables could positively influence on the entrepreneurial start up of CPA practices. Results support the validity of social capital theory that reveals social networks have values and productive benefits. Gender plays a role in the entrepreneurial start up of CPA practices, with males predominate has entrepreneurs of CPA practices.

Originality/value – This study could add new contributions to the accounting literature on the study of the entrepreneurial start up of CPA practices in Hong Kong. With the booming Hong Kong economy and the vast supports from China's prosperous market, Hong Kong CPAs are more inclined to become entrepreneurs of CPA practices in the long run. Implications of this study could enable accounting bodies and education institutions focusing on CPAs' personality development and education.

Keywords Entrepreneurs, Accountants, Accounting, Social capital, Hong Kong

Paper type Research paper

Introduction

Hong Kong was under British rule for over 100 years and, although it was handed back to China in 1997, Western ideas still remain influential in Hong Kong through various channels (e.g. television, movies, advertising, internet, and the educational system). The power of the West has been, and still is, rooted in forms of social, economic and political organisation which advocate the ideology that individuals should actualise their potential (Schaper and Volery, 2004). Entrepreneurship styles, habits, and environments vary significantly across the world. There are some common key features in Asian entrepreneurship that distinguish it from European and American entrepreneurship. Chinese culture has impacted upon Asian entrepreneurship (Anderson and Lee, 2008).



Asian economies have traditionally been based on relationships. Transactions in the Chinese guanxi system make the entrepreneurship in Hong Kong a unique environment, especially in the accounting profession. Guanxi refers to the networks of informal relationships and exchange of favors that dominate all business and social activities that occur throughout China, and areas strongly influenced by Chinese culture (Hwang *et al.*, 2008). According to Hwang and Staley (2005), guanxi has been critically important to Chinese culture since the time of Confucius. Historically, Chinese society has been built around family clans. Guanxi builds on the concept of the clan by widening the circle of influence to include distant relatives, friends, and unrelated individuals (Hwang and Staley, 2005). In business, guanxi is often viewed as a useful way to achieve company goals (Neergard *et al.*, 2005; Groen *et al.*, 2008).

In past years, the lucrative fees income from initial public offerings (IPO) listings projects in China and Hong Kong lured many Certified Public Accountants (CPAs) away from the Big 4 accounting firms to pursue entrepreneurial start ups of CPA practices (Hong Kong Institute of Certified Public Accountants (HKICPA), 2008a). It is well known that obtaining financial capital (Buttner and Moore, 1997; Madsen *et al.*, 2008) is needed for business start up. However, no research in accounting has been performed for what factors, other than financial capital, are associated with the entrepreneurial start up of CPA firms in Hong Kong. Therefore, the purpose of this paper aims to examine various factors identified from literature gap that may lead Chinese CPAs to become entrepreneurs of CPA practices. Social capital theory derived from the sociology literature is employed to assist the analysis. In the accounting or auditing literature, there is no research on factors that might motivate CPAs to pursue entrepreneurial start ups in Hong Kong. According to the HKICPA' (2008a) new firms opening statistics, more new CPA firms are being opened in every month, particularly for sole trade consultancy CPA firms. In view of the Hong Kong booming economy, it is beneficial and interesting to examine what motivating factors are associated with the entrepreneurial start up of CPA firms in Hong Kong. The result of this study could contribute and add value to the accounting literature, particularly in the Asia Pacific region.

Entrepreneurship

There is no generic definition of an entrepreneur in the field of entrepreneurial studies (Spencer *et al.*, 2008). The Latin roots of the word "entrepreneur" are as follows: *entre*, which means to enter; *pre*, which means before; and *neur*, which means nerve center. Thus, the word entrepreneur can be seen as referring to someone who enters a business in time to form (or change) meaningfully that business's nerve center or decision center (Shefsky, 1994). Entrepreneurs create new business ventures, jobs, and wealth, but they also force out of the marketplace those enterprises which failed to innovate and compete (De Jong and Vermeulen, 2006).

Some theorists (Beugelsdijk and Noorderhaven, 2005; Wei and Ismail, 2008) have focused on personality characteristics to define entrepreneurs by linking entrepreneurship with attributes such as risk taking, achievement orientation, commitment, ambiguity tolerance, and vision. Other theorists (Robbins *et al.*, 2000; De Jong and Vermeulen, 2006) have associated entrepreneurship with innovation. Studies on the antecedents to entrepreneurship (Miner *et al.*, 1989; Lumpkin and Dess, 1996; Lumpkin and Erdogan, 1999; Beugelsdijk and Noorderhaven, 2005; Taormina and Lao, 2007) have focused on evaluating the extent to which various personality

characteristics (e.g. internal *locus* of control, social networking, and profit motivation) lead to entrepreneurial behavior. A more promising approach is emerging with recent literature that adapts cognitive constructs, such as self-efficacy (Hmieleski and Corbett, 2008) from the literature on organisational behavior, to entrepreneurship. In this approach, it is asserted that individuals might be more inclined to pursue entrepreneurship if they believe that they possess skills, such as high education, that are necessary to function effectively in an entrepreneurial environment (Golden and Cooke, 1998; Davidsson and Honig, 2003; Gupta and York, 2008).

Entrepreneurship plays an important role in many economies (Robbins *et al.*, 2000; Jacobides and Winter, 2007; Gupta and York, 2008). Entrepreneurship remains difficult to define because it is a multifaceted phenomenon that spans many disciplinary boundaries, and different studies of entrepreneurship have adopted different theoretical perspectives, units of analysis, and methodologies. So it is not surprising that there is no agreed definition of entrepreneurship (Spencer *et al.*, 2008), and uncertainty remains regarding what entrepreneurship constitutes as a field of study. In a nutshell, entrepreneurship can be described as business start-ups. Therefore, the purpose of this study is to examine factors leading CPAs of Chinese origin to become entrepreneurial public practitioners in the accounting profession. We are interested in examining the opening up of sole trade consultancy CPA firms, as more new sole trade consultancy CPA firms are being opened in every month (HKICPA, 2008a).

The level of entrepreneurial activity can be seen as being embedded in a country's economic, socio-cultural, and legal environment (Baughn *et al.*, 2006). The start up rates are a structural characteristic of a given country (Reynolds *et al.*, 2003; Verheul *et al.*, 2006). Hong Kong is perceived as a place where entrepreneur is well respected. Its physical, commercial, legal, and professional infrastructures are well established for entrepreneurship. Such strengths include a rule of law system, a low tax regime, an economic policy that allows free flow of capital, a political stable economy, and a clean government. Besides, there is legislation for intellectual property protection to encourage innovation. More importantly, the economics of China and Hong Kong are closely intertwined. The proximity to China and a Chinese government that is fully supportive of Hong Kong is its best advantage. The Hong Kong government fosters a supportive business environment that is conducive to business start-ups. As a result, more sole trade consultancy CPA firms are opened. But how do the sole trade consultancy CPA firms differ from those accounting firms already in existence, particularly the Big 4 and medium sized CPA firms? An interview with a sole trade consultancy CPA firm proprietor commented:

The Big 4 firms choose their own clients, and rejecting smaller clients by charging them fees that are 50 percent higher, which then fed the medium sized or sole trade firms with more clients. We can have better competitive fees for our smaller clients.

Another sole trade CPA proprietor remarked:

I don't think [the financial crisis] will affect our business. However, we would have more businesses as more companies need to restructure. We would give our clients tailor-made services and competitive fees as well.

Small and medium-sized enterprises (SMEs) characterize the efforts of Hong Kong's present day of entrepreneurs. As at June 2008, there were over 260,000 SMEs in Hong Kong. They accounted for over 98 percent of the total business units and

provided job opportunities to over 1.2 million persons, about 50 percent of total employment (SME, 2008). About 90 percent of these enterprises have less than ten people. Most of the SMEs are concentrated in the services sector with the majority of activities taking place in the import and export trades, wholesale and retail industry, and catering industry. Therefore, the increase in start up of the sole trade consultancy CPA firms in Hong Kong would help serve the small clients, which they are declined by the Big 4 and mid-tier firms (HKICPA, 2008b). Louis (2005) found that small CPA firms have a comparative advantage in assisting their clients in advisory transactions and consulting functions. Moreover, a research by Ghosh and Lustgarten (2006) indicated that small CPA firms could offer more fee discounting to their clients than the larger CPA firms. Hamilton (2008) comments that small CPA firms could offer small clients better services by giving them good financial information and explaining the complicated financial data in an easy-to-understand way, and that is actionable. In this way, small CPA firms can be a compass for their clients, helping them navigate to meet their objectives. Given that SMEs account for a significant number of local enterprises in Hong Kong, this nevertheless brings entrepreneurial opportunities for the Hong Kong CPAs in the region. The sole trade consultancy CPA firms or accounting practices with several partners could have the competitive advantages that they could maintain closer professional relationships with their clients, and deliver efficient services with competitive fees levels in which the small clients could not find in the Big 4. Besides, China's convergence with the International Financial Reporting Standards in 2007 would continue affecting the reporting requirements of Chinese companies. Accordingly, the demand for professional accounting, advisory, and compliance services would be increased. Since the economics of China and Hong Kong are intertwined, that would undoubtedly bring more business opportunities for the Hong Kong CPAs firms in the region. In view of this phenomenon in the accounting sector, there is scope for research into this interesting issue that adds value to the literature.

Social capital theory

There has been exponential growth in references to social capital in academic literature in the last 15 years (Halpern, 2005). This growth in research and application to diverse areas represents an unprecedented acceptance, study and application of this single theory. The modern development of the social capital theory came from three key authors: Bourdieu (1983), Coleman (1988), and Putnam (2000). Bourdieu (1983) defines social capital as the "aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition." Coleman (1988) defines social capital as anything that facilitates individual or collective action, generated by networks of relationships, reciprocity, trust and social norms. In Coleman's conception, social capital is a neutral resource that facilitates any manner of action, but whether society is better off as a result depends entirely on the individual uses to which it is put. Putnam (2000) defines social capital as the connections among individuals-social networks and the norms of reciprocity and trustworthiness that arise from them.

Although there are several definitions of social capital theory found in the literature, they all consist of common themes that the concrete experience of social networks can bring great benefits to people. Very broadly, social capital refers to the social

relationships between people that enable productive outcomes. The term social capital refers to those stocks of social trust, norms, and networks that people can draw upon to solve common problems. Field (2003) comments the central theme of social capital theory is “relationships matter”. Social networks are a valuable asset. Interaction enables people to build communities, to commit themselves to each other, and to knit the social fabric. Likewise, the concept of social capital in a Chinese social context has been closely linked with the concept of *Guanxi*. Bolin *et al.* (2004) comment that social capital is a complex theory with many dimensions, further empirical research is needed to conceptualize the various dimensions within an agreed framework and definition. Hence, this current study represents the first to our knowledge to use professional accountants’ data to examine the associations between monetary and personality factors with the entrepreneurial start up of CPA firms, employing the social capital theory. As a result, one of the independent variables in our framework – “social network” – will be tested with reference to the social capital theory that is derived from the sociology literature.

Literature review – profit motivation

The first factor identified from the literature is the profit motivation factor. CPAs might view the opening of a CPA practice could bring them more profit, as compared to working as an employee in an accounting firm. Various researchers have found that entrepreneurs are concerned with maximising profits, growth and innovative behavior (Carter *et al.*, 2004; Demougin and Fabe, 2007; Schwienbacher, 2007; Jacobides and Winter, 2007). Another major school of entrepreneurship, which builds from the classical school of entrepreneurship, is the management model of entrepreneurship, which defines an entrepreneur as an individual who organises or manages a business enterprise whilst being willing to take risks for a feasible profit (Demougin and Fabe, 2007; Jacobides and Winter, 2007). People seeking to start up their own business tend to be attracted by the profit motivation factor. Some researchers also found that Chinese tend to achieve “quick profit” in the short run by engaging high risk activities (Fong and Ozoira, 2005; Lam, 2007). In past years, the lucrative fees income from IPO listings projects in China and Hong Kong lured many CPAs away from the Big 4 accounting firms to become entrepreneurial start up of CPA practices (HKICPA, 2008a). Though Big 4 firms are normally the reporting accountants for those companies seeking IPOs, it is common practice that some of their smaller-scale subsidiary companies of the group would be out-sourced to small CPA firms. Therefore, it can be hypothesized that:

- H1.* Profit motivation objective could have an influence on the CPA to start his/her own CPA firm.

Education level

In this study, education level means the auditor/accountant has achieved the bachelor degree level granted by a university. The HKICPA does not set any specific rule requiring that the possession of a university degree is a necessary prerequisite to become a CPA in Hong Kong. In the past, some proprietors of CPA practices did not possess any university degree but they passed all the professional examinations from the accounting body, and hence can be qualified to practice and set up their own CPA firms. Bates (1990) and Yamak (2006) found that the likelihood of remaining self-employed over time increased with increasing levels of educational attainment.

A study of entrepreneurial intentions by Wu and Wu (2008) indicate that respondents who have university degrees are interested in business start up.

Hong Kong's nine year universal basic education system, which was introduced in 1978, has provided a learning platform for young people to obtain essential work-related skills and knowledge for industries in which they intend to work. There has been a decrease in the number of people aged between 15 and 19 years entering the workforce caused by the fact that more young people have decided to attain higher levels of education. Furthermore, the number of employees who have received tertiary education rose from 15 percent in 2000 to 28 percent in 2005 (www.censtatd.gov.hk/FileManager/EN/Common/hkinf.pdf).

In Hong Kong, the group with the highest entrepreneurial participation is that with a post-graduate degree, post-graduate diploma or above. Seven percent of Hong Kong degree/diploma holders are now starting or have started their own firms. This group is most likely to appreciate the market and technological opportunities for starting high potential companies. Figure 1 provides details of entrepreneurial activity by educational level.

Therefore, in this study it can be hypothesized that:

H2. Education level (possession of a university degree) could have an influence on the CPA to start his/her own CPA firm.

Gender

Research on the differences between men and women indicate that there are significant differences in their career choices, and that theoretical models that describe the career paths of men are not entirely appropriate for women (Farmer, 1997; Neergard *et al.*, 2005; Gupta *et al.*, 2008). Typically, men are two to five times more likely than women to start their own businesses (Reynolds *et al.*, 2000). Gupta *et al.* (2008) found that men had higher entrepreneurial intention scores compared with women. Likewise, Roomi and Parrot (2008) indicate that there are barriers to development and progression of female entrepreneurs, resulting in limited spatial mobility and a dearth of social capital for female entrepreneurs. However, women see entrepreneurship as a way of achieving a better balance between work and family than that provided by paid employment (Kirkwood and Tootell, 2008). Researchers of entrepreneurship have revealed that female entrepreneurs want work that is challenging and have growth orientation

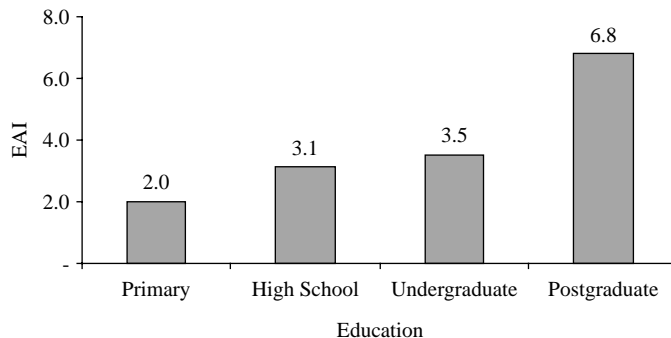


Figure 1.
Entrepreneurial action
index by educational level
in Hong Kong

Source: Modified from GEM Executive Report (2005)

(Morris *et al.*, 2006). A central focus of literature on women entrepreneurs is the motivation for women to develop their own business. Primary reasons identified are as follows: balancing family responsibilities (Buttner and Moore, 1997; Caputo and Dolinsky, 1998); work-family balance (Kirkwood and Tootell, 2008); and unemployment (Verheul *et al.*, 2006). However, research found that female entrepreneurs face more obstacles and barriers than male entrepreneurs encounter (Morris *et al.*, 2006; Roomi and Parrot, 2008).

In Hong Kong, there are 12,816 female CPA accountants compared with 14,700 male CPA accountants (HKICPA, 2008c). According to the Hong Kong Global Entrepreneurship Monitor (GEM, 2007), males are twice as likely as females, worldwide, to start their own businesses. It is noteworthy that although Hong Kong is a high-income economy, the level of male bias in Hong Kong is higher than the worldwide level in that there are three times as many male entrepreneurs as there are female entrepreneurs, as shown in Figure 2.

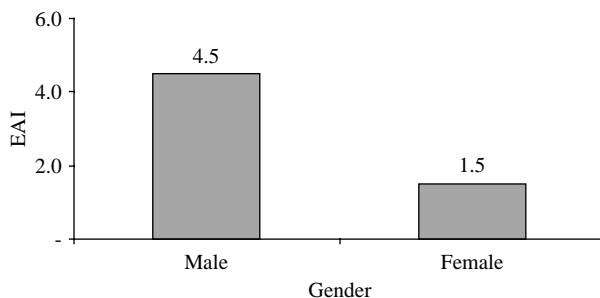
A study conducted by Klyver and Terjesen (2007) to explore gender differences in the composition of entrepreneurs' networks, and found that female entrepreneurs have significantly lower proportions of males in their social networks in early venture development stages. In a South Asian study in Pakistan, Roomi and Parrot (2008) found that women entrepreneurs do not enjoy the same opportunities as men due to a number of deep-rooted discriminatory socio-cultural values and traditions. There are often barriers to the road of entrepreneurship for females, for example, lack of access to capital, business premises, information technology, training, agency assistance, and also social networks or *guanxi* (Klyver and Terjesen, 2007; Hwang *et al.*, 2008).

In view of prior studies have shown that there are gender differences in becoming/being an entrepreneur, and the majority of entrepreneurs were males in the past (Gem, 2007), the following hypothesis is proposed:

H3. Males are more likely to start up their own CPA firms than females.

Social networking

In business, social networking is often viewed as a useful way to achieve company goals (Neergard *et al.*, 2005; Groen *et al.*, 2008). The leadership model views entrepreneurs as strong leaders who cannot achieve their goals alone and thus must rely on the social networking or relationships with others, particularly in Chinese



Source: Modified from GEM Executive Report (2007)

Figure 2.
Entrepreneurial action
index by gender
in Hong Kong

society (Hwang *et al.*, 2008; Groen *et al.*, 2008). Several leadership-oriented skills and traits have been identified as vital for effective entrepreneurs:

- The need for recognition, independence and leadership have been seen by some as core components of entrepreneurship.
- Successful entrepreneurs need to be cooperative, adaptive to the people and have good networking (Groen *et al.*, 2008).
- The ability to socialize and empower others is essential for entrepreneurs (Klyver and Terjesen, 2007).
- Individuals who can motivate and mentor others with good interpersonal skills are considered as having entrepreneurial qualities (Taormina and Lao, 2007).

Western and Eastern approaches to relationships are quite different. To most Western firms, relationships are secondary – a company tends to decide which business or projects it is interested in, and then cultivates the necessary connections. In contrast, Asian firms believe that relationships come first, and that business opportunities will flow from them (Hwang *et al.*, 2008; Hwang and Staley, 2005; Lee *et al.*, 2001). Asian economies have traditionally been based on relationships. Business transactions were made on the strength of personal agreements rather than on contracts. Transactions in the Chinese *guanxi* system are still mainly private. Entrepreneurs often rely on *guanxi* or social networking for business information, advice and problem solving (Hwang and Staley, 2005; Taormina and Lao, 2007; Hwang *et al.*, 2008). Hence, social networking for the Chinese people appears to be a major factor-affecting entrepreneurs for start up CPA practices in Hong Kong. Hence, one would hypothesize that:

H4. Good social networking could have an influence on the CPA to start his/her own CPA firm.

Internal locus of control

A psychological construct, which refers to whether individuals believe that their behaviors or efforts are under their own control, *locus* of control is considered to be an important aspect of personality. The concept was developed originally Julian Rotter in the 1950s (Rotter, 1966). *Locus* of control refers to an individual's perception about the underlying main causes of events in his/her life. A *locus* of control orientation is a belief about whether the outcome of one's actions is contingent on what he/she does (internal control orientation) or on events outside one's personal control (external control orientation).

Thus, *locus* of control is conceptualized as referring to a uni-dimensional continuum, ranging from external to internal (Figure 3).

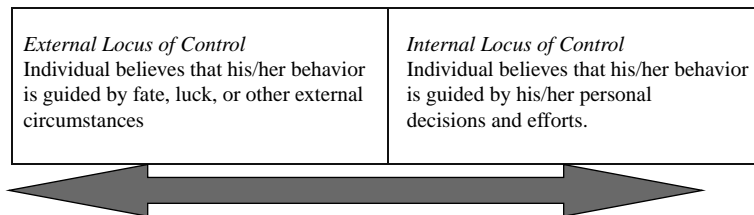


Figure 3.

Research has found that a more internal *locus* of control is generally seen as desirable (Mamlin *et al.*, 2001). Having an internal *locus* of control can also be referred to as “self-agency,” “personal control,” “self-determination,” etc. Moreover, psychological research has found that people with a more internal *locus* of control seem to be better off, e.g. they tend to be more achievement oriented (Hans, 2000; Collins *et al.*, 2004; Duffy *et al.*, 2006). Hsieh *et al.* (2007) indicated that entrepreneurship involves the study of sources of opportunities, the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit those opportunities. Moreover, insight into business opportunities and creativity are the two key components of entrepreneurial activities. Researchers (Hans, 2000; Duffy *et al.*, 2006) have found to produce shifts towards internal *locus* of control on entrepreneurial behavior.

Since internal *locus* of control is a personality construct referring to an individual’s perception of the *locus* of events as determined internally by his/her own behavior or efforts, those entrepreneurs who tend to open CPA firms were believed by Rotter (1966) to exhibit an essential characteristic – high achievement motivation (Duffy *et al.*, 2006). Carter (1997) found that entrepreneurs who started up business practices rated internal *locus* of control higher than other factors. Collins *et al.* (2004) concluded that the desire to achieve has been a powerful predictor of entrepreneurship. In terms of personality types, entrepreneurs who attribute events to their own control and that internality are linked exclusively with their attribution to effort. In other words, entrepreneurs want to remain autonomy, more achievement oriented and their efforts are under their own control and not by others (Buttner and Moore, 1997; Collins *et al.*, 2004; Duffy *et al.*, 2006). Therefore, in this Hong Kong study it can be hypothesized as:

- H5.* Internal *locus* of control could have an influence on the CPA to start his/her own CPA firm.

Research method

Three hundred CPAs were randomly selected from the publicly accessible Directory of Hong Kong CPA practitioners (Tsui, 1996; Umar and Anandarajan, 2004). Accordingly, they were selected from the accounting firms or companies. There was no matching of an individual’s name with their organizations. The potential respondents could be contacted first by telephone to see whether they agree to complete the questionnaire to increase the response rate (Dijk, 2000). If the respondents are agreed to participate, the questionnaire would be sent to the CPAs who are willing to participate. Prior evidence in Australia and The Netherlands suggests there would be a response rate of 76-80 percent, respectively, (Roberts, 1999; Dijk, 2000), by contacting the respondents first before sending off the questionnaires. Thus, this Hong Kong study also adopts this technique and a second request was performed approximately three weeks after the initial mailing to the entire sample (Law, 2008).

In this study, the questionnaire comprises two major sections. The first captures the five main independent variables from respondents for influencing the start up of entrepreneurship of a CPA practice. To evaluate respondents’ ratings regarding the profit motivation objective, participants are asked to rate the questionnaire on a five-point Likert type scale where 1 = “less important” and 5 = “very important”. Regarding the social networking variable, a 5 point Likert type scale where 1 = “very worse” and 5 = “excellent” are used. Likewise, the levels of internal *locus* of control

variable is measured using a five-point Likert type scale where 1 = “least internal” and 5 = “more internal”. The second part of questions contains questions on demographic information about the respondents. As pre-tests have been found to be satisfactory, the concern of any ambiguity of the questions was not an issue in this study. Hence, the content validity of the questionnaire is regarded to be high (Cavana *et al.*, 2001).

Data analysis

A total of 212 respondents completed the survey from a total of 300 questionnaires. The response rate is 71 percent. A test for non-responses bias is performed. For the test, late respondents are used as proxies for non-respondents (Oppenheim, 1992). A test has been carried out by comparing the first 30 responses with the second 30 requested responses, which are late. The results of the test indicate no significant difference between early and late respondents.

Multi-collinearity can affect the parameters of the regression model. It is essential to test any collinearity problem in the logistic regression. Field (2005) comments that a tolerance value <0.1 and a VIF value >10 is a cause of concern for collinearity problems. From Table I, it can be seen that the tolerance values for all the predictor variables are close to 1 and all the VIF values are less than the criterion of 10 (Field, 2005). Hence, it can be concluded there is no problem of collinearity in these data.

Reliability of the model and data

The value of the model χ^2 statistic is 196 and is statistically significant at *p* value <0.05 (Table II). After conducting five Omnibus tests of model coefficients for each independent variable, the value of the model χ^2 statistic increases from 116 to 196, and thus shows that each variable on its own increases the predictive power of the null model. It can be concluded that overall the model is predicting entrepreneurship of CPA practice significantly better than it was with only the constant included. In other words, the highly significant model χ^2 statistic indicates that the model including the predictors is significantly better than without those predictors (Field, 2005).

Table I.
Collinearity statistics

Model	Collinearity statistics	
	Tolerance	VIF
(Constant)		
Social networking	0.674	1.483
Education level	0.995	1.005
Gender	0.896	1.116
Self locus of control	0.631	1.585
Profit motivation	0.959	1.043

Table II.
Omnibus tests of model coefficients

	χ^2	df	Significance
Step	196.037	5	0.000
Block	196.037	5	0.000
Model	196.037	5	0.000

The Hosmer and Lemeshow's Goodness of Fit test (Table III) statistic tests the hypothesis that the observed data are significantly different from the predicted values from the model. The value is non-significant at 0.77, indicating that the model does not differ significantly from the observed data, and the model is predicting the real world data fairly well (Miles and Shevlin, 2001; Field, 2005). As approximations to OLS regression's R^2 , the Nagelkerke R^2 shows that the model can explain or account for 81 percent of the variance in becoming entrepreneurs of CPA practices (Table IV). The -2 log likelihood and the Cox and Snell R^2 are 95.6 and 0.6, respectively, showing the model explains satisfactory the variation in the dependent variable. Besides, the classification table (Table V) indicates how well the model predicts group membership. The classification table shows that 92 percent of cases can be correctly classified using the five independent variables, which the result is quite satisfactory (Miles and Shevlin, 2001).

Results

Since the dependent variable (whether the CPA is an entrepreneur or not) is a categorical variable, logistic regression was conducted (Fong and Ozorio, 2005). Binomial logistic regression by default predicts the higher of the two categories of the dependent variable (0 = not entrepreneur, 1 = entrepreneur). In this study, the logistic regression is predicting the higher category of the dependent variable (1 = entrepreneur). Likewise, for a dichotomy such as gender (0 = female, 1 = male), it is predicting the odds for the higher category of the dichotomy (1 = male). Accordingly, the five independent variables represent the first to our knowledge and literature to use professional accountants' data to investigate the associations between these variables and the entrepreneurial start up of CPA firms.

Results from the logistic regression (Table VI) shows that "social networking," "gender" and "internal locus of control" variables have a significant influence on the

Step	χ^2	df	Significance
1	4.902	8	0.768

Table III.
Hosmer and
Lemeshow test

Step	-2 log likelihood	Cox and Snell R^2	Nagelkerke R^2
1	95.570	0.603	0.807

Table IV.
Model summary

	Observed		Predicted		Percentage correct
			Entrepreneur No	Yes	
Step 1	Entrepreneur	No	106	11	90.6
		Yes	7	88	92.6
	Overall percentage				91.5

Table V.
Classification table

Note: The cut value is 0.500

Table VI.
Logistic regression

	<i>B</i>	Wald	Significance	Exp(<i>B</i>)	95.0 percentage of C.I. for EXP(<i>B</i>)	
					Lower	Upper
SOCIALNE	3.151	22.161	0.000	23.370	6.293	86.793
EDUCATIO	-0.783	2.139	0.144	0.457	0.160	1.305
GENDER	3.667	29.391	0.000	39.141	10.396	147.369
LOCUSCON	0.772	17.199	0.000	2.163	1.502	3.115
PROFITMO	-0.316	1.958	0.162	0.729	0.468	1.135
Constant	-17.071	30.667	0.000	0.000		

Note: Variables entered: SOCIALNE, EDUCATIO, GENDER, LOCUSCON, PROFITMO

entrepreneurial start up of CPA firms, with all *p* values <0.05, while the other two independent variables “education level” and “profit motivation” do not have a significant influence on the entrepreneurial start up of CPA firms, with both *p* values >0.05.

The logistic regression shows that the odd ratio for “social networking” is 23.3 (6.3-86, with 95 percent confidence interval), implying one unit increase in the “social networking” variable will have 23.3 times that positively influence the odds on the entrepreneurial start up of CPA firms. The odd ratio for “gender” is 39.1 (10.4-147.3, with 95 percent confidence interval), implying that more males are entrepreneurs of CPA firms than females. Since the variable “gender” is statistically significant in the logistic regression model, further analysis including cross tabulations and χ^2 tests (Tables VII and VIII) are performed. χ^2 tests indicate that there is significant relationship between these two variables (“gender” and “entrepreneurship of a CPA practice”), with *p* value <0.05, as confirmed by the logistic regression model in Table VI. For the “internal locus of control” variable, the odd ratio is 2.2 (1.5-3.1, with

Table VII.
Gender^a entrepreneur
crosstabulation

	Entrepreneur		Total
	No	Yes	
<i>Gender</i>			
Females	81	14	95
Males	36	81	117
Total	117	95	212

Note: ^aThe research instrument is available upon request from the corresponding author

Table VIII.
Chi-square tests

	Value	df	Asymp. sig. (two-sided)	Exact sig. (two-sided)
Pearson χ^2	62.955 ^a	1	0.000	
Continuity correction ^b	60.771	1	0.000	
Likelihood ratio	67.730	1	0.000	
Fisher's exact test				0.000
Linear-by-linear association	62.658	1	0.000	
<i>N</i> of valid cases	212			

Notes: ^a0 cells (0.0 percent) have expected count <5. The minimum expected count is 42.57;
^bComputed only for a 2 × 2 table

95 percent confidence interval), implying one unit increase in the “internal *locus* of control” variable will have 2.2 times that positively influence the odds on the entrepreneurial start up of CPA firms. The “education level” and “profit motivation” variables have no significant influences on the odds of the entrepreneurial start up of CPA firms.

Implications and conclusion

The result in regard of *H1* is interesting. It contradicts the prior literature that profit motivation is the desired objective for the entrepreneurial start up of a business (Carter *et al.*, 2004; Demougin and Fabe, 2007; Schwienbacher, 2007; Jacobides and Winter, 2007). It is encouraging to note that in the post Enron environment, accounting entrepreneurs are more cautious on the non-monetary factors for deciding the entrepreneurial start up of CPA firms. *H2* is rejected. However, the result in *H2* also adds new contributions to the literature. Findings in *H2* show that education level does not have any influence on the entrepreneurial start up of CPA firms. The result is inconsistent with prior literature that found education level has an association with the entrepreneurship of business practices (Bates, 1990; Yamak, 2006; Wu and Wu, 2008). This unique finding may be the result of different socio-cultural and regulatory environment in Hong Kong. Further research is recommended. It can be concluded that entrepreneurial start up of CPA firms is not driven by profit motivation and education level, and that it is affected by personality factors such as internal *locus* of control and social networking, as shown in *H4* and *H5*. It appears the personality traits such as internal *locus* of control and social networking, are far more important than monetary motivation. Results support the validity of social capital theory that reveals social networks have values and productive benefits. A belief in self-achievement, determination and social networking are regarded by Hong Kong CPAs as important factors rather than profit maximization, and the results are supported in *H4* and *H5*, respectively. The gender factor also plays a role in the entrepreneurship of a CPA practice, as shown in *H3*. Results in *H3* show that males are more likely to start up their own CPA firms than females. The findings in *H3* therefore corroborate those of previous studies (Rommi and Parrot, 2008; Gupta *et al.*, 2008).

To conclude, this study represents the first to our knowledge to use professional accountants' data to investigate the associations between these five variables and the entrepreneurial start up of CPA firms in Hong Kong. Results from logistic regression indicate that “social networking” and “internal *locus* of control” variables could positively influence on the entrepreneurial start up of CPA firms. Results support the validity of social capital theory derived from the sociology literature. However, the “profit motivation” and “education level” variables have no significant influence. Gender also plays a role in the entrepreneurial start up of CPA firms; with male predominate entrepreneurs of CPA practices. This study could nevertheless add new contributions to the accounting literature on the study of the entrepreneurial start up of CPA firms in Hong Kong. With the booming Hong Kong economy and the vast supports from China's prosperous market, Hong Kong CPAs are more inclined to become entrepreneurs of CPA practices in the long run. Implications of this study could enable accounting bodies and education institutions focusing on CPAs' personality development and education.

Limitations

This study only examines the relationship between five variables and the entrepreneurial start up of CPA firms. There may be other variables that influence entrepreneurial behavior in this context; for example, a family history of entrepreneurship may affect entrepreneurial self-efficacy and intentions. Moreover, this study is cross sectional in nature and a future longitudinal study to extend the current results would be beneficial. A comparison study with data from non Chinese CPAs in the USA and UK could be conducted for future study.

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