

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Factors in Determining Entrepreneurial Motivation among University Students

Dr. Ramraini Ali Hassan

Senior Lecturer, Faculty of Business, Economics and Accountancy, University Malaysia Sabah, Malaysia

Zhong Jie Ying

Postgraduate Student, Faculty of Business, Economics and Accountancy, University Malaysia Sabah, Malaysia

Abstract:

Nowadays, most graduate students are more interested to become an entrepreneur as soon as they graduate from the university. As a result, most universities and colleges have created and offered entrepreneurship related programs to cater for this growing need. Consequently, the purpose of this study is to investigate key factors in determining entrepreneurial motivation among university students. The key factors highlighted in this study include entrepreneurial skills, idea generation, and opportunity recognition in determining the entrepreneurial motivation among university students in Sabah, Malaysia. The respondents for this study were undergraduate and postgraduate students in four universities in Kota Kinabalu, Sabah. The data was collected using survey questionnaire. The total number of questionnaires distributed was 172. Based on the results and findings of this study, it was found that opportunity recognition was found to be significant on entrepreneurial motivation. However, entrepreneurial skills and idea generation did not have any significant effect on entrepreneurial motivation. This study can help to provide the information related to entrepreneurial motivation among university students in Malaysia and in Sabah particularly.

Keywords: *Entrepreneurial motivation, entrepreneurial skills, opportunity recognition, idea generation.*

1. Introduction

Recently, there is evidence that most graduate students are more interested to become an entrepreneur as soon as they graduate from the university. As a result, most universities and colleges nowadays, have created and offered entrepreneurship related programs to cater for this growing need. For instance, Universiti Tun Abdul Razak has founded the Bank Rakyat School of Business and Entrepreneurship (BRSBE) in order to provide a quality entrepreneurship education in Malaysia (Global Entrepreneurship Monitor, 2012). One of the reasons for this phenomenon is due to the increase in the unemployment rate among graduates in Malaysia. According to the Ministry of Higher Education Malaysia, in 2010 there were 74,439 graduates with 42,955 of them were unemployed. In 2011, the number of unemployed graduates has increased to 44,391. Most of these graduates are bachelor's degree holders in various fields.

2. Literature Review

Under the 10th Malaysia Plan (2011-2015), one of the main problems faced by the government is a lack of substantial pool of skilled labor that possesses management, finance, marketing and ICT application skills. This has also become one of the reasons for the increase in the unemployment rate among graduates' students. Noor (2011) indicated that most public universities have tried to improve students' skills such as communication, analytical thinking, intelligence, independence, leadership, computer skills and so on in order to improve students' competencies. It is believed that by having the set of skills, the student will be more successful in their entrepreneurship endeavors. Apart from that, by having both opportunity and good idea can also increase the chances of becoming a successful entrepreneur. Therefore, this study focuses on entrepreneurial skills possessed by students, idea generation and opportunity recognition as among the key factors that motivate students to become entrepreneur.

2.1. Entrepreneurial Skills

Entrepreneurial skills are the abilities to identify markets, set strategy, deal with all market participants and solve various business problems (Gompers et al., 2006). To be an entrepreneur, individuals must prepare themselves with a series of entrepreneurial skills. Therefore, higher education which offered entrepreneurship course can help graduates equipped with entrepreneurial skills so that will increase their desire to engage in entrepreneurship in the future (Herrmann et al., 2008). Grundstén (2004) indicated entrepreneurial skills including business planning and strategy skills, sales and marketing skills, financing and accounting skills as well as leadership and management skills are students' competencies which reflected the requirement for a star-up venture. However, these types of skills were classified into business skills under Watson (2004) which may not fully reveal the characteristics of an entrepreneur.

2.2. Idea Generation

The ideas come from broad areas such as new product, market, branding concept and vice versa (Glassman, 2009). Idea generation is the startup phase of the entrepreneurial process. Generating idea is the challenge faced by entrepreneurs for new businesses except for finance (Doing Business Report, 2011). Earlier study by Fillis (n.d.) found that individuals are motivated by both intrinsic and extrinsic motivations. Idea generation is an extrinsic motivation whereby individuals keep on searching solutions for unsolved problems.

2.3. Opportunity Recognition

An opportunity implies creating a business that may help entrepreneurs to generate wealth (Mejía et al., n.d.). Verheulet et al. (2010) conducted a survey to investigate the determinants of engaging in entrepreneurial activity using 2007 respondents among 27 European countries and the U.S. The result supported that individual's motivation to set up a business is because of they recognized there is an opportunity existed.

2.4. Entrepreneurial Motivation

The theory of motivation has been widely discussed in the entrepreneurship literature. Vroom's (1964) put forward an expectancy framework to explain that one's decision on a behavior is because of they are motivated by other alternative behaviors which may help them to achieve their expected outcome. People are driven by many motivations to form businesses. Most of the prior studies classified motivations into pull and push factors (Hakim, 1989; Weatherston, 1995). Naffziger et al. (1994) proposed a motivation model with five factors consists of personal characteristics, personal environment, personal goals, business environment and idea on entrepreneurial motivation. Shane et al. (2003) reviewed some studies and found other major factors such as need for achievement, risk taking, tolerance of ambiguity, and locus of control and suggested more motivations should be studied to understand the entrepreneurial process. Segal et al. (2005) added on three more factors, tolerance for risk, perceived feasibility and net desirability to predict the entrepreneurial motivation. Taormina and Lao (2007) combined both psychological and environmental characteristics to study the influence in entrepreneurship in China. They proposed a measurement to evaluate the motivation to start a business. The results indicated that regional economic growth relies on both individual efforts and also support from institutions.

3. Methodology

The purpose of this study is to analyze the entrepreneurial skills, idea generation and opportunity recognition on entrepreneurial motivation among university students. It is a cross-sectional study where the data are gathered by using questionnaire. The unit of analysis in this study is based on individual students in four universities in Kota Kinabalu, Sabah. The respondents are undergraduate students and postgraduate students from various programs. The sampling technique used non-probability sampling and the sampling design was used since the elements of population do not have any probabilities attached to their sample subjects (Sekaran and Bougie, 2012). The convenience sampling was used in this study to collect data and in order to distribute questionnaires the respondents.

4. Analysis of Results

4.1. Factor Analysis

Factor analysis is a technique that is used in the Statistical Package for Social Sciences (SPSS) to reduce a large number of variables into a smaller set of factors. It can also be used to summarize the related variables to a more manageable numbers. The remaining factors can be used further in other analyses such as correlation analysis and multiple regression analysis (Pallant, 2011). According to Hair et al. (2006), the test of Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy should be used before the extraction of factors. The value of KMO must be greater than 0.50 to assess the suitability of data for factor analysis. Next, Bartlett's Test of Sphericity should be significant at least at 0.05 to be suitable for factor analysis. Secondly, the Anti-image correlation matrix measures the sampling adequacy should be at an acceptable level at above 0.50. Thirdly, the communalities of items should be exceeding 0.50. The item with the lowest communality is suggested to be removed. Fourthly, the initial eigenvalues should be greater than 1 to determine the number of factors extraction. Lastly, the factor loading which is used to identify the significant factor should be based on the sample size. In this research, the factor loadings of 0.40 are considered significant for a sample size of 172. The Varimax rotation technique was employed in this factor analysis. Three variables in this research were performed separately, entrepreneurial skills (4 items), idea generation (15 items) and opportunity recognition (8 items). The results of factor analysis for each variable are showed as below.

4.2. Factor Analysis for Entrepreneurial Skills

There are four items used to measure entrepreneurial skills. The results of factor analysis for entrepreneurial skills produced only one factor. The KMO value was 0.781 and the Bartlett's Test of Sphericity was significant at 0.000, indicating that four items were suitable for factor analysis. The anti-image correlation for four items were greater than 0.50. The only one factor had an initial eigenvalue of 2.501 which was greater than 1 and explained 62.516% of variance. The factor loadings of four items ranged from 0.779 to 0.819 were all acceptable. A summary of factor analysis for entrepreneurial skills is presented as below in Table 1.

No.	Items	Factor Loadings
1	Entrepreneurial Skills 2	0.819
2	Entrepreneurial Skills 1	0.784
3	Entrepreneurial Skills 3	0.781
4	Entrepreneurial Skills 4	0.779
Eigenvalue		2.501
Total % of Variance		62.516
KMO Measure of Sampling Adequacy		0.781
Bartlett's Test of Sphericity Approx. Chi-Square		200.968
df		6
Sig.		0.000

Table 1: Summary of Factor Analysis for Entrepreneurial Skills

4.3. Factor Analysis for Idea Generation

Originally, there were 15 items used to measure idea generation. The initial run produced three factors with KMO value at 0.903 and Bartlett's Test of Sphericity was significant at 0.000. The anti-image correlation for 15 items were greater than 0.50. Table 2 displays the final round results of factor analysis for idea generation. The KMO value was at 0.913 and Bartlett's Test of Sphericity was significant at 0.000, which indicated the items were suitable for factor analysis. The anti-image correlation for the remaining 14 items were greater than 0.50. The communalities of all items were contributed to the factor. The eigenvalue was 5.539 with a total variance of 50.354%. The factor loadings for the remaining 11 items ranged from 0.571 to 0.797.

No.	Items	Factor Loadings
1	Idea Generation 6	0.797
2	Idea Generation 4	0.756
3	Idea Generation 1	0.754
4	Idea Generation 7	0.753
5	Idea Generation 11	0.732
6	Idea Generation 3	0.721
7	Idea Generation 14	0.699
8	Idea Generation 15	0.679
9	Idea Generation 12	0.674
10	Idea Generation 5	0.640
11	Idea Generation 2	0.571
Eigenvalue		5.539
Total % of Variance		50.354
KMO Measure of Sampling Adequacy		0.913
Bartlett's Test of Sphericity Approx. Chi-Square		837.722
df		55
Sig.		0.000

Table 2: Summary of Factor Analysis for Idea Generation

4.4. Factor Analysis for Opportunity Recognition

As shown in Table 3, the factor analysis of 6 items in opportunity recognition only extracted one factor after two times of analysis were run. Item number 1 ("I can recognize new venture opportunities in industries where I have no personal experience.") was removed to have a well-defined factor with KMO value at 0.721 and Bartlett's Test of Sphericity significantly at 0.000. The anti-image correlation were greater than 0.50. The factor loadings of 5 items ranged from 0.412 to 0.712, with eigenvalue at 1.978 and 39.566% of total variance.

No.	Items	Factor Loadings
1	Opportunity Recognition 3	0.712
2	Opportunity Recognition 6	0.667
3	Opportunity Recognition 5	0.661
4	Opportunity Recognition 4	0.648
5	Opportunity Recognition 2	0.412
Eigenvalue		1.978
Total % of Variance		39.566
KMO Measure of Sampling Adequacy		0.721
Bartlett's Test of Sphericity Approx. Chi-Square		81.760
df		10
Sig.		0.000

Table 3: Summary of Factor Analysis for Opportunity Recognition

4.5. Factor Analysis for Entrepreneurial Motivation

The factor analysis for entrepreneurial motivation as a dependent variables produced two factors in the initial run. Hence, only one factor with remaining 5 items was extracted. The final results of factor analysis for entrepreneurial motivation are shown in Table 4. The KMO value was 0.807 and Bartlett's Test of Sphericity was significant at 0.000, indicating sufficient items for factor analysis. The anti-image correlation were greater than 0.50. The eigenvalue was 3.289 and total variance accounted for 65.787%. The remaining component had factor loadings ranged from 0.687 to 0.883.

No.	Items	Factor Loadings
1	Entrepreneurial Motivation 7	0.883
2	Entrepreneurial Motivation 1	0.847
3	Entrepreneurial Motivation 8	0.816
4	Entrepreneurial Motivation 6	0.809
5	Entrepreneurial Motivation 2	0.687
Eigenvalue	3.289	
Total % of Variance	65.787	
KMO Measure of Sampling Adequacy	0.807	
Bartlett's Test of Sphericity Approx. Chi-Square	437.639	
df	10	
Sig.	0.000	

Table 4: Summary of Factor Analysis for Entrepreneurial Motivation

4.6. Reliability Analysis

Reliability analysis is used to measure the internal consistency among the variables in a certain scale. The Cronbach's alpha coefficient is the indicator of the internal consistency. Generally, the value of Cronbach's alpha coefficient should be above 0.70 to ensure the items in the scale are appropriate and reliable for other analyses (Pallant, 2011). According to Sekaran and Bougie (2012), the internal consistency of the items is high when Cronbach's alpha coefficient is closed to 1. The reliability is considered as good when the Cronbach's alpha is over 0.80, while over 0.70 is acceptable and below 0.60 is poor. The reliability analysis for main variables in this study is presented as below in Table 5. The Cronbach's alpha for two variables (idea generation and entrepreneurial motivation) are considered as good since both are higher than 0.80. The alpha value for entrepreneurial skills is considered as acceptable because it is greater than 0.70 and close to 0.80. However, the Cronbach's alpha for opportunity recognition reveals a value lower than 0.60. Even so, Nunnally (1967) cited in Caplanet al. (1984) stated that a Cronbach's alpha which is higher than 0.50 is judged as sufficient for research purpose. Hence, opportunity recognition with Cronbach's alpha of 0.597 is still accepted. Therefore, all the variables are reliable for further analyses.

Variable	Number of Items	Cronbach's alpha	Remarks
Entrepreneurial Skills	4	0.798	Independent Variable
Idea Generation	11	0.899	Independent Variable
Opportunity Recognition	5	0.597	Independent Variable
Entrepreneurial Motivation	5	0.870	Dependent Variable

Table 5: Reliability Analysis for Variables

4.7 Multiple Regression Analysis

In this section, multiple regression analysis was used to examine the direct relationship between the whole set of predictors and the dependent variable. There were 22.9 percent of variances in entrepreneurial motivation explained by the three main variables ($R^2=0.229$). As shown in Table 6, opportunity recognition ($\beta=0.264$, $p<0.05$) was found to have strongest attribute towards entrepreneurial motivation, followed by idea generation ($\beta=0.176$, $p<0.05$) and entrepreneurial skills ($\beta=0.141$, $p<0.05$). This indicated that entrepreneurial skills, idea generation and opportunity recognition all had positive relationship with entrepreneurial motivation. However, only one relationship between opportunity recognition and entrepreneurial motivation was significant with p value of 0.001. The p values of entrepreneurial skills and idea generation were all greater than 0.05. Therefore, H1 and H2 are rejected. H3 is accepted which indicates opportunity recognition has a positive significant relationship with entrepreneurial motivation.

Dependent Variable	Independent Variable	Std. Coefficient Beta (β)	Sig.
Entrepreneurial Motivation	Entrepreneurial Skills	0.141	0.142
	Idea Generation	0.176	0.077
	Opportunity Recognition	0.264	0.001
	R²	0.229	
	Adjust R²	0.215	

Table 6: Regression Analysis of Main Variables with Entrepreneurial Motivation

Note: Significant levels: $p<0.05$

The following Table 7 summarizes the results of hypotheses testing. H3 was accepted, however, H1 and H3 are rejected since they are not significant.

Hypothesis Number	Statement of Hypothesis	Results
H1	There is a significant relationship between entrepreneurial skills and entrepreneurial motivation.	Rejected
H2	There is a significant relationship between idea generation and entrepreneurial motivation.	Rejected
H3	There is a significant relationship between opportunity recognition and entrepreneurial motivation.	Accepted

Table 7: Results of Hypotheses Testing

5. Discussions and Conclusion

Hypothesis 1 examined the relationship between entrepreneurial skills and entrepreneurial motivation. The result shows the significant value of entrepreneurial skills on entrepreneurial motivation is 0.142 which is greater than 0.05 (see Table 6). This proves that the relationship between entrepreneurial skills and entrepreneurial motivation is not significant. This is not supported by the previous research which believed that entrepreneurial skills such as creative and innovative thinking, identifying and minimizing risks as well as setting up a role model are incremental motivators for an entrepreneur (Watson, 2004). However, the latest research by Oosterbeek et al. (2010) supported the results of this study. They studied the effect of entrepreneurship education on students and found that the program was insignificant to motivate students to be entrepreneurs. The reason is students' self-perception may be the predomination of what they want to be. As the self-perception changes, the entrepreneurial skills of the program will be inefficient to influence students to be entrepreneurs. In addition, an entrepreneur must equip himself/herself with entrepreneurial skills. But this does not mean that everyone possesses entrepreneurial skills can become entrepreneur. This might explain why this factor was found not significant on entrepreneurial motivation.

Hypothesis 2 assumed that there is a significant relationship between idea generation and entrepreneurial motivation. The results showed a significant value of 0.077 of idea generation on entrepreneurial motivation which is greater than 0.05 (see Table 6). This reveals that there is no significant relationship between idea generation and entrepreneurial motivation. However, the factor of idea generation shows no significant in entrepreneurial motivation. The results is not consistent with the previous research by London (2006) who believed that individuals possess higher creative abilities in generating ideas are more likely to be self-employed. The results may due to the fact that idea generation is not enough to pursue a business. Students can generate novel ideas from their daily lives. But not all novel ideas can be transformed into business practice. According to Okpara (2007), successful entrepreneurs are derived from the combination of creative idea and superior capacity to execute the idea. Latest research by Kargwell and Inguva (2012) conducted a survey among recent graduates to investigate their new business ideas in pursuing business activities. The results showed that only 12% respondents started their businesses were motivated by new ideas. This is consistent with the results of this study which believed that idea generation is not the only influence factor in entrepreneurial motivation. Therefore, idea generation is found not to be significantly related to entrepreneurial motivation.

Hypothesis 3 assumed that there is a significant relationship between opportunity recognition and entrepreneurial motivation. The results showed the significant value of opportunity recognition is 0.001 which is lower than 0.05 (see Table 6). This proves that there is a significant positive relationship between opportunity recognition and entrepreneurial motivation. This point of view is supported by Garcia-Morales et al. (2006) who found that individual's perception of opportunity is the spirit of entrepreneurial behaviors. Ozgen (2003) also supported that recognizing opportunity is a fundamental mindset of an entrepreneur. Moreover, the results of this study are consistent with Verheulet al. (2010) research which indicated that individual's starting up business is because of they recognize opportunities in the market. This means that when there is an opportunity existed, students will be motivated to start their businesses. Generally, students only have the ideas, but it is difficult for them to pursue the ideas without an opportunity. Therefore, this explains the factor opportunity recognition is found to be significantly related to entrepreneurial motivation.

This study concerns students to be entrepreneurs in terms of motivation factors which provide an alternative approach from the previous studies. Most of previous studies measure entrepreneurial motivation only based on push factor. But this study presents different point of view by discussing about the pull factor. According to Kirkwood (2009), there are four main push factors which are job dissatisfaction, changing world of work, being helped by employer and motivation regarding children. And pull factors are including independence, money, need for achievement or challenge, saw opportunity and lifestyle. This study tests a similar pull factor which is opportunity recognition. But it is being combined and added on with two more different pull factors which are entrepreneurial skills and idea generation. Even though the final results are rejected, it still gives a wider scope and contributes to the entrepreneurship literature in determining the motivation to start up a business.

This study helps to explain the relationship among entrepreneurial skills, idea generation, opportunity recognition and entrepreneurial motivation. The major finding of this study shows opportunity recognition can be identified as a good predictor towards entrepreneurial motivation among university students in Sabah. As a result, the government policies and other related agencies can identify potential entrepreneurs by providing appropriate initiatives and assistances such as tax reduction, loans and so on. In this case, this may help the government to achieve the target stated in the 10th Malaysia Plan (2011-2015) to have more new businesses founded by students and graduates. In the end, it will help to decrease the unemployment rate and lead to future economic growth. Furthermore, the findings from the rejected hypotheses regarding entrepreneurial skills and idea generation in entrepreneurial motivation reveal that students have low perception on these two factors. From Hypothesis 3, it is significant that field of study is correlated to entrepreneurial motivation.

In conclusion, the results show that opportunity recognition is significant in determining the entrepreneurial motivation among university students. However, the other two predictors, entrepreneurial skills and idea generation were found not significant in determining the entrepreneurial motivation. The findings of this study contribute to the enrichment of entrepreneurship literature and assist the government and related agencies with policies making regarding entrepreneurs.

6. References

- i. Ahmad, Z. B. H. I., Mohd, F. B. M. Z. and Elsadig, M. A. 2006. A Study of Motivation In Business Start-Ups Among Malay Entrepreneurs. *International Business and Economics Research Journal*, 5 (2): 103-112.
- ii. Caliendo, M. and Kritikos, A. 2009. "I Want to, But I Also Need to": Start-Ups Resulting from Opportunity and Necessity. Institute for the Study of Labor (IZA).
- iii. Caplan, R. D., Naidu, R. K. and Tripathi, R. C. 1984. Coping and Defending Constellations versus Components. *Journal of Health and Social Behavior*, 25: 303-320.
- iv. Choi, J. N. 2004. Individual and contextual predictors of creative performance: The mediating role of psychological processes. *Creativity Research Journal*, 16 (2-3): 187-199.
- v. Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. 2nd edn. Hillsdale, New Jersey: L.
- vi. Fereidouni, H. G., Masron, T. A., Nikbin, D. and Amiri, R. E. 2010. Consequences of External Environment on Entrepreneurial Motivation in Iran. *Asian Academy of Management Journal*, 15(2): 175-196.
- vii. García-Morales, V. J., Llorens-Montes, F. J. and Verdú-Jover, A. J. 2006. Antecedents and Consequences of Organizational Innovation and Organizational Learning in Entrepreneurship. *Industrial Management & Data Systems*, 106(1): 21-42.
- viii. Glassman, W. E., & Hadad, M. (2009). *Approaches to psychology*. Shoppenhangers Road Maidenhead Berkshire: Open University Press/McGraw-Hill Education.
- ix. Gompers, P., Kovner, A., Lerner, J. and Scharfstein, D. 2006. Skill vs. Luck in Entrepreneurship and Venture Capital: Evidence from Serial Entrepreneurs (No. W12592). National Bureau of Economic Research.
- x. Grundstén, H. 2004. Entrepreneurial Intentions and the Entrepreneurial Environment: A Study of Technology-Based New Venture Creation. PHD's Dissertation. Helsinki University of Technology.
- xi. Labouvie-Vief, G., Hakim-Larson, J., DeVoe, M., & Schoeberlein, S. (1989). Emotions and self-regulation: A life span view. *Human Development*, 32(5), 279-299.
- xii. Herrmann, K. 2008. *Developing Entrepreneurial Graduates: Putting Entrepreneurship at the Centre of Higher Education*. National Endowment for Science, Technology and the Arts, U.K.
- xiii. Kargwell, S. and Inguva, S. 2012. Factors Influencing the First Generation Entrepreneurs: An Analytical Study on the Graduates of UAE Universities. *International Journal of Business and Social Science*, 3(7): 143-149.
- xiv. Kirkwood, J. 2009. Motivational Factors in a Push-pull Theory of Entrepreneurship. *Gender in Management: An International Journal*, 24(5): 346-364.
- xv. Kumar, V. K., Kemmler, D. and Holman, E. R. 1997. The Creativity Styles Questionnaire-Revised. *Creativity Research Journal*, 10 (1): 51-58.
- xvi. Kuratko, D. F. and Hodgetts, R. M., 2004. *Entrepreneurship, Theory, Process and Practice*. 6th ed. Ohio: Thomson, South-western.
- xvii. Labouvie-Vief, G., Hakim-Larson, J., DeVoe, M., & Schoeberlein, S. (1989). Emotions and self-regulation: A life span view. *Human Development*, 32(5), 279-299.
- xviii. London, K. M. 2006. Integrating Idea Generation and Idea Evaluation in the Study of Group Creativity-Effects of Different Group Procedures on Brainstorming Effectiveness and Group Satisfaction. PHD's Dissertation. University of Claremont Graduate.
- xix. Mejía, A. G., Laverde, F. P., Smida, A. and Cadet, B. 2008. The Entrepreneur's Motivation, Human and Financial Capital as Determining Factors of Growth for New Companies. The Colombian Case.
- xx. Naffziger, D. W., Hornsby, J. S., & Kuratko, D. F. (1994). A proposed research model of entrepreneurial motivation. *Entrepreneurship: Theory and Practice*, 18(3), 29-43.
- xxi. Nunnally, J. C., Bernstein, I. H., & Berge, J. M. T. (1967). *Psychometric theory* (Vol. 226). New York: McGraw-Hill.
- xxii. Okpara, F. O. 2007. The Value of Creativity and Innovation in Entrepreneurship. *Journal of Asia Entrepreneurship and Sustainability*, III(2).
- xxiii. Oosterbeek, H., Praag, M. V. and Ijsselstein, A. 2010. The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, 54: 442-254.
- xxiv. Ozgen, E. 2003. *Entrepreneurial Opportunity Recognition: Information Flow, Social and Cognitive Perspectives*. Ph.D. Rensselaer Polytechnic Institute. Troy, New York.
- xxv. Pallant, J. 2011. *SPSS Survival Manual*. 4th ed. Australian: Allen & Unwin.
- xxvi. Rosa, P. J., Kodithuwakku, S. and Balunywa, W. 2006. Entrepreneurial Motivation in Developing Countries: What Does "Necessity" and "Opportunity" Entrepreneurship really Mean? *Frontiers of Entrepreneurship Research*, 26(20), 4.
- xxvii. Segal, G., Borgia, D. and Schoenfeld, J. 2005. The Motivation to become an Entrepreneur. *International Journal of Entrepreneurial Behaviour & Research*, 11(1): 42-57.
- xxviii. Sekaran, U., and Bougie, R. 2012. *Research Methods for Business. A Skill Building Approach*. 5th ed. United Kingdom: A Wiley and Sons, Ltd.

- xxix. Shane, S., Locke, E. A. and Collins, C. J. 2003. Entrepreneurial Motivation. *Human Resource Management Review*,13(2): 257-279.
- xxx. Stevens, G., Burley, J. and Divine, R., 1999. Creativity + business discipline = higher profits faster from new product development. *Journal of Product Innovation Management*,16 (5), 455-468.
- xxxi. Taormina, R. J. and Lao, S. K. 2007. Measuring Chinese Entrepreneurial Motivation: Personality And Environmental Influences. *International Journal of Entrepreneurial Behaviour& Research*, 13(4), 200-221.
- xxxii. Verheul, I., Thurik, R., Hessels, J. and van der Zwan, P. 2010. Factors Influencing the Entrepreneurial Engagement of Opportunity And Necessity Entrepreneurs. *EIM Research Reports H*, 201011: 1-24.
- xxxiii. Vroom, V. H. (1964). *Work and motivation*.
- xxxiv. Watson, G. E. H. 2004. *A Situational Analysis of Entrepreneurship Mentors in South Africa*. Master's Dissertation. University of South Africa.
- xxxv. Weatherston, Jamie. "Academic Entrepreneurs: Is a spin-off Company too risky." *Proceedings of the 40th International Council on Small Business, Sydney (1995)*: 18-21.
- xxxvi. Xavier, S. R., Kelley, D., Kew, J., Herrington, M., Vorderwülbecke, A. 2013. *GEM 2012 Global Report*. Global Entrepreneurship Monitor.