

THE PREDICTORS OF ENTREPRENEURIAL INTENTION AMONG UNDERGRADUATE STUDENTS

***Rosliza Md Zani, Sarah Sabir Ahmad, Azfahanee Zakaria**

Faculty of Business Management, Universiti Teknologi MARA Kedah, Malaysia

*Corresponding author's e-mail: rosliza568@kedah.uitm.edu.my

Abstract

Entrepreneurial education has become a concern in Malaysia. Knowing the importance of entrepreneurship and the urgency from the government, the universities in Malaysia have taken proactive actions to realise this education. This study aims to identify the predictors of entrepreneurial intentions among undergraduate students, considering curiosity, risk taking and creativity as the variables. The results found that risk taking and creativity have positive relationship with entrepreneurial intention. From the three variables tested, creativity is found to be the most dominant predictor of entrepreneurial intention. This study helps the management of higher institutions to educate the students on risk taking as well as creativity in order to make them successful entrepreneurs.

Keywords: entrepreneurial intention; curiosity; creativity; risk taking, students

1.0 INTRODUCTION

It is well known that a career in entrepreneurship offers significant opportunities for individuals to achieve financial independence and benefits the economy by contributing to job creation, innovation, and economic growth (Basu & Virick, 2008). Goetz, Fleming, and Rupasingha (2012) point out that self-employment has significant positive economic impacts not only on wage and salary employment but also on per capita income growth and poverty reduction. Today's students are tomorrow's potential entrepreneurs, which may explain why a growing number of US universities offer courses and programs in entrepreneurship. Business experts, economist, and various educators believe that many types of students have entrepreneurial intentions. Students from various academic fields such as Engineering, Psychology, Pharmacy and Economics could be educated in the foundation of entrepreneurial knowledge, skills and attitude. Many recent researches (Zhang, Dysters & Clodt, 2014; Ferreira, Raposo, Rodrigues, Dinis & Paco, 2012; Zhang, Wang & Owen, 2015; Hatak, Harms, Fink, 2015) have studies on intention to become an entrepreneur.

At the college level, advocates believe that universities need to integrate entrepreneurship and creativity more deeply into their curricula, for both students majoring in business and other courses as well (Kauffman Foundation, 2007). This is to ensure their interest in entrepreneurship is channelled properly and they obtain all the guidance and information to encourage them to be a business owner after graduating. Self-employment through entrepreneurship offers university graduates the opportunity to create jobs for themselves and others. Beeka and Rimmington (2011) and Buang (2011) stated that entrepreneurship is one of the career options for youths and graduates. Entrepreneurship is one of the options to reduce the unemployment rate and the social problems that are associated with unemployment.

Therefore, it is critical to understand the factors that affect their intentions to start-up a business in the future. Ashley, Catherine, King, Sandra, and Solomon (2009) point out that there are a number of individual factors that motivate a person's decision to become an entrepreneur. These can generally be categorized as (1) demographic variables or (2) attitudes, values or psychological factors. Ismail, Khalid, Othman, Jusoff, Abdul Rahman, Mohammed and Shekh (2009) add that in addition to

personality traits, several additional individual difference variables have been found to predict entrepreneurship. Demographic factors affecting entrepreneurship are age, sex, education, work experience and role models. In addition, individual difference variables such as age, gender, and education can impact on entrepreneurial behaviours. This study focuses on curiosity, risk taking and creativity, which are the individual factors that can impact on entrepreneurial intention. Wan, Lu & Millington. (2011) and Zellweger, Sieger and Halter (2011) note that understanding the antecedents of entrepreneurial intention allows teachers, consultants, advisors and policy makers to get a clearer picture of how intentions are formed and how new venture founders' beliefs, perceptions and motives impact the intent to start a business. Investigating the motives that drive graduating students to entrepreneurship is highly significant given the importance of entrepreneurship to job creation and economic growth.

2.0 LITERATURE REVIEW

2.1 Entrepreneurship Intention

According to Low and MacMillan (1988), entrepreneurship is defined as the “creation of new enterprise”, while Gartner, Bird, and Starr (1992) defined it as the process of organizational emergence. Entrepreneurial intentions are crucial to this process, forming the first in a series of actions to organizational founding (Bird, 1988). Moreover, intentions toward a behavior can be strong indicators of that behavior (Fishbein & Ajzen, 1975). In the context on entrepreneurial intention specifically, it has been defined by Peng, Lu, and Kang (2012) as a mental orientation such as desire, wish and hope influencing the choice of entrepreneurship.

According to Pihie (2009) entrepreneurship can be measured in two ways: Actual entrepreneurship which refers to people that have actually started business and entrepreneurial intention; people that intend to start business. A strong association exists between the entrepreneurial intention and actual behaviour. Henley (2007) points out that entrepreneurship is an intentional activity, in that for many those intentions are formed in advance of new venture creation. Previous research has proposed several conceptual models for understanding Entrepreneurial Intention, including the Entrepreneurial Event Model (Shapiro & Sokol 1982); the Intentional Basic Model (Krueger & Carsrud 1993); the Entrepreneurial Potential Model (Krueger & Brazeal 1994); and the Davidsson Model (Davidsson 1995). However, research has shown that there is little difference in the approaches taken by these models (Krueger, Reilly, & Carsrud 2000).

Studies on entrepreneurial focused on various variables as the predictors. Some of them (Koe & Shamuganathan, 2010; Zhao, Seibert, & Lumpkin, 2010; Antoncic, Kregar, Singh, & DeNoble, 2015) focused on personality characteristics or personal background of respondents. Ang and Hong (2000) conducted a study by comparing entrepreneurial spirits of university students in Hong Kong and Singapore. They concentrated specifically on the role of some personality characteristics such as risk-taking propensity, tolerance for ambiguity, internal locus of control, innovativeness, and independence, and motivational factors (love for money, desire for security, and desire for status). Wang and Wong (2004) explained entrepreneurial interest of students in Singapore based on personal background. The study reveals that gender, family business experience, and education level are significant factors in explaining entrepreneurial interest. A study on the perception of young adult on entrepreneurship reveals that most respondents perceived entrepreneurs mostly with their innate characteristics (Henderson & Robertson, 2000).

2.2 Curiosity and Entrepreneurial Intention

According to Berlyne (1960) curiosity is often considered to be the desire to gain information, which, in turn, results in exploratory behavior and knowledge acquisition. One of the newest definitions of curiosity from Kashdan, DeWall, Pond, Silvia, Lambert, Fincham, Savostyanova, & Keller, (2013) in other words explain that curiosity is the propensity to recognize and seek out new information and

experience, including an intrinsic interest in learning and developing one's knowledge. Since entrepreneurs need knowledge in order to act appropriate in the market entrepreneurial curiosity seems to be as one of the strongest determinants that influence them. Curiosity has often been used as a variable in studying behavioral intention in various disciplines. A study by Dong and Seon (2010) found the effect of curiosity on online shopping intention. The same result was derived from Wen and Hsiao (2013) who found a significant positive effect of curiosity on group-buying behavioral intention. In the context of entrepreneurial intention, a study conducted by Kerrick (2008) had considered curiosity as one of the variables. The researcher found a significant relationship between perceptual curiosity and entrepreneurial intention. However, the researcher suggested that this variable needs an additional investigation within the field of entrepreneurship.

Researchers have found four different types of curiosity: interpersonal, epistemic, sensory and perceptual curiosity. Interpersonal curiosity is the desire for new information about people, including details about others' life experiences, their public and private activities, and also their internalized thoughts, feelings, and motives (Litman & Pezzo, 2007). Epistemic curiosity is the desire to obtain new knowledge expected to arouse intellectual interest, also called as the "I-type" or eliminate conditions of informational deficiency or the "D-type" (Litman, 2008). Sensory curiosity occurs when physical factors such as changes in tone of voice, light, or sound attract the attention of learners. Perceptual curiosity, on the other hand, is aroused when learners believe that it may be useful to modify existing cognitive structures.

2.3 Risk Taking and Entrepreneurial Intention

Risk-taking refers to the tendency to engage in behaviors that have the potential to be harmful or dangerous, yet at the same time provide the opportunity for some kind of outcome that can be perceived as positive (Tull, 2009). This variable refers to risk acceptance when entering an activity, related to the probability of an activity having less than 100% success (Kuip & Verhaul, 2003). An entrepreneur is a person who creates new business by taking risks and uncertainties in order to gains some benefits and growth in business (Zimmerer & Scarborough, 2004). The principle of "high risk high return" is perfectly linked to people who are running a business (entrepreneurs).

According to Cromie (2000), entrepreneurs are found to have higher propensity to take risk compared to other groups such as managers, non-entrepreneurs and teachers. Lischeron (1991) suggested that risk-bearing is the key in distinguishing entrepreneurs and managers. However, some study results indicate that entrepreneurs prefer to take moderate risks and do not like to be involved in high risk situations (Koh, 1996; Thomas & Mueller, 2000). Research findings also provide evidence that individuals with a greater risk acceptance had stronger levels of entrepreneurial intention (Hmieleski & Corbett, 2006). In a Turkish student sample, Gurol and Atsan (2006) found that students with entrepreneurial inclinations had higher scores in risk-taking propensity compared to students with no such inclination. Although Zhao, Hills and Seibert (2010) claimed that risk propensity is the best predictor of entrepreneurial intentions among other entrepreneurial traits, it is not necessarily related to entrepreneurial performance.

Even though risk-taking is often mentioned as a determinant of entrepreneurial intention, a few researchers found that entrepreneurs do not have positive attitudes towards risks and do not consider themselves as risk takers (Davidsson, 1989; Baron, 1998). A study by Do Paco, Ferreira, Raposo, and Rodrigues (2011) who focused on the effect of psychological and behavioral variables on entrepreneurial intention confirmed this finding. They suggested that propensity to take risk does not positively influence entrepreneurial intention among secondary students in Portugal. According to Bellu (1988), entrepreneurs are less attracted to take risks and their risk taking may be specific or monetary. As stated by Timmons (1989), entrepreneurs tend not to be gamblers but they assess and measure risks carefully.

2.4 Creativity and Entrepreneurial Intention

Creativity and entrepreneurship are closely intertwined (Fillas & Rentschler, 2010). Opportunity recognition, or coming up with new ideas to start a business involves creativity. As a creative process, opportunity recognition results from perceiving and combining information in novel ways leading to new or enhanced products and services. In fact, innovativeness and creativity are key entrepreneurial features (Heinonen, Hytti, & Stenholm, 2011). High creativity in running a business is a need for an entrepreneur. Entrepreneurs show their creativity as they identify opportunities by recognizing existing or emerging patterns across diverse sets of information (Baron, 2006). Creativity, therefore is considered a key input for recognizing business ideas. The role of creativity in entrepreneurship may extend beyond merely idea generation. An entrepreneur should be ready to keep thinking and finding new opportunity in coping with problems and expanding the business. Scott (1999) in his study on 36 business start-ups found the importance of creativity in starting up a business. Creative entrepreneurs can produce creative innovations (Riyanti, 2007) which help to expand the business. Creativity, risk taking and independence increase the probability of becoming entrepreneur, and decrease the probability of becoming employee (Knorr, Alvarez, & Urbano, 2013). Almeida, Ahmetoglu, Chamorro-Premuzic (2014) show that entrepreneurial individuals are characterized primarily as enterprising and creative, and to some degree as social and investigative.

According to Timmon's (1989) model of the entrepreneurial process, successful entrepreneurial team devise original and creative strategies to order and gain control of resources and use of creativity to identify entrepreneurial opportunities. Central theme driving the entrepreneurial process is sensitive to opportunities; so entrepreneurial leaders and their teams need to be creative to identify opportunities in market and technology, and to generate patents by implementing creative ideas (Long, 1983). In a study, Khoo and Butler (2005) conducted with entrepreneurs in Hong Kong, creativity was determined as a key link to entrepreneurial behavior. It was determined that part of the creative process involves linking unassociated bits of information into new combinations. This new knowledge can serve as potentially useful for training entrepreneurs and students to be more creative in ways to make entrepreneurial behavior more likely.

The role of creativity in entrepreneurial intention has also been investigated among students. The result of a study by Zampetakis, Gotsi, Andriopoulos, and Moustakis (2011) showed that the more creative young people consider themselves to be, the higher are their entrepreneurial intentions. This finding is supported by Hamidi, Wennberg, and Berglund (2008), who found that students with high creativity scores are having high entrepreneurial intentions. Based on an article entitled Understanding gender, creativity and entrepreneurial intention by Smith, Sardeshmukh and Combs (2016), creativity had a stronger relationship with intentions among women.

From the above literatures, the following hypotheses are formulated:

- H₁ There is a positive significant relationship between curiosity and entrepreneurial intention.*
- H₂ There is a positive significant relationship between risk taking and entrepreneurial intention.*
- H₃ There is a positive significant relationship between creativity and entrepreneurial intention.*
- H_{4a} Curiosity is the most dominant predictor of entrepreneurial intention.*
- H_{4b} Risk taking is the most dominant predictor of entrepreneurial intention.*
- H_{4c} Creativity is the most dominant predictor of entrepreneurial intention.*

3.0 METHODOLOGY

3.1 Sample and Population

The population of this study was the students of Universiti Teknologi MARA (UiTM), Kedah, Malaysia specifically the Business Studies undergraduate students. Students' from Diploma in Business Studies were selected as the respondent for this present study was due to they were the most relevant samples to be part of this present study as they are equipped with entrepreneurial behavior

since in the first semester. A sample frame was drawn from the list of students from the student's division and the total number of population of the Business Studies undergraduate students in UiTM Kedah was 320 students. Therefore, referring to the sample size determination table by Sekaran (2003), a sample size of 175 participants was generated by using non probability sampling technique in which units of the sample are selected on the basis of convenience or personal judgment sampling. But due to missing data in one questionnaire returned, thus the sample for the present study was 174 in total. The respondents who come from various demographic backgrounds were selected to provide better insight to the present study. Using this sampling technique was to ensure every unit in the population had an equal chance to be selected as the sample of this study. This method was also used in order to obtain a large number of completed questionnaires quickly and economically, due to time and budget constraints.

3.2 Data Collection Method

Data for the present study was collected using a self-administered. The questionnaire which contains 45 questions was divided into five sections. The first section had 4 questions. It contains five questions; respondents' age, gender, marital status and courses. The next section contains questions which included items of the independent variables which are the factors leading to entrepreneurial intentions among students; curiosity, risk taking and creativity respectively. The final section includes questions from the dependent variable which is entrepreneurial intention among students. The present study manages to obtain 174 responds out of 175 questionnaires that were distributed which presented 99% response rate. The questionnaires were distributed personally to the respondents. The relatively high rate of responds was due to the situation where the respondents answered the questions there and then or on-the-spot answering method. The questions were about the general intention of the respondents to become an entrepreneur.

3.3 Data Analysis Procedures

The data analysis of the present study employed SPSS statistical software version 21.0. The statistical tools adopted in this study were frequency analysis, correlation analysis and regression analysis.

4.0 RESULTS

4.1 Profile of the Respondents

From the 174 respondents received in this sample, a wide range of demographical characteristics was examined. On the issue of gender, the sample was predominantly females with 70.53% compared to men 29.5%. This ratio could be due to the random distribution of the questionnaire and did not directly portray the true nature of the population at large. In terms of age range, it showed that the majority of the respondents were between 21-29 years of age, which is 98.7%, leaving only 1.3% for the respondents aged less than 21 years old. This was again due to random distribution of the questionnaire, which might not indicate the whole population.

The respondents' marital status showed that a large number 98% were single, while only 2.0% were married respondents. There were no respondents in the divorced category. Based on the cross tabulation of gender and marital status, we noticed that more single women were the respondents of the present research. In term of course taken by the respondents, results vary in all categories. It showed that most of the respondents were from Marketing /International Business course (50.3%), followed by 25.5% from Islamic Banking/Finance course, 13.4% from Business Economics, 6.7% from Accounting, 2.7% from Administrative Science and only 1.3% from Library Management Course. Table 1 presents the overall profile of the sample.

Table 1 Respondents' profile

Profile	Frequency	Percentage (%)
Gender:		
Male	44	29.5
Female	105	70.5
Age:		
Less than 21	2	1.3
21 – 29 years	147	98.7
Marital status:		
Single	146	98.0
Married	3	2.0
Course:		
Marketing/International Business	75	50.3
Islamic Banking/Finance	38	25.5
Business Economics	20	13.4
Accounting	10	6.7
Administrative Science	4	2.7
Library Management	2	1.3

4.2 Correlation Analysis

For the present study, Pearson correlation coefficient was used to measure the strength of association among the variables used. As shown in Table 2, risk taking with a correlation value of 0.54 and creativity (0.64) have a positive relationship with entrepreneurial intention. However, curiosity does not show a significant relationship with entrepreneurial intention. Thus it can be concluded that Hypothesis 2 and 3 are supported.

Table 2 Pearson correlation results

	1	2	3
1 Entrepreneurial Intention			
2 Curiosity	0.026		
3 Risk Taking	0.54**	0.25**	
4 Creativity	0.64**	0.19**	0.68**
**Correlation is significant at the 0.01 level (1-tailed)			
*Correlation is significant at the 0.05 level (1-tailed)			

4.3 Regression Analysis

A regression analysis was carried out to find out the degree of significant relationship between the independent variables and the dependent variable. From Table 3, it can be concluded that creativity with a beta value of 0.275 is the most dominant predictor of entrepreneurial intention. Thus, hypotheses 4c is accepted.

Table 3 Regression analysis

Variables	Beta
Independent variables:	
Curiosity	-0.164**
Risk taking	0.170
Creativity	0.275**
R ²	0.557
R ² change	0.557
Adjusted R ²	0.542
F change	35.98
Sig- F	0.00

Notes: **p<0.00, *p<0.05

4.4 Summary of Hypotheses

In conclusion, the finding shows that Hypotheses 2, 3 and 4c were accepted. Table 4 shows the summary of the hypotheses and its results.

Table 4 Summary of hypotheses

	Hypotheses	Result
H1	There is a positive significant relationship between curiosity and entrepreneurial intention.	Rejected
H2	There is a positive significant relationship between risk taking and entrepreneurial intention.	Accepted
H3	There is a positive significant relationship between creativity and entrepreneurial intention.	Accepted
H4a	Curiosity is the most dominant predictor of entrepreneurial intention.	Rejected
H4b	Risk taking is the most dominant predictor of entrepreneurial intention.	Rejected
H4c	Creativity is the most dominant predictor of entrepreneurial intention.	Accepted

5.0 DISCUSSION

Overall, the empirical evidence from the present study found that creativity and risk taking have direct significant positive relationships with entrepreneurial intention, while curiosity is found to have a no significant relationship. As previous studies confirmed that someone who is creative can be a successful entrepreneur as they are able to generate new ideas, concept or alternatives. Creativity is considered as the act of making something new, different and original. Riyanti (2007) pointed out that creative entrepreneurs can produce creative innovations which help to expand the business. This dimension was positively related to entrepreneurial intentions maybe due to the subjects that the students undertake are always encouraging them to think outside of the box whilst requesting them to generate new and significant ideas during class discussions. In short, by having creative discussion leads to the students being more versatile and prepare them to become a great entrepreneur.

Risk taking is also found to have a significant positive relationship with an intention to be an entrepreneur. According to Zimmerer and Scarborough (2004), an entrepreneur is a person who creates new business by taking risks and uncertainties in order to gains some benefits and growth in business. The principle of “high risk high return” is perfectly linked to people who are running a business (entrepreneurs). Cade Miles, a daughter of Gatorade inventor believes that a truly creative person could bring great benefits to a company if the creativity is properly harnessed (Fallon, 2014).

Students are always exposed to choosing between alternatives and making decision in class. This is often engaged since they were in the first semester until the end of their study journey. By having to make decision and choose between alternatives, it leads the students to think more critically and seriously and measure the weighs of all alternatives before deciding. This creates a thinking generation rather than just a doer. Besides, students will have more courage and experience when facing the reality in the future.

On the other hand, curiosity is found to have no significant relationship to entrepreneurial intention. Curiosity is defined as a reaction and desire that motivates human exploratory behavior in order to seek and acquire new knowledge. This result shows that intention to be entrepreneurs is not positively related with curiosity, which means low curiosity does not lead to have intention to become an entrepreneur. This result is not consistent with previous literatures. Kerrick (2008) found a significant relationship between perceptual curiosity and entrepreneurial intention. However, the researcher suggested that this variable needs an additional investigation within the field of entrepreneurship. Other studies have tested the influence of curiosity in various behavioural intention areas such as online shopping intention and group-buying behavioural intention (Dong & Seon, 2010; Wen & Hsiao, 2013), and these studies found a significant positive relationship. This insignificant finding may be due to the exposure the students obtain nowadays leads them to being less curious. As the era has changed and more technological involvement is encompassed, information can be obtained easily and fast. Thus, the level of curiosity can be reduced as information can be gathered swiftly and easily.

5.1 Suggestions for Future Research

The researchers have considered three variables; curiosity, risk taking, and creativity in predicting the entrepreneurial intention among undergraduate students. The results found that only two variables have positive significant relationship. For future research, we recommend that other variables to be taken into consideration which can better explain the relationship. Furthermore, with regards to behavioural intention, there are various application of theories such as the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and many more can be used. In the current research, the respondents were the undergraduate students. It is recommended that a wider scope of respondents to be used to get a better view of the findings.

6.0 CONCLUSION

The aim of the study was to investigate the influence of curiosity, risk taking and creativity to entrepreneurial intention. Analysis has shown risk taking and creativity have positive and significant relationships with entrepreneurial intention. In Malaysia, many actions and measures have been taken by the government to create entrepreneurship interests especially among youths. Schools and universities are instructed to emphasize entrepreneurship activities in order to attract students to have interests in this field. However, to gain their interests, the government should first aware the factors that determine entrepreneurship intention and focus on these factors to mould the students. This study is important as it provides an insight on the areas to focus on in order to foster entrepreneurship spirit and interest among students for them to become great business leaders in future.

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