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## Creativity and Entrepreneurial Tendencies among Form two Malaysian Students

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**Abstract:** The aim of this study is to design a reliable and valid instrument to assess entrepreneurial tendency and to investigate the relationship of entrepreneurial tendency and creative personality among form two Malaysian students. A sample of 174 form two students taking entrepreneurship as a subject were chosen randomly from the four zones in Malaysia. The validated Entrepreneurship Tendency Inventory (ETI) and a measure of creative personality characteristics, Khatena Torrance Creative Perception Inventory (KTCPI) were administered. Factor analysis revealed the existence of eight factors namely, self-employed, business confidence, business intention, business anxiety, people dependent, forced decision, low self-confidence and contingent decision with internal consistencies ranging from 0.80 (self-employed) to 0.23 (low self-confidence). Self-employed, business confidence, business intention and people dependent are found to relate positively to entrepreneurial tendency. Business Anxiety has a very low correlation with entrepreneurial tendency. Students who perceive themselves as creative based on past creative performances have high levels of initiative, place more importance on what close relatives think and prefer challenging tasks and tend to have higher entrepreneurial tendencies. Further replication of this study is recommended to confirm the reliability and validity of ETI and to further elucidate the relationship between entrepreneurial tendencies and creative personality characteristics.

**Key words:** Entrepreneurial tendency, creative perception, khatena-torrance creative perception inventory

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### INTRODUCTION

Many studies have been conducted to survey the extent to which countries whether developed, developing or underdeveloped, have initiated programs both curricular and non-curricular to enhance the creativity and motivation to be creative among their citizens to venture into new business initiatives (El-Khasawneh, 2008; Mok, 2005).

These business ventures are seen as the savior of many a country to help eradicate poverty (Adejimola and Olufunmilayo, 2009) as well as reduce migration of the rural population to urban areas. Incorporating entrepreneurship as a subject in schools is seen as one of the best measures for preventing social, political and economic woes facing many countries.

As such, entrepreneurship is viewed as playing an important role in rural development. For example, according to a study conducted by the Nebraska Rural Development Commission in 70 most rural counties, the self-employment activities encouraged by the local authorities, have helped stem the migration of the rural population to the cities.

Entrepreneurial qualities or tendencies have long been associated with creativity and other related

personality characteristics such as risk-taking, initiative, environmental sensitivity and self-confidence (Kao, 1989; Mangelsdorf, 1988). Creativity is viewed as playing an important role in enhancing entrepreneurial ventures (Kao, 1989; Ward, 2004). Entrepreneurs have been found to have a set of unique personality characteristics that augur well with the type of personality that is suited for entrepreneurship. Characteristics such as the tendency to take risks, being inquisitive, non-conforming and aggressive have been found to be quite typical of successful entrepreneurs (Marcati, 2008; Markman and Baron, 2003).

It has also been proposed that it is vital to nurture these entrepreneurial tendencies in school through suitable programs and also to help students identify their creative potential to further enhance these tendencies (Kuratko, 2005). In line with the Malaysian government's ongoing program to enhance these entrepreneurial skills among students through various activities and curriculum intervention in secondary school recently, it has become highly crucial to investigate whether there is a relationship between creative personality characteristics and entrepreneurial tendencies. There is also a need to design a reliable and valid measure of entrepreneurial tendency to help identify students who have this

potential. This instrument can then be used by educators and curriculum planners to further help develop this potential.

The growing emphasis by the government to instill the entrepreneurial spirit among school leavers is not without its merit. There is an increasing tendency among school and college leavers to depend on the government to provide employment after graduation. Since, there is only so much that the government can do to accommodate them in the highly popular government service, efforts are undertaken to instill the entrepreneurial spirit among these school leavers so that they can start their own business when they graduate. This has led to the creation of a new subject called entrepreneurship or Keusahawanan in Bahasa Malaysia, the national language of Malaysia. It was designed to provide the skills which will enable school leavers to find suitable business opportunities that best suit their personalities as well as the needs of the government. Hence, it is important to provide educators with information on students' personality characteristics that relate to entrepreneurial tendencies so that programs and curriculum can be redesigned to identify, enhance and facilitate entrepreneurial tendencies among students with potential and personalities.

This study is important and timely for several reasons. The most significant one is that the findings of this study will help ascertain whether creative personality characteristics are associated with entrepreneurial tendencies and preferences. This is important for all stake holders of the education system as it may enable teachers and parents to be able to counsel students with those personality characteristics closely related to entrepreneurial tendency to explore the possibility of venturing into businesses on their own. Curriculum planners and teachers may be able to create activities in classrooms that will bring out the relevant creative potential among the students as studies have shown that it is possible to develop these characteristics (Roberts and Robins, 2003). Prospective employers may also be able to identify students with these creative personality characteristics who will be an asset to the organization. As employees they will be able to help identify new business opportunities which are entrepreneurial in nature which the firm or organization can undertake.

As such, governments are beginning to place top priority on nurturing creativity among students so that these youngsters will become successful entrepreneurs later in life. Studies have also found that many students tend to have positive attitude towards starting their own business. In a Gallup study undertaken in the US, it was found that 7 out of 10 high school students have

expressed their preference to start their own business. In this study, 85% indicated that entrepreneurship should be taught in schools. About 68% have also said that they lack the knowledge of entrepreneurship and business to help them start their own business. These findings are highly indicative of the entrepreneurial spirit among students which needs to be nurtured. This study intends to investigate to what extent this is also true in the Malaysian school environment and how this is related to the level of creativity among the students.

No studies have yet been carried out in Malaysian schools although the subject of entrepreneurship has already been introduced for quite some time now. Also, no studies have been undertaken to find out what creative personality characteristics are related to the students' preference to become entrepreneurs later in life. This study intends to investigate the creative personality characteristics that are related to entrepreneurial tendencies. The findings may help curriculum planners and teachers to design and teach the curriculum based on the students personality characteristics.

In line with the above rationale and objectives, several pertinent research questions were formulated to help guide this study:

- What is the nature of entrepreneurial tendency of Malaysian lower secondary school students?
- What is the nature of the creative personality characteristics of Malaysian lower secondary school students?
- What is the relationship between entrepreneurial tendency and creative personality characteristics of these students?

## **MATERIALS AND METHODS**

**Participants:** This study employed the survey method to obtain the relevant data to answer the three research questions mentioned above. The survey method design is widely used to gather data in a one-shot case study design to ascertain the relationships among the variables (Fraenkal and Wallen, 2008; Ary *et al.*, 2006). To obtain a representative sample, intact classes were selected randomly from seven schools in three states in Peninsular Malaysia; one urban and one rural school from the Northern state of Penang and the Eastern state of Pahang and one rural and two urban schools in the central state of Selangor during the first term of the academic year 2008 which began in January. In each school, two form four classes taking the entrepreneurship subject were randomly selected and the battery of instruments was administered. In all, responses from about 210 students

were received but after discarding the incomplete responses, only 174 complete responses were finally used in this study. In this sample, there were 88 male and 86 female students.

**Instruments:** The two instruments were administered in the following order: The Entrepreneurial Tendency Inventory (ETI) which comprised twenty-five 4-point likert scale items took about 10 min to complete. It was designed by the researcher based on a comprehensive literature review of characteristics of individuals with entrepreneurial tendencies.

A pilot study was conducted to determine the reliability and the validity of this inventory. Factor analyses of the scores obtained indicated that these 25 items loaded on eight factors. Based on the items in the factors identified, the factors were named as Self-Employed (SE), Business Confidence (BC), Business Intention (BI), Business Anxiety (BA), People Dependent (PD), Forced Decision (FD), Low Self-confidence (LS) and Contingent Decision (CD). Subsequent analyses were carried out based on these factors.

The reliabilities ascertained for ETI were internal reliabilities of the factors mentioned above. These Cronbach alphas ranged from 0.23 for Low Self-confidence (LS) to 0.80 for Self-Employed (SE).

These instruments were administered by the researcher as well as a research assistant who was trained in the administrative procedures.

Khatena-Torrance Creative Perception Inventory (KTCPI) gives measures of two subscales: What Kind of Person Are You? (WKOPAY) and Something About Myself (SAM). Both subscales take about 25 min to complete. The reliabilities and validities of both instruments have been well established (Khatena and Torrance, 1998; Khatena and Morse, 1991).

WKOPAY comprises 50 forced-choice items and has an interscorer reliability of about 0.99 at  $p < 0.01$  (Khatena and Torrance, 1998). The internal consistency of the test determined by the split-half method gave a Spearman-Brown prophecy formula,  $r$  of 0.98. The test-retest reliability was found to range from 0.71 to 0.97 ( $p < 0.01$ ). Palaniappan (1993) obtained a test-retest reliability of 0.58 ( $p < 0.01$ ) in a pilot study conducted in Malaysia.

A variety of validity coefficients ranging from 0.26 to 0.75 and averaging around 0.53 have been reported (Khatena and Torrance, 1998). For example, the criterion-related validity using two tests of verbal originality as criteria ranged from 0.26 to 0.75 ( $p < 0.05$  to  $p < 0.01$ ).

SAM also comprises 50 forced-choice items and has a high interscorer reliability. A Spearman-Brown prophecy formula,  $r$  of 0.99 ( $p < 0.01$ ) has been reported (Khatena,

1971b). A Malaysian study using form four (US Grade 10) students reported a test-retest reliability of a bilingual version of SAM of .75 ( $p < 0.01$ ) (Palaniappan, 1993). The internal consistency was determined by the split-half and equivalence methods. In a study involving adolescent groups, the odd and even items were correlated and corrected by the Spearman-Brown prophecy formula. An  $r$  of 0.94 was obtained. Test-retest reliability coefficient computed was 0.98 (after a one day interval).

The variables investigated in this study are defined and measured by the following instruments:

Creative Perception as measured by What Kind Of Person Are You? (WKOPAY) is a creative personality measure based on the rationale that an individual has a psychological self whose structures have incorporated both creative and non-creative ways of behaving.

The factor scores of What Kind of Person Are You? (Khatena and Torrance, 1998) are:

- Acceptance of Authority relates to being obedient, courteous, conforming and accepting of judgments of authorities
- Self-confidence relates to being socially well-adjusted, self-confident, energetic, curious, thorough and remembering well
- Inquisitiveness relates to always asking questions, being self-assertive, feeling strong emotions, being talkative and obedient
- Awareness of Others relates to being courteous, socially well-adjusted, popular or well-liked, considerate of others and preferring to work in a group
- Disciplined Imagination relates to being energetic, persistent, thorough, industrious, imaginative, adventurous, never bored, attempting difficult tasks and preferring complex tasks

Creative perception as measured by Something About Myself (SAM) is a creative achievement measure based on the rationale that individual creativity is reflected in creative characteristics possessed in the use of creative thinking and in creative productions (Khatena and Morse, 1991).

The factor scores of Something About Myself are:

- Environmental Sensitivity relates to being open to ideas of others, relating ideas to what can be seen, touched, or heard; interest in beautiful and humorous aspects of experiences and sensitivity to meaningful relations

- Initiative relates to directing, producing and/or playing leads in dramatic and musical productions; producing new formulas or new products; and bringing about changes in procedures or organization
- Self-strength relates to self-confidence in matching talents against others, resourcefulness, versatility, willingness to take risks, desire to excel and organizational ability
- Intellectuality relates to intellectual curiosity, enjoyment of challenging tasks, imagination, preference for adventure over routine, liking for reconstruction of things and ideas to form something different and dislike for doing things in a prescribed routine
- Individuality relates to preference for working by oneself rather than in a group, seeing oneself as a self-starter and somewhat eccentric, critical of others' work, thinking for oneself, working for long periods without getting tired
- Artistry relates to production of objects, models, paintings, carvings, musical composition, receiving awards or prizes or having exhibits, production of stories, plays, poems and other literary pieces

Evidence of a variety of validity indices were also reported by Khatena, (1971a, b) and Khatena and Torrance (1971). For example, the criterion-related validity of SAM ascertained using Onomatopoeia and Images gave an  $r$  of 0.34 ( $p < 0.01$ ) and with Personal-Social Motivation Inventory (Torrance, 1958), an  $r$  of 0.38 ( $p < 0.01$ ).

## RESULTS

The sample chosen were intact classes selected randomly from seven schools in three states in Peninsula Malaysia: one urban and one rural school from the Northern state of Penang and the Eastern state of Pahang and one rural and two urban schools in the central state of Selangor. Responses from about 210 students were received but only 174 complete responses were finally used in this study. In this sample, there were 88 male and 86 female students (Table 1). The Malay students form the largest group (45.4%) followed by the Chinese (41.4%) and Indians (13.2%). Based on their fathers' occupation, the students were grouped into either high or low Socioeconomic Status (SES) students. Similar classifications were validated in another doctoral study (Chiam, 1976). Eighty-one students were classified as high SES and 93 as low SES students.

Data obtained from the Entrepreneurial Tendency Inventory (ETI) comprised the overall entrepreneurial

Table 1: Demographic Information of the Sample (N = 174)

Parameters	Count	Percentage
Gender		
Male	88	50.6
Female	86	49.4
Race		
Malay	79	45.4
Chinese	72	41.4
Indian	23	13.2
SES		
High	81	46.6
Low	93	53.4
School		
1	58	33.3
2	29	16.7
3	40	23.0
4	7	4.0
5	4	2.3
6	15	8.6
7	21	12.1
Age	Range = 13-15, Mean = 13.98, SD = 0.19	

score and the eight factors scores. These were interval in nature. ETI comprised 25 individual items of the likert-scale format where students circled either 1 (Not true of me), 2 (Seldom true of me), 3 (Often true of me) and 4 (very true of me). Factor analyses yielded eight factor scores, namely, self-employed, business confidence, business intention, business anxiety, people dependent, forced decision, low self-confidence and contingent decision.

Creative personality data obtained from the Khatena-Torrance Creative Perception Inventory (KTCPI) and its factor scores were interval data.

The results of the analyses are presented based on the research questions mentioned earlier:

- **Research question 1:** What is the nature of Entrepreneurial Tendency of Malaysian Lower Secondary School students?

Table 2 shows the descriptive statistics of the entrepreneurial tendencies of Malaysian students and the factor scores. The ratios of skewness and standard error of skewness as well as the ratios of kurtosis and standard error of kurtosis of the factors are used to empirically ascertain the normality of the distribution of the scores. Ratios within the range of -2 and +2 are considered acceptable limits for normality. Since these ratios are approximately within -2 and +2, the distribution of the Entrepreneurial Tendencies and the factor scores are considered normal and hence parametric analysis were used.

- **Research question 2:** What is the nature of the Creative Personality Characteristics of Malaysian Lower Secondary School students?

Table 2: Descriptive statistics of Entrepreneurial Tendencies and the factor scores (n = 174)

Statistics	ET	SE	BC	BI	BA	PD	FD	LC	CD
Mean	57.60	6.10	11.47	10.95	6.33	8.69	4.94	4.58	4.53
SD	8.91	2.65	3.00	3.41	2.47	2.28	1.81	1.61	1.72
Skewness	-0.71	2.54	2.28	1.04	2.73	1.85	0.20	1.61	2.13
Kurtosis	-0.92	2.17	1.14	-1.61	1.46	1.58	-2.46	1.57	1.81
Minimum	31.00	3.00	4.00	5.00	3.00	3.00	2.00	2.00	2.00
Maximum	80.00	12.00	16.00	20.00	12.00	12.00	8.00	8.00	8.00
25th percentile	50.00	3.00	9.00	8.00	4.00	7.00	4.00	3.00	3.00
50th percentile	58.00	6.00	12.00	11.00	6.00	9.00	5.00	4.00	4.00
75th percentile	64.00	8.00	14.00	13.00	8.00	11.00	6.00	6.00	6.00

ET: Entrepreneurial tendencies, PD: People dependent, SE: Self-employed, FD: Forced decision, BC: Business confidence, LC: Low self-confidence, BI: Business intention, CD: Contingent decision, BA: Business anxiety

Table 3: Descriptive statistics of Something About Myself and its factors

Statistics	SAM	ES	IN	SS	IT	IDD	A
Mean	29.58	4.42	2.04	5.91	6.82	3.53	1.91
SD	5.66	1.21	1.34	1.79	1.92	1.17	1.33
Skewness	1.23	4.13	1.57	1.79	4.04	0.45	3.41
Kurtosis	0.26	0.62	-1.70	0.05	2.63	0.14	0.10
Minimum	12.00	1.00	0.00	1.00	0.00	0.00	0.00
Maximum	44.00	6.00	6.00	10.00	10.00	6.00	6.00
25th percentile	26.00	4.00	1.00	5.00	6.00	3.00	1.00
50th percentile	29.00	5.00	2.00	6.00	7.00	3.00	2.00
75th percentile	33.00	5.00	3.00	7.00	8.00	4.00	3.00

SAM: Something About Myself, IT: Intellectuality, ES: Environmental sensitivity, IDD: Individuality, IN: Initiative, A: Artistry, SS: Self-strength

Table 4: Descriptive statistics of What Kind Of Person Are You? and its factors

Statistics	WKOPAY	AA	SC	I	AO	DI
Mean	23.75	3.84	6.69	2.91	6.86	4.08
SD	5.01	1.60	2.07	1.53	1.61	1.78
Skewness	0.38	-0.13	-1.40	-0.48	-1.68	0.58
Kurtosis	1.77	1.03	-0.09	-2.04	0.68	-1.43
Minimum	10.00	0.00	0.00	0.00	2.00	0.00
Maximum	39.00	7.00	11.00	6.00	11.00	9.00
25th percentile	21.00	3.00	5.00	2.00	6.00	3.00
50th percentile	24.00	4.00	7.00	3.00	7.00	4.00
75th percentile	27.00	5.00	9.00	4.00	8.00	5.00

WKOPAY: What Kind Of Person Are You?, I: Inquisitiveness, AA: Acceptance of authority, AO: Awareness of others, SC: Self-confidence, DI: Disciplined imagination

Creative personality characteristics of the students were assessed by Khatena Torrance Creative Perception Inventory (KTCPI) which comprises two subscales: Something About Myself (SAM) and What Kind of Person Are You? (WKOPAY). The descriptive statistics of the scores obtained by the Malaysian sample are shown in Table 3 and 4. The ratios of skewness and standard error of skewness as well as the ratios of kurtosis and standard error of kurtosis of SAM and its factor scores (Table 3) indicate that except for environmental sensitivity, intellectuality and artistry, the other scores are all normally distributed. Since, the distribution of the scores of the factors environmental sensitivity, intellectuality and artistry are only slightly outside the range for normality, these scores were treated as normally distributed scores.

The descriptive statistics of the scores obtained by the Malaysian sample on What Kind Of Person Are You? are shown in Table 4. The ratios of skewness and standard error of skewness as well as the ratios of kurtosis and standard error of kurtosis of SAM and its factor scores are all within the range of -2 and +2. This indicates that the sample represents the population from which it is drawn and as such parametric analyses can be used to answer the research questions involving these variables. The descriptive statistics show that distribution of WKOPAY and its factor scores are all normally distributed, thus amenable to parametric analysis.

- **Research question 3:** What is the relationship between entrepreneurial tendency and creative personality characteristics of these students?

To investigate the relationship between students' entrepreneurial tendencies and their creative personality characteristics, Pearson product moment correlations were undertaken. The level of significance of all statistical analyses is set at  $p < 0.05$ . Table 5 shows that Entrepreneurial Tendency is significantly and positively related to SAM ( $r = 0.27$ ). This indicates that students who have high entrepreneurial tendencies appear to be those who perceive themselves as creative based on their past creative performances. Entrepreneurial tendency is also significantly and positively correlated to Environmental Sensitivity (ES) ( $r = 0.20$ ), Self-strength (SS) ( $r = 0.21$ ), Intellectuality (IT) ( $r = 0.16$ ) and Artistry ( $r = 0.17$ ). It appears that students who have high entrepreneurial inclinations tend to be open to ideas of others and able to see new opportunities (Environmental Sensitivity), are risk takers, confident, resourceful (Self-strength), like to work alone, like challenging tasks, think for him/herself (Intellectuality) and like to create new objects and processes (Artistry). These findings also indicate the high criterion-related validity of Entrepreneurial Tendency Inventory (ETI).

The high internal reliability factor of ETI, Self Employed, is significantly and positively correlated to SAM ( $r = 0.16$ ) and Self-strength ( $r = 0.22$ ). This indicates that students who prefer to be self-employed tend to perceive themselves as creative based on their past creative performances (SAM) and are also self-confident and resourceful.

The entrepreneurial factor, business confidence, is significantly and positively correlated with SAM ( $r = 0.29$ ), Environmental Sensitivity ( $r = 0.16$ ), Initiative ( $r = 0.16$ ), Self-strength ( $r = 0.34$ ) and Intellectuality ( $r = 0.18$ ). It appears that students who are confident of succeeding in

**Table 5: Correlation coefficients of the relationships between Entrepreneurial Tendencies and SAM and its factor scores**

Factors	SAM	ES	IN	SS	IT	IDD	A
Self Employed (SE)	0.16*	0.11	0.11	0.22**	0.01	-0.04	0.14
Business Confidence (BC)	0.29**	0.16*	0.16*	0.34**	0.18*	0.08	0.13
Business Intention (BI)	0.11	-0.02	0.11	0.18*	0.04	-0.01	0.10
Business Anxiety (BA)	-0.07	0.09	-0.05	-0.21**	0.03	-0.09	-0.01
People Dependent (PD)	0.23**	0.25**	0.04	0.05	0.15	0.14	0.09
Forced Decision (FD)	0.12	0.02	0.22**	0.12	0.03	0.11	0.03
Low Self Confidence (LSC)	0.06	0.08	-0.05	-0.04	0.07	-0.01	0.05
Contingent Decision (CD)	0.03	0.04	-0.04	-0.09	0.07	-0.02	0.01
Entrepreneurial Tendency (ET)	0.27**	0.20*	0.15	0.21**	0.16*	0.04	0.17*

\*p<0.05, \*\*p<0.01

business tend to use their creativity and freedom. They also tend to perceive themselves as creative based on previous achievements (SAM), are quick to notice business opportunities (Environmental Sensitivity), have high level of initiative and drive (Initiative), are self-confident (Self-strength) and prefer challenging tasks (Intellectuality).

Business intention is significantly and positively related to Self-strength ( $r = 0.18$ ). This indicates that students who have high level of ambition to go into business also have high level of self-confidence.

Business anxiety, another factor identified is significantly but negatively related to self-strength ( $r = -0.21$ ). This indicates that students who fear going into business tend to have low self-confidence and fear taking risks. In other words, these students who are risk-takers and have high level of self-confidence tend to have high entrepreneurial inclinations.

People dependent, another factor identified by ETI, is significantly and positively related to SAM ( $r = 0.23$ ) and Environmental Sensitivity ( $r = 0.25$ ). Hence, students who attach great importance to what their close relatives think about their business intentions and so be motivated by them to go into business tend to be creative based on their past creative achievements (SAM) and are also sensitive to the existence of business opportunities around them (Environmental Sensitivity).

Another factor in ETI, Forced Decision, is significantly and positively related to Initiative ( $r = 0.22$ ). This shows that students who feel that they have no choice but to go into business have a high level of initiative. Perhaps when students feel that business is the only avenue open to them, they tend to focus on taking all steps necessary to make it work.

The other two factors, Low Self-confidence and Contingent Decision identified by ETI do not relate significantly with SAM or its factors. This lends support to the criterion-related validity of ETI, since it shows that students who are risk-averse and have low self-confidence do not perceive themselves as creative and are

not sensitive to business opportunities open to them and also shy away from challenging tasks.

Correlations between entrepreneurial tendencies and creative perception as measured by WKOPAY were also undertaken using Pearson Product Moment Correlations. Table 6 shows that Entrepreneurial Tendency is not related to WKOPAY. This indicates that entrepreneurial tendencies are not related to perceptions of oneself as having creative personality characteristics. Comparing these results with those obtained earlier with SAM, it appears that students who perceive themselves as creative based on their past creative performances tend to have higher entrepreneurial inclinations than those who perceive themselves as having creative personality characteristics.

Business intention is also negatively but significantly related to Inquisitiveness (I) ( $r = -0.17$ ). Students with high entrepreneurial intentions tend to be less inquisitive. Further studies may need to be undertaken to understand why this is so as students with high entrepreneurial tendencies tend to be persistent and self-assertive and do not give up easily.

Business anxiety is negatively but significantly related to Self-confidence ( $r = -0.21$ ). This shows that students who are high risk averse tend to have low self-confidence in making it good in business.

Students who are high on People Dependent also tend to be high on Acceptance of Authority, a non-creative orientation ( $r = 0.16$ ) and awareness of others ( $r = 0.16$ ). This indicates that students who are concerned about what their close relatives think about their employment decision tend to also accept their views and follow them. They are open to the ideas of others. It appears that they are very accepting of what others advise them to do.

Forced decision, another factor identified in the factor analyses of Entrepreneurial tendency scores is significantly but negatively related to Awareness of Others (AO) ( $r = 0.16$ ). This shows that students who are forced to go into business appear to be open to new ideas and are very receptive of these new ideas.

Table 6: Correlation coefficients of the relationships between Entrepreneurial Tendencies and WKOPAY and its factor scores

Factors	WKOPAY	AA	SC	I	AO	DI
Self Employed (SE)	0.01	-0.08	0.01	0.09	0.06	0.01
Business Confidence (BC)	-0.02	0.01	0.09	0.11	0.11	0.03
Business Intention (BI)	-0.01	0.02	0.06	-0.17*	0.01	-0.05
Business Anxiety (BA)	-0.05	0.08	-0.21*	0.01	-0.07	-0.06
People Dependent (PD)	0.05	0.16*	0.02	0.09	0.16*	-0.09
Forced Decision (FD)	0.12	-0.07	-0.05	-0.04	-0.16*	0.03
Low Self Confidence (LSC)	0.01	0.07	0.04	-0.04	-0.11	-0.02
Contingent Decision (CD)	0.10	0.08	-0.13	0.10	-0.05	0.08
Entrepreneurial Tendency (ET)	0.01	0.06	0.04	0.03	0.02	-0.03

\*p<0.05, \*\*p<0.01

### DISCUSSION

The identification of the various factors related to entrepreneurial tendency using factor analysis is an original contribution of this study. Hitherto, no studies have designed a valid measure of entrepreneurial tendency which is useful in identifying individuals with the potential to be entrepreneurs with the view of designing programs that can enhance the actualization of this potential. A attempt to assess another similar construct, the enterprising tendency was undertaken by Stormer *et al.* (1999) but the instrument needed further refinement.

This study has substantiated the findings of Bowen and Hisrich (1986), which indicated that confident individuals tend to be internals and hence, tend to be self-employed. Individuals with internal locus of control tend to believe that they are in control and hence have greater control of their future. Hence, their fear of the uncertainties in self-employed businesses is very much lower than individuals who have external locus of control.

As shown in this study, high self-confident individuals tend to have less anxiety and higher persistence (Stoltz, 2000). This is mainly due to the fact that these individuals are highly persistent even in the face of adversity. Hence, students high on business confidence and low on business anxiety tend to persevere in business.

One of the explanations as to why individuals go into business, is that they have not been successful working under other people and do not like to take orders. These individuals prefer the freedom to make decisions as shown in this study. Similar findings have also been reported by Miner (1997).

The fact that highly dependent individuals tend to avoid striking out on their own is also supported in this study. These individuals prefer to be conformist and tend to prefer taking orders from others and let others make decisions for them.

The surprising finding that students high on business intention being less Inquisitive can be perhaps due to the fact that the students in this study have not had the experience of being in business and hence may not have developed the inquisitive disposition relevant for identifying business opportunities. The measure of inquisitiveness via WKOPAY is related more to that in the school context (Palaniappan, 2008).

### CONCLUSION

The main objective of the study was to develop a reliable and valid measure of entrepreneurial tendency which can be used to assess students' entrepreneurial inclinations and help nurture students who have high entrepreneurial tendencies. The instrument, Entrepreneurial Tendency Inventory (ETI) is able to identify eight factors reliably. Based on items loading significantly on these factors, the factors have been named as self-employed, business confidence, business intention, business anxiety, people dependent, forced decision, low self-confidence and contingent decision. The internal consistency measures based on Cronbach Alpha for these factors ranged from 0.80 (Self-Employed) to 0.23 (Low Self-confidence). Four factors have been identified to relate positively to entrepreneurial tendency. These are self-employed, business confidence, business intention and people dependent. As expected, business anxiety, was found to have very low correlation with entrepreneurial tendency. Results on the relationship between entrepreneurial tendencies and creative perception indicate that generally students who have high entrepreneurial tendencies as measured by the Entrepreneurial Tendency Inventory (ETI) tend to be creative and this appears to stem from their past creative performances. This perception of oneself as creative gives them the need to be self-employed and confident. Findings also indicate that what close relatives appear to think of their employment decision also tends to be a major driving force in their ambition to go into business. Those high on entrepreneurial tendency also prefer challenging tasks and appear to be self-starters and have high level of initiative. Perception of themselves as having creative personality does not appear to be good enough to give them the impetus to go into business as compared to perception of themselves as capable of creative performance. Further replication of this study including the validation of the inventory is recommended to throw more light on the effectiveness of this inventory in measuring entrepreneurial tendency as well as the relationship between entrepreneurial tendency and creative perception.



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