

Analysis of Quality and Output of Entrepreneurship in the Field of Refractionist Optician

A Wesnita¹ and M Dewi²

¹Akademi Refraksi Optisi YLPTK, Padang, Indonesia

²FKIP Universitas Putra Indonesia YPTK, Padang, Indonesia

*awesnita@gmail.com

Abstract. The launching of the Asean Economic Community (AEC) caused a rivalry on the exchange of the work, especially workers who are involved in the sector of specific expertise that increased sharply. The solution offered is through the implementation of entrepreneurship learning, but despite entrepreneurship courses have been given to students since 2007, data from the last three years states only 21% of graduates of Refractionist Optician Academy in Padang, Indonesia, which became entrepreneurs in the fields of optics and eye health. Therefore, there needs to be an assessment whether the 5 variables of learning process that has been done three variables affect the output quality of learning entrepreneurship. This study has a quantitative method to determine the effect on output quality of the learning process of learning through regression analysis, test t, R2 and the percentage of contribution. The population consist of 121 students and the sample is 54 people. The study states that the academic skills of entrepreneurship is influenced by four variables of learning process, personnel skills of entrepreneurship is not influenced by any learning variable process, and social skills of entrepreneurship is influenced by three variables learning process.

1. Introduction

National Education aims to educate the nation and develop fully Indonesian based on Pancasila and the Constitution of National 1945. Educations are expected to produce well educated of faith, pious, noble character, knowledge able, skilled, and responsible personality. According to PP No 19 of 2005 on National Education Standards, stated that the conduct of education in each educational institution must be in accordance with National Education Standards, which is the minimum standard of education systems across Indonesia and serves as a basis by planning, implementation and supervision of the implementation of education in order to achieve quality education. This is necessary particularly in anticipation of the free market, especially in the ASEAN countries such as the launching of the ASEAN Economic Community (AEC) which requires that the Indonesian have special competence in the world to be able to compete internationally. AEC caused to increased competition on the exchange of the work, especially workers who are involved in the sector specific expertise. Problems anticipate are the international competition by improving the quality of Human Resources (HR) through institution education, one through entrepreneurship education because through innovation in the entrepreneurship spirit would be developed the advantage in competitive.

According to Fontana the problem that inhibits the development of entrepreneurship in Indonesia is the weak institutional factors and individual, which include: the ability finding business opportunities, entrepreneurship culture, entrepreneurship leadership, market availability, education level, technology



information and communication availability, and the ability to innovate (2013) [1]. For that education Entrepreneurship conducted in university is an important thing and even getting more attention from all parties, especially the State through curriculum learning entrepreneurship.

But there were many problems in the process of entrepreneurship education in universities are primarily associated with universities that are the output of unemployment continues to rise each year. As reported by the Central Statistics Agency (CSA) in 2015 Unemployment Rate (UR) in Indonesia in August 2015 retracing the figure of 7.56 million people. This figure is equivalent to 6.18 % of the total 122.4 million work forces. That number has increased compared to CSA in February 2015 amounted to 5.81 % and CSA in August 2014 amounted to 5.94 %. About 600 thousand openly unemployed are college graduates either diploma or Bachelor Degree (websites BPS, 2016).

The data also showed that the unemployment which passed the college is still relatively a lot of the work force in Indonesia, it is indicated that the employment of college graduates tend to be slow so fertilize unemployed college graduates. Danuhadimejo states that one of the causes of unemployment mistake is the education system that only produces power of technical skill, which has not been beneficial to the State [2], while Dewi stated that the factor of incompetence and lack of courage for self-employed job seekers or self-employment is a cause problem of unemployment [3]. Therefore, to solve the problem of unemployment and overcome the competition in the job market International then increased ability to innovate through entrepreneurship education are important, this is done as an alternative to solving the problem didn't absorb college graduates by units of the industry and that students have the ability and courage in entrepreneurship.

One of the deliveries of education Vocational education institutions with specialized expertise competence is the Akademi Refraksi Optisi YLPTK Padang. The Academy is to prepare professional personnel in eye health and optics trained to be skilled and expert on scientific competence. Graduates are also expected to be a filler job opportunities and entrepreneurship in the field of optics after finishing education, therefore entrepreneurship education given to the students as a compulsory subject in the field of supporting special ability on optics. However, based on the fact that there is still the issue of lack of courage of students in entrepreneurship, students tend to show antipathy towards entrepreneurship, and note also that the interests of entrepreneurship students still low. Data obtained last 3 years that there are 46% of graduates who work with others, 21% were self-employed in the field optics and the remaining 33% still existed unemployment. This indicates that the number of students that entrepreneurship is still small. Therefore, it is necessary to study how the quality of entrepreneurship learning processes and learning outcomes (output) at the Academy of refraction and Optisi Padang that impact of is not achieving educational goals Entrepreneurship.

2. Literature Review

2.1. Entrepreneurship

The term entrepreneur is a translation of words into Indonesian entrepreneur, originally known as the self-employed, which means to stand on his own strength. Suharsono Sagir in Buchari Alma wrote that the entrepreneur is a main capital is the perseverance that is based on an optimistic attitude, creative and doing business as the founder of the first accompanied by the courage to the risk based on a calculation and proper planning [4]. Meredith says entrepreneurs are people who have the ability, to see and assess business opportunities, gather the resources needed to take the profit there of and take appropriate action, in order to ensure success [5]. Zimmerer says entrepreneurship is the result of a disciplined and systematic implementation process of creativity and innovation in meeting the needs and opportunities in the market [6]. That is Entrepreneurs are the subject of conducting Entrepreneurship, while Entrepreneurship is an activity that does.

2.2. Entrepreneurship Education

Educators who plays an important role in the learning process needs to carry out the development of learning through a learning approach that fits the needs of learners related to the purpose of

Entrepreneurship Education. Developments in doing achieved such Entrepreneurship learning in many countries around the world should be a reference for Entrepreneurship at Indonesia education, this is done as benchmarks to conduct quality learning for students in the field of Entrepreneurship. Premand states that entrepreneurship education has the potential to enable learners to gain the skills and create their own jobs, research shows that entrepreneurship education significantly increase the level of self-employment among university graduates about one year after graduation [7]. In the official recommendations, educators are encouraged to adopt innovative pedagogical for entrepreneurship education in order to achieve a positive impact on learners. Therefore McGrath and MacMillan states that the fostering of entrepreneurship as a mindset can be considered as an educational competence, based on instructional learning experience [8].

Research of Jiménez states that the Enterprise has been an indication of economic growth in a country, a positive impact on formal education Entrepreneurship is the ability gained through the education necessary to detect and evaluate business opportunities with better, boost confidence to run the risk perceived, as well as foster care and employment opportunities [9]. Coduras underlines that people tend to acquire knowledge that can be of giving benefits to the ability of skills through education (especially formal) [10]. Based on the study on the subject of entrepreneurship, it can be said that fostering entrepreneurship attitude for students despite the efforts made by the approach through a learning process that is appropriate to the purpose Entrepreneurship courses. Take into weigh the relevance of the educational process with the skills needed factually through a learning approach that fits the needs of learners related to the goal of Education Entrepreneurship should be done.

Entrepreneurship Education in college High to apply the principles and methodologies towards internalization of values in their students through a curriculum that is integrated with developments both at educational institutions and their communities as well as the use of models and learning strategies relevant to the purpose of learning it own. Educational institutions must not only serve spawned many graduates, but much more important is how much the graduation it can help themselves to face the challenges in the community or in other words the institution must improve life skills graduates.

Today there are many activities in the field of entrepreneurship education in universities and colleges around the world [11]. United States seems to lead in entrepreneurship education. As Kuratko notes in his study, the number of colleges and universities that offer entrepreneurship education has grown from a handful in 1970 and rose to 1,600 in 2003 [12]. Elsewhere, there is a fact that occurred increasing number of Australian universities offer entrepreneurship programs and business small business, entrepreneurship development has also been listed as one of the four strategic objectives for universities in the UK [13]. Thus it can be seen that the Education Entrepreneurship education has become a trend around the world, this is of course due to the importance of studying entrepreneurship so that an increasing number of citizens who were self-economic contracting State to support the country.

2.3. Learning and Output Quality of Entrepreneurship Learning

According to the terms, the word quality means quality, the level of the good and bad things. According to ISO 2000, the quality is the totality character a product (goods and services) that support the ability to satisfy the requirement that is specified or defined. One of the qualities that need to be considered in education is the quality of the learning process. The learning process implies a change in the perception and behavior, that behavior improvement [14]. The results of the learning process that can be viewed from a variety of forms, such as changing the knowledge, understanding, attitude, behavior, skill and some other aspects that exist on the learner. As with learning, teaching is a process of arranging, organizing around the existing environment of learners, so as to foster and encourage learners teaching and learning process. Both of these concepts by Sudjana are two concepts that can not be separated and be integrated in one activity, when there is interaction between educators and learners during the teaching takes place [15] [16]. Basically in the learning process consists of three

components, namely teachers, who taught and teaching materials provided by the teacher. Suryo Subroto, effective teaching and learning process can be in the review of two aspects [17]: 1. Taught by educators, which concerns the extent to which the planned teaching and learning activities take place. 2. Study of participants, which concerns the extent to which the desired learning objectives achieved through Teaching Learning. The development of the concept of education assesment that existed at this time shows the broader direction. But specifically targets three main aspects of the assessment include a program of education, teaching and learning processes and learning outcomes [15].

The indicator of the success of the learning process based curriculum perfected at this time are: a. Absorption of the material taught lessons in high achievement, either individually or in groups, and b. Behavior that outlined in the teaching objectives have been achieved by students either individually or in groups. Similarly, the quality of learning on Entrepreneurship subjects. The process and learner outcomes are things that the indicators of learning quality. Presented by Widoyoko outputs a learning program is always associated with the process that has taken place [18]. Therefore, assessment of learning outputs Entrepreneurship is not only in the aspect of students' academic skills, but also to reach an assessment of the personal skills and social skills of students. Learning essence of the process is an interaction between educators and students that doing in Context specific classroom with the support of learning facilities. In this study, which will be the topic of research is how the quality of the learning process with the indicator Learning Facility. Lecturer Performance, Climate Classes, Students Attitude, Motivation. On the Component Output Quality Learning evaluation results known to the academic field of Entrepreneurship Skills, Personal Skills entrepreneurship field and Social Skills in the field of Entrepreneurship [18].

3. Method

This study uses a quantitative approach to descriptive to analyze how quality of facility education. Lecturer performance, climate classes, student attitude, motivation. Quality output of learning on the academic field of entrepreneurship skills, personal skills entrepreneurship field and social skills in the field of entrepreneurship Akademi Refraksi Optisi YLPTK Padang academic year 2015-2016. And analyze the influence of each process variable to each output. Respondents were given a questionnaire instrument learning process is performed to output a lecturer while learning assessed by a lecturer in Entrepreneurship

Population and sample is the entire student class of 2013 and 2014 amounted to 121 people and the sample size is 54 students, with thought being given to that student who studied are students who have followed the course Entrepreneurship. To collect research data conducted by using a questionnaire instrument (questionnaire). Questionnaire was conceived and developed in accordance with the Evaluation Model EKOP [18] and then compiled based on the study of lectures Entrepreneurship. By using a Likert Scale modified in accordance with the measurement indicators with a positive attitude measurement scale up negative.

Data analysis was performed using percentage and categorization by the formula:

$$\frac{\text{Score Result}}{\text{Highest Score}} \times 100\%$$

The results of the analysis based on the above formula and then do the categorization of the results Achievement Level Respondents by scale Sudjana according to Table 1 below [19]:

Table 1. Scale Criteria

Achieved Percentage	Criteria
90 – 100%	Highest
80 – 89%	Hight
65 - 79%	Middle
55 - 64%	Low
0 – 54%	Lowest

Analysis of data using multiple linear regression analysis and t test to see and analyze the effect of each process variable to each output. In this study the quality of the process is the five independent variables (X_1 , X_2 , X_3 , X_4 , X_5) quality of the output is three dependent variables (Y_1 , Y_2 , Y_3). Analyses were performed separately to see the effect of independent variables on the dependent variable. Analysis of data using multiple linear regression analysis and t test to see and analyze the effect of each process variable to each output. In this study the quality of the process is the five independent variables (X_1 , X_2 , X_3 , X_4 , X_5) quality of the output is three dependent variables (Y_1 , Y_2 , Y_3). Analyses were performed separately to see the effect of independent variables on the dependent variable.

4. Results and Discussion

4.1. Description of the data statistics of each independent variable can be seen in Table 2 below:

Table 2. Description of Statistic Variables

Variabel	Mean	SD	Min	Max	Sum
X_1	23,37	4.787	11	31	1262
X_2	34,63	5,830	18	44	1870
X_3	27,81	5.978	17	40	1502
X_4	22,35	5.662	11	35	1207
X_5	32,96	7,468	18	48	1780

The above data shows that the average composition of highest to lowest is 34.63 lecturer performance, motivation to learn 32.96, Climate classes 27.81, learning facilities 23.37 and attitude 22.35.

The categorization is based on a formula percentage can be seen in the following figure 1:

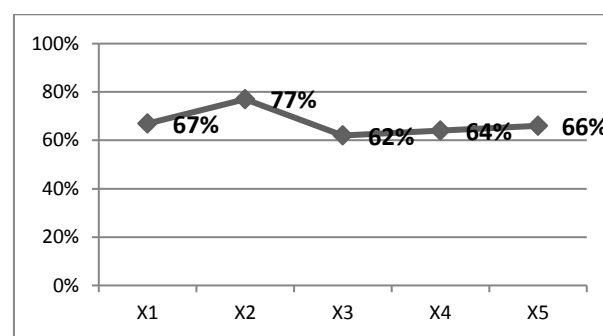


Figure 1. Categorizing Variables

The interpretation of each variable based on percentage score is known that learning facilities, lecturer performance and motivation category were middle, climate class and attitude of students categorized still low.

4.2. Description of the data statistics each dependent variable can be seen in Table 3 below:

Table 3. Description of Statistic Variables Bound

Variable	Mean	SD	Min	Max	Sum
Y_1	32,69	7.797	14	44	1765
Y_2	19,56	5.414	9	30	1056
Y_3	21.80	5.764	11	34	1177

The above data shows that the average composition of highest to lowest are skill academic field of Entrepreneurship 32.69, social skills 21.80, personal skills 19.56. The categorization is based on a formula percentage can be seen in the following figure 2:

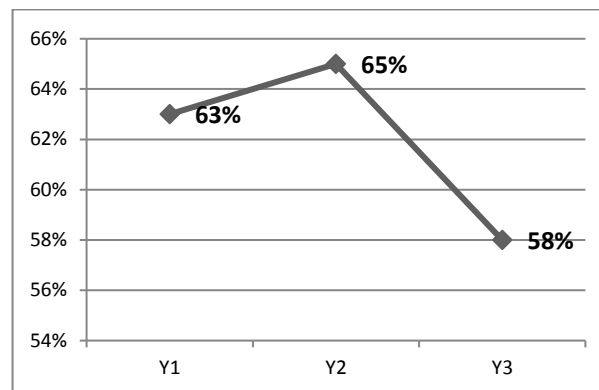


Figure 2. Categorization of Variables

The interpretation of each variable based on the percentage score is 65% personal skills, academic skills 63% and social skills 58%.

4.3. *Analysis of the influence of independent variables (X_1, X_2, X_3, X_4, X_5) of the Academic skills in the field of entrepreneurship (Y_1) can be seen in terms of the following analysis:*

Table 4. Results of Analysis of the Effect of Y_1

Variable	t score	p.value	Sd. Error
X_1	-3.353	0.000	0.173
X_2	3.033	0.007	0.106
X_3	-3.233	0.002	0.111
X_4	1.745	0.308	0.218
X_5	4.565	0.000	0.151

Based on the above analysis, it is known that there are four variables that significantly affect academic skills that student are entrepreneurship learning facilities, faculty performance, classroom climate, and motivation to learn. The fifth independent variable simultaneously berkontribusi 77.2% ($R^2 = 0.772$) with Score F of 32.559 F p-value 0.000, which means simultaneously fifth variable real impact on the ability academic entrepreneurship or at least there is one free variable influenced. The results of the study in accordance with the statement of Volkmann this time educators need innovation, new solutions, creative approach and new ways to increase entrepreneurship education system the attitudes, motivation in entrepreneurship learning [20]. Because according to research factors that affect learning such as facilities, educators, motivation and learning climate affects academic skills in entrepreneurship, while the attitude factor has no effect on academic ability.

4.4. Analysis of the influence of independent variables (X_1, X_2, X_3, X_4, X_5) on the dependent variable of entrepreneurship academic personal skills in the field of entrepreneurship (Y_2) can be seen in terms of the following analysis:

Table 5. Analysis of the Effect of Y_2

Variable	t score	p.value	Sd. Error
X_1	-1.310	0.196	0.212
X_2	1.186	0.241	0.131
X_3	0.512	0.611	0.137
X_4	0.666	0.509	0.269
X_5	1.769	0.083	0.186

Based on the above analysis, it is known that there are no independent variables that significantly affect personnel entrepreneurship skills of students. These five independent variables simultaneously berkontribusi only 2.8% ($R^2 = 0.028$) with Score F of 3.812 p-value 0.710, which means that no free variable influence in silmutan the personal ability entrepreneurship field students. Personality or entrepreneurship skills by characteristic of a person is the determining factor the emergence of desire entrepreneurship. Superior character an entrepreneur is inovatif. Innovation is recommended as a behavior characteristic of entrepreneurship and orientation entrepreneurship [21]. That is, the innovation allows someone turns out to be entrepreneurs by being able to look for new opportunities [22]. Drucker, for example, claimed that innovation is a tool main entrepreneurship. Referring to innovation as the systematic search for change as new market opportunities, product, or idea [23]. In line with this in a study by Thomas and Mueller [24], innovation has also been the central feature in defining the profile of entrepreneurship.

4.5. Analysis of the influence of independent variables (X_1, X_2, X_3, X_4, X_5) on the dependent variable of social skills (Y_3) can be seen in terms of the following analysis:

Table 6. Analysis of the Effect of Y_3

Variable	t skor	p.value	Sd. Error
X_1	-0.787	0.435	0.169
X_2	-0.459	0.648	0.104
X_3	4.947	0.000	0.109
X_4	3.116	0.003	0.214
X_5	2.554	0.014	0.148

Based on the above analysis, it is known that there are three variables that significantly affect the social skills of entrepreneurship in the students themselves, classroom climate, attitudes and motivation to learn. The fifth independent variable simultaneously berkontribusi 59.8% ($R^2 0.599$) with score F is 14.343, p-value 0.000, which means simultaneously fifth variable real impact on the ability of social entrepreneurship, or at least there is a free variable that influence. Social skills to become an entrepreneur is a factor that can not be underestimated. Birch and Whittam defines the concept of social entrepreneurship is how someone have the ability to combined motivation and vision in accordance with the aim of bringing together different interests [25]. Many higher education institutions prepare education program to become a social entrepreneur because of the interest and demand for the entrepreneurship education [26]. The profit of social entrepreneurship education is able to increase the entrepreneurship population day by day due to their investment social entrepreneurship uploading one's motivation in trying.

5. Conclusion

This study aimed to analyze the effect of learning on output quality learning for students Entrepreneurship Akademi Refraksi Optisi YLPTK Padang. The first research results indicate that there are four variables that significantly affect academic skills that students entrepreneurship learning facilities, faculty performance, classroom climate, and motivation to learn. The fifth independent variable simultaneously contributed is 77.2%. Thus concluded that succeeded academic achievement in entrepreneurship can be influenced by the quality of the learning process, but the knowledge gained can be an experience of a student's skills in promoted entrepreneurship as though the attitude of no effect, but the attitude can be trained in entrepreneurship through education. Dees argues that we experience in life can support the development of entrepreneurship skills by getting an education is the first step to acquire and develop entrepreneurship skills [27].

The second conclusion results of the study revealed that there is no any independent variables that significantly affect personnel entrepreneurship skills of students. The fifth independent variable simultaneously contributed only 2.8%. The main characteristics of the entrepreneur was innovation, solution for generating innovation characteristics that exist within the student self is through learning method. Many researchers have found a way of learning that can enhance student motivation to innovate, previous research on the effect of learning strategies in entrepreneurship education have implemented the model and learning approaches such as model problem based learning, interactive learning, mentoring, experiential learning and active learning and project based learning.

The results of a third study is there are three variables that significantly affect the social skills of entrepreneurship in the students themselves, classroom climate, attitudes and motivation to learn, the fifth independent variable simultaneously contributed 59.8%. Social skills in the field of entrepreneurship can be improved by investment the mental attitude of entrepreneurship, motivate students in entrepreneurship by bringing them closer to the needs in life. This approach is consistent with constructive learning theory, which proposes authentic learning, such as the use of real life problems, to make learning meaningful for students [28]. Meaningful learning and relevant to the life and social issues in everyday life will increase the social skills of entrepreneurship students.

References

- [1] Fontana, Alvanti 2013 *Kewirausahaan Indonesia Menyambut Masyarakat Ekonomi ASEAN 2015* Article Online <http://www.wantifontanacom/blog>
- [2] Danuhadimedjo 1998 *Kewiraswastaan dan Pembangunan* (Bandung: Alfabeta)
- [3] Dewi, Endah Rita Sulistya, Sumarno dan Prasetyo 2011 Pengembangan Model Pembelajaran Berperspektif Kewirausahaan *Jurnal Bioma* Vol 1, No 2, Oktober 2011
- [4] Buchori Alma 2005 *Kewirausahaan* (Bandung: Alfabeta)
- [5] Meredith, Geoffrey G, Nelson, Robert E, and Neck, Phillip A 2002 *Kewirausahaan Teori dan Praktek (The Practice of Entrepreneurship)* (Jakarta: Penerbit PPM)
- [6] Zimmerer W Thomas Et al 1996 *Entrepreneurship and The New Venture Formation* (New Jersey: Prentice Hall Inc)
- [7] Premand Patrick, Stefanie Brodman, Rita Almeida, Rebekka GRUN and MAHDI BAROUNI 2015 Entrepreneurship Education and Entry into Self-Employment Among University Graduates *World Development Journal* Vol 77, pp 311–327
- [8] McGrath, R G, and MacMillan, I 2000 *The entrepreneurship mindset: Strategies for continuously creating opportunity in an age of uncertainty* (Boston: Harvard Business New Jersey 07458)
- [9] Jiménez Alfredo, Carmen Palmero-Cámara, María Josefa González-Santos, Jerónimo González-Bernal, Juan Alfredo Jiménez-Eguizábal 2013 The impact of educational levels on formal and informal entrepreneurship *Business Research Quarterly* Vol 34, hal 1-9
- [10] Coduras A, Levie J, Kelley D J, Saemundsson J R, Schott T 2010 *Global Entrepreneurship Monitor Special Report: A Global Perspective on Entrepreneurship Education and Training* *Global Entrepreneurship Research Association* (Wellesley, MA)

- [11] Thompson J L 1999 "The world of the entrepreneur – a new perspective", *Journal of Workplace Learning* Vol **11** No 6, pp 209-24
- [12] Kuratko D F 2003 *Entrepreneurship Education: Emerging Trends and Challenges for the 21st*
- [13] Kirby D A 2004 Entrepreneurship education: can business schools meet the challenge? *Education and Training* Vol **46** Nos 8/9, pp 510-19
- [14] Oemar Hamalik 2002 *Psikologi Belajar Mengajar* (Bandung: Sinar Baru Algesindo)
- [15] Nana Sudjana 2010 *Penilaian Hasil Proses Belajar Mengajar* (Bandung: Remaja Rosdakarya)
- [16] Sadirman Am 2010 *Interaksi Dan Motifasi Belajar Mengajar* (Jakarta: Rajawali Pers)
- [17] Suryo Subroto 1997 *Proses Belajar Mengajar Di Sekolah* (Jakarta: Rineka Cipta)
- [18] Widoyoko and Eko Putro 2012 *Evaluasi Program Pembelajaran, Panduan Praktis Bagi Pendidik dan Calon Pendidik* (Yogyakarta: Pustaka Pelajar)
- [19] Nana Sudjana 1995 *Dasar-Dasar Proses Belajar Mengajar* (Bandung: Sinar Baru Algesindo)
- [20] Volkmann C, Wilson K E, Marlotti S, Rabuzzi D, Vykarnam S, and Sepulveda A 2009 *Educating the next wave of entrepreneurs: Unlocking entrepreneurship capabilities to meet the global challenges of the 21st Century A report on the global Education Initiative Century* (Coleman Foundation White Paper Series, <http://usasbeorg/pdf/CWP-2003>)
- [21] Entrialgo M, Fernandez E and Vazquez C 2000 Characteristics of managers as determinants of entrepreneurship orientation: some Spanish evidence *Enterprise and Innovation Management Studies* Vol **1** No 2, pp 187-205
- [22] Zacharakis A 1997 *Entrepreneurship entry into foreign markets Entrepreneurship: Theory and Practice* Spring, pp 23-40
- [23] Cromie S 2000 Assessing entrepreneurship inclinations: some approaches empirical evidence *European Journal of Work and Organizational Psychology* Vol **9** No 1, pp 7-30
- [24] Thomas A S and Mueller S L 2000 A case for comparative entrepreneurship: assessing the relevance of culture *Journal of International Business Studies* Vol **31** No 2, pp 287-301
- [25] Birch K and Whittam G 2006 *The role of the social economy, social enterprise and social entrepreneurship in sustainable regional development Centre for public policy for regions, Discussion Paper No 12*
- [26] Brock D D and Kim M 2011 *Social entrepreneurship education resource handbook Ashoka U, the University Division of Ashoka*
- [27] Dees G, Emerson J and Economy P 2001 *Enterprising nonprofits: A toolkit for social entrepreneurs* (John Wiley and Sons, Inc New York)
- [28] Woolfolk A 2008 *Educational Psychology 10th Edition* (Boston: Allyn and Bacon)