



Entrepreneurial Self-Efficacy and Entrepreneurial Intention of University's Students: The Impact of Entrepreneurial Learning

Rohana Ngah¹, Abang Zainoren Abang Abdul Rahman² and Siti Zahrah Buyong³

1 Malaysian Academy of SME and Entrepreneurship Development (MASMED/ Faculty of Business and Management, Universiti Teknologi MARA; hana.ngah@gmail.com

2 Faculty of Business Management, Universiti Teknologi MARA (Campus Sarawak), abgzainoren@gmail.com

3 Malaysian Academy of SME and Entrepreneurship Development (MASMED/ Faculty of Business and Management, Universiti Teknologi MARA; zah_buyong@yahoo.com.my

ABSTRACT

Assessing the entrepreneurial intention among students has been an interest and focus of researchers and policy makers in promoting and nurturing graduate entrepreneurs. Recent studies on entrepreneurial intention (EI) have included entrepreneurial self-efficacy (ESE) as one of the important factors that influence students to take up entrepreneurship as one of employment alternatives. Higher Education Institutions (HEIs) have taken initiatives to embed entrepreneurship elements in the curriculum as well as actively organize continuous entrepreneurial activities to impart entrepreneurial learning. The objectives of this paper are to explore the relationship of Entrepreneurial Self-Efficacy (ESE) and Entrepreneurial Intention (EI) and also to investigate the impact of Entrepreneurial Learning (EL) as mediator. The findings show that ESE has a strong and positive direct impact on students' EI; however, EL does not mediate the relationship of ESE and EI. Implication of these findings for entrepreneurship research and learning are discussed.

Keywords: Entrepreneurial self-efficacy, entrepreneurial intention, entrepreneurial learning, Partial Least Square

1. INTRODUCTION

Entrepreneurship has been viewed as a way of life. It helps in identifying and exploiting the business opportunity and contributes to the national economic growth. Unemployment among graduates has become global issues as well as in Malaysia (Hanapi and Nordin, 2014). The Department of Statistics Malaysia (2016) showed the unemployment rate in Malaysia was at 3.4% as in June 2016 and graduates make up 35.3% of those who are 506,000 unemployed. It is estimated that 161,000 graduates or 8.8 % of youths, aged between 20 and 24 years, had yet to find a job after 6 months of graduation in Malaysia (The Malay Mail, 2015). Therefore, instead of looking for a job, graduates are encouraged to create their own employment and be entrepreneurs. Thus, higher learning institutions have taken active and strong initiatives to promote and encourage students to get involve in entrepreneurship through entrepreneurship classes and entrepreneurial seminars and activities. In fact, the Higher Education Ministry took a strong move by launching the Higher Education Institution Entrepreneur Action Plan 2016-2020, a strategic document to implement and develop entrepreneurial education at Higher Education Institutions (JEI). This initiative is to encourage and improve the involvement and participation of graduates in entrepreneurial activities. Through entrepreneurship classes and seminars, it is hoped that students will learn and develop entrepreneurial mindset, thus able to identify and exploit entrepreneurship opportunities. The entrepreneurial intention is one of the ways to identify students' interest in entrepreneurship. There have been many studies carried out on factors to determine the entrepreneurial intention. The Bachelor of Entrepreneurship (BBA Entrepreneurship) has been established in Universiti Teknologi MARA since 2014 in responding to the government's call to produce 5% graduates entrepreneurs by 2020. However, the number of graduate entrepreneurs is not encouraging. This has raised questions what are other factors that could influence EI of students and help to improve the content and approach in entrepreneurship curriculum and activities. Numerous studies have been carried out to investigate entrepreneurial intention amongst students. Recently, entrepreneurial self-efficacy was found as one of the key factors that influenced entrepreneurial intention. As HEIs are actively organizing entrepreneurial seminars, workshops, and events, therefore, it is important to explore whether these activities have any impact on students as entrepreneurial learning. Hence, this paper attempts to explore the entrepreneurial intention from the perspective of entrepreneurial self-efficacy and entrepreneurial learning of BBA Entrepreneurship students.

2. LITERATURE REVIEW

2.1 Entrepreneurial self-efficacy

Entrepreneurial self-efficacy (ESE) can be defined as a judgement of one's capability to accomplish a certain level of performance or desired outcomes (Bandura, 1986) which describe human behaviour. In general, self-efficacy refers to an individual's ability, willingness and confidence to produce good results (Abaho et al, 2015). Thus, ESE is the individual's perceptions regarding their ability to perform entrepreneurial tasks (Kickul, Gundry, Barbosa and Whitcanack, 2009). Few studies on ESE have been carried in nascent to start the new business and established entrepreneurs who are interested in growth.

2.2 Entrepreneurial learning

According to Minniti and Bygrave (2001), learning is the foundation of entrepreneurship. The success of learning, skills, knowledge, and ability are required to start a business venture. Based on Kolb's (1984) theory, entrepreneurial learning can be regarded as an experiential process in which entrepreneurs develop knowledge through four distinctive learning abilities: experiencing, reflecting, thinking, and acting (Johannisson, Landstrom and Rosenberg 1998).

2.3 Entrepreneurial intention

The entrepreneurial intention is defined as the engagement in or the intention of an individual to start a new business (Dinis et al., 2013). Numerous studies have been carried out to explore factors that are related to entrepreneurial intention especially among university students. Wang and Wong (2004) found that gender, education level, and experience from the family business are the key factors that influence students' entrepreneurial intention in Singapore.

2.4 Entrepreneurial self-efficacy and entrepreneurial intention

ESE is significantly related to entrepreneurial intention or intention (Sesen, 2013; Pihie, Z.A.L, and Bagheri, 2013; Shook and Bratianu, 2010). Individuals with high levels of entrepreneurial self-efficacy may also have strong occupational intentions for an entrepreneurial career (Campo, 2010). In addition, Lent, Brown, and Hackett (1994) used self-efficacy in a social cognitive framework to explain three aspects of generalized career development, namely the formation of career-relevant interests, selection of a career choice option (intentions), as well as performance and persistence in the selected occupation. Boyd and Vozikis' (1994) proposed that self-efficacy was an important mediator in determining both the strength of entrepreneurial intentions. Krueger (2000) associated self-efficacy with perceived feasibility and formation

of entrepreneurial intentions, while Kolvereid (1996) and Segal et al. (2005) used self-efficacy to explain employment choice intentions.

2.5 Entrepreneurial self-efficacy and entrepreneurial learning

ESE can be learned through development throughout cognitive and social processes as well as skills obtained from experiences (Bandura, 1982) which can be done through either observation learning, formal learning or vicarious experience and through enactive learning (mastery experience) with a series of practices or training in order to improve the skills (Wood and Bandura, 1989). A study in Taiwan showed that students' entrepreneurial self-efficacy (ESE) has a significant effect on entrepreneurial learning behaviour (Chou et al. 2011).

2.6 Entrepreneurial learning and Entrepreneurial Intention

De Jorge Moreno et al., (2012) argue that entrepreneurial learning has a positive impact on entrepreneurial intention. Susetyo and Sri Lestari (2014) found in their study on Indonesian students that through entrepreneurial learning, students developed their interest in entrepreneurship. Kamariah et al. (2015) argue that when students were exposed to entrepreneurial orientation and entrepreneurial learning, it will influence the entrepreneurial mindset and entrepreneurial intention.

2.7 Entrepreneurial self-efficacy, entrepreneurial learning and entrepreneurial intention

Sánchez (2011) states that self-efficacy is an important determinant of successful entrepreneurial behaviours which lead to entrepreneurial learning. In addition, the belief in one's abilities (ESE) has a strong impact on one's intention to form a new business (Schenkel et al. 2014). Meanwhile, ESE encourages a person to seek knowledge in achieving its goals. Research suggests that entrepreneurial self-efficacy is important to affect entrepreneurship learning result (Chou, 2011). ESE is also about attitude change and perception towards success living (Ali, 2013). Therefore, exposure to entrepreneurial learning would help better understanding of entrepreneurship. EL is important to strengthen ESE especially to promote entrepreneurial competencies (Abaho et al., 2015). This, in turn, would help to boost the entrepreneurial intention.

3. RESEARCH METHODOLOGY

The objective of this study is to examine the relationship of SES and EI with EL as a mediator. The perceptions of final year students of BBA Entrepreneurship of Universiti Teknologi

MARA or manager are obtained to analyze their views of the relationships.

3.1 Sample and Data Collection

The survey was carried out on a group of BBA Entrepreneurship students who have taken entrepreneurship subjects as well as attended entrepreneurship seminars and workshops for the last two years of their studies. Survey was carried out by distributing the questionnaire on the last day of the semester before they started their internship program. A total of 71 usable questionnaires were collected. Based on gender, female constituted 66% while male represented 34% of the sample population. About 44% have been involved in business while 44% have less than one year entrepreneurship experience or exposure, 27% have more than 2 - 4 years' experience.

3.2 Construct Development

The ESE measurement was adopted from the work of Muller and Goic (2003) that have divided entrepreneurial activities into four phases namely searching, planning, marshaling, and implementing personal and financial. EL was adopted from Pittaway et al. (2011) and EI was adopted from Liñán and Chen (2009). Items statements in the variables sections are measured as subjective estimates using a five-point Likert scale (with 1 = strongly disagree and 5 = strongly agree).

4. RESULTS

4.1 Method of Analysis

The analysis was performed using Smart PLS (version 3.0), a partial least square (PLS) based structural equation modeling (SEM) program. The PLS-SEM program was selected to assess the two-stage analytical procedures by first examining the measurement model and then scrutinizing the structural model (Anderson and Gerbing, 1988). The reasons for the use of PLS because it is more robust, a less restriction is placed on the unbiased estimates of the sample size (Falk and Miller, 1992). In addition, PLS is useful to identifying the research model's constructs' relationship and measurement (Wold, 1989). Unlike the covariance-based SEM, PLS models take into account measurement error through simultaneous regressions and thus, do not employ goodness of fit measures as an indication of model robustness. It instead uses the significance of the path and the explained variance (R^2) of the model (Hulland, 1999). Since it is designed to explain variance, it is well suited for exploratory research, predictive applications and/or theory building (Gefen et

al. 2000). As data collected are self-reported through a similar questionnaire conducted throughout a similar time, the common method variance that is attributed to the measurement method rather than the construct of interest may cause systematic measurement error and further bias the estimates of the actual relationship among the constructs (Podsakoff, MacKenzie, Lee and Podsakoff, 2003). Therefore, this study has examined the common method bias using Harman's single-factor test. The result revealed maximum variance explained of 1 factor is 42.5% which is less than 50%. Therefore, it can be concluded that the data set did not suffer from common variance bias issue.

4.2 Measurement Model

A common measure for examining convergent validity is the “average variance extracted” (AVE). It represents the indicator variance captured by the construct (including measurement error), relative to the total variance (Gotz et al., 2010). A threshold of greater than 0.5 indicates that there are more indicator variances than variance due to error. AVE also exceeded 0.50 for all constructs.

Indicator loadings for the entire latent construct were then examined. This established that all items load well on their respective constructs and, that even for indicators loading below 0.70, no cross loadings are indicated (Yoo and Alavi, 2001). In addition, each indicator loaded on their respective construct with high significance ($p > 0.0001$) based on the t-statistics of the outer model, which ranged from 0.551 to 0.875. These findings thus confirmed the convergent validity of the latent constructs for the research model.

Measures of construct reliability reflect how well a construct is measured by their assigned indicators (Hair et Al., 2010). It is important that the indicators jointly measure the construct adequately, thus reliability results presented in Table 1 include both composite reliability and Cronbach's alpha. All reliability measures exceeded the recommended thresholds of 0.70 (Nunnally and Bernstein, 1994), indicating strong correlation and establishing them as reliable measures of their respective latent constructs.

Discriminant validity refers to the dissimilarity between the measurement tool's ability to measure different constructs (Hair et al., 2010). Shared variance between the latent constructs' indicators must be larger than the variance shared with other latent variables (Hulland, 1999). The latent variable's AVE should be larger than the common variance (squared correlations) relative to any other of the model's constructs (Fornell and Larcker, 1981) in order to support discriminant validity. Table 2 shows that the square root of the AVEs (italicized in the diagonals) are in all cases greater than the off-diagonal row and column elements, thus supports the discriminant validity of the scales used.

Table 1: Measurement model assessment

Laten t variable	AVE	CR	Cronbach' s Alpha	ESE	EL	EI
ESE	0.88 6	0.94 8	0.871	0.78 4		
EL	0.51 0	0.95 5	0.880	0.23 8	0.26 0	
EI	0.68 9	0.93 0	0.906	0.29 6	0.34 0	0.47 4

4.3 Structural Model

Figure 1 represents the structural model results with the coefficients for each path that indicates the causal relations among the constructs in the model (Sang, Lee and Lee, 2010). The tests on the significance of the path and hypothesis in the path model were performed using the SmartPLS's bootstrap re-sampling technique (300 re-samples). ESE has a strong direct effect to EI at 0.699 (5.041) that provides 48.1% variance explained in EI. ESE has a positive relationship to EL (0.531 (2.921) and contributed 30% variance explained in EL. In addition, EL has a positive relationship to EI at 0.447 (5.467) contributed 20% variance explained in EI. However, EL did not mediate the relationship between ESE and EI.

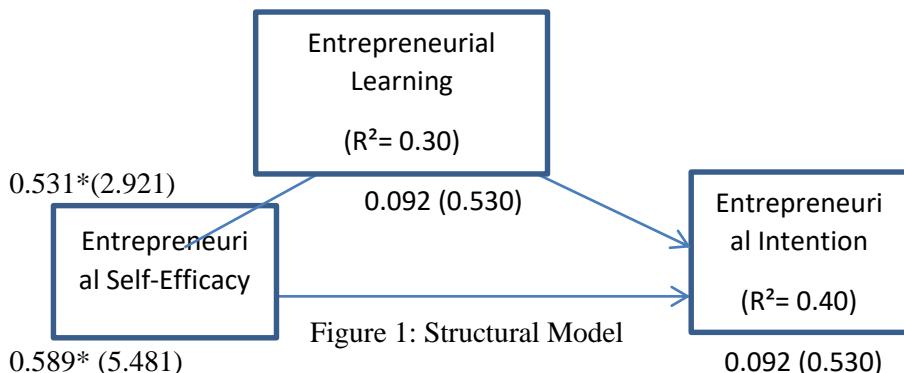


Figure 1: Structural Model

5. DISCUSSION AND CONCLUSION

ESE has a strong relationship to EI. This finding is similar to Pihie and Bagheri (2013) where they found that students' entrepreneurial self-efficacy has the most significant and positive impact on their intention to become an entrepreneur. In fact, few studies on ESE and EI have shown a positive relationship where attributes like personality, trait, self-confidence and communication skills influence the students' decision in selecting their career. Furthermore, if the students perceived that they have the ability to perform an entrepreneurial task based on their ability, willingness and confidence, then they would produce good

results (Abaho et al, 2015). In this study, even though EL has a positive relationship to EI, however, EL does not mediate the relationship between ESE and EI. Few entrepreneurial programs such as seminars, workshops and events have been organized from time to time to expose the students to entrepreneurial learning. However, without interest and willingness to learn and explore, this would not lead students towards becoming entrepreneurs or choose entrepreneurship as their career options.

From this finding, it is timely for HEIs' administrators, faculties and entrepreneurship centres to revisit the intensity of entrepreneurial activities in order for students to benefit from these programs. Focusing more on hands-on experience rather than theories or classroom lectures would assist students to understand more about entrepreneurship thus choose entrepreneurship as their career. The incubation resources can be another input that can be considered for entrepreneurial learning as it can facilitate students to form a team with the help of their mentors or lecturers to start-up their business. In addition, it is important to engage inspirational and charismatic instructors who can communicate their enthusiasm for entrepreneurship through non-verbal expressiveness that will result in inspiring students with higher entrepreneurial intention.

This study is not without limitations. Firstly, the small size of students did not give the comprehensive results. A bigger number of respondents would give better results. Secondly, this study only focuses on BBA Entrepreneurship, but students from other faculties are also actively involved in businesses, therefore it would be interesting to explore other faculties and other universities. Future research should include entrepreneurial education, competencies and orientation in one model to get a comprehensive model of entrepreneurial intention study.

REFERENCES

- Bandura, A. (1986). *The social foundations of thought and actions*. NJ: Prentice-Hall.
- Boyd, N.G. & Vozikis, G.S. (1994). The Influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18 (4), 63-90
- Chou, Chun-Mei, Shen, C-H. & Hsiao, H-C (2011), The Influence of Entrepreneurial Self-Efficacy on Entrepreneurial Learning Behavior - Using Entrepreneurial Intention as the Mediator Variable. *International Business and Management*, 3(2), 7-11 DOI:10.3968/j.ibm.1923842820110302.4Z0145

Chou, C.M., Shen, C.H., Hsiao, H.C. & Chang, J.C. (2011). The Influencing Factors of Student Teachers' Entrepreneurial Learning Behavior Computational Sciences and Optimization (CSO), 2011 *Fourth International Joint Conference* DOI: 10.1109/CSO.2011.273

De Jorge-Moreno, J., Castillo, L. L., & Triguero, M. S. (2012). The effect of business and economics education programs on student's entrepreneurial intention. *European Journal of Training and Development*, 36(4), 409-425.

Fornell, C. & Larcker, D.F. (1981), Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

Hanapi, Z. & Nordin, M.S. (2014). Unemployment among Malaysia Graduates: Graduates'Attributes, Lecturers' Competency and Quality of Education, *International Conference on Education & Educational Psychology 2013 (ICEEPSY 2013)* , 112(7), 1056-1063. doi:10.1016/j.sbspro.2014.01.1269

Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010), *Multivariate Data Analysis*, Prentice-Hall, Upper Saddle River, NJ.

Götz, O., Liehr-Gobbers, K., & Krafft, M (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In: V. Esposito Vinzi, W. W. Chin, J. Henseler&H. Wang(Eds.), *Handbook of partial least squares: Concepts, methods, and applications*. Berlin: Springer-Verlag.

Ismail, K., Anuar, M.A., Wan Omar, W.Z., Aziz, A.A., Seohode, K. & Akhtar, S. (2015). Entrepreneurial Intention, Entrepreneurial Orientation of Faculty and Students towards Commercialization, *3rd International Conference on Leadership, Technology and Innovation Management* , Procedia - Social and Behavioral Sciences, 181 (2015) 349 –doi: 10.1016/j.sbspro.2015.04.897

Krueger, N.F. (2000), The cognitive infrastructure of opportunity emergence. *Entrepreneurship Theory and Practice*, 24 (3), 5-23.

Liñán, F., & Y.W. Chen. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory & Practice*, 33(3), 593-617.

Lent, R., Brown, S., & Hacket, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79–122.

Mark T. Schenkel, Rodney R. D'souza, & Frank C. Braun, J. Dev. *Entrepreneurship* 19, 1450005 (2014) [21 pages] doi:<http://dx.doi.org/10.1142/S1084946714500058>

Mueller, S.L. & Goic, S. (2003). East-West differences in entrepreneurial self-efficacy: Implications for entrepreneurship education in transition economies. *International Journal of Entrepreneurship Education*, 1(4), 613–632.

Nunnally, J. C., & Bernstein, I. H. (1994) *Psychometric theory* (3rd ed.). New York, NY: McGraw-Hill, Inc.

Pihie, Z.A.L. & Bagheri, A. *Vocations and Learning* (2013) 6: 385. doi:10.1007/s12186-013-9101-9

Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O., & King, A. (2011). The role of entrepreneurship clubs and societies in entrepreneurial learning. *International Small Business Journal*, 29(1), 37-57.

Ofstein, L. F. (2016, 4 2). *Does Experience in a Business Incubator Increase Student Entrepreneurial Intentions?* (Western Michigan University) Retrieved from Spring Convocation: http://scholarworks.wmich.edu/spring_convocation/4

Sang, S., Lee, L. D. & Lee, J. (2010) E-government: people, process, and policy, 4(2). Emerald Group Publishing Limited, Bingley, 138-157

Sánchez, J. C. (2011). University training for entrepreneurial competencies: Its impact on intention of venture creation. *Int Entrep Mang J*, 7, 239-254.

Segal, G., Borgia, D. & Schoenfeld, J. (2005), The motivation to become an entrepreneur, *International Journal of Entrepreneurial Behaviour & Research*, 11 (1), 42-57.

Souitaris, V., Zerbinati, 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(4), 566-591.

Susetyo, D. & Sri Lestari, P. (2014). Developing Entrepreneurial Intention Model Of University Students (An Empirical Study On University Students In Semarang, Indonesia) International Journal of Engineering and Management Sciences, Vol.5 (3) 2014: 184-196 ISSN 2229-600X

Shook, C. & Bratianu, C. (2010). Entrepreneurial intent in a transitional economy: an application of the theory of planned behavior to Romanian students. *In Entrep Manag J*, 6, 231-247.

The Malay Mail (2015). Graduates among 400,000 currently unemployed in Malaysia, says minister - <http://www.themalaymailonline.com/malaysia/article/graduates-among-400000-currently-unemployed-in-malaysia-says-minister>.

The Department of Statistics Malaysia (2016). <https://www.statistics.gov.my/#>

Yoo, Y. & Alavi, M. (2001). Media and group cohesion: Relative influences on social presence, task participation, and group consensus. *MIS Quarterly*, 25(3), 371-390.