

# RELEVANCE OF GRADUATES' COMPETENCIES TOWARD THE EFFECTIVENESS OF ENTREPRENEURSHIP EDUCATION WITHIN A UNIVERSITY CONTEXT: CASE STUDY OF SBM ITB - INDONESIA

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## Abstract

*The importance of entrepreneurship education that positively impacts on the creation of new ventures has been widely recognized. Despite numerous studies conducted to evaluate the effectiveness of entrepreneurship education within a university setting, the results are mostly fragmented. Most studies are focused on the unsystematic approach to entrepreneurship education that partially incorporates curricula, certain pedagogy, institutional support, and assessment. This research thus focuses on measuring graduates' competencies related to the effectiveness level of entrepreneurship education within a university. This measurement is based on the systematic framework of entrepreneurship education. The research findings are as guidelines for attaining effective learning and understanding priorities of key stakeholders within a university to develop entrepreneurial graduates.*

*Key words: entrepreneurship; entrepreneurship education; effectiveness of entrepreneurship education; effective learning; systematic framework; entrepreneurial graduates.*

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## 1.1 Institution Overview

ITB began contemplating a business and management program in the 1970's. In the late 1980's, the Industrial Engineering Department set the framework for this program, and in 1990, Prof. Mathias Aroef founded the Master of Business Administration (MBA) program focusing on management technology. SBM-ITB has become a pioneer in campus autonomy, and in professionally running such program. SBM-ITB was established to develop leaders and entrepreneurs who have integrity, ethics, and social responsibility. SBM-ITB's graduates are expected to possess hard competences (know-how and skills), as well as soft competence (effective attitude and behavior in contemporary organization) in business and management.

On December 31, 2003 then ITB Rector Prof. Kusmayanto Kadiman formally established the School of Business and Management ITB (SBM-ITB) to administer both the MBA and the Undergraduate Program. SBM-ITB has become a pioneer in campus autonomy, and in professionally running such program.

With ITB Rector Decree (SK) no. 203/SK/K01/KP/2003, on December 31, 2004, School of Business and Management ITB was established. The new school continues to grow, and with the support of the teaching staff and administrative personnel, the school now has five programs, namely:

- a. Undergraduate Program in Management, established in December 2004.
- b. Master of Business Administration Program joined the SBM since December 2004.
- c. Master of Science in Management Program, established in February 2007.
- d. Doctor of Science in Management, established in August 2008.
- e. Undergraduate Program in Entrepreneurship, established in October 2012.

The location of SBM-ITB is at the ITB main campus, it is on Ganesha Street No.10 Bandung; cover a total area of 770,000 square meters. In addition to lecture rooms, tutorial rooms, and auditorium, SBM-ITB has library, Financial Trading Center (FTC), and Center for Innovation, Entrepreneurship, and Leadership (CIEL). Also near the campus is the Salman Mosque for worship and religious activities of the ITB Muslim community. For implementation of academic and research activities there are academic support facilities, namely, the

Central Library (with approximately 150,000 books and 1000 journal titles) on campus, Sports Center, and Language Center, student activities center, art gallery

Undergraduate program of SBM-ITB has 6 (six) majors in the Study Program of Bachelor's Degree in Management: Finance, Marketing, Operational, People Knowledge, Decision Making, and Entrepreneurship. The values of SBM's faculty are: trust, strive for excellence, harmony, integrity, and innovation. The vision is being a world-class institution that inspires and develops new leaders with entrepreneurial spirit. The mission is to educate and develop top quality students to become entrepreneurial leaders by providing a world-class education program.

The study of business and management is not just about the concepts that are taught in the classroom, but also in the way that these concepts are being implemented in a real-world setting. The program lasts for 9 (nine) semesters, which is 3 (three) years with the total credit of 144 Semester Credits (SKS). The curriculum:

- a. Knowledge on humanities: values, culture, differences in values and diversity.
- b. Knowledge on functional management, covering: accounting and finance, marketing, human resources and operations.
- c. Knowledge on business: planning, organizing resources, applying, and controlling a real business, understanding how to make decisions with risks, and negotiating.

The knowledge mentioned above functions as basic competencies in management science and practice that have to be mastered by business and management professionals. In order to build business and management competencies, different kinds of knowledge are categorized in six knowledge groups as follows: basic knowledge, basic skills, humanities, management knowledge, business practice, advance knowledge.

In the curriculum of the degree in management students are given knowledge of management science in general, the functions of management, the principles of leadership, and the ability to communicate. Students are then required to make a contribution to a specific group following ethical guidelines and being prepared to face the business challenges with which they are presented. In the School of Business and management of the Bandung Institute of Technology, team work is an important part of the learning process and many subjects are conducted through group work (4-5 students). As future leaders students have to be able to settle differences which may arise without provoking conflict. Team work is not only about working together but more importantly about how to achieve one's goals as a whole team. SBM-ITB has 88 persons as full time lecturers, 50 percent are already have PhD degree. The majority of lecturers graduate from reputable university at abroad (UK, USA, Australia, Japan, and German). SBM-ITB has 5 professors, 7 associate professors, and 9 assistant professors of business and management.

## 1.2 Introduction

The Global Competitiveness report 2014-2015 stated that the innovation and sophistication competitiveness of Singapore is rank to 11<sup>th</sup>, Malaysia is rank to 17<sup>th</sup>, Indonesia is rank to 30<sup>th</sup>, Philippine is rank to 48<sup>th</sup>, Thailand is rank to 54<sup>th</sup>, and Vietnam is rank to 98<sup>th</sup> out of 144 countries (World Economic Forum, 2014). The low rank of innovation and sophistication competitiveness is reflection from limited number of successful entrepreneurs within a country, whereas the role of entrepreneur has been respected as a great contributor to the economic development of most nations (Ogbo, 2012; Szirmai, et al., 2011). Nations develop faster if they have high quality, creative, and innovative entrepreneurs that implement new ideas into practical action in every business.

Entrepreneur is an important issue in several countries, more than 50% of people is consider starting a business as a desirable career choice. For example, the percentage of people consider starting a business as a desirable career choice in Philippine is 82%, Thailand is 74%, Indonesia is 73%, Vietnam is 67%, Singapore 52%, Malaysia is 50%. The percentage of people who agree that successful entrepreneurs receive high status in Philippine is 78%, Indonesia is 78%, Vietnam is 76%, Thailand is 71%, Singapore is 63%, and Malaysia is 50% (Global Entrepreneurship Monitor, 2013).

Entrepreneur is considering as a career choice that receive high status in society, but facts show that established business ownership rate particularly for Indonesia is lower than Thailand and Vietnam. The facts are Thailand has an established business ownership rate of 33.1%, Vietnam has 22.2%, Indonesia has 11.9%, Malaysia has 8.5%, Philippine has 6.2% and Singapore has 2.9%. The necessity-driven entrepreneurial activity in Vietnam is 30%, Philippine is 29%, Indonesia is 21%, Thailand is 18%, Malaysia is 18%, and Singapore is 11% (Global Entrepreneurship Monitor, 2013). According to ministry of cooperatives and small and medium enterprises, there is low number of entrepreneurs in Indonesia than in Singapore, Malaysia, and Thailand. Singapore has the number of entrepreneurs 7% of the total population, Malaysia has 5%, Thailand has 4%, and Indonesia has 1.65% of the total population (Artikel, 2015).

Several countries are facing some constraints in developing new businesses to become established businesses. The constraints are as follow (Global Entrepreneurship Monitor, 2013-2014):

1. Philippine has poor provision of training aimed at expanding and sustaining businesses.



2. Thailand is lack of education and training. Educational quality is seen as poor, which hinders creativity and the development of leadership skills; practical teaching and the teaching of entrepreneurial concepts is lacking.
3. The main constraint in Indonesia is lack of government support for entrepreneurial programs. Many policies and programs have been initiated to enhance entrepreneurship. However those are led by different agencies or ministries, and there is a lack of communication and coordination, which reduces their impact.
4. Vietnam still has not solved the problem of business education - equipping young people with basic business knowledge and providing early career advice for students, especially at the primary level.
5. Singapore is facing the high costs of commercial and professional infrastructure. It is often challenging for new businesses to afford high quality business premises or professional advice.
6. Malaysia is facing the start-up business problems. It usually lacks of sustainability and profitability due to lack of entrepreneurial abilities and skills.

The main constrains are lack of education and training either formal or informal to support successful entrepreneurs (Global Entrepreneurship Monitor, 2013-2014). Entrepreneurship Education (EE) has a vital role in guiding all learners to become more entrepreneurial-minded (Hegarty, 2006). The implementation of EE within universities aims to infuse the entrepreneurial culture and spirit into students, as well as creating new educated entrepreneurs and new businesses (U.S. Department of Commerce, 2013). In other words, the expected outcome is to produce well-educated entrepreneurs that will create jobs. The EE in the university context is more important than within the informal context because university could give students a structure and valuable knowledge/insight covering all aspects of the business, giving an entrepreneur the tools to be prepared all eventualities. The university also provides an amazing platform to test out ideas and concepts, gather input and gain constructive feedback (Mitchell, 2014). The students within university have the capability to solve the problems and make their strategic decision in creative ways based on the valid and reliable data. The impact is the business will run with high accountability, hence they could manage their business succeed in the long term (sustainable business).

There are several barriers of EE based on 46 case interviews at European Universities, namely: EE depends on the efforts of a limited number of people; academic staff members lack the time to engage in EE; educators' inadequate competence; lack of funding to support EE; the opposition of academic staff members to the introduction of EE; lack of support for EE from the government; lack of good-quality material; lack of academic credibility; lack of recognition for excellent EE; and lack of support from top management (Directorate-General for Enterprise and Industry, 2008). These barriers lead to ineffectiveness of EE in several countries. Whereas, according to a survey result from 549 company founders in the United State, 70% said that university education was important to support students in becoming successful entrepreneurs (Wadhwa et al., 2009).

Several studies of entrepreneurship education were conducted in order to support students to become successful entrepreneurs. However, the tangible results were often difficult to observe due to low number of established business ownership in several countries. Co & Mitchell (2006) conducted the mapping of existing popular courses offered and observed the existing classroom delivery techniques. Other studies conducted the mapping of entrepreneurship education within a higher education institution (Solomon, 2007; Varblane & Mets, 2010). Some studies only focused on teaching methods such as entrepreneurial-directed approach (Heinonen & Poikkijoki, 2006) and problem-based learning approach (Tan & Ng, 2006). There are also some other studies focusing on students such as their psychological aspects (Ibrahim & Soufani, 2002; Gelderen, 2010) and the importance of selection process of students (Dhliwayo, 2008). Very little do they describe about evaluation of EE that cover the assurance of learning, staff members' competence, and ways to improve the entrepreneurship education.

## 2 Research Questions

There are some common barriers from the implementation of EE; it is regarding support from staff, institution, and government. It is necessary to know the existing learning programs and institutional supports; and evaluate to what extent its effectiveness in developing entrepreneurial graduates. Thus, the following Research Questions 1 and 2 are formulated:

1. "What are current situation of entrepreneurship learning programs and institutional supports within a university context?"

Research question 1 leads to the mapping of existing entrepreneurship learning programs and institutional supports at several universities based on a systematic framework, such as mapping entrepreneurship program and contents provided by institution, methods used to deliver the contents, several activities done by institutions to support entrepreneurship program, and most common assessment methods used to evaluate the existing entrepreneurship programs.

2. "How is the effectiveness of existing entrepreneurship learning programs and institutional supports could encourage students to become entrepreneurial graduates?"

Research question 2 leads to describe and evaluate the extent to which the learning programs (curriculum, pedagogy, assessment, etc.) and institutional supports (faculty members, facilities, etc.) have been met the effectiveness criteria; then we will know which part those need to be improved, hence the better learning will be proposed to increase their efficacy.

According to the findings regarding the research questions 1 and 2, it is analyzed by within case analysis. The results from within case analysis lead to discover the effective condition to support students become entrepreneurial graduates. Thus, the effectiveness level of existing learning is related with the expected outcomes such as entrepreneurial competencies of graduates. Then, the Research Question 3 is formulated:

3. "What are current entrepreneurial competencies of graduates after completing learning from university?"

Research question 3 leads to make some correlation between the effectiveness of EE with the expected outcomes from alumni perspectives.

The objectives of this research are:

1. To provide mapping of learning practice within a university context.
2. To determine factors of effective learning to support entrepreneurship education within a university context.
3. To analyze factors which explain entrepreneurial learning that effective to produce entrepreneurial graduates.

### 3. Literature Review

Education has a vital role in guiding all learners to become more entrepreneurial minded (Hegarty, 2006). Similarly, it is supported by the results of study conducted by Kolvereid & Moen (1997), indicate that graduates with an entrepreneurship major are more likely to start new businesses and have stronger entrepreneurial intentions than other major graduates. But the education may not lead directly to increase start-ups, it may when developed and delivered under specific conditions to create expected outcomes (Jones, 2010). It depicts the need of supporting environmental which are both internal HEIs such as family, friends, role model in the society (Hegarty, 2006) and external HEIs such as facilities, structure, regulation, culture (Piperopoulos, 2012).

There is also little uniformity in program offerings, and this is commonly considered related to the fact that entrepreneurship is an emerging field (Solomon et al., 2002 in Alberti, 2004). Most entrepreneurship courses focus on either Entrepreneurship or Small Business Management as an overview of the knowledge and skills needed for the identification, evaluation, and exploitation of opportunities in a variety of circumstances and environments as well as an understanding of decision making in a small business environment. There are few courses offered in such key disciplines as entrepreneurial negotiation, leadership, new product development, creative thinking, technology innovation, entrepreneurial marketing, corporate entrepreneurship (Co & Mitchell, 2006; Solomon, 2007; Kabongo & Okpara, 2010).

There is also the need of appropriate teaching strategy to deliver the contents. But it is still little known about the effective teaching techniques for entrepreneurship educators (Brockhaus, 2001 in Alberti et al., 2004). Some author stated that entrepreneurial directed approach is well suited to the entrepreneurship teaching (Poikkijoki & Heinonen, 2006: 80). The others were stated that Experiential Learning and Problem Based Learning approach were effective to deliver entrepreneurship contents (Vincett & Farlow, 2008; Tang & Ng, 2006).

According to the findings, still little attention has been dedicated to how measuring the overall effectiveness of entrepreneurship education, there are not well defined, neither any standardized means for measuring the results generally accepted (Alberti, 2004). Most of studies which present the evaluation are limited to a certain impact from internal perspective such as intention, participants' satisfaction, and also limited to certain impact from external perspective such as graduate careers after graduation. There is lack of comprehensive evaluation from internal regarding program planning and monitoring, and there is also lack of external evaluation from alumni regarding new start-ups (composition of successful and unsuccessful entrepreneurs, time factor, cause and effect, quality of company, focus of company, job offering and quality, revenue, profitability). Most of the research are descriptive study, few studies presents developed hypotheses and moreover there is lack of models and theories of entrepreneurship education (explanatory study).

As in the filed of business education, the growing entrepreneurship education discipline was developed around concepts such as the efficacy of different teaching techniques, the appropriateness of course content, the selection and usefulness of concepts, the difference between countries and so on. On the whole research findings seem limited in generalizability. Thus we can say that research on entrepreneurship education is still at an exploratory stage. Only studies dealing with the learning process via different teaching methods or the teaching



in a particular content area are contributing to the construction of the body of knowledge in this field (Alberti et al., 2004).

The future research is still open, build a systematic framework of EE and conduct evaluation of EE comprehensively. It focused on inputs (such as curriculum, students), process (such as teaching methods, institutional supports), output or outcomes (such as competencies, alumni achievement, student / alumni perception of their learning). It also challenges the academics to conduct evaluation both from internal (faculty member of university) and external perspective (alumni) to get better improvement of entrepreneurship learning within university.

The recent research proposed a systematic framework for Entrepreneurship Education within a University context (Ghina et al., 2015). The framework is covering student, staff, and institution's priorities that including assurance of learning, staff members' competencies, and ways to improve the EE. This framework is using as guideline to conduct the effectiveness of EE within university. According to that research, the future study is open to make the correlation between the effectiveness of EE with the institution's expected outcomes from the alumni perspectives such as entrepreneurial competencies of graduates.

#### **4. Conceptual Framework**

The project partners organized by Herrmann et al. (2008) addressed effective learning and institutional support for EE to develop entrepreneurial graduates within a university context. They proposed a framework for entrepreneurship education strategy based on a set of guiding principles informed by international expert panel members. Their framework can be categorized as systematic framework because it is well-organized and includes all aspects of concepts, values, and best practices that are important for developing entrepreneurial graduates within a university. This framework can be used as a starting guideline for effective learning to develop entrepreneurial graduates. Nevertheless, it is unclear whether the structured responsibility regarding the key stakeholders within a university (students, staff, and institution) relate to all important aspects of concepts, values, and best practices based on international expert panel members. It also does not show the pattern of interaction among its key stakeholders and assurances of learning in the implemented framework. The framework contains the need for an enabling institutional environment, the engagement of key stakeholders within and outside the institution, the development of entrepreneurial pedagogic approaches in teaching, and learning and support practices.

The need for enabling institutional environments means that universities can provide the right environment that will inspire and motivate individuals to find opportunities, acquire resources, and take action in a variety of contexts that have relevance to their lives and aspirations. In such environments, there should be clarity about entrepreneurial outcomes, the alignment between entrepreneurial outcomes and appropriate ways of learning, and the kind of learning that needs to take place. The engagement of key stakeholders means that entrepreneurship does not take place in isolation from its broader environment, which means that continuous learning is sustained through relationships with stakeholders and others. Indeed, successful entrepreneurship is more likely to happen in a situation where the stakeholders provide learning opportunities and facilitate the creation and exchange of tacit knowledge. Development of entrepreneurial pedagogic approaches in teaching, learning and support practices means that the delivery of the desired entrepreneurial outcomes challenges institutions and educators to review and reflect on what needs to be taught and learnt and how the appropriate learning environments and approaches can be created. Such practices should be clearly aligned with the existing goals, outcomes, and assessment processes (Herrmann et al., 2008).

To achieve goals effectively, there are three key actors involved within a university setting, namely students, staff, and institution. They have their own attributes in the education process, such as the ability, opportunity and incentive aspects (Piper, 1993). This framework is used as a guideline for effective learning within a university. There are three conditions that are necessary for students to perform satisfactorily: they must have the ability to learn in order to undertake their study involved; they must have the opportunity to learn to conduct the study satisfactorily; and they must have an incentive to learn in order to encourage their willingness to study. The ability to learn is knowledge and skills that the students undertake to do their study. The mechanisms are focused on the students, for examples: recruitment and selection of the students. The opportunity to learn is a learning environment and its context which is provided by institutions that support the students to do their study satisfactorily, for examples: educational aspects, such as curriculum and equipment (as learning supports) that are provided by institutions. The incentive to learn is something that will be received by the students as the motivator to conduct their study, for examples: grant and grading scheme.

The important aspects for staff members to teach effectively are that they can improve the ability of their students to learn, the opportunity to learn of their students to conduct their study satisfactorily, and the incentive to learn of their students to encourage their willingness to study. Improving ability to learn is defined as a progress review such as the learning evaluation. Improving opportunity to learn is defined as equipment such as the teaching methods and teaching aids as well as social environment such as lecturers and administration staff

members. Improving Incentive to learn is defined as rewards, as a part of grading the students' performance, for the students' participation.

There are several aspects that necessary for staff to teach satisfactorily: the institution has to improve the ability to teach, improve the opportunity to teach, and improve the incentive to teach. Improving ability to teach is defined as the effort from institution to raise a more excellent quality of an acquired or natural capacity or talent that enables an individual to teach a particular subject or to do task successfully, such as recruitment and selection for lecturer, pay and safety needs, training, and performance appraisal. Improving opportunity to teach is defined as the effort from institution to raise a more excellent quality of a situation or condition in which it is possible for teaching to be done and favorable for attainment of a goal, such as workload, knowledge sharing, freedom in teaching, learning material support, and fund allocation. Improving incentive to teach is defined as the effort from institution to raise a more excellent quality of a positive motivational to teach, such as incentive and rewards for innovative teaching.

The research conducted by Salamzadeh et al. (2011) proposed a systematic framework for an entrepreneurial university using the Input-Process-Output-Outcome (IPOO) Model. The framework covers all elements of learning that are important for an entrepreneurial university. According to the IPOO model, there are the main valuable aspects of input, process, output, and outcome, but there is unclear structured responsibility regarding the key stakeholders within the university (students, staff, institution) related to those main valuable aspects. The IPOO model does not show the pattern of interaction among its key stakeholders and the assurance of learning. Meanwhile, Ropke (1998 as cited in Salamzadeh, 2011) considers the entrepreneurial university as an Entrepreneur Organization that views three items: first, a university as an organization adopts an entrepreneurial management style (institution); second, its members act entrepreneurially (student and staff); and third, it follows an entrepreneurial pattern to interact with its environment (student, staff, and institution).

A research conducted by Piper (1993) applied a general framework of management in education within a university context. The framework involves all key stakeholders that support management in education, such as students, staff members, and institution. Each of those key stakeholders has important responsibilities, namely ability, opportunity, and incentive. The framework by Piper (1993) meets all sets of guiding principles informed by Herrmann et al. (2008): it is well-organized, with clearly-structured responsibility regarding the key stakeholders within the university (students, staff, and institution) relating to all aspects of concepts, values, and best practices that are important for developing entrepreneurial graduates. It also has clear patterns of interaction among its key stakeholders within the university.

According to the systematic framework proposed from literature, the systematic framework for EE can be characterized by several components in the context of entrepreneurship education:

- a. Learning goals of EE: what the program is trying to do and for whom.
- b. Comprehensive.
- c. Well-organized.
- d. Allocation of resources: clearly-structured responsibility of key stakeholders, clear patterns of interaction among its key stakeholders.
- e. Having the mechanism to evaluate allocation resources.

The analysis of framework proposed by literatures (Piper, 1993; Herrmann et al., 2008; and Salamzadeh et al., 2011) based on the systematic framework's characteristics can be seen in Table 1.

Table 1 An Analysis of Previously- Proposed Systematic Framework Research

No	Characteristics	Systematic Framework Proposed by Previous Researches		
		Piper (1993)	Herrmann et al. (2008)	Salamzadeh et al. (2011)
1	Context of entrepreneurship education	X	√	X
2	Comprehensive	√	√	√
3	Well-organized	√	√	√
4	Allocated resources	√	X	X
5	Having mechanism to evaluate allocation resources	X	X	X

Based on the above analysis, the framework proposed by Piper (1993) can be used as a systematic guideline for effective learning within the university. The main attributes for components in the EE context are equipped from the framework proposed by Herrmann et al. (2008). Since all above-mentioned systematic frameworks do not have the Assurance of Learning component, a systematic framework is thus proposed in this



research for a better understanding that fills out the research gap from literature. The framework for EE can be seen in Figure 1.

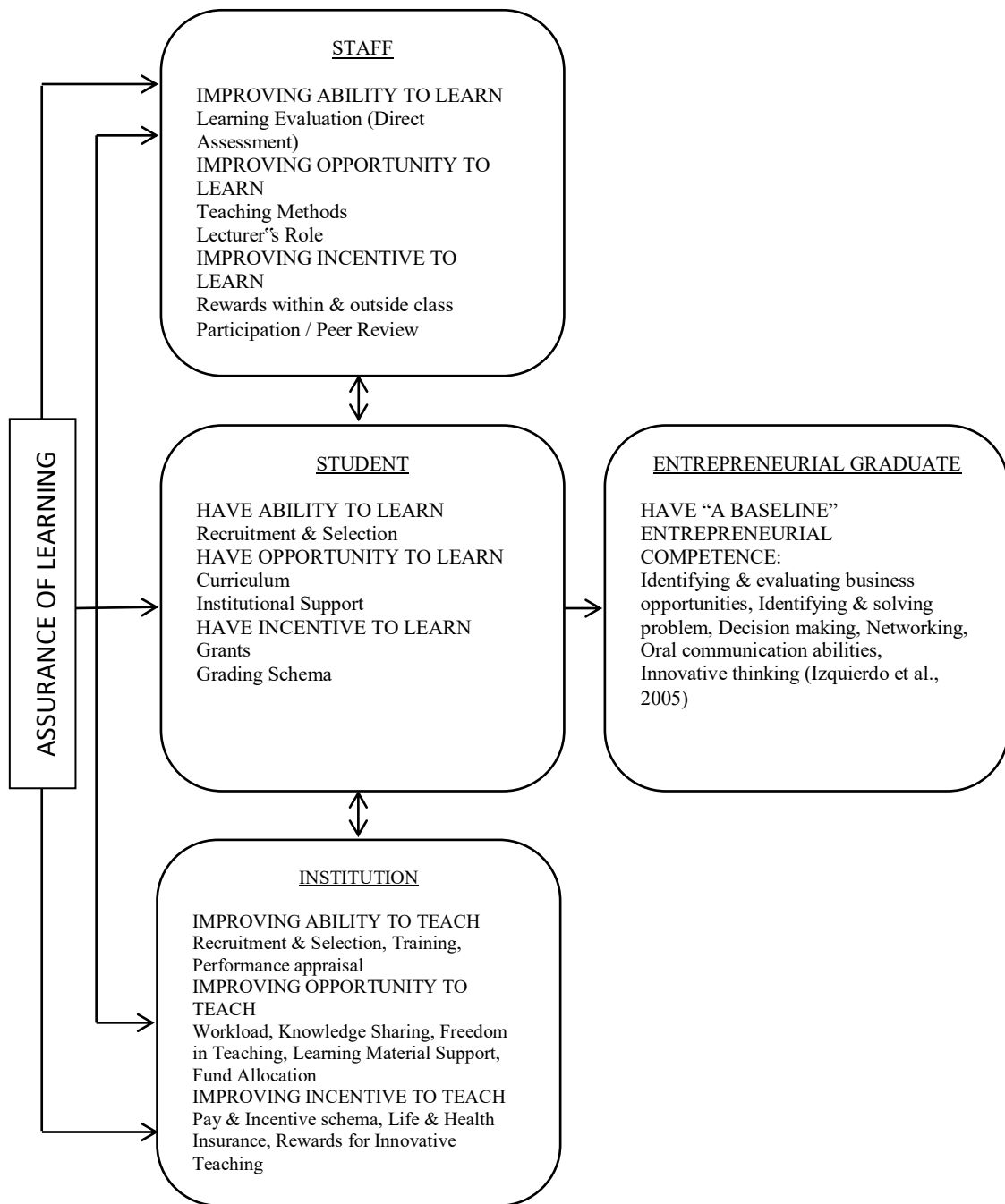


Figure 1 The Framework of Effective Learning for Entrepreneurship Education

Assurance of Learning (AoL) refers to the process of maintaining standards of learning reliably and consistently by applying criteria of success in a program (Mishra, 2007). The approach to achieve students' learning outcome is by using a continuous improvement cycle, akin to a Plan-Do-Check-Action cycle. The first loop depicts students' competences after completing the program and is guided by the vision, mission and values of the institution, which in turn informs the learning goals and learning objectives of the program. The second loop depicts the opportunities provided by institution and is considered through curriculum design, mapping to course-learning objectives, and subsequent delivery of courses that provide students opportunities to learn the knowledge, skills and values laid out in program-learning goals, program-learning objectives, and course-learning objectives. The third loop depicts assessment to see whether the students have learnt the desired learning objectives, collects evidence and checks whether there are gaps. The final loop involves analyzing and

interpreting evidence and also involves adjustments to program elements or teaching methods in order to improve student learning outcomes where most needed (Mabin & Marshall, 2011).

The learning perceived by internal (students and staff members) and external institution (alumni) can be used as evaluation to make continuous improvement. The high quality of output and outcome occurs when the characteristics, competencies, and carrier choice of the alumni along with institutional goals and objectives. The successful implementation AoL in this systematic framework is supported by allocated resources such as student, staff, and institution. Each of resource has its own role to support the effectiveness of AoL.

## 5. Research Method

Paradigm is a set of assumptions and perceptual orientations shared by members of a research community (Donmoyer, 2008). The research paradigm of this study is post-positivism, because of these following considerations:

- This research emphasize meaning and the creation of new knowledge, and are able to support committed social movements, that is, movements that aspire to change the world and contribute towards social justice (Ryan, 2006: 12).
- To pursue objectivity of this research, theory and practice cannot be kept separate. We cannot afford to ignore theory for the sake of just the facts (Ryan, 2006: 12).
- In this research, we regard ourselves as people who conduct research among other people, learning with them, rather than conducting research on them (Ryan, 2006: 18).
- This research starts with problem setting—coming up with the right questions (these may themselves lead to empirical research). This does not mean that we go off conducting research without an idea of what is to be investigated (Ryan, 2006: 19).
- The process of this research is directed toward the development of testable propositions and theory which are generalizable across settings (Eisenhardt, 1989: 546).

The research is deductive direction, because this research begins with abstract thinking, it is logically connect the idea in theory to concrete evidence and finally this research end up with analysis the idea from several cases to develop some general conclusions. This study is using qualitative approach; it is hopefully can have better explanations of phenomena. The method of this study uses a case study with single case design. To clarify the research methods, it can be illustrated in Figure 2.

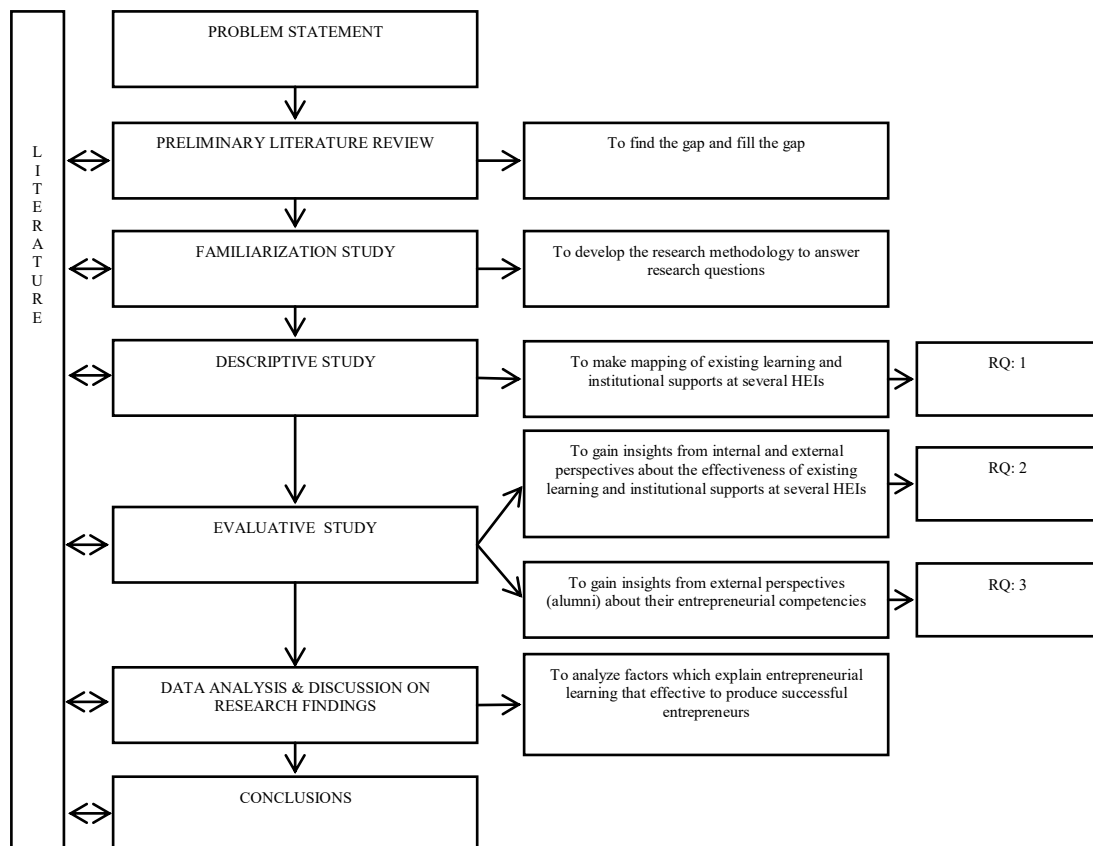


Figure 2 Research Method



The unit of analysis incorporate in this research is Program Study. A purposive sampling strategy was incorporated, where samples are selected based on their potential contribution to the model and the demands of the research objectives. The use of multiple samples is preferred to help overcome potential response bias and gain multiple perspectives (triangulation) (Yin, 2003).

The criteria to choose University as the object of this case study are: focus on Public University, the institution is undergraduate level in West Java, the institution has vision/mission to create entrepreneurial graduates or entrepreneurs, the institution at least has 3 years generation of alumni, and the institution has good popularity based on mass media. Thus, based on those criteria the results is School of Business and Management Institut Teknologi Bandung.

A key approach to select the informants from each case is using numerous and highly knowledgeable informants who view the focal phenomena from diverse perspectives. These informants can include organizational actors from different hierarchical levels, functional areas, and groups. The research also employed an embedded design, that is, multiple levels of analysis, focusing on each case at three levels: (1) Top management of program study such as Dean, Vice Dean, and Head of Study Program (3 informants), (2) Staff such as lecturer (3 informants), (3) Students (3 informants) and alumni (3 informants).

There are five data sources: (1) semi structured interview with top management of program study such as Dean, Vice Dean, Head of Study Program; (2) semi structured interview with lecturers; (3) semi structured interview with students/alumni; (4) observation; (5) secondary data. The duration of in-depth interview is around 90 minutes. The qualitative data of interview from the respondents in related to the topic will be tape recorded, transcribed, coded and analyzed using NVIVO Software.

One key step is within-case analysis. The importance of within-case analysis is driven by one of the realities of case study research: a staggering volume of data. Within-case analysis typically involves detailed case study write-ups for each site. These write-ups are often simply pure descriptions, but they are central to the generation of insight (Eisenhardt, 1989) because they help researchers to cope early in the analysis process with the often enormous volume of data. However, there is no standard format for such analysis. However, the overall idea is to become intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalize patterns across cases. In addition, it gives investigators a rich familiarity with each case which, in turn, accelerates cross-case comparison (Eisenhardt, 1989: 539-540).

Coupled with within-case analysis is cross-case search for patterns. The key to good cross-case comparison is counteracting these tendencies by looking at the data in many divergent ways. Various ways to judge the quality of the research beside validity and reliability measurement are discussed below:

a. Construct Validity, the tactics are:

1) Triangulation

This research was used source triangulation to judge the quality of the research. It was an approach that utilizes various ways of in-depth interview, observation, and secondary data. The explanations are as follow:

- a) This research was used multiple informants, the number students or alumni is 3 persons for each level (top management, lecturer, student, alumni). They were asked with the same interview questions of ability to learn/to teach, opportunity to learn/to teach, and incentive to learn/to teach. The total numbers of 12 informants for single case has reached data saturation of possible responses to the interview questions. The data saturation from in-depth interview was validated by observation and secondary data.
- b) The observation was conducted during the process of gathering the in-depth interview data from informants. The field notes from observation were validating the data saturation from in-depth interview with the informants and the secondary data.
- c) The secondary data were gathered from administration staff and online sources (electronic reports and physical artifacts such as documents downloaded from website of institution). This secondary data were validating the findings from in-depth interview and field notes from observation.

2) Expert Validation

The key informants (professor) have reviewed draft of case study report regularly. They have provided the valuable feedbacks to improve the content quality of this research. This process has repeated for several times while doing this research.

b. Internal Validity, the tactics are:

1) Do pattern matching

The audio record of interview was transcript into text then it was coded manually. The empirical evidences from transcript were matched with variables of entrepreneurial competencies.

2) Do explanation building

The empirical evidences from transcript that match with the variables in the proposed conceptual framework have explained with descriptively. In order to enhance its internal validity, these explanations have supported with the quotation from informants.

3) Address rival explanation

The contradictive findings have addressed by the explanation from previous literatures. This process leads to explore the cultural aspects of each case, and it was supported from the findings from in-depth interview with informants.

c. External Validity, the tactics is using theory in single-case studies: the previous literatures were used to support the findings from each case hence it could enhance its external validity.

d. Reliability, the tactics are:

1) Use case study protocol

The case study protocol was built before data collection. It was including the expected outcomes table to gain the consistency of interview response from informants. It has reviewed by supervisors regularly to get the valuable feedbacks.

2) Develop case study database

Each of interview transcripts has completed with the informant's profile which comprise of name, code of informant, institution, position, place of interview, and duration of interview. The informants have filled and signed the attendance form.

## 6. Research Findings

The effectiveness of entrepreneurship education is measuring through four aspects, namely: student aspect, staff aspect, institution aspect, and assurance of learning. The criteria to judge the effectiveness level student aspect, staff aspect, and institution aspect can be seen in appendix. The criteria to judge the effectiveness level of assurance of learning can be seen in appendix.

a. Student Aspect

The interview results regarding student aspect are analyzed by comparing to criteria standard from previous literatures. Each of sub variables can be determined to what extent its effectiveness. The effectiveness measurement can be seen in Table 2.

Table 2 The Effectiveness Measurement of Student Aspect

ASPECTS OF MEASUREMENT		ANALYSIS OF INTERVIEW RESULTS		LEVEL OF EFFECTIVENESS
Student Aspect	Ability to Learn	Recruitment and Selection of Student	SBM-ITB provides IQ test and psychological test after selection process. The psychological test result is used for reactive action.	2
	Opportunity to Learn	Curriculum	SBM-ITB has multidisciplinary subjects in curriculum, in each semester, sequential; and alignment to support learning goals with the systematic process.	4
		Institutional Support	SBM-ITB is providing all facilities of: (1) Entrepreneurship center; (2) Funding for start-up from internal and external institution; (3) Community service; (4) Guest lecturer. The activities well manage and routinely.	3
	Incentive to Learn	Grading Evaluation	Measure aspects of cognitive, affective, and psychomotor, standardize.	4
		Grants	Provide grants from inside and outside institution, consistently.	4

b. Staff Aspect

The interview results regarding staff aspect are analyzed by comparing to criteria standard from previous literatures. Each of sub variables can be determined to what extent its effectiveness. The effectiveness measurement can be seen in Table 3.



Table 3 The Effectiveness Measurement of Staff Aspect

ASPECTS OF MEASUREMENT			ANALYSIS OF INTERVIEW RESULTS	LEVEL OF EFFECTIVENESS
Staff Aspect	Improving Ability to Learn	Evaluation Method	SBM-ITB is using a quantitative and qualitative evaluation, consistently in all semester.	4
		Improving Opportunity to Learn	Teaching Method	SBM-ITB is using an experiential learning method, simultaneously in all class, consistently in all semester.
	Lecturer's Role		SBM-ITB is providing teaching and mentoring inside and outside class, consistently.	4
	Improving Incentive to Learn	Participation	SBM-ITB is using peer review to record participation inside and outside class, consistently.	4
		Rewards	SBM-ITB is providing non-financial rewards for students, consistently.	3

## c. Institution Aspect

The interview results regarding institution aspect are analyzed by comparing to criteria standard from previous literatures. Each of sub variables can be determined to what extent its effectiveness. The effectiveness measurement can be seen in Table 4.

Table 4 The Effectiveness Measurement of Institution Aspect

ASPECTS OF MEASUREMENT			ANALYSIS OF INTERVIEW RESULTS	LEVEL OF EFFECTIVENESS
Institution Aspect	Improving Ability to Teach	Recruitment and Selection of Lecturer	SBM-ITB has several steps for selecting the faculty members, namely: (1) Application form; (2) Interview; (3) References from interest group or teaching team; (4) Micro Teaching; (5) Pre-employment test (Skill, Personality, and Medical Check). The academic assistant is a trial period for faculty member before becoming full time lecturer.	4
		Pay and Safety Needs	SBM-ITB is providing fix salary, extra salary for additional activities and also available of safety needs	4
		Training	SBM-ITB is providing training related to learning needs. It is conducting sporadically.	3
		Performance Appraisal	SBM-ITB is conducting faculty member's appraisal based on several aspects, namely: (1) Workload; (2) Peer review; (3) Summary of students or clinical evaluation; (4) Classroom Assessment Techniques (CAT); Routinely each semester during calendar year	3
	Improving Opportunity to Teach	Workload	Lecturer and students ratio at SBM-ITB is (1:29). Each of faculty member works 40 hours per week.	4
		Knowledge Sharing	SBM-ITB has knowledge sharing routinely; it is well organized and conducted consistently.	4
		Freedom in Teaching	The lecturer at SBM-ITB has a freedom in methods to deliver the material and it is homogeny in all class of the same course (teaching team)	4
		Learning Material Supports	SBM-ITB has an innovative and pertinent teaching material: complete, free access. The students and all faculty members are having a simple bureaucracy to access it.	4
		Fund Allocation	SBM-ITB is providing a financial support for research, community service and training inside or outside and it is conducted by consistently.	4

ASPECTS OF MEASUREMENT		ANALYSIS OF INTERVIEW RESULTS	LEVEL OF EFFECTIVENESS
Improving Incentive to Teach	Incentive Schema	SBM-ITB is providing incentives based on performance and they give old age benefits for employees. It is conducted routinely.	4
	Reward for Innovative Teaching	There is non-financial reward for innovative teaching but it was sporadically.	3

d. Assurance of Learning (AoL) Aspect

The interview results regarding assurance of learning aspect are analyzed by comparing to the criteria standard from previous literatures. Each of step can be determined to what extent its effectiveness. The effectiveness measurement of assurance of learning can be seen in Table 5.

Table 5 The Effectiveness Measurement of Assurance of Learning

THE ASSURANCE OF LEARNING PROCESS		ANALYSIS OF FINDINGS	LEVEL OF EFFECTIVENESS
STEP 1	Establish learning goals and objectives	SBM-ITB learning goals address not only general knowledge and skills but also managerial skills. It is consistent with their mission. The learning goals are depth and breadth; it is measurable.	4
STEP 2	Alignment of curriculum with the adopted goals	The contents of curriculum are clear to support their learning goals and the pattern of arrangement is systematic.	4
STEP 3	Identification of instruments and measures to assess learning	SBM-ITB has two kinds of instruments to assess learning outcomes, namely: (1) Course-embedded measures; (2) Stand-alone testing-performance. It is well documented consistently.	2
STEP 4	Collection, analyzing, and dissemination of assessment information	SBM-ITB is collecting the assessment twice per semester but they are not conducting the dissemination of assessment information to faculty members.	2
STEP 5	Using assessment information for continuous improvement including documentation that the assessment process is being carried out in a systematic, ongoing basis	SBM-ITB does not present examples of student performance on assessment measures. The assessment outcomes are not using for continuous improvement in a systematic and ongoing basis.	1

e. Measuring Entrepreneurial Competencies

According to in-depth interviews from alumni, the analysis of alumni's competencies based on "Behavior Rating Scale" can be seen in Table 6.

Table 6 Entrepreneurial Competencies of Alumni

Competencies of Alumni		Number of Alumni (person(s))
Identify and Evaluate Business Opportunity	Medium	-
	High	Three
Identify and Solving Problems	Medium	-
	High	Three
Decision Making	Medium	-
	High	Three
Networking	Medium	-
	High	Three
Communication	Medium	-
	High	Three
Innovative Thinking	Medium	-
	High	Three



## 7. Discussion

The effectiveness measurement of student aspect is in not at the same level for all aspects of recruitment and selection, curriculum, institutional support, grading evaluation and grants. The explanation of each aspect is providing in the following section. The score is determined based on the criteria standard from previous literatures.

SBM-ITB has already provided IQ test but the psychological test is conducted after selecting the potential entrants for profiling new students. The score for this aspect is low. This psychological test is important to select the potential students before they are learning at SBM-ITB. As The Interviewee SBM\_TM1 stated that: "...starting from talent concept...each individual has his/her own talent, hence to achieve learning goals successfully we have to develop from certain criteria. I believe that to create the best graduates, we have to select the students based on certain criteria in accordance to the needs of certain field ..."

The curriculum at SBM-ITB is multidisciplinary subjects in each semester and in sequential order. It is alignment to support learning goals with the systematic process. This is also relevant to the curriculum standard based on AACSB (2013). The score of this aspect is high. As The Interviewee SBM\_L1 stated that: "...since entrepreneurship, leadership and ethics and managerial skills are our institutional flavor hence the learning at SBM-ITB is designed to create those skills...the lecturers are encourage to link any subjects with entrepreneurship..."

SBM-ITB is providing the facilities to support students become entrepreneurial graduates, namely: entrepreneurship center, funding for start-up from internal and external institution, competition, community service, guest lecturer. They do not have business incubator. The activities are well manage and routinely. The score for this aspect is average. As The Interviewee SBM\_L1 stated that: "...starting from our learning pattern, all facilities actually already provided by institution bundling with the curriculum, hence it is support the students to learn optimal..."

Grading evaluation at SBM-ITB has already measure aspects of cognitive, affective, and psychomotor. They also have the peer review as a tool to evaluate their student's performance in the field, it involve their students' soft skills as part of grading evaluation. This measurement is standardizing for all subjects in curriculum. The score for this aspect is high. As The Interviewee SBM\_TM1 said that: "...learning at SBM is focus on human aspect hence we have to observe their behavior..." As The Interviewee SBM\_L1 also stated that: "...the grading evaluation is depend on the subjects, if the subject is focus on students' behavior ...it must be evaluated besides the knowledge aspect..."

SBM-ITB has provided grants for their students both from internal and external sources. The internal grants are provided for those who have achievement in their academic aspect and ethereality for those who lack of money to pay tuition fee. The institution is also providing grant from external sources such as from Directorate General of Higher Education Indonesia for those with lack of money to pay tuition fee. The score for this aspect is high. These scholarships are very important, as The Interviewee SBM\_S2 stated that: "...the scholarship could encourage students' motivation and open opportunity especially for those who lack of money to pay tuition fee..."

The effectiveness measurement of staff aspect is not at the same level for all aspects of learning evaluation, teaching method, lecturer's role, participation, and rewards. SBM-ITB is using both quantitative and qualitative assessment for learning evaluation and it is conducted consistently in all semester. The quantitative assessment is objectively such as exam score, assignment score, attendance score, participation score, and the winner of competition. Whereas the qualitative assessment is subjectively such as peer review report, observation report, satisfaction statement, feedback for improvement. The score for this aspect is high. Since the learning at SBM-ITB is focus on the human/behavioral aspect as The Interviewee SBM\_L1 and The Interviewee SBM\_TM1, hence it is very important to use qualitative assessment beside the quantitative one.

SBM-ITB is using an experiential learning as the main method to deliver the material course. It is conducted simultaneously in all class and consistently in all semester. The score for this aspect is high. As The Interviewee SBM\_L1 stated that: "...one of the flavor from our institution is entrepreneurship, hence the students are encourage to do many real projects during their learning..."

SBM-ITB is providing teaching and mentoring both inside and outside class. They also record students' participation inside and outside class. It is conducted consistently in each semester. The score for this aspect is high. SBM-ITB has already using active learning inside or outside the classroom and provides regular tutorials for students doing consulting business (commitment based). As The Interviewee SBM\_TM4 stated that: "...we have so many team work for students in the curriculum, hence it need to observe, coach, and evaluated by lecturers..."

SBM-ITB has already used non-financial rewards to support students in becoming entrepreneurs. It is conducted in activity such as project based learning and graduation with consistently. The score for this aspect is average. These rewards are very important, as The Interviewee SBM\_S3 said that: "...I am agreeing with rewards because it can encourage our motivation give best performance ..."

The effectiveness measurement of institution aspect is not at the same level for all aspects of recruitment and selection of lecturer, pay and safety needs, training, performance appraisal, workload, knowledge sharing, freedom in teaching learning material supports, fund allocation, incentive schema, and reward for innovative teaching. The explanation of each aspect is providing in the following section.

SBM-ITB has several common steps for selecting the faculty members, namely: application form, interview, pre-employment test (skill, personality, and medical check), micro Teaching. They have included references check from interest group beside those common steps. SBM-ITB has already use a micro teaching to know the ability to teach for their potential lecturers before accepted as fulltime or part time lecturers. The score for this aspect is high. This selection of lecturers is very important, as The Interviewee SBM\_TM4: "...three aspects that are important to be owned by lecturers are motivation, self-development, and improvement, hence we have to select it..."

SBM-ITB has provide fix salary, extra salary for additional activities, pension fund and also available of safety needs. The score for this aspect is high. They also provide training for lecturer that related to learning needs. The training is conducting sporadically. The score of effectiveness level is average in this aspect. As The Interviewee SBM\_L1 stated that: "...we have training for lecturers case by case, in accordance with the urgent needs, if we need training of teaching method ... the institution will provide it ..."

SBM-ITB has conducted faculty member's appraisal based on several aspects, namely: workload, peer review, summary of students or clinical evaluation, Classroom Assessment Techniques (CAT). It is conducted routinely in each semester during a calendar year. The score of effectiveness level is average in this aspect. SBM-ITB has not provided the evaluation based on observation from team teaching coordinator. This appraisal is important, as The Interviewee SBM\_TM3 said that: "...our lecturers are evaluated by their own interest group...it is conducted to give some feedback for improvement..." The Interviewee SBM\_L1 also said that: "...if the result of QA is not good, the lecturer will be down grade (cannot teach in the next semester)..."

Lecturer and students ratio at SBM-ITB is (1:29). Each of faculty member works 40 hours per week. According to rule from Directorate General of Higher Education Indonesia, the minimum of lecturer and students ratio for social school is 1:35, and the workload for fulltime lecturer is 40 hours per week. SBM-ITB has already met the lecturer and students" ratio, the score of effectiveness level is high in institution"s workload aspect.

SBM-ITB has provided knowledge sharing in several activities such as meeting, workshop, general class, and journal. It is well organized and conducted consistently. The score of effectiveness level is high in this aspect. As The Interviewee SBM\_L1 said that: "...we have knowledge sharing activity such as knowledge café, lecturer"s meeting at Tuesday twice a month, invite guest lecturer, etc...it is conducting routinely"

The lecturer at SBM-ITB has a freedom in methods to deliver the material and it is homogeny in all class of the same course (teaching team). The score of effectiveness level is high in this aspect. This practice at SBM-ITB has already relevant to the entrepreneurial learning approach that process oriented which releases the complexity and heterogeneity of human nature for value creation purposes, have perceived learning as social interaction. It means that they see the reality as a social construction which entrepreneurship education as a discipline to know-who and know-how. They realize that the concept of entrepreneurship is a dynamic process that should involve the emotional aspects during learning. They also use repetitive learning techniques to deliver the content of a subject.

SBM-ITB has an innovative and pertinent teaching material; it is complete and free access to all faculty members. The students and all faculty members are having a simple bureaucracy to access it. The score of effectiveness level is high in this aspect. As The Interviewee SBM\_L1 stated that: "...we have complete teaching materials, the lecturers can propose it as their teaching needs..."

SBM-ITB has provided a financial support for research, community service and training inside or outside and it is conducted by consistently. The score of effectiveness level is high in this aspect. As The Interviewee SBM\_L1 said that: "...we support lecturer to make self-development, in 2015 we have research funding up to 1 billion rupiahs..."

SBM-ITB has provided incentives based on performance routinely. The score of effectiveness level is average in this aspect. There is also a non-financial reward for innovative teaching at SBM-ITB but the implementation is sporadically. The score of effectiveness level is average in this aspect. As The Interviewee SBM\_TM4 said that: "...we have award for best performance of lecturer...but it is not continue to do..."

SBM learning goals addresses not only general knowledge and skills but also managerial skills. The learning goals are depth and breadth and it is measurable. The process of learning is systematic. The contents of curriculum are clear to support their learning goals and the pattern of arrangement is systematic. The effectiveness level for this stage is high. The curriculum is designed to support students become entrepreneurial graduates with many entrepreneurial projects as the tools to run the real business, hence the students could better understand about knowledge and practical aspect. As The Interviewee SBM\_L1 also stated that since entrepreneurship, leadership and ethics and managerial skills are becoming institutional flavor, hence the lecturers are encourage to link any subjects with entrepreneurship.



SBM-ITB has two kinds of instruments to assess learning outcomes, namely: (1) Course-embedded measures and (2) Stand-alone testing-performance. It is well documented and consistently. The score for this aspect is average because SBM-ITB is providing the assessment-measure selection but it uses for reactive action only. As The Interviewee SBM\_TM4 stated that: "...the psychological test is just for mapping...it uses for reactive action..."

The entrepreneurial competencies of SBM-ITB alumni are high level in all aspects, the explanations are as follows:

- a. Identifying and evaluating business opportunity is in high level. This findings is supported by the coding from the respondents" response that they are "proactively request feedback from co-workers and customers, and use it to identify and capture business opportunities; share new knowledge regarding professional standard with others to ensure that they are able to contribute new ideas to the business; anticipate customer needs; consistently seek out and capture new business opportunities".
- b. Identifying and solving problems is in high level. This finding is supported by the coding from the respondents" response that they are "developing highly creative and effective solutions to problems and use solid negotiation skills to arrive at win-win solutions even in the most difficult circumstances".
- c. Decision making is in high level. This findings is supported by the coding from the respondents" response that they are "focused on continuous improvement by exploring opportunities for enhancing, revising or modifying existing standards/methods; consistently gather all information including opinion, then making an informed decision; identifying and anticipating possible outcomes; creating positive solutions; reducing the impact of negative attitudes".
- d. Networking is in high level. This finding is supported by the coding from the respondents" response that they "seek out and initiate action to build strategic relationships when opportunities are present; overcome obstacles to develop and maintain work relationships, consistently use skills and knowledge to work with others".
- e. Communications is in high level. This finding is supported by the coding from the respondents" response that they "encourage an open exchange of ideas and different points of view; tell the truth even when it is unwelcome; deliver accurate, clear, and concise messages that inform and frequently persuade audiences to take action".
- f. Innovative thinking is in high level. This finding is supported by the coding from the respondents" response that they "encourage new ideas; motivate others to be proactive, resourceful, and know the customer; contribute unique suggestions in brainstorming and problem-solving activities".

SBM-ITB tends to use the entrepreneurial learning in which the individual is active, process-based, collaborative and multidisciplinary approach. The curriculum of SBM-ITB is a multidisciplinary subject which has anchor subject and integrated each other for each and cross semesters. They have put practical aspects in their curriculum to develop entrepreneurial competencies. Immersion in practice places the practitioner at the center of the learning experience. The use of drama and performance techniques is an essential part of the entrepreneurial learning process as many entrepreneurs are continually acting and performing in their roles. SBM-ITB has provided the successful entrepreneurs as guest lecturer routinely to support identifying and evaluating business opportunity, identifying and solving problems, networking, and innovative thinking. Co-teaching course with entrepreneurs and regular faculty is a way of bridging theory and practice. They have "performance art" course in their curriculum, it is expected can create students with high competencies such as communication skill. SBM-ITB has provided the students to run their real business with the financial support from Bank in order to create competencies of identifying and evaluating business opportunity, identifying and solving problems, decision making, networking, communications, and innovative thinking.

## **8. Conclusion**

The main finding from this research is evaluation of entrepreneurship education at SBM-ITB based on a systematic framework to portray the effectiveness of entrepreneurial learning. It is valuable because we can get a better understanding on the factors that contribute to manage entrepreneurship education at SBM-ITB successfully. The research implications to the practitioners are that they have to monitor the wholly integrated system proposed in the framework to manage entrepreneurship education in order to reach the SBM-ITB goals effectively. Hence, it can identify the area of opportunity for learning improvement at SBM-ITB.

The institution has to focus not only on the students but also on the staff members. The institution must also fulfill all needs of both the students and the lecturers either for learning or for teaching. It is expected that by meeting all of their needs, the students can learn satisfactorily and the lecturers can give their best performance as the learning facilitator to enhance their students" ability, opportunity, and incentive to learn.

SBM-ITB is the institution whose one of its goals is to create entrepreneurial graduates which is to become intrapreneurs or entrepreneurs. There are three important key actors to manage entrepreneurial education successfully, namely students, staff members, and the institution. In order to achieve the above-

mentioned goal, the institution must provide many things to support learning within a school. It includes the recruitment and selection process of its student and staff member candidates where they have to undergo several tests to fulfill certain requirements.

The institution has already provided their own students and staff members with the opportunity both for learning and for teaching such as curriculum, learning materials, and entrepreneurial supports from the institution. The entrepreneurial supports provided by the institution include such things entrepreneurship center; funding for start-up from internal and external institution; competition; community service; guest lecturer; training for lecturer both inside and outside institution; routine activity of knowledge sharing; financial support for research, community service and training.

The students can learn satisfactorily because there are several financial incentives for their performance such as grants, which is allocated for two different targets of students. One is for those with a good achievement, and the other one is for those with lack of money to pay their tuition fee. The institution also gives them with non-financial incentive such as an appropriate evaluation scheme in which the students' participation is included in their academic grading, so it can encourage them to reach their best performance. There is also provided a mix of well-designed financial and non-financial rewards for appreciate their students' performance.

The staff members, particularly the lecturers, can work satisfactorily because the institution provides them with the freedom in teaching. They can make improvisation in their teaching as long as it does not go beyond the scope of syllabus. It is well manage under the teaching team. In addition, they also get a good salary, incentives, and health and life assurance from the institution. The institution has provided non-financial rewards for the lecturers who manage to do innovative teachings but it was sporadically.

SBM-ITB has not managed their Assurance of Learning (AoL) in an effective way. The score is not high for all AoL aspect. They have manage the aspect of AoL that comprise of establish learning goals and objectives and alignment of curriculum with the adopted goals. But they do not well manage for identification of instruments and measures to assess learning, collection, analyzing, and dissemination of assessment information. They are not using assessment information for continuous improvement including documentation that the assessment process is being carried out in a systematic and ongoing basis. Actually they have well documented of hard skill and soft skill, but it is not analyzed formally by the appropriate team to make a significant continuous improvement. They have already share about learning sporadically when meeting in their own interest group.

The practical suggestions for SBM-ITB are explained as follow:

- a. SBM-ITB is better to conduct mapping of student's characteristics as the starting point before they learn within school, for example to what extent the students are having internal locus of control, creativity, propensity to take risk, perceived attitude toward entrepreneur, perceived social norm toward entrepreneur, intention to become entrepreneur, etc. (these are adjusted related to curriculum needs).
- b. SBM-ITB is better to monitor the characteristics of their students in the starting point in every semester and the assessment information must be well-documented, analyzed by expert team and disseminate to faculty members.
- c. SBM-ITB is better to use the assessment information as the basic guidelines for continuous improvement.
- d. SBM-ITB is better to provide a mix well-designed of financial and non-financial rewards for students and lecturers to encourage their motivation to learn or to teach.

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