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THE ENTREPRENEURIAL START-UP PROCESS: THE ROLE OF SOCIAL CAPITAL AND THE SOCIAL ECONOMIC CONDITION

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ABSTRACT

Entrepreneurship is a complex phenomenon that involves not only economic activity but also social mechanisms. The intention to become an entrepreneur is a matter not only of one's individual personality but also of one's interaction with the social environment. This study has three main objectives: predicting the existence of entrepreneurial behavioural intentions in different socio-economic conditions; examining how entrepreneurial behavioural intentions formulate entrepreneurial behaviour; and identifying how social capital influences this relationship. It also aims to reveal the differences between entrepreneurs in a relatively mature free market economy (Taiwan) and a newly emerging free market economy (Mongolia). The analysis shows that socio-economic conditions affect the formation of entrepreneurial intentions. There are different approaches to building social capital in a relatively mature market and its newly emerging counterpart. The tendency of having high trust and social ties was found in Taiwanese entrepreneurs, while monitoring is commonly found among Mongolian entrepreneurs.

Keywords: entrepreneurship, entrepreneurial intention, social capital, social economic condition

INTRODUCTION

The study of entrepreneurship is an emerging disciplinary field. However, the broad aspects, complexity and dynamic nature of entrepreneurship make it difficult to capture all of its relevant aspects (Busenitz, West-III, Shepherd et al., 2003; Murphy, Liao, & Welsch, 2006), leaving researchers with no universal definition of entrepreneurship (Morrison, 2006).

Generally, studies of entrepreneurship are intended to answer the following questions: Who are entrepreneurs? What do entrepreneurs do? How do

entrepreneurs think? Why do entrepreneurs behave and act differently from others when they encounter opportunities? Because entrepreneurship involves several aspects of economics, sociology, business, and psychology, numerous approaches have been used to reveal entrepreneurial phenomena (Hisrich, Langan-Fox, & Grant, 2007). Although entrepreneurship is closely related to economic processes, the actors behind entrepreneurial actions are people. Thus, a person can be considered as the analysis unit of entrepreneurship research. According to the behavioural approach, human behaviour can only be studied systematically through observable behaviours and events. Also, the effects of the environment on humans can be seen through their overt behaviours. Therefore, for the purpose of this study, intentions and behaviours were used as tools to investigate why people act entrepreneurially during the "start-up" process.

There are two distinct groups in the field of entrepreneurial psychology. The more traditional group of researchers has focused on the personality characteristics of the individual, such as locus of control, risk taking, achievement motivation, problem solving style and innovativeness, perception, and work values. The second group of researchers has taken a social cognitive approach, looking at the relationship between an individual and his or her environment (Smith-Hunter, Kapp, & Yonkers, 2003). In this study, we intend to combine the traditional approach and the social cognitive approaches. This study also examines how "social capital" influences and motivates one's entrepreneurial intention towards actual entrepreneurial behaviours. Social capital is a part of an entrepreneur's environment, and entrepreneurial activities are the results of social interaction and the interplay among environments (Carolis & Saparito, 2006). Therefore, social capital is important in understanding entrepreneurial behaviour (Cope, Jack, & Rose, 2007). Entrepreneurship cannot be understood by only studying the acts and personality traits of an individual entrepreneur or in sterile economic terms (Ulhøi, 2005). Therefore, providing economic explanations for entrepreneurship without taking into account how social capital influences the process is considered incomplete (Shane & Cable, 2002).

The comparison between the relatively mature capitalist economy of Taiwan and the newly emerged free market economy of Mongolia brings interesting insights about entrepreneurial reality. Taiwan has a dynamic capitalist economy with flourishing entrepreneurial activities (Wu, 2004). It is well recognised that entrepreneurial activities have played important roles during the process of Taiwanese economic development. Compared to Taiwan, Mongolia is highlighted by its newly emerging free market economy. The Mongolian economy has undergone significant changes in its transitional period over the last two decades (Pedersen, 2007). Past entrepreneurial studies have not included comparisons between a relatively mature capitalist economy and entrepreneurs in a newly emerging free market economy such as Mongolia. In this study, those excluded

entrepreneurs from a newly emerging free market economy are compared with relatively mature entrepreneurs in Taiwan to fulfil the existing gap in the entrepreneurial literature.

This study intends to examine the entrepreneurial start-up process using cognitive psychology and personality concepts and by taking into account how social capital influences this process. Thus, throughout the investigation, this study employed behavioural and psychological approaches to test the research hypotheses.

LITERATURE BACKGROUND

Ground Theory: The Theory of Planned Behavior (TPB)

An enterprise does not come into existence haphazardly. It is the result of a well-planned process to achieve an entrepreneur's desire to gain economic benefits and aspiration (Shaver, Gartner, Crosby, Bakalarova, & Gatewood, 2001; Shaver & Scott, 1991). A person, as the main actor in the entrepreneurship process, is treated as the unit of new venture creation analysis. It is also argued that the personal attributes of the individual influence entrepreneurial activity. Entrepreneurship is a strategic way of thinking that emphasises opportunities over threats. The opportunity identification process is an intentional process (Krueger, Reilly, & Carsrud, 2000). Moreover, entrepreneurship is a type of planned behaviour (Bird, 1988; Katz & Gartner, 1988) for which intention models are ideally suited.

Taking concepts from numerous previous theories and extending the theory of reasoned action, Ajzen (1991) developed the TPB, which is well validated in social psychology and tested in various empirical studies. The focal arguments of TPB are as follows: intention is a predictor of behaviour, and its preeminent antecedents are certain individual attitudes. "Since much of human behavior appears to be under volitional control, …the best single predictor of an individual's behavior will be a measure of his intention to perform that behavior" (Fishbein & Ajzen, 1975, p. 369). Theorists who support the idea that attitudes are preeminent antecedents of behaviour believe that the relationship between attitudes and behaviours is mediated by behavioural intentions (Bagozzi & Yi, 1988; Fishbein & Ajzen, 1975; Kim & E.Hunter, 1993). "Personal and situational variables typically have an indirect influence on entrepreneurship through influencing key attitudes and general motivation to act" (Krueger, Reilly, & Carsrud, 2000, p. 412). In recent years, TPB has become one of the most widely used psychological theories in explaining and predicting human behaviour (Kolvereid, 1996).

Intention and Cognitive Characteristics

Most of the emerging entrepreneurship models are mainly cognitive and process-oriented. They focus on attitudes and beliefs and on foreseeing intentions and behaviours. Because entrepreneurial behaviour is deliberate and planned, TPB could be applied to study such well-planned behaviour. The relationships among entrepreneurial attitude, intention, and behaviour can be traced using intention models. The use of TPB in this research is consistent with previous theories and is largely based on intention models. "The versatility and robustness of intention models support the broader use of comprehensive, theory-driven, testable process models in entrepreneurship research" (Krueger, et al., 2000, p. 412).

The argument that intentions are the single best predictors of planned behaviours is well supported by several theorists. "Intentions can mediate all the effects of attitudes on behavior" (Bagozzi & Yi, 1988, p. 26). Intention is a significant, unbiased predictor of career choice (Kolvereid, 1996; Lent, Brown, & Hackett, 1994). A person's decision to act entrepreneurially could also be predicted by a person's attitude and intention. According to Lent et al. (1994), people choose their career based on a process in which beliefs, attitudes, and intentions evolve as they cognitively process our knowledge, beliefs and experiences. Process theories argue that "human endeavors, especially complex activities such as new venture initiation, are a result of people's cognitive processes" (Segal, Borgia, & Schoenfeld, 2005, p. 44). According to Segal et al. (2005), Vroom's expectancy model establishes a common thread connecting many process-oriented explanations of entrepreneurial motivation. Current process models are implicitly or explicitly based on the following logic: An individual's intentions to become an entrepreneur are predicted by two fundamental questions: "is entrepreneurship desirable?" and "is entrepreneurship feasible?"

These two questions are consistent with other research findings. Ajzen (1991) argues that intentions depend on perceptions towards personal attractiveness, social norms, and feasibility. Based on a study by Krueger et al. (2000), Shapero's model of the entrepreneurial event (SEE) argues that entrepreneurial intention depends on perceptions of personal desirability, feasibility, and propensity to act. They examined these two competing process intention models' predictive strengths, and the findings showed that intentions were predicted significantly by the global perceived feasibility ($p < 0.005$) and attitude towards the act ($p < 0.05$); in Ajzen's theory of planned behaviour (TPB), intentions were correlated significantly with global perceived feasibility ($p < 0.004$) and global perceived desirability ($p < 0.005$) in SEE. Both TPB and SEE are largely homologous to one another. Both contain an element that is conceptually associated with perceived self-efficacy (perceived behavioural control in TPB and perceived feasibility in

SEE). TPB's other two attitude measures correspond to SEE's perceived desirability. Therefore, the following hypothesis is proposed:

> H_1: Cognitive characteristics have a positive impact on entrepreneurial intentions.

Personality and Intention

Holland (1968) argued that a person's preference towards a certain career will reflect the personal traits and behaviours that are associated with that personality type. He assumed that the environments in which people live can be characterised by their similarity. He also inferred that the interplay between people and the environment leads to several outcomes that can be predicted and understood from our knowledge of personality types and environmental models. This assumption is largely based on Murray's (1938) formulations of personal needs and environmental pressures: that human behaviour is dependent on both personality and the environment (Lee, 1982). His theory is consistent with general psychological concepts, such as the idea that our personality is strongly shaped by heredity, family, the social environment, and culture. A person's choice of occupation reflects an individual's personality and represents one's motivation, knowledge, insight and understanding of himself and his abilities. However, various categories of different occupations require different abilities, identifications, values, and attitudes. This particular hypothesis has empirical support from various studies (Holland, 1958). "The special heredity and experience of the enterprising person lead to a preference for activities that entail the manipulation of others to attain organizational goals or economic gain; and an aversion [of] observational, symbolic, and systematic activities. These behavioral tendencies lead in turn to an acquisition of leadership, interpersonal, and persuasive competencies, and to a deficit [of] scientific competencies" (Holland, 1973, pp. 16–17). Holland's theory has been referenced by over 500 studies. It has been cited by more researchers than any other career development theory (Sharf, 1997). Kristof (1996) similarly supports the proposition that individuals gravitate towards jobs and work environments that match their personalities.

Based on the logic above, it is proposed that entrepreneurs could have their own distinct personalities that could be used as immediate antecedents for predicting entrepreneurial intentions. Similar to previous studies (see, for example, Llewellyn & Wilson, 2003; Schmitt-Rodermund, 2004; Zhao & Seibert, 2006), the present study employed the Big-Five factors to measure personality characteristics as the predictors of entrepreneurial intentions. The five-factor model represents personality in terms of five broad traits: extraversion, neuroticism, openness to experience, agreeableness and conscientiousness. Based on the literature above, the following hypothesis is postulated:

H_2: Personality has a positive impact on entrepreneurial intention.

Entrepreneurial Orientation

Entrepreneurial orientation is constructed as decision-making styles and practices in the entrepreneurial literature. The decision-making process is measured by the degree of risk-taking a person exercises and by the individual's innovativeness, competitive aggressiveness, pro-activeness and autonomy. Covin and Slevin (1991) argued that behaviour is the essential element in the entrepreneurial process. Individual behaviour can be observed and measured through actions. Specifically, behaviour is, by definition, overt and demonstrable. Being an entrepreneur requires individuals to act entrepreneurially. "Different ways of becoming an owner-manager presumably differ in the extent to which they involve what might be termed entrepreneurial behavior" (Cooper & Dunkelberg, 1986, p. 54). Thus, in this research, entrepreneurial orientation and entrepreneurial behaviour are equivalently used.

Lumpkin and Dess (1996) extended the dimensions of the entrepreneurial orientation construct proposed by Covin and Slevin (1991). The authors identified five distinctive dimensions that characterise and distinguish key entrepreneurial processes and decision-making styles. They considered how establishing new businesses or entering the market is the central concept of entrepreneurship. The authors highlighted that "the essential act of entrepreneurship is new entry. New entry can be accomplished by entering new or established markets with new or existing goods or services" (Lumpkin & Dess, 1996, p. 138). The process of new entry is described as the act of launching a new venture, by a start-up firm, through an existing firm, or via internal corporate venturing (Lumpkin & Dess, 1996). New entry is thus a critical point underlying the concept of entrepreneurship. Even though Lumpkin and Dess (1996) did not explicitly describe entrepreneurial orientation as a behavioural construct, other scholars have implicitly considered entrepreneurial orientations as entrepreneurial behaviours. H. M. Neck, Manz and Godwin (1999) argued that entrepreneurial orientation encompasses specific behaviours or processes that are displayed by an entrepreneur. Lumpkin and Dess (2001) stated that an entrepreneurial orientation refers to the strategic process and the style of a firm; however it is the people behind the firm who make all of the decisions and perform the actions that define the firm's behaviour. In other words, the actors behind the firms are individuals. Therefore, entrepreneurial orientation can be applied to measure the individual strategy-making process and style. In addition, Lumpkin and Dess (1996, p. 96) emphasised the following logic: "for both start-up ventures and existing firms, entrepreneurship carried on in the pursuit of business opportunities spurs business expansion, technological progress, and

wealth creation". Therefore, this process can be successfully accomplished by overt entrepreneurial actions, namely entrepreneurial orientations. They operationalised and defined entrepreneurial orientation as "entrepreneurial behavior", demonstrating how new entry is undertaken. For the purpose of this study, entrepreneurial orientation is defined as the overt behavioural manifestation of innovative, pro-active, risk-taking, aggressive and independent actions. Entrepreneurial orientation consists of processes, structures, and/or behaviours that can be described as follows.

Consistent with the theory of planned behaviour, an individual cognitive characteristic is the predictor of intention; subsequently, an intention is the immediate antecedent of entrepreneurial behaviour. The description and measurement of this construct are based on the study of Hughes and Morgan (2007), in which entrepreneurial orientation is described as specific overt behaviours that are necessary for implementing new business ideas that include taking risks, innovativeness, competitive aggressiveness, pro-activeness and autonomy. The proposed hypotheses are as follows:

H_{3a}: Entrepreneurial intention will mediate the relationship between individual cognitive characteristics and entrepreneurial behaviour.

H_{3b}: Entrepreneurial intention will mediate the relationship between individual personality and entrepreneurial behaviour.

Social Capital

Venture creation is essentially a risk-taking process under bounded rationality, opportunism, uncertainty and environmental complexity (Smith & Lohrke, 2008). This situation requires venturing entrepreneurs to develop social capital, namely social relationships, and trust as a means of accessing reliable business information to overcome information asymmetry (Adler & Kwon, 2002; Cope, et al., 2007). Social capital is essential for the acquisition, integration, and release of resources that are needed for business activity (Blyler & Coff, 2003). "Network ties provide resources and information, and help to find clients, suppliers, and investors" (Batjargal & Liu, 2004, p. 605). They therefore reduce transaction costs. When network ties are strong, a business does not necessarily need to be regulated by contracts. "Not all business relationships need to be regulated via contracts, thus allowing him/her [an entrepreneur] to reduce the transaction costs" (Welter & Smallbone, 2006, p. 466). Therefore, social capital facilitates a business's gaining a competitive advantage and succeeding and surviving in the competitive market environment. Generally, social capital can provide significant sources of business activity, which, in turn, help entrepreneurs increase the

likelihood of a new venture's success (Bandiera, Barankay, & Rasul, 2008; Smith & Lohrke, 2008).

Ouchi (1980) argues that clan-type individuals with common values and beliefs based on reciprocity benefit from lower monitoring costs and higher commitment, and this kind of close relationship has the potential to prevent opportunistic behaviour and reduce transaction costs. "When there is trust in a relationship then risks of opportunism are drastically reduced and the costs of the exchange and governance are likewise reduced" (Bowey & Easton, 2007, p. 276). The embedded relationships facilitate quick decision-making and the processing of more complex information because of a socially defined high degree of certainty and decision cues. The embedded relationships also promote economic performance through resource pooling, cooperation and coordinated adaptation (Uzzi, 1996). In addition, social capital could be the foundation of human utility maximisation. "Social interaction can be explained as the consequence of utility maximizing behavior by individuals" (Saffer, 2008, p. 1). Based on previous studies, we accept trust and social ties as the two most critical antecedents and measurements of the social capital construct (Adler & Kwon, 2002; Ahern & Hendryx, 2003; Chou, 2006; Crudeli, 2006; Currall & Inkpen, 2002; Li, 2007; Putnam, 1993; Sobels, Curtis, & Lockie, 2001; Welter & Smallbone, 2006).

An entrepreneur's ability to overcome the liability of newness, which partly arises because of the difficulty of gaining trust and support from key resource providers (Akerlof, 1970; Singh, Tucker, & House, 1986; Smith & Lohrke, 2008), largely depends on an entrepreneur's social ties and well-established trust in his or her social relationships. Therefore, the importance of trust and social relationships cannot be underestimated. According to Smith and Lohrke (2008), an entrepreneur who can successfully overcome this liability by convincing resource providers that a new venture is both viable and legitimate will have a better chance of acquiring resources and, in turn, of increasing the venture's chances of success. "Besides providing access to economic resources, social capital derived from this network is important because it can provide the entrepreneur access to useful, reliable, exclusive, and less redundant information, which, in turn, improves a venture's likelihood of success" (Smith & Lohrke, 2008, p. 2). Thus, social capital is important for the implementation of new business ideas and new venture creation. The successful outcomes of entrepreneurial activities to a certain extent depend on the degree of social ties and trust developed by entrepreneurs. According to Smith and Lohrke (2008), this argument is consistent with previous studies stating that trust between partners is a critical element of network exchanges that, when developed, enhance resource flows. When parties trust one another, they are more willing to engage in cooperative activities through which further trust may be generated (Fukuyama, 1995). However, the role of social capital has not been clearly defined in relation to entrepreneurial

intention and behaviour. Liñán and Santos (2007) confirmed the existence of the indirect influence of the constructs defining cognitive social capital on entrepreneurial intentions. Only 57% of the variance in entrepreneurial intention is explained by social capital (Liñán & Santos, 2007). Leroy, Maes, Meuleman and Sels (2009) also pointed out that social capital has a mixed impact on entrepreneurial intention. These findings show that there is still room for alternative exploration to define the role of social capital in the study of entrepreneurship. Our study also proposes an alternative framework that illustrates the role of social capital in an intention formulation model. The varying social and economic factors in different countries are another special issue for defining the role of social capital in relation to entrepreneurial intention and entrepreneurial behaviour in the context of the entrepreneurial start-up process.

The overall argument above clearly shows the benefits and contributions of social capital to entrepreneurial activities. The main reasons to consider the important role of social capital in this study are that social ties based on trust allow better communication between an entrepreneur and his partners and that communication may encourage an entrepreneur to act more proactively, aggressively, and innovatively, as well as to take more risks, due to the partner's trust and support. Based on the preceding argument, it is proposed that:

> H_4: Social capital will have a positive moderating effect on the relationship between entrepreneurial intention and entrepreneurial behaviour.

METHODOLOGY

This section presents the four constructs used herein: individual cognitive characteristic, individual personality, entrepreneurial behavioural intention, and entrepreneurial behaviour. The research model and questionnaire development are explained in Figure 1 and Table 1.

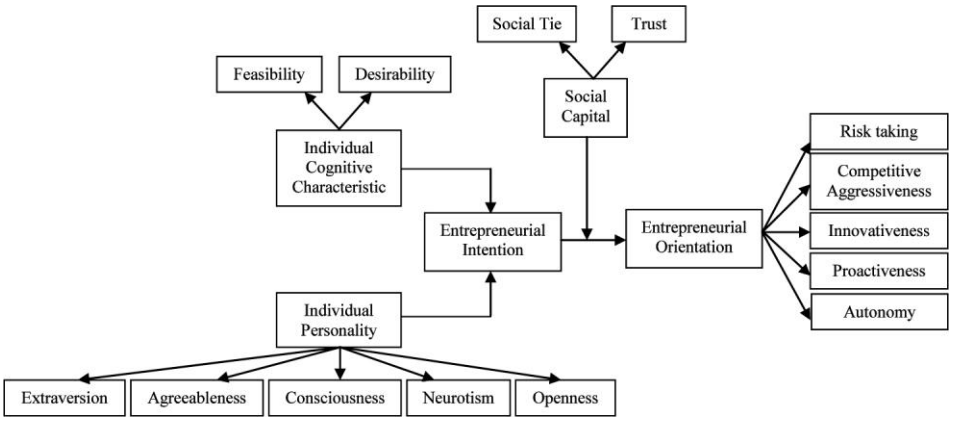

Figure 1. Conceptual model

Table 1
Questionnaire development

Constructs	Source
Cognitive characteristic	Segal et al., (2005), Shaver & Scott (1991)
Individual personality	Rammstedt & John (2006)
Entrepreneurial intention	Segal et al., (2005), Shaver & Scott (1991)
Entrepreneurial orientation/behavior	Hughes & Morgan (2007), Lumpkin & Dess (1996)
Social capital	Batjargal & Liu (2004), Shane & Cable (2002), Currall & Inkpen (2002)

In total, there were 54 items in the questionnaire. Respondents consisted of MBA students who have entrepreneurial experience as well as active entrepreneurs from Taiwan and Mongolia. The reason for choosing these two groups was to highlight the entrepreneurial inclination of those who have practical business experience in relation to entrepreneurship. The respondents were asked to recall their experience in the entrepreneurial start-up process. Therefore, for the accuracy of the responses, the respondents were filtered by those who run relatively young businesses. Respondents without business experience were not involved in the data collection. In the pilot test, we found that some entrepreneurs who have established their business for 10 years or more have difficulty recalling their start-up experience. Therefore, those entrepreneurs who have ten years or more of business experience were excluded. Before the survey was conducted, the entrepreneurs were asked how many years of experience they had.

This methodology is not without weaknesses. Entrepreneurs who have established new businesses for a few years might have biases in recalling and articulating their past start-up experiences, including the process of forming their entrepreneurial intentions. However, there is also the advantage of guaranteeing that the individuals' intentions have turned into actual business formation, denoting entrepreneurial behaviour. To eliminate misinterpretation, all questionnaire items were translated into Chinese for Taiwanese respondents and Mongolian for Mongolian respondents. In Taiwan, 320 paper-based questionnaires were distributed, and 203 questionnaires were returned; for Mongolia, 180 were distributed, and 158 were returned.

RESULTS

Analysis

In total, there were 361 responses (56.2% Taiwanese respondents and 43.8% Mongolian respondents). The primary attributes of the respondents, shown in the following table, consist of six major items: (a) nationality; (b) gender; (c) age; (d) education; (e) work experience; (f) experience of starting a business.

Table 2
Result of descriptive analysis

Item	Categories	Number of respondents	Percentage
Nationality	Taiwanese	203	56.20%
	Mongolian	158	43.80%
Gender	Male	191	52.90%
	Female	170	47.10%
Age	18–23	37	10.20%
	24–29	106	29.40%
	30–35	76	21.10%
	36–41	67	18.60%
	42 and above	75	20.80%
Education	High school	47	13.00%
	Bachelor	198	54.80%
	Master	108	29.90%
	PhD	3	0.80%

(*continued*)

Table 2 (*continued*)

Item	Categories	Number of respondents	Percentage
Work experience	1–5	107	29.60%
	6–10	99	27.40%
	11–15	75	20.80%
	16–20	24	6.60%
	20 and above	56	15.50%
Business experience	0	67	18.60%
	1	154	42.70%
	2	75	20.80%
	3	23	6.40%
	4	5	1.40%
	5 or more	37	10.20%

Factor analysis and reliability tests were performed to eliminate the irrelevant variables. The results can be seen in Table 3. The results show that the Cronbach alpha for each factor is greater than 0.7. Only the personality factor has a Cronbach alpha of 0.501. This may be caused by the use of a short-version personality test.

Table 3
Results of the factor analysis and reliability test

Construct	Variables	Factor loading	Eigen value	Accumulative explanation (%)	Cronbach alpha
Cognitive characteristic	**Cogchf1**		2.740	63.623	**.797**
	cogch3	.790			
	cogch1	.709			
	cogch5	.743			
	cogch7	.717			
	cogch6	.663			
	Cogchf2		1.077	63.623	–
	cogch4	.965			

(*continued*)

Table 3 (*continued*)

Construct	Variables	Factor loading	Eigen value	Accumulative explanation (%)	Cronbach alpha
Intention	**Intf1**		2.281	76.032	**.842**
	int1	.888			
	int2	.876			
	int3	.851			
Social capital	**Socaf1**		2.935	62.164	**.817**
	soca13	.781			
	soca11	.769			
	soca14	.727			
	soca12	.713			
	soca15	.706			
	Socaf2		2.572	62.164	**.808**
	soca2	.850			
	soca1	.817			
	soca3	.764			
	soca4	.651			
	Socaf3		1.330	62.164	**.843**
	soca16	.818			
	soca17	.704			
Personality	**Perf1**		1.468	66.032	**.513**
	per4n	.797			
	per6	.792			
	Perf2		1.266	66.032	**.539**
	per5n	.731			
	per9	.722			
	Perf3		1.228	66.032	**.594**
	per1n	.852			
	per7n	.658			
Entrepreneurial orientation	**Entorf1**		3.832	62.278	**.885**
	entor5	.850			
	entor7	.827			
	entor6	.790			
	entor1	.784			
	entor3	.748			
	entor8	.621			

(*continued*)

Table 3 (*continued*)

Construct	Variables	Factor loading	Eigen value	Accumulative explanation (%)	Cronbach alpha
Entrepreneurial orientation	**Entorf2**		1.956	62.278	**.715**
	entor14	.790			
	entor15	.759			
	entor16	.732			
	Entorf3		1.582	62.278	**.674**
	entor10	.848			
	entor9	.837			
	Entorf4		1.377	62.278	**.514**
	entor12	.881			
	entor13	.591			

The independent sample *t*-test was employed to compare the Taiwanese and Mongolian responses. Out of 13 factors, Taiwanese and Mongolian respondents differed from each other in six factor measurements: desirability, intention, innovative and risk taking, and all of the social capital factors. The *t*-test results indicated that the most significant differences among the two country respondents were social ties (*t*-value = 5.724, sig. = .000***) and, innovative and risk taking (*t*-value = 4.306, sig. = .019**). The *t*-test results also showed that the most similar responses between the two countries were feasibility (*t*-value = 0.040, sig. = .968) and pro-activeness (*t*-value = 0.072, sig. = .942).

Table 4
Results of independent sample t-test

Construct	Code	Factors	Mean		*t* value	Sig.
			TW	MGL		
Cognitive characteristic	Cogchf1	Desirability	3.322	3.557	–2.400	.017**
	Cogchf2	Feasibility	2.734	2.727	.040	.968
Personality	Perf1	Extraversion	3.081	3.164	–1.366	.173
	Perf2	Neurotism	3.000	2.917	1.061	.290
	Perf3	Agreeableness	2.790	2.908	–1.605	.109
Intention	Intf1	Intention	3.279	3.586	–2.663	.008**

(*continued*)

Table 4 (*continued*)

Construct	Code	Factors	Mean		*t* value	Sig.
			TW	MGL		
Entrepreneurial orientation	Entorf1	Innovative & risk taking	4.306	4.128	2.632	.019**
	Entorf2	Autonomy	3.719	3.578	1.694	.910
	Entorf3	Pro-activeness	3.541	3.534	.072	.942
	Entorf4	Aggressiveness	3.640	3.477	1.640	.102
Social capital	Socaf1	Trust	4.040	3.760	3.778	.000***
	Socaf2	Social tie	3.745	3.174	5.724	.000***
	Socaf3	Monitoring	2.795	3.126	–2.577	.010**

Note: TW – Taiwan; MGL – Mongolia

Table 5
Linear regression results

Model	M1		M2		M3	
	Dependent variable					
	Intention				Entrepreneurial orientation	
	Beta	VIF	Beta	VIF	Beta	VIF
	Cognitive Characteristic					
Desirability	0.788***	1.000				
Feasibility	–0.009	1.026				
			Personality			
Extraversion			–0.013	1.002		
Neurotism			–0.072	1.009		
Agreeableness			–0.127**	1.000		
					Intention	
Intention					0.320***	1.000
R^2	0.621		0.016		0.320	
***F* value**	588.392***		5.839**		40.919***	
***P* value**	0.000***		0.016**		0.000***	

Furthermore, the linear regression results revealed that the relationships between cognitive characteristic-entrepreneurial intention and entrepreneurial intention-orientation are strong and significant ($\beta > 0.1$; $P_{value} < 0.05$). The relationship between individual personality and entrepreneurial intention was

proven to be weak. The results also provided evidence that there is no need to analyse the mediating effect of the entrepreneurial intention between personality and entrepreneurial orientation any further. Therefore, the results support hypothesis 1 and reject hypotheses 2 and 3b.

It was also hypothesised that the entrepreneurial intention will mediate the relationship between individual cognitive characteristics and entrepreneurial orientation. To assess this hypothesis, Baron and Kenny's (1986) criteria for mediation were followed. Path *a* (individual cognitive characteristics to entrepreneurial intention) was assessed through *a* regression analysis, and it revealed an $r^2 = .621$, $p < .001$. The first requirement, a significant Path *a*, was supported as $\beta = .5905$, $p < .001$. Next, the second requirement for mediation, Path *b* (entrepreneurial intention to entrepreneurial orientation), was assessed through a regression analysis and revealed a significant relationship: $\beta = .1333$, $p < .001$. Therefore, the second criterion is fulfilled. Finally, the third criterion for mediation, Path *c* (when Paths *a* and *b* are controlled for, a previously significant Path *c*, $\beta = .257$, $p < .001$, will be less significant), was assessed using regression analysis, which revealed a less significant Path *c*: with $\beta = .1610$, $p < .001$. Therefore, this result supports hypothesis 3a, which states that entrepreneurial intention mediates the relationship between individual cognitive characteristics and entrepreneurial orientation. Figure 2 shows the significant indirect relationship.

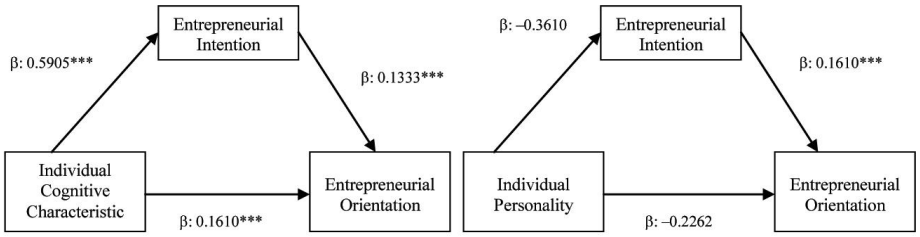

Figure 2. The mediating effects of entrepreneurial intention

To show the moderating effect of social capital on entrepreneurial intention-orientation, hierarchical linear regression was employed. The final results are provided in Tables 6(a), 6(b), 6(c), and 6(d) and are summarised in Table 6(e). The interaction between intention and social capital is represented by Int*Soca. Social capital is shown to have a moderating effect if ΔR^2 is positive and the ΔF value is significant after the employment of Int*Soca in the entrepreneurial intention-orientation. Social capital was proven to have strong moderating effects on intention-innovativeness and risk-taking (Entorf1) and intention-autonomy (Entorf2), whereas a relatively less moderating effect was

seen on pro-activeness (Entorf3) and aggressiveness (Entorf4). Therefore, hypothesis 4 is supported.

Table 6(a)
Results of hierarchical linear regression (entorf1)

Independent variable	Dependent variable – Entrepreneurial orientation (entorf1)							
	Step 1		Step 2		Step 3		Step 4	
	Beta	VIF	Beta	VIF	Beta	VIF	Beta	VIF
Nationality	–0.114**	1.130	–0.153**	1.146	–0.065	1.260	–0.850	1.278
Gender	0.159**	1.059	0.198***	1.073	0.204***	1.093	0.186***	1.112
Age	0.010	3.552	–0.010	3.555	0.069	3.617	0.050	3.645
Education	0.026	1.144	0.010	1.147	0.018	1.158	0.004	1.169
Work experience	0.190	3.719	0.163	3.726	0.082	3.810	0.105	3.901
Business experience	–0.022	1.301	–0.098	1.359	–0.094	1.360	–0.092	1.368
Intention (intf1)			0.342***	1.161	0.225***	1.310	0.193***	1.354
Social capital (socaf1)					0.353***	1.381	0.331***	1.457
Social capital (socaf2)					0.028	1.360	0.049	1.388
Social capital (socaf3)					–0.028	1.078	–0.029	1.252
Intention * Social capital (socaf1)							–0.124*	1.201
Intention * Social capital (socaf2)							–0.085	1.155
Intention * Social capital (socaf3)							–0.012	1.194
R square	0.068		0.169		0.283		0.308	
dR square			0.101		0.114		0.025	
F	4.308***		10.232***		13.809***		11.891***	
dF			42.731***		18.585***		4.226**	
N = 361								

Table 6(b)
Results of hierarchical linear regression (entorf2)

Independent variable	Dependent variable – Entrepreneurial orientation							
	Step 1		Step 2		Step 3		Step 4	
	Beta	VIF	Beta	VIF	Beta	VIF	Beta	VIF
Nationality	–0.141**	1.130	–0.151**	1.146	–0.097	1.260	–0.124**	1.278
Gender	0.056	1.059	0.065	1.073	0.079	1.093	0.054	1.112
Age	0.059	3.552	0.540	3.555	0.107	3.617	0.079	3.645
Education	0.057	1.144	–0.061	1.147	–0.063	1.158	–0.080	1.169
Work experience	–0.162	3.719	–0.168	3.726	–0.208**	3.881	–0.179	1.901
Business experience	0.135**	1.301	0.116	1.359	0.117**	1.360	0.122**	1.368
Intention			0.082	1.161	–0.021	1.310	–0.063	1.354
Social capital (socaf1)					0.300***	1.381	0.275**	1.457
Social capital (socaf2)					–0.019	1.360	0.007**	1.388
Social capital (socaf3)					0.061	1.078	0.065	1.252
Intention * Social capital (socaf1)							–0.149	1.201
Intention * Social capital (socaf2)							–0.127	1.155
Intention * Social capital (socaf3)							–0.003	1.194
R square	0.034		0.039		0.112		0.155	
dR square			0.006		0.073		0.043	
F	2.048		2.068**		4.422***		4.913***	
dF			2.150		9.561***		5.930***	
N = 361								

Table 6(c)
Results of hierarchical linear regression (entorf3)

Independent variable	Dependent variable – Entrepreneurial orientation							
	Step 1		Step 2		Step 3		Step 4	
	Beta	VIF	Beta	VIF	Beta	VIF	Beta	VIF
Nationality	–0.030	1.130	–0.067	1.146	–0.031	1.260	–0.028	2.278
Gender	–0.155**	1.059	–0.120**	1.073	–0.104**	1.093	–0.100**	1.112
Age	0.091	3.552	0.073	3.555	0.105	3.617	0.111	3.645
Education	–0.114	1.144	–0.129**	1.147	–0.135**	1.158	–0.138**	1.169
Work experience	0.041	3.719	0.016	3.726	–0.008	3.881	–0.009	3.901
Business experience	0.195**	1.301	0.125**	1.359	0.124**	1.360	0.120**	1.368
Intention			0.315***	1.161	0.243***	1.310	0.247***	1.354
Social capital (socaf1)					0.192***	1.381	0.182**	1.457
Social capital (socaf2)					0.011	1.360	0.013	1.388
Social capital (socaf3)					0.084	1.078	0.077	1.252
Intention * Social capital (socaf1)							–0.031	1.201
Intention * Social capital (socaf2)							0.051	1.155
Intention * Social capital (socaf3)							–0.023	1.194
R square	0.104		–0.190		0.226		0.229	
dR square			0.085		0.036		0.003	
F	6.861***		11.795***		10.209***		7.912***	
dF			37.191***		5.462**		0.424	
N = 361								

Table 6(d)
Results of hierarchical linear regression (entorf4)

Independent variable	Dependent variable – Entrepreneurial orientation							
	Step 1		Step 2		Step 3		Step 4	
	Beta	VIF	Beta	VIF	Beta	VIF	Beta	VIF
Nationality	–0.087	1.130	–0.110**	1.146	–0.098	1.260	–0.098	1.278
Gender	–0.055	1.059	–0.033	1.073	–0.003	1.093	–0.008	1.112
Age	0.215**	3.552	0.204**	3.555	0.207**	3.617	0.205**	3.645
Education	–0.186***	1.144	–0.195***	1.147	–0.214***	1.158	–0.214***	1.169
Work experience	–0.085	3.719	–0.100	3.726	–0.100	3.881	–0.101	3.901
Business experience	–0.063	1.301	–0.105	1.359	–0.108	1.360	–0.104	1.368
Intention			0.190***	1.161	0.137	1.310	0.134**	1.354
Social capital (socaf1)					0.088	1.381	0.086	1.457
Social capital (socaf2)					0.063	1.350	0.069	1.388
Social capital (socaf3)					0.203	1.078***	0.238***	1.252
Intention * Social capital (socaf1)							–0.004	1.201
Intention * Social capital (socaf2)							0.003	1.155
Intention * Social capital (socaf3)							0.091	1.194
R square	0.053		0.085		0.133		0.140	
dR square			0.031		0.049		0.007	
F	3.325**		4.657***		5.378***		4.354***	
dF			12.028***		6.549***		0.948	
N = 361								

Table 6e
Summary of hierarchical linear regression results

Moderating relationship			R^2	ΔR^2	F	ΔF
Social capital	→	Dependent factor				
Int*Soca	→	Entorf1	0.308	0.025	11.891***	4.226**
Int*Soca	→	Entorf2	0.155	0.043	4.913***	5.930***
Int*Soca	→	Entorf3	0.229	0.003	7.912***	0.424
Int*Soca	→	Entorf4	0.140	0.007	4.354***	0.948

DISCUSSION

An individual's intention to become an entrepreneur is rooted in a rational judgment and perceptions of the desirability and feasibility of the business objective. The results are consistent with the previous empirical studies of Ajzen (2001) and Kruger et al. (2000). A contrasting finding showed that personality is a volatile measurement in predicting an individual's entrepreneurial intentions. Therefore, an individual's cognitive characteristics serve as predictors of intention and entrepreneurial behaviour. At the same time, it was also proven that intention mediates the relationship between cognitive characteristics and entrepreneurial behaviour. The results show that the theory of planned behaviour can be used for entrepreneurial behavioural studies.

Intention leads individuals to behave more pro-actively and aggressively towards business objects. Even though entrepreneurial intention motivates individuals to be innovative, risk-taking and independent, the strength of motivation is not as high as the strength with which intention motivates individuals to behave pro-actively and aggressively towards business objects. Therefore, it is concluded that, once individuals have entrepreneurial intentions, they will act more pro-actively and aggressively. However, being innovative and having an appetite for risk-taking as well as being independent could be subjective.

The results show that start-up intention is saturated in a relatively mature free market economy, while it remains high in newly emerged free market economies. This can be explained by country-specific factors and the socio-economic conditions of the two countries. For example, Taiwan, compared to Mongolia, has a better-developed economy and more experience with small- and medium-sized enterprises and it is famous for its entrepreneurial activities. In addition, the Taiwanese market is relatively saturated. However, Mongolia is a newly transformed market economy in accordance with free market and capitalist economic principles. Therefore, the concept of entrepreneurship is a relatively new phenomenon among Mongolians. This situation facilitates enormous

opportunities for embarking on new business start-ups. The results also prove that the low-income (factor-driven) country's individual entrepreneurial start-up intention is higher than the middle income (efficiency-driven) country's individual entrepreneurial start-up intention. Not only is the income level not the same, but the cultural, demographic, business, structural and institutional factors also differ. Therefore, it can be inferred that start-up intention is influenced by various socio-economic and political factors. Even though entrepreneurship is considered to be a new phenomenon in Mongolia, in recent years, borderless globalisation, the turbulent market of a transitional economy, and increasing interaction with capitalist countries have increased Mongolians' awareness of entrepreneurship.

As for the role of social capital in the formation of entrepreneurial orientation, this study shows that perceived social capital has a positive indirect effect as a moderator in entrepreneurial orientation. When the intention has already been formed, combined with the availability of social capital, the impact will be greater on the formation of entrepreneurial behaviour. This is consistent with studies about network perspectives on social capital that argue that a network provides positive value to its members. In the entrepreneurial context, being a member of a network will allow entrepreneurs to have the special privilege of accessing resources that are embedded in the network (Adler & Kwon, 2002; Bandiera, et al., 2008; Batjargal & Liu, 2004; Blyler & Coff, 2003; Cope, et al., 2007; Group, 2010). In other words, the possession of social capital gives access to resources that are useful for entrepreneurs; however, without the presence of entrepreneurial intention in the beginning stage, entrepreneurial behaviour will not exist. The findings show that social capital has significant moderating impacts on the relationship between entrepreneurial intention and behaviour.

This comparative study between Taiwanese and Mongolian respondents shows that they significantly differ from one another in terms of the intention to start a business. Social capital factors were found to have different impacts on individuals from both countries in terms of function. The different impacts are explained by the socio-cultural factors of the two countries. The importance of developing *Guanxi* (social relationships) to conduct business in China (and elsewhere in Asia) has been well documented (Hwang, Golemon, Chen, Wang, & Hung, 2009; Wong, 2010). However, this study revealed that the level of importance of social relationships, in terms of social capital, is still different among Asian countries. Both countries represent the Asian culture; however, the results showed the tendency of Taiwanese entrepreneurs' *Guanxi* to be mostly based on high levels of trust and social ties, as compared with their Mongolian counterparts, whose social capital is mostly based on mutual monitoring. This fact shows that Mongolian entrepreneurs, who are newly acquainted with business in the free market context, are still experimenting with how to establish

their business and social capital successfully. According to the assessment report of 2009 from the Asian Development Bank, the Mongolian private business environment is still turbulent and challenging. Companies in private sectors are facing the challenge of growing economically (*Private sector assessment for Mongolia*, 2009). Furthermore, the data from the Mongolian National Statistical Office show that the number of self-employed entrepreneurs fluctuates year by year. Recent data show that there were 250,900 self-employed entrepreneurs in 2008; this number grew to 350,300 in 2009 and then reduced sharply to 254,200 in 2010 (*Monthly bulletin of statistics*, 2010). The socio-economic conditions of a post-transitional economy require Mongolian entrepreneurs to be more cautious and careful as compared to Taiwanese entrepreneurs, who do business in a relatively more established market.

The use of trait and Big-Five personality measures is still subject to various criticisms. Some argue that there is a lack of consensus on the relationship between individual personality and entrepreneurial behaviour. However, "there is little research supporting or refuting trait and factor theory itself as a viable theory of career development" (Sharf, 1997).

CONCLUSIONS

The study concludes that an individual's intention to become an entrepreneur is influenced by cognitive characteristics. Personality was found to be a weak predictor of entrepreneurial intention formation. This is consistent with the Theory of Planned Behavior (Ajzen, 1991), which states that attitudes, which involve cognitive processes, precede intention and that intention forms overt behaviours. This study also found that social capital acts as a positive moderator in the relationship between entrepreneurial intention and entrepreneurial behaviour. When one's intention to be an entrepreneur increases, the effect on entrepreneurial orientation will be greater with the presence of increased social capital. The country comparison between Taiwan and Mongolia highlighted the effect of socio-economic conditions on the entrepreneurial start-up process. The results indicated that individual start-up intention is higher in a newly emerging free market economy than in a mature free market economy. Furthermore, the comparison shows that there is a different perspective towards social capital: in a mature, free market economy, social capital is mostly based on trust and social ties; in a newly emerged free market economy, entrepreneurs tend to utilise social capital based on mutual monitoring.

Implications

This study adds to the literature empirical evidence on the cognitive characteristic of individuals as a predictor of behavioural intention as intention predicts behaviour. The findings demonstrated the role of social capital with regard to the entrepreneurial start-up process. The study also revealed that social economic conditions are an influential factor in the entrepreneurial start-up process. The practical implications of the findings will influence business practice and educational training. The findings equip managers with knowledge of the role of social capital and country-specific factors in business practice in Taiwan and Mongolia. Therefore, this study will help managers carry out successful organisational training. The knowledge about social capital and country-specific factors can be used not only for internal managerial purposes but also for interacting with customers and suppliers as part of business networking. Business schools can use the findings to design courses and school activities to enhance entrepreneurial understanding. This study also provides insights for policymakers. Policymakers must consider socio-economic factors when applying policies related to businesses and entrepreneurship. Business practice and policies from other countries cannot be blindly adapted without making adjustments based on local socio-economic conditions. This study provides empirical evidence for Mongolian entrepreneurs to develop small and mid-enterprises that could be future key factors for the country's economic development. For Mongolian and Taiwanese entrepreneurs, the study contributes to the evidence of specific differences and similarities between the two countries that, in turn, can help them effectively and efficiently co-operate with one another.

Limitations and Suggestions

This study used the short version of the Big-Five Personality measurement, with two questions for each personality factor. Even though the short version promoted a higher response rate, the results were not as comprehensive as expected. The full and short versions of the personality measurement have trade-offs. Determining which version to use entails a dilemma between the convenience of the respondents and obtaining more inclusive data. The empirical data were collected from various entrepreneurs and individuals working in various industries. Therefore, the research results do not represent entrepreneurs from a particular industry. Future researchers should consider conducting industry-specific research. As such, the research results will have more predictive power and will be more useful for the specific industries. The entrepreneur start-up process is a complex phenomenon that cannot be thoroughly explained by a simple model. Integrating external factors, such as culture or a political system, will provide a more holistic understanding of the phenomenon. Aside

from external factors, internal factors such as emotional intelligence, motivation, and educational background, can also give interesting insights into the entrepreneurial start-up process. The country-specific socio-economic factors and the ways in which individuals build social capital should be further investigated in other countries to verify or refute the findings of this study. Future studies can involve countries that can be compared and contrasted in terms of socio-economic development.

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