

Relationship between Personality and Entrepreneurial Inclination Among University Students

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Abstract

Each year the number of graduates escalates in juxtaposition with unemployment issues. Consequently, in this coming age they can neither depend entirely on the government's effort to provide sufficient jobs nor for the industries to create more job openings than there already exist. Graduates now have to be proactive in determining their career paths and explore other possibilities for a living. Malaysia is currently encouraging its people to engage in entrepreneurial activities as a field of work. Abundance of programs aids at various levels are injected to foster entrepreneurship. Despite the government's aspiration and support, graduates still appear hesitant to embark on this profession enthusiastically. Universiti Utara Malaysia (UUM) has established an Entrepreneurship Development Institute (EDI) in its effort to promote this field. Besides focusing on academic matters, students also have the opportunity to experience 'hands-on' activities in entrepreneurship programs such as, operating business on campus, attending workshops and courses on entrepreneurship as well as given on-going consultation. These programs are available throughout their academic tenure on campus. Nevertheless, the process of evoking students' interests in entrepreneurship is challenging. The fact that people have different personalities and interests triggers this research initially. In this paper we explore the relationship between personality and entrepreneurial inclination among students at UUM. Upon analyses we found the five personality dimensions positively correlate with entrepreneurial inclination. To date, paradoxically the number of graduates proven actually venturing into entrepreneurship remains parochial. Further implications on the results are also discussed.

Keywords : Personality, the Big Five, entrepreneurship, entrepreneurial inclination.

INTRODUCTION

The phenomenon of unemployment remains ubiquitous in the era of modern civilization. Unemployment among graduates consumes a chunky proportion of that equation. In Malaysia interestingly, unemployment seems to be a 'seasonal' issue, regardless of the growing concern. Perhaps it takes simple arithmetic to explain the larger picture. The escalating figure is partly due to the fact that universities are absorbing and in turn producing more and more students each year. This is a positive correlation, yet the challenge is for universities to labor graduates who are well equipped with knowledge, skills, & abilities (KSAs) and readiness to face the world, full of uncertainties.

This scenario is not exclusive to Malaysia but also elsewhere. It is reported that in the United Kingdom for instance, the statistics of university leavers who are unemployed in 2005 were about 6 percent. The Deputy Prime Minister of Malaysia last year, spearheaded a task force set up to tackle this matter. It was a collaborative effort with the National Economic Council (MTEN), the Ministry of Human Resources and the Department of Statistic. The trio latter, presented the results as follows: By the mid of 2006, an alarming total of approximately 60,000 graduates were unemployed. A 42 percent of that figures were jobless and the remaining 58 percent were underemployed or worked temporarily. In addition, graduates from the business and administration programs topped the list followed by the computer and information technology programs and engineering programs. Those from the arts and social sciences streams were the least contributor of graduates unemployed.

Ab. Aziz (2001) cites that a society that has the greatest number of entrepreneurs is indeed the best society. He rationalizes that this is because entrepreneurs usually possess commendable elements such as dynamic, creative, innovative and high self-esteem. Parallel to the idea, the Malaysian government has continuously exerted a lot of effort to promote entrepreneurship, as it is part of the Vision 2020 aspirations. The initiative is paramount yet attainable since many literatures advocate that entrepreneurship propensity is possible to develop and could be nurtured (Johnson, 1990), (Jentz, 2000). Moreover, in support of the argument, Kruger (1994) claims that inclination to switch into entrepreneurial career can occur at any point in a person's life. Various measures at different levels of the government are being pooled together to propel this plan, in order to materialize the effort. More details on the programs, interventions and impediments are discussed in the latter part of this paper.

Like people, jobs have personalities too!, says DeCenzo (1997). Individuals' personality traits may dispose them to engage in certain endeavor. Therefore, in this paper, we assess the entrepreneurial inclination by exploring the relationship between personality and entrepreneurship among students at Universiti Utara Malaysia (UUM). We also aim to develop a more comprehensive understanding with regard to the process of instigating, inculcating, and developing entrepreneurship among graduates in Malaysia.

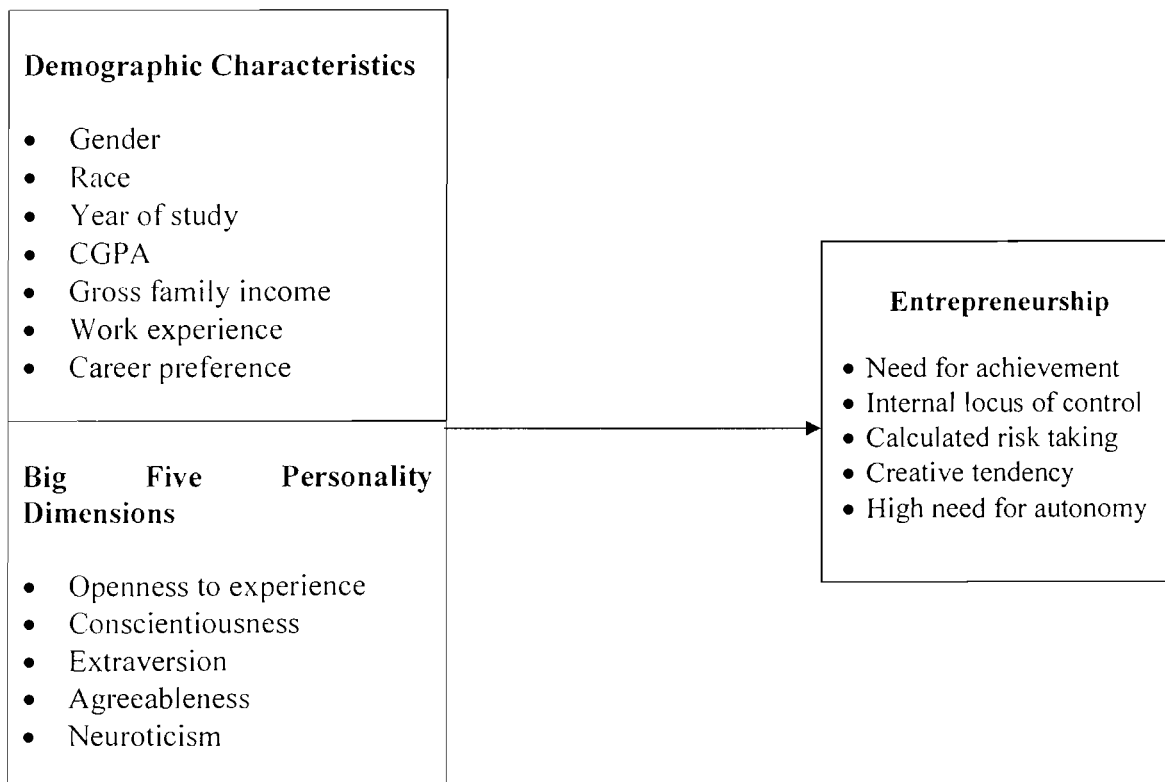
LITERATURE REVIEW

In view of the study, there are a number of conceptual definitions that have been our focus. Since the study anticipates exploring students' inclination to engage entrepreneurship as their career platform, the three variables are incorporated as follows:-

- (i) Personality traits
- (ii) Entrepreneurship
- (iii) Demographic characteristics

Personality traits and demographic elements served as the independent variables while entrepreneurship inclination set as the dependent variable.

Figure 1
A Conceptual Framework of Entrepreneurial Inclination.



Personality Traits

Personality defines and differentiates one person from another and manifests out thought and actions accordingly. Like any other sciences, it rooted from the behavioral sciences of psychology. Many psychologists in the past have carried out researchers and quantifiable data to examine and postulates behavior that we now use as theories and concepts (Hergenham & Olson, 1989). The term personality emerged from Latin word “*persona*” which depicts a mask. A variety of definitions can be found under the word personality but the results can be boiled down to the unique characteristics and qualities possessed by individuals.

A Prominent psychologist, Gordon Allport stated that personality is dynamic internal structure of an individual’s psychological system that enables them to uniquely adjust to their living environment. The personality approach to explaining entrepreneurial tendencies or career choices can be traced back to McClelland’s (1961) work since the mid of 20th century. Need for achievement and locus of control were among the elements most replicated in recent studies (Franke & Luthje, 2004). Although some researchers tend to make a foray on the perplexed findings of the personality studies, when it come to cross-situational instances, the battlement seem to abate.

Sexton and Bowman (1986) in Franke and Luthje (2004) yield to the notion that there seems to be some empirical support that personality does in fact matters in peoples’ career choices. Consequently more discerning attempts surfaced in relation to personality-career tendencies findings. Holland Vocational Preference Index (VPI) was amongst them (De Cenzo, 1997). Several assumptions were introduced to explain career choices. Generally, Holland claims that VPI consists of a few attributes that reflects work behavior or jobs personalities which inadvertently served as a rationale for individuals to land in certain position or profession. They could even determine how one chooses, changes or maintains satisfaction in work. The theory is based on the basic premise that individual’s career preference’s reflects his or her own personality. Six human themes were introduced in this theory. They are Realistic, Investigative, Social, Artistic, Enterprising and Conventional. Holland justifies these personalities are constructed through a person’s interaction with culture, beliefs, peers, biology, family background, social class and environment (Hergenham & Olson, 1999).

While many argued Holland’s auspicious start was making immense impact on the work –personality related studies, his theory did not escape criticism. Under certain circumstances, this theory could be mere idealistic approach to career choice. External factors such as supply and demand of jobs, opportunities and globalization could jeopardize the feasibility of this theory. Nevertheless, Holland’s VPI is not obsolete. Meanwhile, Robinson, Huefner and Hunt (1991) in (Franke & Luthje, 2004), propose a more specific attitude survey to predict entrepreneurial careers.

The Big Five personality dimensions are one of the most commonly used instrument to quantify concrete data which could be used to examine personality. The Big Five was originally derived in the 1970’s by two independent research teams. One was headed by

Paul Costa and Robert McCrea at the National Institute of Health and the other was steered by Warren Norman and Lewis Goldberg at the University of Michigan and University of Oregon respectively (John & Srivastava, 1991) in (Pervin & John, 1999). These two fundamental Big Five researchers did not set out to find five dimensions on the trait taxonomy but the five dimensions emerged from their analyses of the data using the statistical procedure known as factor analysis. These five dimensions (personality route) were labeled The Big Five and was widely accepted and applied as a personality model since its debut. The Big Five become famous and gain much enthusiasm simply because it adapts well with as vast majority of people across culture and language. Interestingly, despite the highlights, it too was under scrutiny at times. For instance, contrary to the then prevailing view, later findings suggest that personality could change and continue to do so depending on the trait and situation. It is safe to say that personality is not in a state of flux, yet it can be altered or nurtured.

In the early years, there was much debate among scholars over the lexical choice pertaining to the Big Five. Goldberg (1988) for instance used the term 'surgency' instead of 'extraversion' while McCrea (1985) preferred to use 'neuroticism' better than 'emotional stability'. It was not until the mid of 1980's that witnessed majority of the researchers reached a bit of consensus upon the lexicon. One may notice that the 'Big Five' were commonly referred to as the 'Five-Factor Model' interchangeably (Westen, 2002). Perhaps one of the most significant advances of the five-factor model was the establishment of a common taxonomy that demonstrates 'order' the so-called 'diversified' field, regardless of not being a theory.

Hence, it is worth emphasizing that whatever measure we use to make inferences on our study, we have to bear in mind not to make generalizations. As for the Big Five, it does not dichotomize into 'haves' or 'haves not' instead in applies on a continuum of the Big Five cluster of traits. For example, a person might possess low or high or a moderate reading on either extreme of the dimension scale. McCrea and Costa, Goldberg and Norman (Westen, 2002) clustered the Big Five as Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism (OCEAN). Each dimension carries a list of specific traits. Figure 2 below, summarizes those traits.

Figure 2
The Big Five Personality Dimensions

O	It describes to what extent are people attracted towards new and spontaneous experiences and ideas. Those who are on the high end of the continuum would probably have a bigger appetite in venturing a more creative and exciting endeavors. Conveniently, those who are on the low end of the continuum usually do well in implementing existing plans and enjoy routine (Liebert & Liebert, 1988).
C	This trait indicates a person's adaptability in organizing their life and attaining goals. A high end C person adapts well in situations where change and multi-tasking are important. While alternatively, a person on the other end would be more comfortable in a structured environment (Pervin & John, 1999).
E	Extraversion person demonstrates a sociability factor. A high extravert tends to seek greater interaction with others, jovial and sometimes loud. Conversely, an introvert prefers to spend time alone and engage with others occasionally (Pervin & John, 1999).
A	It implies interpersonal style and the degree of one's willingness to accommodate others. People with high A scores are often viewed as being sympathetic, altruistic and cooperative. While people on the opposite of the scale are generally confident, competitive and prioritize the own needs above others' (Westen, 2002).
N	Neuroticism trait exhibits one's emotional stability and temperament. It also imposes on how one confronts stressors or chaos. One either reacts imperviously to negative stimulation or prone to respond emotionally (Westen, 2002).

Among other researchers undertaken the debate on personality traits and entrepreneurial intentions include the following literature. Crant (1996) in his study of personality as predictor of entrepreneurial intentions identified five attributes consistently found to covary with entrepreneurship. He noted that entrepreneurship involves individuals with unique personality characteristics and abilities, amidst the constant qualm surrounding personality-entrepreneurship relationship.

Franke and Luthje (2004) discussed personality traits and attitudes as internal factors that might determine peoples' career choices. They compared entrepreneurial intentions of business students at two German-speaking universities and found the analysis of personality traits yields a somewhat mixed pattern. Similarly, another study was conducted by Ramayah and Harun (2005). They focus on need for achievement, locus of control and self-efficacy in their study of entrepreneurial intentions among USM students. They too, found all of the determinants were positively correlated with entrepreneurial intentions. In fact, this research replicated the Indarti and Kristiansen

(2003) study on determinants of entrepreneurial intentions among Norwegian students. One can derive at various results when it comes to the questions of personality. Thus, we can modestly say it will probably remain a perennial subject of interest.

Entrepreneurship

The field of entrepreneurship is yet to unanimously agree on a unified definition and consequently a theory. Here are some of the less controversial, mainstream definitions on what constitute the term. Hisrich and Peters (2002) claim entrepreneurship as a process or effort to create something new and of value by assuming risks and rewards justifiably. Dollinger (1995), on the other hand offers more productivity-oriented definition. He suggest that entrepreneurship can be associated with an organization or business ability to incorporate new and innovative means to develop market creative products and services from its resources, operations and structure. Bygrave and Hofer (1991) share similar views with Bellu (1992) proclaiming entrepreneurs often sniff opportunity instantly and establish themselves in the industry and thus strive for success.

With all these comprehensive and idealistic description, who then can be called an entrepreneur? An entrepreneur can be defined as a person who creates a new business in the face of risks and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalize on them (Zimmerer & Scarborough, 2002) in Ramayah and Harun (2005). Naffziger, Hornsby and Kuratko (1994), describe an entrepreneur as an individual who is responsible to organize, manage and assume risk in business. On a more positive note, Ab. Aziz (2001) states that anyone can become an entrepreneur as long as one acquires creativity and innovation, willing to take risk and work hard to develop and optimize self-potential through materializing even the slightest opportunities or possibility in existence. This supports Professor Theodore Shultz's argument that people can acquire knowledge and experiences to become entrepreneurs (Jennings, 1994). Hisrich and Peters (2002) further summarize that entrepreneurship encompasses of initiative taking, transforming social and economic resources into practical situation and the willingness to assume risk and accept failure.

Undoubtedly, the longer we view on the glossary list for this term, the more vivid it becomes to mind that despite the infinite definitions found, they all seem to share some common elements such as risk taking, creativity and effort (Bygrave & Hofer, 1991). On that notion, for our study we decided to measure entrepreneurial inclination via five variables as follows:-

- (i) Need for achievement
- (ii) Internal locus of control
- (iii) Calculated risk taking
- (iv) Creative tendency
- (v) High need for autonomy (Cromie & Callaghan, 1997), (Jentz, 2000)

The crucial aspect of need for achievement refers to the psychological motive. It is the key to success for an entrepreneur (McClelland, 1961). McClelland insisted that a calculative measure is needed to explain individuals' psychological profile because it 'engineers' the process of entrepreneurship. Johnson (1990) later adds that individuals' personality traits do make an impact on one's entrepreneurship's success or fiasco.

Internal locus of control depicts the extent to which we perceive our success or failure is the results of our own doing in lieu of fate or coincidence (Naffziger, Hornsby & Kuratko, 1994). An optimistic entrepreneur therefore should demonstrate a propensity of taking credit for his or her achievement as well as being accountable for any mishap that could impede success.

Calculated risk taking means the willingness to take chances. The risk factor usually correlates with specific environment (Naffziger, Hornsby & Kuratko, 1994). External factors like economic conditions, market uncertainty, financial support and others may propel further risks in entrepreneurship activities (Shaver & Scott, 1991). Entrepreneurs are expected to anticipate risks and face them competitively.

Creative tendency is an interesting gist. Johnson (1990) captures creativity as the ability to combine ideas in a unique way or to make unusual associations between ideas. He also points out that people are generally able to be creative, yet the difference is that the degree of creativity varies among us. Some people believe creativity is a genetic thing but others argue with proper training, anyone can be creative. Creative people do share some attributes like spontaneous, persistent, curious, enthusiastic and critical thinker. Creativity proven is a difficult task indeed. Nevertheless creativity together with inspiration and innovation, leads to euphoria (DeCenzo, 1997). Like the famous Thomas Edison's saying "creation is one percent inspiration and 99 percent perspiration".

High need for autonomy entails the feeling of having independence, space and discretion at our own dispense (Zimmerer & Scarborough, 2002). Autonomy in dictating our work in terms of what, how, or when to do something is very much valued for most people, especially entrepreneurs.

Besides studies by Ramayah and Harun (2005), Franke and Luthje (2004) and Indarti and Christensen (2003), other significant literatures on entrepreneurial inclination are also presented in this paper. A study by Linan, Rodriguez-Cohard and Rueda-Cantucho (2005) on factors affecting entrepreneurial intention levels indicates external variables affect intention and consequently actual entrepreneurial behavior.

Grundsten (2004) in his PhD dissertation had undertaken a study on the relationship between entrepreneurial behavior of an individual and the environment. Empirical data indicate that environmental factors such as resource availability and technology do affect entrepreneurial intentions.

Davidson (1995) used an economic-psychological model of factors that influence individuals' intentions to go into business. The primary determinant of entrepreneurial

intention according to this model is the belief that the conviction to start one's own business is indeed a suitable alternative. This conviction relies on general attitudes and domain attitudes. The results seem to profoundly support the relationships suggested by the model.

In another study (anonymous), an entrepreneurial intention among students at Maastricht University provides a finding stating that entrepreneurship education does attract students with certain personality traits. It leaves us to ponder if education can really influence a student's personality?

Demographic Characteristics

Previous studies have shown that certain demographic characteristics can be influential in research findings. For the purpose of this study, we discussed seven aspects of demography which are gender, race, years of study, CGPA, gross family income, work experience and career preference (refer Figure 1). In terms of gender, Kolvereid (1996) in his 'Prediction of Employment Status Choice Intentions' study concluded that males tend to have higher entrepreneurial intention than females. Age was not included in our study because all of the respondents sampled came from the same age category. Furthermore Rondstat (1984) as cited in Gartner (1989) supports that most entrepreneurship activities are launched within the age of twenties. In fact, age-wise, individuals who started their entrepreneurship career at an earlier age are more likely to sustain in that career for a longer period.

Work experience and career preference were supported by Kolvereid (1996) and Mazzarol et al (1996) in Ramayah and Harun (2005). They found that those who are previously engaged in entrepreneurial activities had higher entrepreneurial intentions than those who earned fixed income. Kolvereid and Moen as cited in (Ramayah and Harun, 2005) also indicated that students who had studied entrepreneurship measured higher intentions than those who were not.

METHODOLOGY

This study adopts a quantitative approach to explore entrepreneurial inclination among students at UUM. Primary data were collected through instruments adapted and modified from past researches. The questionnaire comprises of three components. The first component portrays the respondents' profile and demographic characteristics. The second part consist 60 Likert-scaled items pertaining to the Big Five personality dimension's adaptation from McCrea and Costa (1990), Goldberg (1993) and John and Srivastava (1999). Each dimension has 12 questions and statements randomly arranged to avoid bias in answering. The final section, in turn, listed 40 Likert-scaled items describing the five elements of entrepreneurship indicators generated from the Durham University Business School's General Enterprising Tendency (GET) test (Cromie & Donoghue, 1992), (Cromie & Callaghan, 1997) and (Jentz, 2000) and Entrepreneurship

Attitude Orientation (EAO) scale (Robinson et al, 1991). Again, each of the five indicators has 8 questions and statements.

Purposive sampling was administered to extract sample from the population since the population was considerably large. A sample of 323 respondents was derived from the total population of 1855 students enrolled for the current academic year. Questionnaires were distributed to students spanning from Year One (freshmen) to Year Four (seniors) in data gathering phase.

Both descriptive and inferential statistics were conducted in the data analyses. Descriptive statistics in the form of frequency and percentage were applied to represent the respondents' profile and demographic characteristic. Meanwhile, Pearson correlation and ANOVA were carried out to measure the relationship between personality and entrepreneurship. Finally, we ran a Multiple Regression Analysis to identify the most dominant personality among the Big Five.

In order to rule out any doubt against the instruments reliability, a pilot study was implemented for both set of items belonging to the second and third sections of the questionnaire. Consequently, a Cronbach Alpha value of 0.60 was read, and thus indicating a positive start.

FINDINGS

The findings of this study are discussed in terms of descriptive statistics and also inferential analysis using Pearson Correlation.

Descriptive Statistics

Figure 3:

Frequencies and Percentages on Demographic Characteristics (Respondents' Profile)

Demography Elements	Frequency	Percentage
Gender		
• Male	90	27.9
• Female	233	72.1
Race		
• Malay	201	62.2
• Chinese	73	22.6
• Indian	12	3.7
• Others	37	11.5
Year of study		
• Year 1	78	24.1
• Year 2	112	34.7
• Year 3	113	35.0
• Year 4	20	6.2
Cumulative Grade Point Average (CGPA)		
• Below 2.00	1	0.3
• 2.01-2.50	46	14.2
• 2.51-3.00	167	51.7
• 3.01-3.50	107	33.1
• above 3.51	2	0.6
Gross family income		
• RM1000 and below	174	53.9
• RM1001- RM2000	98	30.3
• RM2001- RM3000	39	12.1
• RM3001- RM and above	12	3.7
Work experience		
• Possess working experience	151	46.7
• Without working experience	172	53.3
Career preference		
• Government sector	156	48.3
• Private sector	117	36.2
• Inherit family business	8	2.5
• Initiate own business	42	13.0

Figure 3 above, presents descriptive statistics of respondents' demography in terms of their gender, race, year of study, Cumulative Grade Point Average (CGPA), gross family income, work experience and career preference. It is clearly shown that the study was dominated by female students (72.1%) compared to males (27.9%) out of the 323 respondents. In terms of race, most of the respondents are Malays (62.2%) compared to Chinese (22.6%), Indian (3.7%) and other races (11.5%). Like gender, this is justified because majority populations in UUM are Malays and female.

In term of year of study, most of the respondents were on their second and third year, which is 34.7% and 35% respectively. Only 24.1% of the first year students participated in this study while students in year four are minority (6.2%). From this sample, 167 (51.7%) students scored CGPA between 2.51-3.00, 107 (33.1%) students manage to obtained CGPA between 3.01- 3.50, and 46 (14.2%) respondents scored CGPA between 2.00-2.50. The rest of the respondents are high achievers (0.6 %) and only one student (0.3%) obtained less than 2.00. Majority (53.9%) of the respondents family came from incomes below RM1000.

Apart from that, it is noted that respondents with or without working experience are about equal in number, which is 151 (46.7%) and 172 (53.3%) respectively. In terms of career preference, majority respondents (48.3%) opt to work in government sector while 36.2% felt more comfortable in private sector. Only 42 students (13%) out of the 323 respondents were willing to initiate their own business.

Inferential Analysis

T-test and ANOVA were used to identify whether there exist any difference between gender, race, year of study, CGPA, family income and career preference with entrepreneurial inclination. The table below illustrates the results.

Figure 5

Difference between Demography (Gender) and Entrepreneurship (T-test).

Gender	Number of respondents	Sig. (2 tailed)
Male	90	.901
Female	233	

Based on the T-test conducted, there is no significant difference between males and females on entrepreneurial inclination. This is proved when the p value is 0.901, which is more than 0.05 (p is significant at 0.05 or lower). This finding is contradicted with studied by Kolvereid (1996) on 'Prediction of Employment Status Choice Intentions'. His research showed that males tend to have higher entrepreneurial intention than females.

Figure 6

Difference between Demography and Entrepreneurship (ANOVA).

Demography	Entrepreneurship
Race	
F	.913
Sig.	.009
Year of study	
F	.390
Sig.	.761
CGPA	
F	2.642
Sig.	.034
Family Income	
F	1.402
Sig.	.242
Career Preference	
F	1.391
Sig.	.246

The above figure demonstrates results of ANOVA test on demography and entrepreneurship. It showed that, there are significant difference between race and CGPA with entrepreneurial inclination. It is indicated at p lower than 0.05, that is 0.009 and 0.034 respectively. The rests of the demography elements showed that there are no significant difference because the p value are higher than 0.05.

Apart from that, Pearson Correlation method has been used in order to test the relationship between demography and entrepreneurship in this study. It is significant at p value lower or equal to 0.01 (99% confidence level).

Figure 6:
Correlation between Demography and Entrepreneurship

Demography	Entrepreneurship
Years of study	
Pearson Correlation	.023
Sig. (2-tailed)	.675
CGPA	
Pearson Correlation	.107
Sig. (2-tailed)	.054
Family Income	
Pearson Correlation	.083
Sig. (2-tailed)	.134
Work Experience	
Pearson Correlation	.003
Sig. (2-tailed)	.960
Career Preference	
Pearson Correlation	.091
Sig. (2-tailed)	.104

Based on the table above, it is noted that there is no significant relation between demographic factors and entrepreneurial inclination, since the p value are higher than 0.01 for all demographic elements.....

Figure 7:
Correlation between Personality Traits and Entrepreneurship

Big Five Personality Dimensions	Entrepreneurship
Neuroticism	
Pearson Correlation	.194
Sig. (2-tailed)	.000
Extraversion	
Pearson Correlation	.276
Sig. (2-tailed)	.000
Openness	
Pearson Correlation	.481
Sig. (2-tailed)	.000
Agreeableness	
Pearson Correlation	.316
Sig. (2-tailed)	.000
Conscientiousness	
Pearson Correlation	.569
Sig. (2-tailed)	.000

Interestingly, the table above indicates significant relationship among all the Big Five personality traits with entrepreneurial inclination. It is proven with the p value is less than 0.01. This finding is congruence with Crant (1996) study on personality as predictor of entrepreneurial intentions. He mentioned that entrepreneurship involves individuals with unique personality characteristics and abilities. Sexton and Bowman also yield to the notion that there seems to be some empirical support that personality does in fact matter in peoples' career choices (Franke & Luthje, 2004).

Consequently more discerning attempts surfaced in relation to personality-career tendencies findings. Holland Vocational Preference Index (VPI) was amongst them (De Cenzo, 1997). Holland claims that VPI consists of a few attributes that reflects work behavior or jobs personalities which inadvertently served as a rationale for individuals to land in certain position or profession. The theory is based on the basic premise that individual's career preference's reflects his or her own personality. Six human themes were introduced in this theory. They are Realistic, Investigative, Social, Artistic, Enterprising and Conventional. Holland justifies these personalities are constructed through a person's interaction with culture, beliefs, peers, biology, family background, social class and environment (Hergenthal & Olson, 1999).

Furthermore, another study was conducted by Ramayah and Harun (2005). They focus on need for achievement, locus of control and self-efficacy in their study of entrepreneurial intentions among USM students. Their findings showed that all of the determinants were positively correlated with entrepreneurial intentions.

Regression Analysis

Pearson correlation tests proved that personality traits and entrepreneurial intention among UUM students are significantly related. Hence, multiple regression analysis was conducted in this study to identify the most dominant personality traits that influence entrepreneurial inclination. Figure 6 below illustrates the results.

Figure 8:
Regression Analysis

Personality Traits	Beta	Sig.
Neuroticism	-.014	.761
Extraversion	.077	.111
Openness	.327	.000
Agreeableness	.107	.020
Conscientiousness	.397	.000

The regression analysis demonstrates that the most dominant personality traits affecting entrepreneurial inclination among UUM students are conscientiousness and openness with highest beta values, of .397 and .327. This finding is justified because a conscientious person usually exhibits a tendency to show self-discipline, aims for achievement and very organized rather than spontaneous. This trait indicates a person's adaptability in organizing their life and attaining goals. A high end C person adapts well in situations where change and multi-tasking are important (Pervin & John, 1999). Additionally, this type of personality concerns with the way we control, regulate and direct our impulses. It also includes the factor known as need for achievement. The benefits of high conscientiousness are obvious because this individual will avoid trouble and achieve high level of success through purposeful planning.

Meanwhile, openness trait refers to people with unusual ideas, imaginative and curious. Openness describes a dimension of personality that manifests imaginative, creative people from down-to-earth, conventional, intellectually curious and appreciative. Openness person perceive themselves as full of ideas, quick to understand things, possesses vivid imagination and has excellent ideas. It is the only personality trait that correlates with neuropsychological tests of dorsolateral prefrontal cortical function, thus serve the link between openness and IQ (De Young, Peterson & Higgins, 2005).

CONCLUSION

In general, the Malaysian government does provide a conducive environment for entrepreneurial activities. Government has taken major steps in providing the comprehensive and long-term approach to address the issue of unemployed graduates. One of them, was introducing entrepreneurship programs to encourage graduates to venture into business. The efforts taken by Malaysian government can be seen at ministerial level as well as at the university level.

The Ministry of Entrepreneur and Co-operative Development (MECD) is one of the main agencies responsible for coordinating the development of entrepreneurs. The Graduate Entrepreneurship Basic Training was one of the programs under the ministry that specifically aims for graduates. In 2006, the ministry launched *Gerak Usahawan Nasional* Campaign which provides as a platform to instill understanding and awareness among public on the importance of entrepreneurship to the economy and well-being of the nation. The ministry chose the tagline "Entrepreneurs as Preferred Career" as the motto for the campaign. In other agencies, several programs were introduced to cater the needs of graduates who wanted to venture into business. For instance, Perbadanan Nasional Berhad organized Graduate Franchise Program which focused on franchise activities. Agricultural Bank of Malaysia also had similar program known as *Skim Usahawan Tani Komersil Siswazah*. All of the above programs focused on graduates, especially unemployed ones to initiate entrepreneurship.

The public and private universities do take some actions to enhance the spirit of entrepreneurship among their students. At the university level, a basic entrepreneurship

course was introduced, and Universiti Utara Malaysia (UUM) has been honoured to pioneer this move. In fact, all students, regardless their majors, have to take the course as one of their university core courses. According to the Director of Higher Education, Ministry of Higher Education, Prof. Datuk Dr. Hassan Said, entrepreneurial aspect will be included in curriculum for schools and higher education in the near future to encourage entrepreneurship. It is hoped that graduates will no longer depend on job opportunities provided by government and private sectors.

Some universities have their own centers to cultivate the spirit of entrepreneurship. Among others, the Entrepreneurship Development Institute (EDI) was established by Universiti Utara Malaysia (UUM) while Malaysian Entrepreneurship Development Center (MEDEC) was established under MARA University of Technology.

Entrepreneurship Development Institute (EDI)

The Entrepreneurship Development Institute (EDI) was formerly known as the Business and Entrepreneurship Development Centre. It started its operations on 1st March 1990. The following are the programs designed by the institute.

- Business Graduates Training Program - a special program tailored for university graduates that are involved in business at various locations on campus.
- Graduate Entrepreneur Development Program - aimed at all students and focus to inculcate entrepreneurial interest amongst UUM students. The program is designed to nurture and to expose the entrepreneurial culture among university students through training, practical experience and loan facilities to operate their business on campus.
- Graduate Entrepreneurship Training Program – an entrepreneurship training program for university students introduced in all local universities by the Ministry of Entrepreneur and Cooperative Development (MECD)
- Graduate Entrepreneurship Basic Course Program - a compulsory feeder for graduates before joining Graduates Entrepreneurship scheme (SUS).

Malaysian Entrepreneurship Development Center (MEDEC)

The Malaysian Entrepreneurship Development Center (MEDEC) was established within MARA University of Technology in 1975. The reason behind its establishment is to facilitate the growth of Bumiputera entrepreneurs in Malaysia. Several programs on entrepreneurship development have been designed such as training, education, research and consultancy. Specifically, MEDEC was set up for the purpose of (i) planning and implementing entrepreneurship education (ii) conducting business consultation and advisory services (iii) training and (iv) encouraging research and publications in the field of entrepreneurship. The center also highlights three strategic approaches in developing entrepreneurs which are:

- Inculcating entrepreneurial values among students in order to develop knowledgeable and technological entrepreneurs via academic programs designed
- Enhancing the capabilities of new and existing entrepreneurs through the entrepreneurs development and business development programs
- Assisting entrepreneurs in establishing new business, developing and maintaining their enterprises through business advisory and consultancy services

Besides the strategies listed above, MEDEC also have some major programs, and one of them is known as Graduate Enterprise Program (GEP) which focuses on graduates.

From the study, it shows no evidence that only certain personality affects student to choose entrepreneurship as their careers. However, despite all of the efforts mentioned so far, the response is not as enlightening as it is hoped. The following suggestions can be considered by relevant actors.

Firstly, the public and private universities need to revise their curriculum periodically to balance the changing environment and the current needs of the country. The element of entrepreneurship should be further emphasized in consistent with the statement made by Malaysian Minister of Education. Elements of entrepreneurship not only for one course but it should be embedded in other subjects as well. Universities should also provide on going trainings to develop the skills of entrepreneurship.

Based on the findings, the Openness and Conscientiousness are the most dominant traits influencing entrepreneurship. Therefore, universities should attempt to maximize these traits among students. Besides, students should be exposed to the elements of entrepreneurship with theories as well as practice. Incentives should be given to young entrepreneurs who achieved certain targets set by the universities. Universities should also establish network with their alumni.

Secondly, students and society as a whole should have a paradigm shift. They should view entrepreneurship as their career choice. Students should be aware that the job opportunities in labor market are limited. The chance to get jobs with high paid salary is rare. The industries as well should support those graduates wanting to venture into business.

Financial constraint is one of the impediments that could hinder business venture. Although several loans are available through the commercial banks government could look into this matter and provide alternative panacea. In order to alleviate some of this concern government could initiate subsidy or loan with lower interest rate.

University is an institution that encourages the acquisition and dissemination of knowledge and ideas. Inadvertently, fostering academic excellence is not the only function to oblige. Peripheral function in preparing students to become individuals of quality in terms of character building is equally vital. Elements like independence and adaptability should be instilled among students as much as possible. UUM in its attempt

to foster entrepreneurship, has come a long way and pioneered several efforts respectively.

Apart from surveying the relationship between personality and entrepreneurship in postulating entrepreneurial inclination, it is hoped that this paper also addressed some of the underlying issues impeding the progress. We do not intend to generalize on the findings or try to explain cause-and-effect relationship but simply attempting to shed some light on the matter. Acknowledging the abundance of room for improvement on this study, we invite further research to pick up where we left off.

BIBLIOGRAPHY

Ab. Aziz Yusof 2001. **Usahawan dan Keusahawanan: Satu Penilaian**. Petaling Jaya: Prentice Hall

Anonymous. **Entrepreneurial Intention Among FdeWB-Students** (Maastricht University)
URR:http://www.studiosus.nl/scripties/55_entrepreneurialintententions.php?In=ned

Bakar, A. and Ellis, W.H. 1990. **Entrepreneurship and Small Business Management**. 2nd Ed. Dubuque, Iowa: Kendall/Huni Pub.Co.

Barcelona, A.C, & Valica, A.C 1992, Interrelationship Between the Personal Variables and Entrepreneurial Potentials of Senior Students of UUM, **Malaysia Management Review**, 29(4), 15-28.

Bellu, R.R .1992. Task Role Motivation and Attributional Style as Predictors of Entrepreneurial Performance: Female Sample Findings. **Entrepreneurship and Regional Development**, 4.

Benton, D. A .1999. **Human Relations in Administration**. New Jersey: Prentice Hall.

Boocock,G. 1996. July. **Venture Capital In Malaysia**. Loughborough University. Banking Centre. (Unpublished manuscript)

Brockhaus, R.H. Sr. 1982. The Psychology Of The Entrepreneurship. in Kent, C.A, Sexton, D.L, and Vesper, K.H. (Eds). **Encyclopedia of Entrepreneurship**. Englewood Cliffs, New Jersey: Prentice Hall

Bygrave, W.D. & Hofer, C.W. 1991, Winter. Theorizing about Entrepreneurship. **Entrepreneurship Theory and Practice**, 16 (2),13-22.

Carland, J.W.Jr. 1992. **Entrepreneurship in a Small Business Setting : An Exploratory Study**. University of Georgia. PhD Thesis.

Cenzo, D.D. 1997. **Human Relations : An Organizational Approach**. New Jersey: Prentice Hall.

Crant, M.J. 1996. The Practice Personality Scale as A Predictor Of Entrepreneurial Intentionus. **Journal Of Small Business Management**. Vol , 34.

Cromie, S. and Callaghan,I. 1997. Assessing Enterprising Attributes The Usefulness Of Caird's General Enterprising Tendency (GET) Test. **Small Business and Enterprises Development**. Vol. 4, 65-71.

Cromie, S. and Donaghne J.O. 1992. Assessing Entrepreneurial Inclinations. **International Small Business Journal**. Vol 10, 66-73.

Davidson, P. 1995. Determinants of Entrepreneurial Intentions. **In Proceedings RENT XI Workshop**. Piacenca.Italy.

DeYoung, C.G., Peterson, J.B., & Higgins, D.M. 2005. Sources of openness/intellect: cognitive and neuropsychological correlates of the fifth factor of personality. **Journal of Personality**, 73, 825-858.

Dollinger, M. 1995. **Entrepreneurship : Strategies and Resources**, Illinois: Irwin
Durham University Business School. 1988. **General Enterprising Tendency (GET) Test**. Durham: UK.

Franke, N and Luthje, C. 2004. Entrepreneurship Intentions of Business Students: A benchmarking Study. **International Journal Of Innovation and Technology Management**. Vol. 1(3), 26.9-288.

Gartner, W.B. 1989. Summer. "Who is an Entrepreneur? Is the Wrong Question", **Entrepreneurship Theory and Practice**, 13 (4), 47-68.

Gray, D.A. 1989. **The Entrepreneurship Complete Self-Assessment Guide: How To Get Your Potential For Business**. London: Kogan Page

Grundsten, H. 2004. at [URL:http://lib.tlck.fi/Diss/2004/isbn9512271311/index.html](http://lib.tlck.fi/Diss/2004/isbn9512271311/index.html)

Hergenhalm, B.R. & Olson, M.H. 1999. **An Introduction to Theories of Personality**. New Jersey: Prentice Hall.

Hian, C.K. 1995. Factors Associated with Entrepreneurship Inclination: An Empirical Study Of Business Undergraduates in Hong Kong. **Journal of Small Business and Entrepreneurship**. Vol. 12(2), 29-41

Hijatullah Abdul Jabbar, Ab. Aziz Yusof, Siti Maimon Hj. Kamso & Siti Zabedah Hj. Saidin .2000. Prospek Keusahawanan Luaran (Exopreneurship) Di Kalangan Siswaniaga Universiti Utara Malaysia, **Seminar Peluang Penyegaran Semula Syarikat Melalui**

Keusahawanan Korporat Universiti Utara Malaysia, 27-28 Mac, Sintok, Universiti Utara Malaysia.

Hisrich, R.D. and Peter, M.P. 2002. **Entrepreneurship**. New Jersey. McGraw:Hill.

Hisrich, R. D. & Peters, M.P.1998. **Entrepreneurship**. McGraw Hill, Singapore.

Indarti, N.Z. & Kristiansen, S. 2003. Determination of Entrepreneurship Intention: The Case of Norwegian Studies. **Gajah Mada International Journal Of Business**. Vol. 5(1), 79-95.

Jennings, D.F. 1994. **Multiple Perspectives of Entrepreneurship, Text, Reading, and Cases**. Cincinnati, Ohio : South Western Publishing Co.

John, O.P . 1990. The Big Five Factor Taxonomy: Dimensions Of Personality In The Natural Language And In Questionnaires. In LA Pervin (Ed). **Handbook Of Personality: Theory and Research**. New York. Guilford.

Johnson, B.R. 1990, Spring. "Towards a Multidimensional Model of Entrepreneurship : The Case of Achievement Model Motivation and The Entrepreneur," **Entrepreneurship Theory and Practice**, 14(3) 39-54.

Klandt, H.J. 1989. **Entrepreneurship in Business Development**. New York: Avebry

Kruger, N.F. and Brazeal, D. 1994. Spring. Entrepreneurs Potential and Potential Entrepreneurs. **Entrepreneurship Theory and Practice**. Vol. 19(3), 91-104

Kuratko, D.F. and Hodgetts, R.M. 1995. **Entrepreneurship, A Contemporary Approach**. 3rd ed. New York: The Dryden Press

Kurikulum universiti awam dikaji semula setiap 3 tahun. 2007. at URL <http://www.utusan.com.my/utusan/archive.asp>? (Retrieved on 11 June 2007)

Liebert, R.M. & Liebert, L.L .1988. **Personality: Strategies & Issues** 8th edition. New York: Brook/Cole Publishing Company.

Lorraine, J. 1991. Young and Older Entrepreneurship: An Empirical Study of Difference. **Journal of Small Business Management**. Vol. 8(4), 50-61

Luinan, F., Rodriguez, J.C and Rueda-Cantucho, J.M. 2005. at URL <http://www.ersa.org/ersaconfs/ersaos/papers/432.pdf>

McClelland, D.C. 1961. **The Achieving Society**. New York: D Van Nostrand.

McClelland, D. C 1965. Achievement Motivations Can Be Developed. **HBR**, Nov-Dec.6-24.

McCrae, R.R. and Costa, P.T. 1996. Toward A New Generation of Personality Theories: Theoretical Context For The Five Factor Model. In J.S. Wiggins (Ed). **The Five-Factor Model of Personality Theoretical Perspectives**: New York: Guilford.

Naffziger, D.W, Hornby, J.S, & Kuratko, D.F. 1994. A Proposed Research Model of Entrepreneurship Motivation. **Entrepreneurship Theory and Practice**. Vol. 18(3), 29-42.

Pervin, L.A and John, O.P. 1999. **Handbook of Personality: Theory and Research**. New York: Guilford Press.

Rondstat, R. 1984. Ex- Entrepreneurship and the Decision to Start an Entrepreneur Career. In Horaadoy, J. and Tarpley, F., Tinmons, J. and Vesper, K. (Eds). **Frontier of Entrepreneurship Research**. 1984. Wellerley, MA: Babson College

Reece, R. & Brandt, L.B. 2000. **Human Relations in Organization**. New York: Allyn & Bacon.

Ramayah T.Z. and Zainom Harun. 2005. Entrepreneurship Intention Among The Students of USM. **International Journal of Management And Entrepreneurship**. Vol. 1(1),8-20.

Saucier, G. and Goldberg, L.R. 1998. What Is Beyond The Big Five? **Journal of Personality**. Vol. 66, 495-524.

Schever, R.F. 1991. Examining the Relationship between Personality and Entrepreneur Career Preference. **Entrepreneurship and Regional Development**. Vol. 3(4), 195-206

Sekaran, U. 1992. **Research Methods for Business**. 2nd ed. New York: Oxford University Press

Shaver, K.G. & Scott, L.R. 1991, Winter. Person, Process, Choice : The Psychology of New Venture Creation. **Entrepreneurship Theory and Practice**, 16(2), 23-45.

Wee, C.H, Lim, W.S & Lee, R. 1994-July-September. Entrepreneurship: a Review with Further Implications for Further Research. **Center for Entrepreneurship Faculty of Management**. University of Toronto. Vol. 11(4), 25-49

Westen, D. 2002. **Psychology: Brain, Behavior & Culture**. New York, John Wiley & Sons, Inc.

Zainal Abdullah, Griggs, F.T. & Plamisek, S.L. 1995. Who are the next Entrepreneurship. **Malaysian Management Journal**. Vol. 1(2).31-40

Zimmerer, T.W. & Scarborough, N.M. 2002. **Essential Of Entrepreneurship And Small Business Management**. New Jersey: Pearson Education.