
INFLUENCE OF STUDENT'S NON-COGNITIVE AND COGNITIVE TRAIT ON THEIR PROPOSED ENTREPRENEURIAL VENTURES' INITIAL SET UP DECISION.

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ABSTRACT: *The current study is intended to study the influence of non-cognitive characteristics and cognitive trait i.e. learned by experience, demographic factors, entrepreneurial education and others on their proposed entrepreneurial initial set up decision. Research inference is derived from the samples of 150 entrepreneurial program students during the period 2011-2012 selected from University Malaysia Kelantan (UMK), University Putra Malaysia (UPM) and University Utara Malaysia (UUM). Previous studies have endeavored to measure the effects of one or more variables on entrepreneurial ventures' initial set up decision, but while the main implication of this study is to collect all related variables in an integrated model and to investigate cumulative effects of these variables on the entrepreneurial key decision taking ability of entrepreneurs. The present study findings are based on the cumulative effects of entrepreneur's non-cognitive attributes and cognitive notions and traits on the ability of entrepreneurial key decision taking ability which have not been investigated in previous studies yet.*

KEYWORDS: Entrepreneurial, Non-cognitive characteristics, Cognitive notions and Heuristics, Demographic factors.

INTRODUCTION

The phenomenon of fresh graduates from university enters an environment that is changing and unstable is widely recognised where they need to face a tough job market especially with the recent downturn of the global economy.

The slowdown of the United States (US) economy recently, has an impact on the global economic and financial markets worldwide. Furthermore, with the recent downturn of the global economic, the labour market is extremely in poor condition where it affects the availability of job opportunities in worldwide. This economic crisis exposed the limited capability of labour market to accommodate employment opportunities. Consequently, the numbers of unemployed people are increase due to lack of job opportunities.

In Malaysia, there was an increases in the number of graduates from 9,338 in year 1990 to 24,413 at the end of 1990s and this number continuously increased to 162, 722 in the year of 2005 (Ching, 2008). On the other hand, according to the job registration and placement statistics, the new graduates who registered for the first time through Job Clearing System (JCS) increased from year below 1999 until 2006. According to Nabi (2006), the UK government has recognised that enterprise is a vital

contributor to the health of the economy and entrepreneurship has frequently been advanced as one of the means to combat the losses in employment created by economic.

Hence it is the aim of this research to contribute to the current literature by identifying the variables of entrepreneurship education that influence students' inclination towards entrepreneurship specifically in Malaysian settings. Taking the above statement into account, this paper primarily investigates if entrepreneurship education can be adequately influenced Malaysian university students' inclination towards entrepreneurship. Particularly, this paper aims and attempts to identify the influence of cognitive heuristic and non cognitive trait towards entrepreneurial inclination among Malaysian university students in UMK, UPM, UUM of the Peninsular Malaysia. The following section briefly discusses each attribute of non cognitive trait and cognitive heuristic that could have influence university students' inclination towards entrepreneurship. Each attribute is succinctly explained and followed by the hypothesized propositions for the study.

LITERATURE REVIEW

Entrepreneur

The conception of the 'entrepreneur' has evolved over time (Fayolle, 2007). The word entrepreneurs were derived from the French word which is *entreprendre* which means "to undertake, to fulfil needs and wants through innovation and starting business" (Keow, 1996). The general meaning of 'entrepreneur' in the seventeenth century was 'a person who undertakes to do something' (Fayolle, 2007). *Le Petit Robert* thereafter defines entrepreneur in a more economic perspectives which is 'any person who manages an enterprise of their own, and implements the various factors of production such as land, labour and capital in order to sell goods or services' (Fayolle, 2007).

In 1755, the term entrepreneur seems to have been introduced into economics by Richard Cantillon. He identified that the entrepreneur and risk-taking are closely linked. He viewed entrepreneur as a bearer of non-insurable risk where one bought at a certain price only to sell at the certain price in the future (Keow, 1996). Nevertheless, at the beginning of the nineteenth century, Jean Baptiste Say associated the entrepreneur with innovation and thereafter, the notion was popularized by Schumpeter in 1934 (Fayolle, 2007).

Schumpeter (1934) viewed the entrepreneur as an innovator but not as a risk taker. He gave the modern definition of an entrepreneur as 'the person who destroys the existing economic order by introducing new products and services, by creating new forms of organization or by exploiting new raw materials' (Keow, 1996). However, Gartner (1989) pointed that the literature provides no universally accepted definition of an entrepreneur. The definition of entrepreneur was defined in various perspectives. Hisrich et al (2005) pointed that perception of entrepreneur definition differs among individuals. According to Setty (1980), entrepreneur is an innovator who introduces something new into the economy while Hull et al, (1980) defined entrepreneur as a person who organized and manages a business undertaking assuming the risk for the sake of profit.

Mescon and Montanari (1981) defined entrepreneur as a founder of new business. On the other hand, McMullan and Long (1990) defined an entrepreneur as a self-employed person who has face uncertainty, and never be tied down to the traditional way of making deals. Meanwhile, Moore (1990) defined entrepreneur as one who takes an active role in the decision making and the risk of a business in which he or she has majority ownership.

Furthermore, Bygrave (1998) defined entrepreneur as people who show initiative, imagination, creativity and flexibility. They are willing to think conceptually and to see change as an opportunity. Thompson (1999) defined entrepreneur as an individual who has a vision with a new opportunity that will respond on it and starts something. Fayolle (2007) viewed that the entrepreneur has a particular

and indispensable role to play in the evolution of liberal economic systems. They also create companies and jobs as well as participate in the renewal of the economic fabric.

Therefore, as suggested by Gartner (1989), each research study should specifically define the entrepreneur that is the focus for that particular study. Consequently, relevant to this study, entrepreneur can be defined as a self-employed person (McMullan and Long, 1990) who show initiative, imagination, creativity, flexibility and able to see change as an opportunity (Bygrave, 1998) by introducing something new into the economy (Setty, 1980) as well as creates companies and jobs and participate in the renewal of the economic fabric (Fayolle, 2007)

Entrepreneurship

According to Fayolle (2007), the historical foundations of entrepreneurship belong to the economics and Richard Cantillon was the first to present the role of the entrepreneur and its importance for economic development. Bruyat and Julien (2001) stated entrepreneurship is a concept that has been defined in various ways. According to Schumpeter (1934), entrepreneurship is the creation of new combinations while Cole (1969) mentioned that entrepreneurship refers to the activities which are able to give benefit to the business development based on profit.

Bird and Jelinek (1988) mentioned entrepreneurship refers to the intentional creation or transformation of an organization for the purpose of creating or adding value through organization of resources. On the other hand, Belly (1993) defined entrepreneurship as the process of entailing entrepreneurial activities, that is, non-routine business activities entailing some degree of risk, the outcome of which could have substantial impact on the organization or a specific part of it. Dollinger (1995) defined entrepreneurship as developing of innovative economy company for the purpose to gain profit or enlarge and willing to assume risk and uncertainty.

According to Matlay (2005), entrepreneurship is seen as important in the industrial revolution and the related social-economic and political transformation of nations. Hisrich et al. (2008) defined entrepreneurship as the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, physics and social risk and receiving the resulting rewards of monetary and personal satisfaction and independence. Meanwhile, Fayolle (2007) stated that entrepreneurship represents a real engine of economic development through the creation and development of new business activities, job creations as well as introduced significant innovations that have a large impact on the economic growth.

Web 2.0

Many organisations and institutions have adopted Web 2.0 applications to foster internal knowledge sharing and collaboration through document sharing portals (Dearstyne, 2007). In the past few years, the success of online social networks which are used to exchange personal information, photos, videos (Facebook, Flickr, YouTube), and the increased need for tools to quickly create, analyze, and exchange the ever increasing amount of information, along with the ease of use of Web 2.0 collaboration software, have stimulated a flow in the emergence of Web 2.0 technologies (Dearstyne, 2007). In this review of the literature, a brief history of Web 2.0, an overview of a variety of Web 2.0 applications, and pedagogical affordances of Web 2.0 applications are discussed.

Web 2.0, is sometimes referred to as the “read/write Web” and it provides online users with interactive services, in which they have control over their own data and information (Madden & Fox, 2006; Maloney, 2007). Examples of Web 2.0 participatory technologies include wikis, blogs, instant messaging, internet telephony, social bookmarking, and social networking sites. These new technologies make sharing content among users and participants much easier than in the past and change the way documents are created, used, shared, and distributed (Dearstyne, 2007).

Non Cognitive Factors Influencing Entrepreneurial disposition

Entrepreneurial Education

An exponential interest in entrepreneurship studies has increased amongst both undergraduate and graduate students over the last decade (Solomon, Weaver et al. 2005). This, in turn, has increasingly made entrepreneurship emerged as one of the most popular research domain in academic circles to study on the importance and contributions of entrepreneurship (Lee, Chang et al. 2005) One of the key factors explaining this unparalleled phenomenon is the fact that wages employment or 'secure' employment is no longer a guarantee especially in the public sector for university graduates (Collins, Hannon et al. 2004; Kamau-Maina 2006; Postigo, Iacobucci et al. 2006).

For instance, in the United States, there are more than 1500 colleges and universities that offer courses in entrepreneurship and small business management to some 15,000 students (Scarborough and Zimmerer 2003; Kuratko 2005). Many dialogues, forums and training programmes organized by educational institutions are all in favour of entrepreneurship development apart from being the subject taught at colleges and universities (Landstrom 2005). Undoubtedly, all these are being done with one major goal, namely to foster entrepreneurial spirit and expect attitude change in students, after undertaking entrepreneurial courses. Students are also expected to value entrepreneurship as a personal and future career development alternative (Kantis, Postigo et al. 2002). Thus the hypothesis was developed:

H1: The entrepreneurial education increases the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision.

Attitudinal Characteristics and Demographic Factors Influencing Entrepreneurial inclination

Risk Propensity

Students personal attributes such as risk propensity was categorized under cognitive heuristic.

An individual's risk-taking propensity can be defined as their inclination to accept risk comfortably (Brice, 2002). Simon et al. (2000) suggest that factors affecting an individuals' perceived risk assessments include cognitive biases such as, overconfidence and the illusion of control. In their study, heuristics were stated to play a role in risk evaluation and it follows that an individual's previous entrepreneurial experience would be an important factor in this process.

Risk-taking propensity has been 'conceptualized as one's orientation toward taking chances in a decision-making situation' (Sexton and Bowman 1985, p. 13) For example, Shane's (1996) historical study of the period from the late 19th through to the late 20th centuries found a positive relationship between risk-taking propensity and growth in the US national rate of entrepreneurship. Simon et al. (2000) suggest that factors affecting an individuals' perceived risk assessments include cognitive biases such as, overconfidence and the illusion of control. In their study, heuristics were stated to play a role in risk evaluation and it follows that an individual's previous entrepreneurial experience would be an important factor in this process. Thus the hypothesis was developed:

H2: The risk propensity increases the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision.

Tolerance for Ambiguity

Students personal attributes such as tolerance for ambiguity was categorized under cognitive heuristic. Tolerance for ambiguity is found to be related to personal creativity (Zimmer, 1998) and the ability to produce more ideas during brainstorming. Wilkinson (2006) define this ambiguity tolerance as "emotional resilience". This ambiguity towards tolerance is quite vital when a business is set up for the first time since an unpredictable number of problems crop up and so it is important for the entrepreneur to be in possession of this trait (Shane et al., 2003). However, many studies show that entrepreneurs and those who are entrepreneurially inclined have a significantly greater capacity to

tolerate ambiguity and hence it is believed that tolerance of ambiguity is an entrepreneurial characteristic (Koh, 1996; Schere, 1982) Thus the hypothesis was developed:

H3: The tolerance for ambiguity increases the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision.

Self Confidence

Entrepreneurs are typically described as having self-confidence. This is because they seek out and complete demanding tasks it is unlikely that they could do this successfully if they had low confidence. As noted by Cromie (2000), perhaps self-confidence is an outcome rather than a determinant of entrepreneurship. In the literature on entrepreneurship, it is stated that entrepreneurs demonstrate a higher degree of self-esteem with respect to others (Koh, 1996; Robinson et al., 1991). Self-confidence is an individual's believe in his own resources and abilities. In general, individuals who believed they are able and that they can and will do well are more likely to be motivated in terms of effort, persistence behavior than individuals who believe they are less able and do not expect to succeed (Pintrich, 2003). Ho and Koh (1992) have suggested that self-confidence is a necessary entrepreneurial characteristic and that it is related to other psychological characteristics. Empirical studies in the entrepreneurship literature have found entrepreneurs to have higher degree of self-confidence relative to non-entrepreneurs (Ho and Koh, 1992, Robinson et al., 1991a).

Thus the hypothesis was developed:

H4: The self confidence increases the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision.

Locus of Control

Locus of control refers to an individual's generalized expectations concerning where control over subsequent events resides. In other words, who or what is responsible for what happens. It is analogous to, but distinct from attributions. According to Rotter (1966), there are two aspects of locus of control: internal and external. Internal control expectations occur when an individual has got direct control over his life and when the outcome of his actions depends on his own performance or characteristics. External control expectations occur when an individual believe that life's events are the result of external factors such as fate, chance or luck. Rotter argued that internal locus of control is related to learning and so those individuals with an internal locus of control are more likely to be motivated and to strive for achievement than those with an external locus of control. An external locus of control hampers learning and encourages passivity. According to Wong and Sproule (1984), positive external control boost personal control and hence increases the expectation of success, while a negative external control hinders personal control. Levenson (1981), in his research on the locus of control construct, differentiated between internality, powerful others and chance, thus splitting external control into two separate dimensions. Withstanding all this disagreement on dimensions, a common picture that emerges from studies is that entrepreneurs generally have an internal locus of control and believe that they have the potential to influence their own destiny (Koh, 1996; Utsh & Rauch, 2000). Additionally, there are studies which reported that this characteristic can distinguish between entrepreneurs and non-entrepreneurs (Mueller & Thomas, 2000), between successful and unsuccessful entrepreneurs (Brockhaus & Horwitz, 1986) as well as between entrepreneurially inclined and non-entrepreneurially inclined university students (Gurol & Atsan, 2006). Other studies found that locus of control did not distinguish between founders and managers (Begley, 1995) and between owners of new business and managers (Brockhous, 1982)

Through the internal locus of control, an individual's attitude in handling his or her daily affairs influences his decisions and actions. Thus, one's internal locus of control is one's belief in one's ability to control one's future, self-confidence, commitment, and creativity, among many other things. Past research has down-played this attitude in determining individual's involvement level in entrepreneurship (Hisrich and Peters 1998). Hence, the internal locus of control is considered an

important attitude and has an impact on choosing entrepreneurship as a career (Ab. Aziz and Zakaria 2004; van Praag et al. 2004). Thus the hypothesis was developed:

H5: The locus of control influences the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision

Need For achievement

Personality trait characterized by an enduring and consistent concern with setting and meeting high standards of achievement. This need is influenced by internal drive for action (intrinsic motivation), and the pressure exerted by the expectations of others (extrinsic motivation). Measured by thematic appreciation tests, need for achievement motivates an individual to succeed in competition, and to excel in activities important to him or her.

McClelland's (1961) theory of the need for achievement proposes that individuals who have a need to achieve seek to excel progress and perform. Such individuals set high but obtainable target and strive to attain them through their own efforts, are more concerned with the personal achievement rather than with the rewards of success, need regular feedback to monitor their progress of achievement and generally prefer to work alone or with other high achievers. This theory suggests that individuals that have a high need of achievement are more likely to seek out an entrepreneurial job rather than other roles. In fact, many studies have shown that entrepreneurs have a higher need for achievement than non-entrepreneurs (Robinson et al., 1991; Steward et al., 2003) and that entrepreneurially inclined persons have a greater need for achievement than those who are not entrepreneurially inclined (Gurol & Atsan, 2006). However, it has also been reported that this characteristics is not as effective in making the difference between firm founders and managers but could be helpful in determining entrepreneurial activity (Collins, Locke & Hanges, 2000).

The need for achievement is an important determining factor in choosing entrepreneurship as a career, as individuals' desire for appreciation corresponds to the needed motivation for becoming a successful entrepreneur (Davidsson 1995; McClelland 1961; Moorman and Halloran 1993). In this context, the individual that possesses this need is said to be inclined to partake in exploratory efforts and be able to become a very successful entrepreneur (McClelland 1961). This characteristic, as shown by past research, increases self-satisfaction, readiness in facing challenges, and the freedom to determine the amount of effort needed to succeed in the chosen field (Ab. Aziz and Zakaria 2004).

Thus the hypothesis was developed:

H6: The need for achievement influences the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision

Demographic Factors Influencing Entrepreneurial inclination

Father's occupation

According to Scott *et al* (1988) and Plaschka (1990) those who want to own their own business are usually more likely to have parents as role models. Rosa (1993) and Morrison (1990) agreed with this, believing family play a significant role in helping new entrepreneurs with opportunities and resources such as finance and business contacts. Garavan *et al* (1997) further acknowledge the importance of parents to entrepreneurship, believing parents are the primary role models in the development of entrepreneurial personality and future career attitude. The importance of others was also noted by Curran (1996) as cited by Henderson and Robertson (2000) who found the attitude of family, friends, and neighbors are an essential influence on the young student when forming an attitude or perception. Phan, Wong and Wang (2002) agreed with this, finding attitude to be of extreme importance in the encouragement of entrepreneurship, arguing that educational effort should be made to develop the right attitudes and motivations towards entrepreneurship.

Shapiro (1975, 1982) argued that attitudes toward entrepreneurship depend on exogenous factors like demographics, traits, skills, culture, and social and financial support. Prior exposure to entrepreneurial activity would be included as one such factor. Prior exposure could be in the form of early exposure to

a family business, which influences attitudes toward entrepreneurship (Krueger 1993 Drennan, Kennedy, and Renfrow (2005) found that those who reported a positive view of their family's business experience perceived starting a business as both desirable and feasible. They found that other childhood experiences that involved facing adversity or frequent relocation also had a positive effect on individuals' perceived autonomy and attitude toward self-employment. At the same time, it can be argued prior exposure in the form of direct experience in starting or attempting to start a new business would affect attitudes and perceptions about entrepreneurship as a career.

There have been strands of studies revealing that an individual's family business background has a vital role in terms of influencing, motivating and providing support for an individual's intention to be involved with entrepreneurial activity (Matlay 2005b; Rajiman 2001). For many people, family is a main source of information and provides funds as well as networks (Cuervo 2005; Sergeant and Crawford 2001). Furthermore, having being brought up by parents who owned a business, the children of these business-owning parents are expected to possess higher propensity to launch a business in the future (Rajiman 2001; Schindehutte et al. 2003; Van Auken et al. 2006; Veciana et al. 2005). Phan et al. (2002) indicate that Singaporean students who have parents with businesses are more likely to start up businesses after graduation compared to those whose parents have no business background. Breen (1998) supports Phan et al.'s findings, showing that Australian teenagers' family business background does influence their interest in becoming self-employed. The parents, in this instance, tend to be seen as good examples and potential sources of financial and unpaid labour for their children's ventures (Rajiman 2001; Sanders and Nee 1996). More specifically, numerous studies have shown that fathers' self-employment has stronger influence on their children's decisions to become entrepreneurs than mothers' self-employment (e.g., Dunn 2004; Kirkwood 2007). Thus the hypothesis was developed:

H7: The father's occupation influences the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision.

Work Experience

Dyer (1994) found working for an entrepreneur or knowing an entrepreneur had a positive impact on entrepreneurial career choice. Matthews and Moser (1995) found work experience an important factor in the encouragement of entrepreneurial activity, especially in small businesses. Madsen, Neergaard and Ulhøi (2003) agreed with this, recognizing the importance of work experience in the development of a business idea. It is suggested by Carter and Cachon (1988), as cited by Morrison (1998), that entrepreneurs often share common features and experiences of a social context, which distinguish them from other individuals. Nevertheless, there is a need to recognize the heterogeneous and diverse nature of entrepreneurship (Carson *et al.*, 1995). Taking Gasse's first remark, much research (e.g., Gasse 1982; Henry et al. 2003; Lena and Wong 2003; Mukhtar et al. 1999) has recognised that individuals' previous working experience positively or negatively influences entrepreneurial performance.

Successful entrepreneurs may have acquired the necessary knowledge and skills to succeed in the ventures that they are already familiar with, and so would be able to capitalise on their experience in new ventures. Mukhtar et al. (1999) conclude that individuals with previous working experience tend to have higher inclination towards small- and medium-sized employment. Similarly, when studying MBA students' preparedness for entrepreneurship at the Australian Graduate School of Entrepreneurship, Swinburne University, Thandi and Sharma's (2004) findings demonstrate that students who had working experience of at least five years considered themselves better prepared for entrepreneurial ventures than those with less or no working experience. Thus the hypothesis was developed:

H8: The working experience influences the likelihood of Malaysian university students' to take entrepreneurial ventures' initial set up decision.

CONCEPTUAL FRAMEWORK

This paper aims to investigate the effects of entrepreneurs' motivational and attitudinal characteristics



their cognitive biases and heuristic and demographic factors on the entrepreneurial inclination. For this purpose, research implication was derived from implementing descriptive survey method, and since the main objective of the research was to test specific models of relations between variables.

The Sample, Data and Questionnaire

The sample was selected from University Malaysia Kelantan's, University Putra Malaysia's and University Utara Malaysia's student's from the Faculty of Entrepreneurship and Business (related to 2010 and 2011) Student's in the sample were selected using simple random sampling which is a subset of individuals chosen from a larger set (Yates et al, 2008). Each individual was chosen randomly and entirely by chance, such that each individual had the same probability of being chosen during the sampling process.

A total of 170 surveys were distributed, and after analyzing the extent and pattern of missing data, the sample of 150 usable questionnaire were preserved by using the combined method of imputation (following the procedure from Antoncic and Hisrich, 2001).

The questionnaire which was released from an exploratory research conducted by Naila (2011) was addressed to the students of Bachelor's of Entrepreneurship program and anonymity was guaranteed.

Entrepreneurial program students were chosen as the key informants since they were likely to be the most knowledgeable with respect to the overall situation, activities, and orientations of their Entrepreneur's requirement. Completed questionnaires representing a response rate of 100%. Respondents with age 20- 30 formed 94% of the participant which mean the highest followed by age below 20 formed 4.7% and above 30 formed 1.3%. Male respondent in this survey formed 28.7% of while female respondent formed 71.3% of the total respondent. Table 1 and 4 summarize the key demographic characteristics of the study sample.

Table 1: Age of Respondent

Age	Frequency	Percent	Cumulative Percent
Below 20	7	4.7	4.7
20-30	141	94	98.7
Above 30	2	1.3	100
Total	150	100	

In terms of age, the participants were categorized into 3 groups (Below 20, 20-30, Above 30). As the data shows in table 1, maximum frequency relates to age group 20-30, followed by Below 20 and minimum frequency relates to age group 30 and above.

Table 2: Gender of Respondent

Gender	Frequency	Percent	Cumulative Percent
Male	43	28.7	28.7
Female	107	71.3	100
Total	150	100	

In terms of gender of respondents, as seen in Table 2 the maximum number of participants were females and less number of males.

Table 3: Father's occupation of the respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid entrepreneur	3	2.0	2.0	2.0
government	43	28.7	29.3	31.3
private	22	14.7	15.0	46.3
self-employed	62	41.3	42.2	88.4
unemployed	17	11.3	11.6	100.0
Total	147	98.0	100.0	
Missing System	3	2.0		
Total	150	100.0		

In terms of father's occupation, participants were categorized into five groups. As shown in Table 3, maximum frequency relates to respondent's father's being self-employed, followed by government occupation, and then private jobs, unemployed and finally the lowest frequency is the entrepreneur.

Table 4: Respondent's view of entrepreneurial education in the university

university	Mean	N	Std. Deviation
umk	3.7167	50	.97546
upm	3.5200	50	.56908
uum	3.5374	50	1.00073
Overall	3.5917	150	.86893

The overall score means of entrepreneurial education variables from respondent's from 3 different universities in Malaysia, ranging from 3.52 to 3.71 indicates the inclination towards entrepreneurship among university students in Malaysia.

RELIABILITY TEST

Validity and Reliability

To measure validity of the questionnaire, first a sample of 225 questionnaires were sent to students selected from the university randomly. Students were requested to answer the questions and

simultaneously express any ambiguity or error existing in the questionnaire. After receiving these modifications, the final questionnaires were prepared and applied for the final test.

In addition, in order to determine the reliability coefficient of questionnaire, Cronbach's Alpha method was applied and result showed that reliability coefficient for questionnaire is 95%, which indicates an acceptable reliability for questionnaire. Cronbach's Alpha for each variable listed in table 5.

Table 5: Reliability by Cronbach's Alpha Method

Variables (UMK+UPM+UUM)	Alpha's coefficient
1 Risk Propensity of the respondent	0.843
2 Tolerance for Ambiguity of the respondent	0.725
3 Self confidence of the respondent	0.840
4 Working experience of the respondent	0.754
5 Leadership of the respondent	0.877
6 Need For Achievement	0.710

Cronbach's Alpha can take values between 0 and 1. The closer to 1, the more reliable the scale of our variables. There are a number of interpretations of what should be to ensure reliability of variable. In general most researchers agree 0.7 is acceptable. In this paper the result of the reliability of each item are more than 0.7, so the scale of this research is reliable.

DATA ANALYSIS AND FINDINGS

Correlation

In correlation, this paper aims to measure the degree of relationship between two variables.

In correlation there is no independent and dependent variables, you just simply measure the variables. However, an important point to remember here is that correlation does not imply causation. In other words, it is not the relationship between a cause and its effects.

Correlations between entrepreneurship education and inclination toward entrepreneurship

		Inclination and readiness	Entrepreneurship education
Inclination entrepreneurship	Pearson Correlation	1	.135*
	Sig. (1-tailed)		.050
	N	150	149
Entrepreneurship education	Pearson Correlation	.135*	1
	Sig. (1-tailed)	.050	
	N	149	149

*. Correlation is significant at the 0.05 level (1-tailed).

The correlation is significant. So the hypothesis of the entrepreneurship education increases the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

Correlations between risk propensity and inclination towards entrepreneurship

		Risky challenges	Inclination entrepreneurship
Risky challenges	Pearson Correlation	1	.067
	Sig. (1-tailed)		.207
	N	150	150
Inclination entrepreneurship	Pearson Correlation	.067	1
	Sig. (1-tailed)	.207	
	N	150	150

*. Correlation is significant at the 0.05 level (1-tailed).

The correlation is significant. So the hypothesis of the risk propensity increase the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

Correlations between tolerance with ambiguity and inclination towards entrepreneurship

		Making decision	Inclination entrepreneurship
Making decision	Pearson Correlation	1	.165
	Sig. (1-tailed)		.022
	N	150	150
Inclination entrepreneurship	Pearson Correlation	.165	1
	Sig. (1-tailed)	.022	
	N	150	150

*. Correlation is significant at the 0.05 level (1-tailed).

The correlation is significant. So the hypothesis of the tolerance with ambiguity increase the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

Correlations between self confidence and inclination towards entrepreneurship

		Take decision	Inclination entrepreneurship
Take decision	Pearson Correlation	1	.070
	Sig. (1-tailed)		.196
	N	150	150
Inclination entrepreneurship	Pearson Correlation	.070	1
	Sig. (1-tailed)	.196	
	N	150	150

*. Correlation is significant at the 0.05 level (1-tailed).

The correlation is significant. So the hypothesis of the self confidence increase the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

Correlations between working experience and inclination towards entrepreneurship

		Business experience	Inclination entrepreneurship
Business experience	Pearson Correlation	1	.391
	Sig. (1-tailed)		.000
	N	150	150
Inclination entrepreneurship	Pearson Correlation	.391**	1
	Sig. (1-tailed)	.000	
	N	150	150

** . Correlation is significant at the 0.01 level (1-tailed).

The correlation is significant. So the hypothesis of the working experience increase the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

Correlations between leadership and inclination towards entrepreneurship

		Be own master	Inclination entrepreneurship
Be own master	Pearson Correlation	1	.025
	Sig. (1-tailed)		.382
	N	150	150
Inclination entrepreneurship	Pearson Correlation	.025	1
	Sig. (1-tailed)	.382	
	N	150	150

*. Correlation is significant at the 0.05 level (1-tailed).

The correlation is significant. So the hypothesis of the leadership increases the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

Correlations between need for achievement and inclination towards entrepreneurship

		Challenge myself	Inclination entrepreneurship
Challenge myself	Pearson Correlation	1	.071
	Sig. (1-tailed)		.194
	N	150	150
Inclination entrepreneurship	Pearson Correlation	.071	1
	Sig. (1-tailed)	.194	
	N	150	150

*. Correlation is significant at the 0.05 level (1-tailed).

The correlation is significant. So the hypothesis of the need for achievement increase the likelihood of Malaysian university students' to take entrepreneurial venture set up decision is accepted.

DISCUSSION AND CONCLUSION

The present study undertook to investigate attitudinal characteristics, cognitive biases and heuristics and demographic factors on the quality of entrepreneurial strategic decision making. As mentioned earlier, each of the previous studies attempted to measure the effect of one or more of these variables

(Risk propensity, Tolerance for ambiguity, Self-efficacy, Need for cognition, Representation, Overconfidence, Experiences, Age, and Education) on the quality of entrepreneurial strategic decision making. While the main implication of this study is to collect all related variables in an integrated model and to investigate the cumulative effects of these variables on the quality of entrepreneurial strategic decision making. Thus, our findings are based on cumulative effects of entrepreneurs' motivational and attitudinal characteristics, cognitive biases and heuristics and demographic factors on the quality of entrepreneurial strategic decision making, which have not been investigated by previous studies yet. The use of Web 2.0 technologies has significant potential to support and enhance in-class teaching and learning in higher education. Currently, for profit organizations are using Web 2.0 technologies to foster work collaboration. For instance, Motorola has more than 2600 internal blogs and 3200 internal wikis to foster knowledge sharing within the organization (Dearstyne, 2007). Now it is up to educators to utilize these technologies to effectively support and enhance their instruction. The use of technology to support in-class learning has changed over the decades. Most faculty today utilize technology in their instruction as mechanisms for course content delivery, grade delivery, and basic communication (Maloney, 2007). However, an effective learning environment fosters collaboration among students and faculty; allows the student to create and share new knowledge; as well as support the connection of different pieces of information. The results of this study provide evidence that most faculty feel that integrating Web 2.0 tech.

References

- Bechard, J.P. and J. M. Toulouse (1998). "Validation of a didactic model for the analysis of training objectives in entrepreneurship". *Journal of Business Venturing* 13: 317-332.
- Brown, C. (1999). "Teaching new dogs new tricks: The rise of entrepreneurship education in graduate schools of business". *DIGEST* 99(2): 1-4.
- Collins, L., P. D. Hannon, et al. (2004). "Enacting entrepreneurial intent: The gaps between student needs and higher education capability". *Education + Training* 46(8/9): 454-463.
- Collins, Hannon et al. 2004; Kamau-Maina 2006; Postigo, Iacobucci et al. 2006
- Dearstyne (2007). Blogs, mashups, and wikis: Oh my! *Information Management Journal*, 41(4), 24–33
- Fisher, T. A. and I. Padmawidjaja (1999). "Parental influences on career development perceived by African American and Mexican American college students." *Journal of Multicultural Counseling and Development* 27(3):136-152
- Franke, N. and C. Luthje. (2004). "Entrepreneurship intentions of business students: A benchmarking study." Retrieved October 23, 2003, from www2.wu.wien.ac.at/entrep/modules/UpDownload/store_folder/Publikationen/Nikolaus_Franke/entrepreneurialspirit.pdf.
- Ghazali, A., B. C. Ghosh, et al. (1995). "The determinants of self-employment choice among university graduates in Singapore." *International Journal of Management* 12(1): 26-35.
- Gurol, Y. and N. Atsan (2006). "Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey". *Education + Training* 48(1): 25-38
- Gorman, G., D. Hanlon, et al. (1997). "Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review". *International Small Business Journal* 15(3): 56-77.
- Hurley, A. (1999), "Incorporating feminist theories into sociological theories of entrepreneurship", *Women in Management Review*, Vol. 14 No. 2, pp. 54-62
- Hussin, S. (2004). *Pendidikan di Malaysia: Sejarah, Sistem dan Falsafah (education in Malaysia: History, System and Philosophy)* (Kuala Lumpur):, Dewan Bahasa dan Pustaka).
- Karanassios, N., M. Pazarskis, et al. (2006). "EU strategies to encourage youth entrepreneurship: Evidence from higher education in Greece". *Industry & Higher Education* February: 43-50.
- Kirkwood, J. (2007). "Igniting the entrepreneurial spirit: Is the role parents play gendered?" *International Journal of Entrepreneurial Behaviour and Research* 13(1): 39-59.

- Lena, L. and P. K. Wong (2003). "Attitude towards entrepreneurship education and a new venture creation". *Journal of Enterprising Culture* 11(4): 339-357.
- Lee, S. M., D. Chang, et al. (2005). "Impact of entrepreneurship education: A comparative study of the U.S. and Korea". *International Entrepreneurship and Management Journal* 1: 27-43.
- Madden, M., & Fox, S. (2006). Riding the waves of "Web 2.0": More than a buzzword, but still not easily defined. Pew Internet Project, 1-6, (Unpublished).
- Matlay, H. and P. Westhead (2005). "Virtual teams and the rise of e-entrepreneurship in Europe". *International Small Business Journal* 12(3): 353-365.
- Maloney, E. (2007). What Web 2.0 can teach us about learning. *Chronicle of Higher Education*, 25(18), B26.
- Othman, M. N., Ghazali, et al. (2005). "Demographics and personal characteristics of urban Malaysian entrepreneurs: An ethnic comparison". *International Journal of Entrepreneurship and Innovation Management* 5(5/6): 421-440.
- Othman, M. N., E. Ghazali, et al. (2006). "Graduate versus non-graduate entrepreneurs in urban Malaysia: Some insights into entrepreneurial personality, company and family background differences." *Journal of International Business and Entrepreneurship Development* 3(1/2): 57-75.
- Pearce, I. (1980), "Reforms for entrepreneurs to serve public policy", in Seldon, A. (Ed.), *Prime Mover of Progress: The Entrepreneur in Capitalism and Socialism*, The Institute of Economic Affairs, London.
- Postigo, S. and F. Tamborini (2002). Entrepreneurship education in Argentina: The Case of San Andres University. *International Entrepreneurship Education and Training Conference, IntEnt02*, Kuala Lumpur, Malaysia.
- Shane, S., & Venkataraman, S. (2000), "The promise of entrepreneurship as a field of research", *Academy of Management Review*, Vol. 13, pp. 257-226.
- Schaper, M. and T. Volery (2004). *Entrepreneurship and small business: A Pacific Rim Perspective*. Milton, Queensland, John Wiley and Sons Australia Ltd.
- Smith, D. T. (2005). "Developing self-employment among African Americans: The impact of household social resources on African American entrepreneurship." *Economic Development Quarterly* 19(4): 346-355.
- Solomon, G. T., K. M. Weaver, et al. (2005). *Pedagogical methods of teaching entrepreneurship: An historical perspective*. *Keystones of entrepreneurship knowledge*. R. V. D. Horst, King-Kauanui, S. & Duffy, S. Malden, MA, Blackwell Publishing Inc.
- Venkatachalam, V. B. and A. A. Waqif (2005). "Outlook on integrating entrepreneurship in management education in India". *Decision* 32(2): 57-71.

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