Vol. 4, No. 2, 70-75, 2017

ISSN(E) 2313-7401/ISSN(P) 2518-0096 DOI: 10.20448/journal.500.2017.42.70.75



Does Entrepreneurial University Support Entrepreneurship Education?

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Abstract

This study aims to develop the model of character-based entrepreneurship education in an entrepreneurial university. Entrepreneurship education was viewed from the aspects of curricular and non-curricular learnings. This study employed a mixed method and described the empirical facts using a descriptive analysis. Data from 278 university students and 6 lecturers was collected using questionnaires and interviews. Data of curricular aspects show that: 1) theoretical matters of entrepreneurship are more emphasized than the practical ones; 2) a student-centered approach has been employed, but lack of practical varieties; 3 entrepreneurial learning resources, like seminars, workshops, trainings are required. Of non-curricular matters, it is found that: 1) the infrastructure is restricted and thus, requires the development of business incubators and laboratories for students to empirically gain experience of entrepreneurship; 2) university-business relationship has not yet accommodated entrepreneurship cultures, even though they have been truly academic and incidental events; 3) leader's commitment towards entrepreneurial culture is inconsistent. Entrepreneurial culture has not been institutionalized within the entire organization of the university.

Keywords: Entrepreneurship education, Curriculum, Learning, Entrepreneurial university.

Citation | Dedi Purwana; Umi Widyastuti (2017). Does Entrepreneurial University Support Entrepreneurship Education? Asian Journal of Social Sciences and Management Studies, 4(2): 70-

History:

Received: 19 May 2017 Revised: 9 June 2017 Accepted: 13 June 2017 Published: 20 June 2017

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Publisher: Asian Online Journal Publishing Group

Contribution/Acknowledgement: Both authors contributed to the conception and design of the study.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no conflict of

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study was reported; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

Ethical: This study follows all ethical practices during writing.

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1. Introduction

Based on the Global Entrepreneurship Monitor (GEM), entrepreneurial intention in Indonesia was 27.4% in 2014, a declining trend of 35.1% in 2013. Entrepreneurial intention rate describes of individuals age of 18-64 with the intention to create new business in the next three years. Indonesia is a country with high negative growth in terms of entrepreneurial intention rate (-7,7%) compared to Asian countries likeThailand and China with positive growth (GEM, 2014).

The development of entrepreneurship in Indonesia has become a national strategic requirement to enhance economic resilience. Since 1995, the Government of Indonesia has encouraged the growth of entrepreneurship by issuing policies to develop entrepreneurship programs (Susilaningsih, 2015). This is driven by the assertion that a country can reach the prosperity if there are at least 2 percent entrepreneurs of the population.

The number of entrepreneurs in Indonesia was only about 1.65 % of the population in 2015, while Singapore reached 7%, Malaysia accounted for 5%, and Thailand was 4% (Republika, 2015). To cope with the condition, Indonesia needs a strategic plan to strengthen the competencies of its human resources, especially in promoting entrepreneurship skills through entrepreneurship education. Entrepreneurship education has been actually introduced from primary school up to higher education (Susilaningsih, 2015). The education is suggested to be carried out in a long term through gradual process and continuous learning (Wiratno, 2012; Kasih, 2013). Being an entrepreneur takes time and requires restless efforts. Therefore, a life-long education must be the foundation in cultivating entrepreneurship education.

Research on entrepreneurship education describes some important aspects that must be taken into account in entrepreneurship education which includes both, curricular and non-curricular aspects (Kasih, 2013). Susilaningsih (2012) even emphasizes the non-curricular aspects to support the success of entrepreneurship education in higher education. Purwana *et al.* (2015) assert that universities, government, or other parties who are concerned with entrepreneurial education may design an entrepreneurial program to encourage students to be young entrepreneurs.

This study aims to develop a model of entrepreneurship education as an alternative that can be used by Universitas Negeri Jakarta - a public higher education in Indonesia - to build the entrepreneurial mindset. Entrepreneurship education in this study emphases on analyzing the curriculum content and non-curricular activities related to the creation of an entrepreneurial university.

2. Literature Review

Entrepreneurship is a set of behaviors, skills and attitudes shown by someone (Heinonen and Anne (2006). Through entrepreneurship education, the entrepreneurial skills and attitudes possessed by individuals are then integrated through the process of behavior formation. Rigley and Rönnqvist (2010) claim that entrepreneurial education affects entrepreneurial characteristics, such as motivation, opportunity identification, risk and uncertainty, and ability to work. Furthermore, these characteristics could plausibly determine outcome, which is a change in attitude towards the entrepreneurial characteristics.

There are two distinguishing types of entrepreneurship education: theoretically oriented courses and practically oriented courses (Piperopoulos and Dimov, 2015). As found by Piperopoulos and Dimov (2015) there were different results of those who were in the theoretical oriented courses compared to those who were in the practically oriented relating to self-efficacy and entrepreneurial intention. Elmuti *et al.* (2012) found that entrepreneurial education and training programs affected openness, confidence, and trust. Furthermore, Hsu *et al.* (2014) looked at the role of entrepreneurship education on students' motivation to pursue an entrepreneurial career. These scholars employed the expectancy theory to predict this behavioural intention. They demonstrated that entrepreneurial education could impact both motivation and intention.

Referring to Linan (2004); Lorz (2011) entrepreneurship education can be divided into four types. First, Entrepreneurial Awareness Education is an education that aims to improve knowledge of entrepreneurship and influence attitudes that will generate entrepreneurial intention. Second, education is intended to encourage a person to be able to establish a business (Education for Start-Up). This program is intended for people who have business ideas and need solutions to answer the questions about how to become self-employed (self-employed). The third category is "Education for Entrepreneurial Dynamism" is the education given to people who have been running a business but want to improve their business behavior after experiencing the initial phase of a business establishment. Fourth, continuing education for entrepreneurs (Continuing Education for Entrepreneurs) depicts an all-time learning program that is intended for experienced entrepreneurs.

The Quality Assurance Agency for Higher Education (2012) explains that entrepreneurial education should be able to provide students with enterprise skills and entrepreneurial skills. The important thing to discuss is about how to put the business (*enterprise*) and entrepreneurship into the curriculum design. Moreover, Saptono and Dedi (2016) found that learning environment has direct positive impact on entrepeneurial intention.

Kasih (2013) also emphasizes on four aspects that determine and influence the effectiveness of entrepreneurial learning in higher education. The first is the curriculum design in which entrepreneurship subjects / materials emphasize the development of entrepreneurial values among students. The second is learning methods which switch the learning methods from Teacher-centered-learning (TCL) to Student-centered-learning (SCL). The third is the lecturers that must have a paradigm and entrepreneurial mindset and able to encourage students to be entrepreneurial, even to become entrepreneurs. The fourth is the creation of entrepreneurship atmosphere that can be conducted in several ways such as setting up agencies or entrepreneurial organizations, university-business external relationship for knowledge exchange; creating business units or student cooperatives; hosting and taking part in various competitions; and participating in various seminars, workshops and trainings.

The model of entrepreneurship education in universities should have the dimensions of organization and management (Susilaningsih, 2012). It includes (1) leader's commitment to develop entrepreneurship culture; (2) main programs to change students' mindset followed up by the sub-programs; (3) sufficient infrastructure support; and (4) establishing the relationship between universities and external institutions to improve entrepreneurship education programs.

Gibb (2005) defines an entrepreneurial university as a concept that describes a condition in which the university provides opportunities, practices, culture and environment to encourage and engage students actively in entrepreneurship. According to Clark (2001) as cited in Purwana (2015) keys to successful implementation of entrepreneurship in higher education lie in: 1) strong leadership (strengthened steering core), 2) focusing on the development of cooperation networks (expanded developmental periphery), 3) having a diversified funding base, 4) strengthening academic quality as a core competence of institutions (academic - stimulated heartland), and 5) integrated entrepreneurial culture.

Furthermore, the European Commision (2012) explains that in order to create an entrepreneurial university, higher education has to put concern on some aspects that include: (1) leadership and governance; (2) organizational capacity, people and incentives; (3) entrepreneurship development in teaching and learning; (4) pathways for entrepreneurs; (5) university - external business relationships for knowledge exchange; (6) the entrepreneurial university as an international institution; (7) measuring the impact of the entrepreneurial university.

3. Research Methodology

A mixed method was employed in this study and the technique of applied descriptive statistics method was used to analyze the data. Data was collected through in-depth interviews, questionnaires to students, triangulation of data and literature. In total, there were 278 respondents of Universitas Negeri Jakarta students. The in-depth interview was also administered to six lecturers who teach entrepreneurship courses.

Entrepreneurship education in this study is viewed from two aspects of learnings, curriculum and non-curriculum bases. Curriculum-based learning is to observe the implementation of entrepreneurship through several indicators: (1) learning outcomes, (2) attitude, (3) skills, (4) learning and teaching methods, (5) learning sources, and (6) assessment. Non-curriculum-based learning is the availability of supporting infrastructure such as business units, laboratories, student activity units, and business incubators. On this aspect, this study analysed the factors that support the creation of entrepreneurial university, such as: (1) leader's commitment and culture towards entrepreneurship, (2) diversity of sources of funds, (3) relationship and collaboration with stakeholders, (4) development of entrepreneurship in the teaching and learning aimed at knowledge exchange.

4. Results and Discussions

Entrepreneurship education is a learning program that aims to improve understanding of entrepreneurship, students' entrepreneurial traits, students' entrepreneurial intention and students' capability to become entrepreneurs through a process of structured learning in the curriculum and supporting non-curricular activities. The character-based entrepreneurship education model developed in this research will be used by Universitas Negeri Jakarta as a continuous learning.

The purpose of entrepreneurship education is not only learning to understand cognitive aspects, but also emphasizing on affective aspects of being entrepreneurial as well as equipping students with the skills to start new businesses. Based on the structure of the curriculum, the aspects which are observed are as follows:

4.1 Learning Outcomes

Learning outcomes in entrepreneurship education, according to Gorman *et al.* (1997) is to understand entrepreneurship concept, to have an entrepreneurial mindset and to be entrepreneurs. The learning process in the entrepreneurship courses, as a part of entrepreneurship education in Universitas Negeri Jakarta, has been covering all of three learning outcomes. However, to achieve the required three learning outcomes, the outcomes have to be organized gradually and continuously (Kasih, 2013). It is also stated by Gorman *et al.* (1997) that the early stages of entrepreneurial learning is aimed to create an entrepreneurial mindset and enhance the understanding of entrepreneurship. In the long run, learning is meant to guide students to become entrepreneurs.

In practice, the entrepreneurship course at Universitas Negeri Jakarta still emphasizes on theories and the understanding of entrepreneurship. Therefore, entrepreneurial mindset as the most important aspect of entrepreneurship education could not be achieved optimally. In addition, according to Gibb (2005) if one wants to create an entrepreneurial university, the concept of entrepreneurship education should be embedded and integrated into the curriculum of the faculty. Entrepreneurship education at Universitas Negeri Jakarta is not a compulsory subject in every faculty and the course is 3 credit hours. Susilaningsih (2015) states that entrepreneurship education in higher education is required in any kind of professions, regardless of their major/faculty.

4.2 Attitude

In addition to the aspect of knowledge, entrepreneurship education is organized with the aim to develop an attitude or entrepreneurial mindset. Entrepreneurship education at Universitas Negeri Jakarta concerns with the development of achievement motivation and communication. In relation to these aspects, entrepreneurship education should be able to develop entrepreneurial skills such as creative and innovative, risk-taking, as well as the ability to identify opportunities. While Ras and Pretorius (2007) found that some attitudes to be developed in their model of entrepreneurship education are like commitment; personal leadership; obsession on opportunities; tolerance for risk and ambiguity; creativity and achievement motivation. Heinonen and Anne (2006) added one important aspect, which is the ability to solve problems. In general, based on the data analysis, the implementation of entrepreneurship education should be improved in terms of the development of attitudes such as creative and innovative, hardworking, self-confidence, risk-taking, decision making, solving problem, proactive and teamwork.

4.3 Skills

The Quality Assurance Agency for Higher Education (2012) emphasizes that the skills to be developed through entrepreneurship education include enterprise skills. Entrepreneurial Education Model developed by Pretorius et al. (2005) explains that the entrepreneurial performance is a function of motivation, entrepreneurial skills and business skills. Based on data analysis, enterprise skills have to be provided in entrepreneurship education with the

focus to develop some business skills such as grasping opportunities, preparing and compiling business plan, solving problems, managerial skill, the ability to produce products, the ability to communicate products to customers and financial skill including how to prepare financial reports and evaluate the business. In fact, business skills include skills in financial management, marketing, operations, human resources, law, communication, management and skills in drawing up business plans (Pretorius *et al.*, 2005).

4.4 Learning Methods

In reference to the entrepreneurship education model that is implemented in several universities in China, learning activities in the classrooms must be shifted from teacher-centered to student-centered with its learning cultivation paradigm (Li and Li, 2015). The interaction of teachers and students demands active participation and involvement of students in improving the learning process. Bruff (2009) argues that through active participation of students in learning, knowledge can be built independently and is expected be an experience to solve problems in the future.

The entrepreneurial education model developed by Heinonen and Anne (2006) applies a new teaching approach that is by placing learners as subjects of the learning process, so that students will participate actively in their classes. In order to create a fun classroom environment, an important aspect to consider is the relationship between teachers and students as well as how the physical environment is managed (Muijs and David, 2008). Therefore, a teacher will act as a facilitator in the learning process.

An experience can be prepared on a theoretical basis, while learning is organized by combining theories and experiences through internship, making use of laboratories or business incubators. In fact, Universitas Negeri Jakarta has already organized the learning process that focus on students, but the methods employed in the classrooms still need to be variously developed as they have not optimally supported and enriched student's entrepreneurship experience yet.

4.5 Learning Sources

In general, student needs some sources of learning materials or information to support learning process, Any kind of sources that allow or facilitate someone in the learning process are known as learning sources. Recently, many students rely on their lecturers as the main source of learning, but actually, lecturers are not the only source. There are many other learning sources that could be used in learning, especially in entrepreneurship education. Kasih (2013) asserts that other learning resources are guest lecturers and practitioners in entrepreneurship, success stories, as well as seminars. Thus, Universitas Negeri Jakarta has to routinely organize events and invite more practitioners, as an effort to enhance student entrepreneurial intention.

4.6 Evaluation

Evaluation of the learning process were conducted by lecturers who provides measurement and assessment. The measurement is related to converting the learning outcomes in a quantitative form, while the assessment is related to the quality of the learning that has been carried out. One aspect that taken into account in the evaluation process includes the understanding of entrepreneurship and entrepreneurial experience gained through practices in laboratories. Not all students in Universitas Negeri Jakarta get the opportunities to practice their enterprise skills during the lessons because some faculties do not have the laboratories to practice entrepreneurships.

Non-curricular entrepreneurship education is still less optimal because of some limited aspects. Universitas Negeri Jakarta has not yet provided the necessary supporting facilities such as business incubators, entrepreneurship units for student activities, business units, laboratories of entrepreneurship, mentoring in entrepreneurship and competitive climate. Entrepreneurship education should be complemented with entrepreneurial climate in Universitas Negeri Jakarta. Entrepreneurial climate and culture could be gained through the leader's commitment for sustainable entrepreneurship program in collaboration with external parties, the diversity of source of funds and the process of teaching and learning that support entrepreneurship.

Leader's commitment to create entrepreneurial climate in Universitas Negeri Jakarta has not yet optimally been shown. The commitment to create entrepreneurial university has shown some volatility. It is due to the different of perceptions in translating institutional mission. Therefore, the culture of entrepreneurship has not yet identified in the entire organization elements, including the lecturers. The lecturers lack of entrepreneurial mindset and entrepreneurial awareness. It is indicated by low number of scientific publications in national and international levels

In terms of funding sources, Universitas Negeri Jakarta depends on the source of funds from the government and the community. The university has not yet optimally explored the potential of its own resources to contribute to the revenue. The relationship with external parties in terms of entrepreneurship education is still limited on academic and incidental events. It has not led to routine programs conducted by the university to generate other sources of income.

Based on the qualitative and quantitative analysis, this study results in a conceptual model of entrepreneurship education based on the characters as shown in Figure 1.

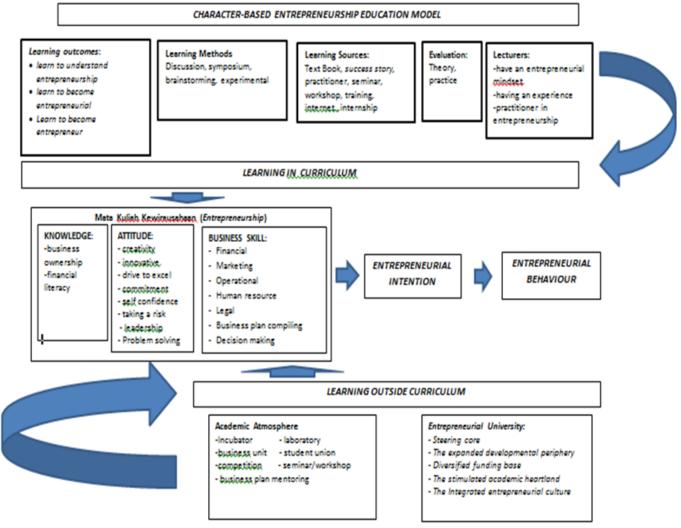


Figure-1. Character Based Entrepreneurship Education Model

Source: developed by the Author

Character-based entrepreneurship education model is developed as a derivative of the mission of Universitas Negeri Jakarta so that it is internalized into the academic climate both in the curriculum and non-curriculum activities. Entrepreneurship education in the curriculum is organized in a general subjects which is called Fundamental of Entrepreneurship and having 3 credits hours that is required for all students. This subject aims to equip students with the understanding of entrepreneurship, entrepreneurship mindset and to encourage them to become an entrepreneur. Learning outcomes that should be achieved during the process of learning include three aspects: (1) knowledge (cognitive), (2) attitude (affective) and (3) business skills (psychomotor). Based on this model, the development of attitudes (affective) emphasizes on creativity and innovation, drive to excel, self-confidence, taking risks, commitment, leadership and problem solving skills. This attitude is developed through learning methods such as discussions, symposia, brainstorming and experimental methods. In addition to classroom learning, students are also equipped with the real experience through practices in a laboratory, internship or business incubator, as one form of assessment in the learning process in the subject of Entrepreneurship. Through practice, students are expected to apply their skills in managing the business.

In the character-based models of entrepreneurship education, lecturers as facilitators must also possess the character of entrepreneur. Therefore, lecturers in this subject must meet some requirements. The lecturers must (1) have got entrepreneurship teaching experience for at least 5 years, (2) have attended entrepreneurial training or seminar; and had a background of entrepreneurs. The supporting document as an output of this research is blue print of learning plan during one semester and is provided weekly in a form of lesson plan.

Entrepreneurship education must be equipped with learning sources in the forms of seminars, workshops, trainings and provide the experience through internships, as sources of information. Internships are held at the end of the learning and are needed to improve the skills in managing the business. Students may choose certain learning sources and attend the event to fulfill the requirement for passing this subject. It could be arranged as one of the prerequisite before their graduation.

In terms of non-curricular aspect of entrepreneurship education, leaders have to build entrepreneurial atmosphere within the university or faculty. It could be arranged through activities which are held to encourage the competitiveness. The university or faculty should facilitate the provision of competitions in various fields. To strengthen the enterprise skills and to develop entrepreneurial mindset, faculty must equip their students with "Business Plan Competitions". The events are attended by students enrolling in the Entrepreneurship subject. During the preparation of business plans competitions, students should be supervised by assigned lecturers.

To create good entrepreneurship climate, faculty or university must revitalize and involve student organizations as an effort to inculcate entrepreneurship. The commitment of university and faculty leaders as the effort to create the entrepreneurial university in Universitas Negeri Jakarta should be consistently maintained. This can be achieved through the policies that lead to a more conducive entrepreneurial climate. It is also with respect to some aspects of steering core, expanded developmental periphery, diversified funding base, stimulated academic heartland and integrated entrepreneurial culture, the Entrepreneurial University can be manifested.

Thus, entrepreneurship education that is designed both in curricular and non-curricular activities is expected to improve the intentions of students in entrepreneurship and entrepreneurship shaping behavior.

5. Conclusion and Recommendation

It can be concluded that successful entrepreneurship education depends on the existence of entrepreneurial university. The entrepreneurial university should be treated as a hidden curriculum. Based on the data analysis, the research revealed that entrepreneurship subjects should be a compulsory subject that can be designed as one of general subjects, to be directed into the formation of the entrepreneurial characters. This subject is preferably to be embedded into other subjects that will include the uniqueness of each study program. Through entrepreneurship education, graduates will have entrepreneurship mindset that encouraged them to be intrapreneurs and entrepreneur.

The other important thing to be considered beyond the curriculum is the availability of infrastructures, especially incubators and laboratories as places for students to gain entrepreneurship experience. Moreover, to fulfill the institution's mission, it would require the commitment of Universitas Negeri Jakarta leaders to encourage the creation of the entrepreneurial climate. Leaders have to organize activities to create the entrepreneurship perception through workshops, seminars or trainings for trainer as well as activities that will encourage competitiveness and entrepreneurial mindset in all elements of the institution.

References

- Bruff, D., 2009. Teaching with classroom response systems: Creating active learning environments. San Fransico: Jossey-Bass A Wiley Imprint.
- Elmuti, D., G. Khoury and O. Omran, 2012. Does entrepreneurship education have a role in developing entrepreneurial skills and ventures' effectiveness? Journal of Entrepreneurship Education, 15: 83. View at Google Scholar
- European Commision, 2012. Entrepreneurship education at school in Europe national strategies. Curricula and Learning Outcomes.

 Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/thematic reports/135en.pdf [Accessed February 15, 2015].
- GEM, 2014. Global entrepreneurship monitor. London: Babson College and London Business School.
- Gibb, A., 2005. Towards the entrepreneurial university, entrepreneurship education as a lever for change. Policy Paper for the National Council for Graduate Entrepreneurship (NCGE).
- Gorman, G., D. Hanlon and W. King, 1997. Some research perspectives on entrepreneurship education, entreprise education and education for small business management: A ten year literature review. International Small Business Journal, 15(3): 56-77. View at Google Scholar | View at Publisher
- Heinonen, J. and P.S. Anne, 2006. An entrepreneurial-directed approach to entrepreneurship education: Mission impossible? Journal of Management Development, 25(1): 80-94. View at Google Scholar | View at Publisher
- Hsu, D.K., R.S. Shinnar and B.C. Powell, 2014. Expectancy theory and entrepreneurial motivation: A longitudinal examination of the role of entrepreneurship education. Journal of Business and Entrepreneurship, 26(1): 121-140. View at Google Scholar
- Kasih, Y., 2013. Realising entrepreneurship education in higher education through continuous learning process. Scientific Journal STIE MDP: Business and Entrepreneurship Forum, 2(2): 164-181.
- Li, W. and C. Li, 2015. Entrepreneurship education in China. Retrieved from http://cdn.intechopen.com/pdfs-wm/48258.pdf [Accessed August 2, 2016].
- Linan, F., 2004. Intention-based models of entrepreneurship education. Picolla Impresa / Small Business, 3(1): 11-35. View at Google Scholar
- Lorz, M., 2011. The impact of entrepreneurship education on entrepreneurial intention. Dissertation of the University of St. Gallen, School of Management, Economics, Law, Social Sciences and International Affairs.
- Muijs, D. and R. David, 2008. Effective teaching: Teori dan Aplikasi, translated by Helly Prajitno Soetjipto and Sri Mulyantini Soetjipto. Yogyakarta: Pustaka Pelajar.
- Piperopoulos, P. and D. Dimov, 2015. Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. Journal of Small Business Management, 53(4): 970-985. View at Google Scholar | View at Publisher
- Pretorius, M., G. Nieman and V.J. Van, 2005. Critical evaluation of two models for entrepreneurship education: An improved model through integration. International Journal of Educational Management, 19(5): 413-427. View at Google Scholar | View at Publisher
- Purwana, D., 2015. The effect of transformational leadership, academic culture and organizational health on managerial effectiveness: A study of an Indonesian public higher education institution. Review of Integrative Business & Economics Research, 4(4): 367-380.

 View at Google Scholar
- Purwana, D., U. Suhud and Y.M. Arafat, 2015. Taking/receiving and giving (TRG): A comparison of two quantitative pilot studies on students' entrepreneurial motivation in Indonesia. International Journal of Research Studies in Management, 4(1): 3-14. View at Google Scholar | View at Publisher
- Ras, P. and M. Pretorius, 2007. An entrepreneurial educational model for the Namibian Higher education system. Retrieved from http://www.actacommercii.co.za/index.php/acta/article/viewFile/52/52 [Accessed August 2, 2016].
- Republika, 2015. The number of Indonesian employers only 1.65 percent. Retrieved from http://www.republika.co.id/berita/nasional/umum/15/03/12/nl3i58-jumlah-pengusaha-indonesia-hanya-1.65-persen [Accessed October 17, 2016].
- Rigley, B. and R. Rönnqvist, 2010. Entrepreneurship education and its outcomes: A study investigating students' attitudes and motivations after completing an entrepreneurial program. Umeå: Master, Umeå School of Business.
- Saptono, A. and P.E.S. Dedi, 2016. Learning environment, self-efficacy and attitude impact vocational students' entrepreneurial intention? Indonesian Journal of Educational Review, 3(1): 50-60.
- Susilaningsih, 2012. Construction model entrepreneurship education program in higher education: Sequential approach exploratory research design based multi mixed case. Malang State University. Dissertation.
- Susilaningsih, 2015. Entrepreneurship education in higher education: Important for all profession? Retrieved from http://eprints.uny.ac.id/21993/1/75%20Susilaningsih.pdf [Accessed August 3, 2016].
- The Quality Assurance Agency for Higher Education, 2012. Enterprise and entrepreneurship education: Guidance for UK education provider. Retrieved from www.qaa.ac.uk [Accessed February 22, 2015].
- Wiratno, S., 2012. Implementation of entrepreneurship education in higher education. Retrieved from http://jurnaldikbud.kemdikbud.go.id/index.php/jpnk/article/download/101/98 [Accessed August 3, 2016].