



Determinants of Entrepreneurial Career Intentions: A Case of Undergraduate Students at UNIKL (MIMET) Seri Manjung, Perak

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ABSTRACT

This paper explores determinants (i.e. personality traits of entrepreneurial innovativeness, entrepreneurial knowledge and entrepreneurial environment) contributing to the entrepreneurial career intentions among undergraduate students in UNIKL (MIMET) in Seri Manjung Perak. A survey was carried out with 300 respondents. Five-point Likert scales of 40 questionnaire items were developed to measure the constructs. Based on 209 completed data, both descriptive and inferential statistic was run. This study discovered that more than 70 per cent of the respondents have favourable attitude towards entrepreneurship.

From the hierarchical multiple regression analysis, entrepreneurial knowledge and entrepreneurial environment have significant influence on entrepreneurial career intentions. Entrepreneurial environment was the most important predictor to entrepreneurial career intentions, followed by entrepreneurial knowledge. Entrepreneurial innovativeness had no significant relationship with entrepreneurial career intentions. These findings will be a value addition in Malaysia scenario and are likely to help Malaysian government in evaluating the success implementation of entrepreneurship program among undergraduates. Lessons and implications for entrepreneurship in Malaysian context are presented.

Keywords: Entrepreneurship, Entrepreneurial Innovativeness, Entrepreneurial Knowledge, Entrepreneurial Environment, Entrepreneurial Career Intentions

I INTRODUCTION

Entrepreneurship plays an important role in economic growth, creating job opportunities and social adjustment of the country. A considerable agreement exists on the importance of promoting entrepreneurship to stimulate economic development and employability (Ahmed, Nawaz, Ahmad, Shaukat, Usman, Wasil-ul-Rehman & Ahmad, 2010; Turker & Selcuk, 2009; Luiz & Mariotti, 2008). Thus, evidence from the literature suggests that entrepreneurship and self-employment are the best solutions in transforming the joblessness or unemployed graduates (Ahmed et al., 2010; Turker & Selcuk, 2009; Luiz & Mariotti, 2008). Hence, one possible approach in this direction is to encourage self-employment and be the boss to your business (Aliman & Abdul Jalal, 2012). The better understanding of the nature of business supported by the policy maker is among forces that may drive the joblessness among graduates successfully make the transition into business (Aliman & Abdul Jalal, 2012).

Therefore, Malaysia Ministry of Higher Education in National Higher Education Strategic Plan Phase 2 emphasises on the efforts to put entrepreneurship education in the mainstream. Its objective is to promote entrepreneurship among all students which will be in turn, contribute to the nation's economic growth (The National Higher Education Strategic Plan beyond 2020, Ministry of Higher Education). On the other hand, the Prime Minister of Malaysia said that programmes such as the Malaysian Global Innovation and Creativity Centre (MaGIC) and the Global Entrepreneurship Movement (GEM) are to prepare the new generation, who are not merely salaried, but want to be creators of jobs and capable of generating wealth for themselves and the country (Lee, 2017). In particular, this research explores determinants (i.e. personality traits of entrepreneurial innovativeness, entrepreneurial knowledge and entrepreneurial environment) contributing to the entrepreneurial career intentions among undergraduates in Malaysia.

The main objective of this study is to investigate the influence of entrepreneurial innovativeness, entrepreneurial knowledge and entrepreneurial environment that may influence entrepreneurial career intentions among university students.

II LITERATURE REVIEW

Entrepreneurship is said to be functions of various factors e.g. personality traits, education, experience, social and economic conditions, law and order and many other issues (Ahmad et al., 2010). According to the Institutional Economic Theory, the contextual factors were determinants of entrepreneurship. Those factors included political and economic rules and contract, codes of conduct, attitudes, values, norms of behaviour and conventions (Veciana, Aponte & Urbano, 2005). Luthje & Franke

(2003), incorporated both personality traits and contextual factors as determinants of entrepreneurial intentions. The study done by Turker, Onvural, Kursunluoglu & Pinar (2005), also considered the impacts of both internal factors (motivation and self-confidence) and external factors (perceived level of education, opportunities and support) on entrepreneurial propensity of university students. According to Ashley-Cotleur, King, & Solomon (2009), there are a few motivators to drive someone to be an entrepreneur and they categorized it into (1) demographic variable, (2) attitude, value or psychological factor. Briefly, there is a general agreement that attitudes towards the entrepreneur, entrepreneurial activity, and its social functions were determinant factors for university students to decide on entrepreneurial career intentions.

Entrepreneurial innovativeness and entrepreneurial career intentions

According to Carland & Carland (1988), the core drivers of innovativeness observed in entrepreneurs are the intentions to develop and gain profit, and the strength of these drivers are higher in innovative entrepreneurs. Goldsmith & Kerr (1991) discovered that the students who have gone through from the entrepreneurship courses proved to be much more innovative than the other students of business. A few researchers claimed that innovativeness as one of the most important trait of entrepreneurs (Ang & Hong, 2000; Ahmed et al., 2010). Ahmed et al., (2010) suggested that there was a strong relationship between students' innovativeness and their intentions to become entrepreneurs in future. Research findings have provided evidence that innovation is a primary motive in starting a new venture and also has a significant impact on venture performance (Hisrich, Peters, & Shepard, 2008). The study by Carland et al. (1984, 1988) was conducted with two groups to investigate differences in choosing innovation, and found that entrepreneurs with high innovativeness mainly aimed at profit and development, whereas those who were less innovative considered business as a way to maintain individual goals and/or to provide family income.

Entrepreneurial knowledge and entrepreneurial career intentions

Entrepreneur with entrepreneurial education and experience can create higher profits from entrepreneurial businesses (Jo & Lee, 1996). Entrepreneurship education is all about the development and improvement of entrepreneurial inspiration, awareness, knowledge and skills that are much needed to successfully establish and run an entrepreneurial venture (Ozaralli & Rivenburgh, 2016). According to Lee, Chang & Lim, 2005; De Jorge-Moreno, Castillo & Triguero, 2012, entrepreneurial education is

important in cultivating the entrepreneurial spirit in individuals who could start new ventures. Entrepreneurial education programs are source of entrepreneurial attitude and overall intentions to become future entrepreneurs (Souitaris, Zerbinati & Al-Laham Andreas, 2007). Rauch & Frese (2000) also emphasized that entrepreneurial education can enhance an individual's creativity, flexibility and ability to respond to changing situations and thus contribute to innovative behaviors. Hence, entrepreneurship education has been considered as one of the key instruments to increase the entrepreneurial attitudes of both potential and nascent entrepreneurs (Linan, Carlos & Jose, 2011).

Entrepreneurial environment and entrepreneurial career intentions

Van de Ven (1993) is of the view that any study on entrepreneurship that disregard environment is insufficient and incomplete. Thus, indicating that environment is a key factor in predicting an effective and successful entrepreneurship development. Therefore, environment has been widely identified as one of the key players that ensure and dictate the continual survival and continuation of the business (Arowomole, 2000). For instance, Abdullah, et al. (2009) stated that environment plays a positive impact on the development of small firms in the society to the extent that it influences entrepreneurial activity. According to Lucky & Minai (2011), environmental factor plays a crucial role in determining the probability of individual becoming entrepreneurs. Also, the study by Indarti, Rostiani & Nastiti (2007) found that environment is a significant factor in influencing entrepreneurial intention among Asian students. Taormina and Lao (2007), pointed out that environment has a strong influence on every individual. They argued that environment can encourage or discourage them from becoming entrepreneurs. For example, an individual is likely to be interested in becoming an entrepreneur in an environment that promote business while on the other hand, an individual may not have interest in business or entrepreneurship activities where the environment does not promote business. Accordingly, studies done by Uddin and Bose (2012) found a strong correlation between the environment and the entrepreneurial intention. Their study suggests that the relationship between environment and entrepreneurial intention is worth investigating.

III METHODOLOGY

Theoretical Framework

Both internal and external factors make up the predictors of entrepreneurial career intentions.

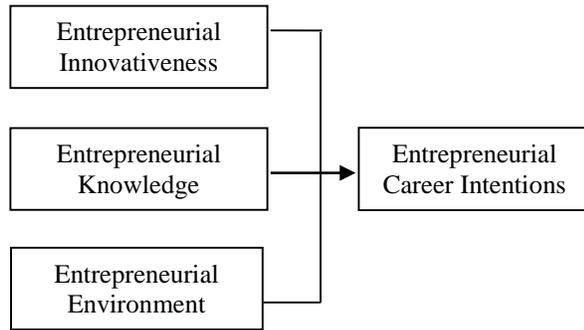


Figure 1: Proposed Model

Research Hypotheses

- H1 Entrepreneurial innovativeness has an impact on entrepreneurial career intentions.
- H2 Entrepreneurial knowledge has an impact on entrepreneurial career intentions.
- H3 Entrepreneurial environment will determine entrepreneurial career intentions.

Sample

The targeted sample size for this study was 250 students. 300 survey questionnaires were distributed to undergraduate students from business and non-business background at UniKL, Seri Manjung Perak. Purposive convenience sampling was employed to select the respondents. This sampling method was used to ensure that research respondents consist of male and female students who pursue their studies at Degree level in various programs offered by UniKL Seri Manjung Perak. This sample size is consistent with other research conducted in other countries such as Linan et al. (2011) that used 354 students in Spain, research done by Ahmed et al. (2010) that used 276 Pakistani business graduate students, Turker and Selcuk's (2009) and Eileen's (2008) research both utilizing 300 university students in Turkey, and 273 students in Ireland respectively.

Instrument and measurement

The survey questionnaire consists of three sections. Section 1 consists of six (6) questions in relation to entrepreneurship. In Section 2, the survey instrument was based on scales constructed from previous studies. Likert five-point scales were used to measure the predictors and criterion variables. The entrepreneurial career intentions (dependent variable) were measured using 12 items adapted from Pihie (2009), Linan & Chen (2009), and Linan et al. (2011). Entrepreneurial environment was measured using 10 items adapted from Luiz & Mariotti (2008), entrepreneurial knowledge was measured using 9 items adapted from Linan et al. (2011), and entrepreneurial innovativeness used 9 items adapted from Jackson (1994) – Jackson Personality Inventory. Meanwhile, section 3, questions on demographic variables was asked.

IV RESULTS

Respondents Profile

Based on the 209 sample of UNIKL students, the percentage of male and female respondents are 75.1 and 24.9 per cent respectively. In the whole sample, 14.8 per cent of respondents are below 20 years old, 76.1 per cent are between 20-25 years old and 9.1 per cent are between 26-29 years old. 26.8 per cent are students in Year 1, 25.4 per cent are students in Year 2, 38.3 per cent are students in Year 3 and 9.6 per cent are students in Year 4. In term of program taken, students are pursuing their studies in marine electrical and electronic, naval architecture and shipbuilding, marine engineering, maritime operations, ship construction and maintenance and ship design.

Analysis from Section 1 discovered that 71.3 per cent of students have attended an entrepreneur course. 63.6 per cent have business experience, 55 per cent have parents involve in business and 56 per cent have some money to start a business. Hence, 70 per cent have favourable attitude towards entrepreneurship.

Reliability Analysis

The alpha values were calculated (see Table 1) to assess the internal consistency reliabilities of the scales. Alpha values for predictors and criterion variables are as follows: entrepreneurial innovativeness

($\alpha=0.76$), entrepreneurial knowledge ($\alpha=0.84$), entrepreneurial environment ($\alpha=0.85$), and entrepreneurial career intentions ($\alpha=0.89$). All variables had above 0.70 Cronbach's alpha values. According to Sekaran (2006), the closer Cronbach's alpha is to 1, the higher its internal consistency reliability. A reliability less than 0.60 is considered poor, those in the 0.70 range, is acceptable and over 0.80 is good.

Table 1: Reliability Analysis Results

Constructs	No. of items	Mean	A
Entrepreneurial innovativeness	9	3.65	0.76
Entrepreneurial knowledge	9	3.54	0.84
Entrepreneurial environment	10	3.94	0.85
Overall	28	3.71	0.82
Entrepreneurial career intentions	12	4.73	0.89

Regression Analysis and Discussion

Hierarchical multiple regression was run to test the hypothesised relationships between entrepreneurial innovativeness, entrepreneurial knowledge, entrepreneurial environment of undergraduate students and entrepreneurial career intention. Overall, the model was fit ($F\text{-change}=189.87$; $F\text{-sig}=0.00$). There was a strong relationship between entrepreneurial knowledge, entrepreneurial environment and entrepreneurial career intentions ($R=0.86$). 74 per cent of the changes in entrepreneurial career intentions were explained by the predictors ($R^2=0.74$)

In Model 1, the predictors (entrepreneurial innovativeness, entrepreneurial knowledge and entrepreneurial environment) were entered together. The results showed that entrepreneurial knowledge and entrepreneurial environment have significant influence on entrepreneurial career intentions. Entrepreneurial environment ($B=0.77$; $t=7.68$; $p=0.00$) turned up as the most important predictor for entrepreneurial career intentions. Other significant determinant is entrepreneurial knowledge ($B=0.34$; $t=3.26$; $p=0.00$). These findings give support to H2 and H3. H1 was rejected because this study discovered that entrepreneurial innovativeness ($B=0.08$; $t=1.31$; $p=0.19$) does not have significant effect on entrepreneurial career intentions of students.

Table 2: Result of hierarchical regression on entrepreneurial career intentions

Model 1	B	β	T	Sig.
Entrepreneurial innovativeness	0.08	0.06	1.31	0.19
Entrepreneurial knowledge	0.34	0.24	3.26	0.00**
Entrepreneurial environment	0.77	0.61	7.68	0.00**
R	0.86			
R ²	0.74			
F-change	189.87			
F-sig	0.00**			

Notes: significant at 0.05 level (*p<0.05; **p<0.00)

Entrepreneurial environment significantly predicts entrepreneurial career intentions. This finding was consistent with previous researches done by Uddin and Bose, 2012; Indarti, Rostiani & Nastiti, 2007). Entrepreneurial knowledge is significant predictor to entrepreneurial career intentions. It lends support to (Linan et al., 2011; Souitaris et. al., 2007; Franke & Luthje, 2004) but contradicted to Ahmed et al's findings (2010). However, entrepreneurial innovativeness had no significant relationship with entrepreneurial career intentions. The result did not support other researchers in this area (Ahmed et al., 2010). In summary, these findings provide support to H2 and H3, suggesting that the predictors have positive and significant relationship with entrepreneurial career intentions.

V CONCLUSION

More than 70 per cent of the respondents have favourable attitude towards entrepreneurship even though 56 per cent of them have no money to start the business. With these positive attitudes towards entrepreneurship, the university educators and administrators as well as government and policy makers should remain in putting the efforts to cultivate students' interest towards entrepreneurship, promoting successful entrepreneurial role models to students, conducting entrepreneurship educational program more

effectively. They shall provide the supporting infrastructures and removing barriers in starting entrepreneurial venture so more students are encouraged towards entrepreneurial career path.

Universities' authorities should teach the students about entrepreneurship skills and expose them on real-world business environment, teaching them how to face different situation, so that they will enable to have positive attitudes towards choosing entrepreneurship as a career. It is also necessary that the universities' authorities provide initial investment to start entrepreneurship venture, academic trips to the industry and more industrial attachment with the industry.

Since entrepreneurial environment rank as the most important predictor of entrepreneurial career intentions, university educators and administrators should support establishing knowledge-based enterprises, incubators at universities, implement entrepreneurship training skills in curriculum, as well as establish centres that support entrepreneurship. In order to instil and cultivate the entrepreneurial career intention among students, the universities should have the initiatives to conduct workshops, forums, seminars regarding successful entrepreneurs and entrepreneurship career exposure. Universities should set the bar higher and collaborate with corporate partners in involving live projects that the students can work on. This can benefit both students and corporation whereby the students get hands-on experience and profits and the corporation gets vital information about consumers and their needs.

Besides good entrepreneurial environment, the entrepreneurial knowledge should also be aligned with the world economic growth in order to have students to start up their businesses. The government and policy makers should consider institutionalizing entrepreneurial approach in higher education. So, universities can have major contribution on economic and technological development of the society. The students can utilize IT infrastructure to virtual learning environment and access to a global market for the exposure on new venture of business and enhancement of entrepreneurship skills. All the entrepreneurship programmes and activities conducted by universities' authorities, government and policy makers, may be crucial to be a financially strong country, which is full of entrepreneurially minded individuals.

This research involved undergraduate students in UNIKL (MIMET) Perak. Future research can extend the present study in several directions. One direction would be to replicate the same questionnaire with other UNIKL state campuses at the undergraduate level. One could also conduct the same study on undergraduate students in other public and private universities in Malaysia. In addition, future research may consider self-confidence as a moderating variable between predictors and intentions.

REFERENCES

- Ahmed, I., Nawaz, M. M., Ahmad, Z., Shaukat, M. Z., Usman, A., Wasim-ul-Rehman & Ahmad, N. (2010). Determinants of Students Entrepreneurial Career Intentions: Evidence from Business Graduates. *European Journal of Social Sciences*, 15 (20), 14-22.
- Aliman, N. K., & Jalal, H. A. (2012). Determinants of entrepreneurial career intentions: An Investigation on Undergraduate University Students at UiTM Perak. *Abstract books Asean Entrepreneurship Conference: Entrepreneurship in Asean Countries, 2012*.
- Ang, S.H., & Hong, D (2000). Entrepreneurial spirit among East Asian Chinese. *Thunderbird International Business Review*, 42, 285-309.
- Arowomole, K. (2000). *Modern business management (Theory and Practice)*: Sango-Ota, Ogun State: Ade-Oluyinka Commercial Press.
- Ashley-Cotleur, C., King, S., & Solomon, G. (2009). *Parental and gender influences on entrepreneurial intentions, motivations and attitudes*. George Washington University.
- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. C. (1984). Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of Management Review*, 9(2), 354-359. <http://dx.doi.org/10.2307/258448>
- Carland, J. W., Carland, J. C., Hoy, F., & Boulton, W. R. (1988). Distinctions between entrepreneurial and small business ventures. *International Journal of Management*, 5(1), 98-103.
- De Jorge-Moreno, J., Castillo, L. L., Triguero, M. S. (2012). The effect of business and economics education programs on students' entrepreneurial intention. *European Journal of Training and Development*, 36(4), 409-425.
- Goldsmith, R. E., & Kerr, J. R. (1991). Entrepreneurship and adaption-innovation theory. *Technovation*, 11(6), 373-382.
- Hisrich, R. D., Peters, P. M., & Shepard, D. A. (2008). *Entrepreneurship*. Singapore: Mc Graw Hill International Edition.
- Indarti, N., Rostiani, R., & Nastiti, T. (2007). Underlying factors of entrepreneurial intentions among Asian students. *South East Asian Journal of Management* 2007.
- Jackson, D. N. (1994). *Jackson Personality Inventory-Revised Manual*. Port Heron, MI: Sigma Assessment Systems, Inc.
- Jo, H., Lee, J. (1996). The relationship between an entrepreneur's background and performance in a new venture, *Technovation*, 16(4), 161-171.
- Lee, S. M., Chang, D., & Lim, S. B. (2005). Impact of entrepreneurship education: a comparative study of the U.S. and Korea. *International Entrepreneurship and Management Journal*, 1, 27-43.
- Lee, Stephanie. (2017, May 6). Be job creators, Najib tells youths. *The Star*. Retrieved from <http://www.thestar.com.my>
- Linan, F., & Chen, Y. M. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617.
- Linan, F. J., Carlos, R., & Jose, M. R. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship Management Journal*, 7, 195-218.
- Lucky, I., & Minai, M. S. (2011). "The Entrepreneurial Mind of the Female Graduate-to-be in Northern Malaysia". Paper presented at the *The Proceeding at the World Business, Economics and Finance Conference*.
- Luiz, J., & Mariotti, M. (2008). Perceptions regarding entrepreneurship in an emerging and culturally diverse economy: A South Africa survey. *Working Paper No. 95*, University of Witwatersrand and Australian National University.

- Luthje, C., & Franke, N. (2003). The making of an entrepreneur: testing a model of entrepreneurial intention among engineering students at MIT. *R & D Management*, 33(2), 135-147.
- Ozaralli, N., & Rivenburgh, N. K. (2016). Entrepreneurial Intention: Antecedents to entrepreneurial behaviour in the U.S.A. and Turkey. *Journal of Global Entrepreneurship Research*, 6(3), 1-32.
- Pihie, Z. A. L. (2009). Entrepreneurship as a career choice: An analysis of entrepreneurial self-efficacy and intention of university students. *European Journal of Social Sciences*, 9(2), 338-349.
- Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: A general model and an overview of findings. In C. L. Cooper & I. T. Robertson (Eds.). *International review of industrial and organizational psychology*, 101-142. Chichester: Wiley.
- Scott, M. G., & Twomey, D. F. (1988). The long-term supply of entrepreneurs: Students career aspirations in relation to entrepreneurship. *Journal of Small Business Management*, 26(4), 5-13.
- Sekaran, U. (2006). *Research Method for Business: A Skill Building Approach*. John Wiley & Sons., Inc.
- Souitaris, V., Zerbini, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22, 566-591.
- Taormina, R. J., & Lao, S. K. M. (2007). Measuring Chinese entrepreneurial motivation: Personality and environmental influences. *International Journal of Entrepreneurial Behaviour & Research*, 13, 200-221.
- Turker, D., Onvural, B., Kursunluoglu, E., & Pinar, C. (2005). Entrepreneurial propensity: A field study on the Turkish university students. *International Journal of Business, Economics and Management*, 1(3), 15-27.
- Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2), 142-159.
- Uddin, M. R., & Bose, T. K. (2012). Determinants of Entrepreneurial Intention of Business Students in Bangladesh. *International Journal of Business and Management*, 7, 128.
- Van de Ven, H. (1993). The development of an infrastructure for entrepreneurship. *Journal of Business Venturing*, 8, 211-230.
- Veciana, J. M., Aponte, M., & Urbano, D. (2005). University students' attitudes towards entrepreneurship: A two countries comparison. *International Entrepreneurship and Management Journal*, 1(2), 165-182.