BUILDING A SYSTEMATIC FRAMEWORK FOR ENTREPRENEURSHIP EDUCATION

Astri Ghina, School of Business and Management (SBM), Bandung Institute of Technology, Indonesia

Togar M. Simatupang, School of Business and Management (SBM), Bandung Institute of Technology, Indonesia

Aurik Gustomo, School of Business and Management (SBM), Bandung Institute of Technology, Indonesia

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 proposes a systematic framework for entrepreneurship education 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.

INTRODUCTION

The role of entrepreneurs has been respected as a great contributor to the economic development of most nations (Ogbo, 2012). 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 developing countries. For example, Thailand has an established business ownership rate of 33.1%, Indonesia has 11.9%, Malaysia has 8.5%, and Philippine has 6.2% (Global Entrepreneurship Monitor, 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. Nevertheless, according to 46 case interviews at European Universities, there are several barriers facing EE: 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). 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 EE were conducted in order to support students in becoming successful entrepreneurs. Most of the current researches tend to focus on the unsystematic approach to EE that partially incorporates content (Co & Mitchell, 2006), mapping of EE within a higher education institution (Solomon, 2007; Varblane & Mets, 2010), delivery method (Co & Mitchell, 2006; Heinonen & Poikkijoki, 2006; Tan & Ng, 2006), psychological aspects of students (Ibrahim & Soufani, 2002; Gelderen, 2010) and the importance of students' selection process (Dhliwayo, 2008).

The objective of this research is to propose a systematic framework for EE by: (a) creating a guideline for effective learning to develop entrepreneurial graduates; (b) understanding the priorities for effective learning to develop entrepreneurial graduates; (c) identifying areas of opportunity for learning improvement. The framework covers all stakeholders such as students, staff members and the institution, to manage EE effectively (Piper, 1993). It needs to involve all important aspects that support the students to become entrepreneurs, it support from staff members or from the institution (Herrmann et al., 2008).

The structure of this paper consists of introduction, literature review, building the proposed conceptual model, discussion and conclusion. Introduction contains problem statements that lead to the questions of this research. Literature review discusses the findings and filling the gaps of this research area, which leads to propose a systematic framework of EE. This is followed by an explanation of how to build this systematic framework. In the discussion section, the main findings and scientific contributions of this research are explained. Finally, the summary of this research is shown in the conclusion section.

LITERATURE REVIEW

Literature Review Method

The method adopted are for the purpose to provide a comprehensive and critical literature review of empirical research in EE. A schematic representation of literature review method adopted in this research is given in Figure 1. The issues of database selection, articles selection, articles classification, and analysis of classified articles will be discussed under the literature review schematic.

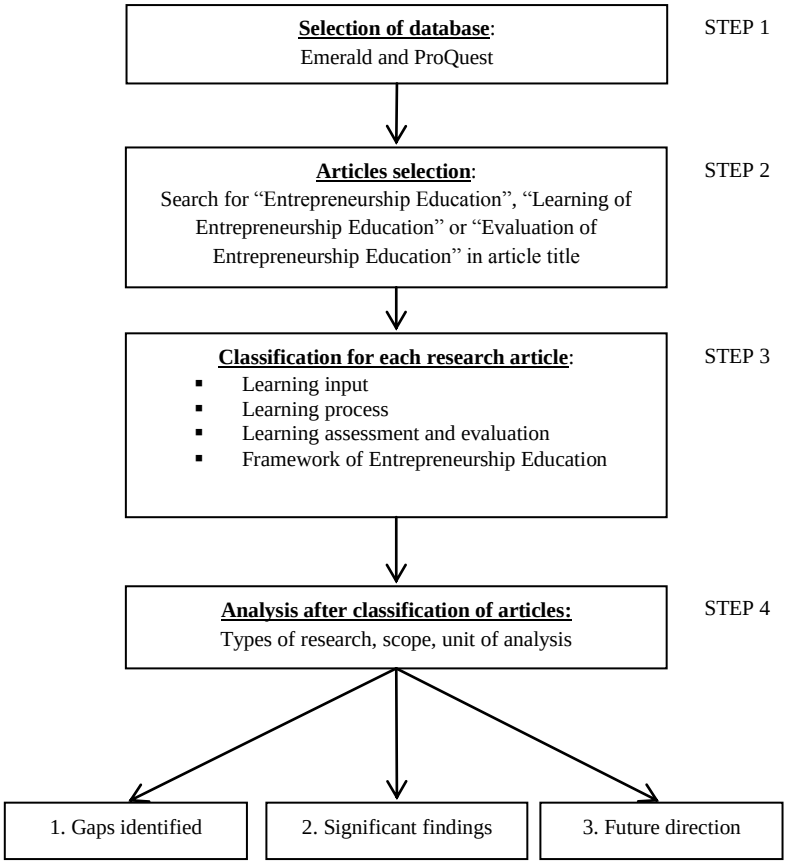

Figure 1
Literature Review Method

Step 1: Selection of database
The articles were collected from Emerald and ProQuest.

Step 2: Article selection

Emerald Database

The exact phrases "Entrepreneurship Education" (5714 total results), "Learning of Entrepreneurship Education" (3687 total results) and "Evaluation of Entrepreneurship Education" (2572 total results) were searched for in journal-article title. From the first 100 results displayed through each keyword, articles were selected by their titles' relevance to the entrepreneurship education topic. The search was limited to the first 100 articles of each keyword because it was already saturated.

The keyword "Entrepreneurship Education" resulted in 42 articles, the keyword "Learning of Entrepreneurship Education" had 2 articles, and the keyword "Evaluation of Entrepreneurship Education" brought up 7 articles. Next, the articles were selected by reading the abstracts relating to the "business process" or "main activities" of EE, such as curriculum, pedagogy, institutional support, assessment of EE, and theory of EE. The keyword "Entrepreneurship Education" resulted in 28 articles, the keyword "Learning of Entrepreneurship

Education" had 1 article, and the keyword "Evaluation of Entrepreneurship Education" came up with 5 articles. In total, all keywords resulted in 34 articles. The illustration of article selection can be seen in Table 1.

ProQuest Database

The exact phrases "Entrepreneurship Education", "Learning of Entrepreneurship Education" and "Evaluation of Entrepreneurship Education" were searched for in full text form only through "Basic Search", with a total of 4235 results. From the first 150 displayed results, articles were selected by relevance of their titles to the EE topic. The result was 15 articles, followed by selecting articles through reading abstracts related to the "business process" or "main activities" of EE such as curriculum, pedagogy, institutional support, assessment of EE, and theory of EE. The final result is 6 articles. The search was limited to the first 150 articles of each keyword because of saturation. Illustration of article selection can be seen in Table 1.

Table 1
Article Selection from Emerald and ProQuest

KEYWORDS	TOTAL RESULTS	SELECTION-I (By Title)	SELECTION-II (By Abstract)
EMERALD			
"Entrepreneurship Education"	5714 (Search limited to the first 100 articles in display)	42	28
"Learning of Entrepreneurship Education"	3687 (Search limited to the first 100 articles in display)	2	1
"Evaluation of Entrepreneurship Education"	2572 (Search limited to the first 100 articles in display)	7	5
	Total	51	34
PROQUEST			
"Entrepreneurship Education", "Learning of Entrepreneurship Education" and "Evaluation of Entrepreneurship Education"	4235 (Search limited to the first 150 articles in display)	15	6

Step 3: Classification of articles

In this step, the 40 selected articles were critically analyzed for classification. Initial attempts to analyze this collection of articles stemmed from the goal of this research, which is an attempt to develop a theory that explains entrepreneurial learning. There seems to be a number of enduring educational issues to which these long-lasting concepts relate – those concerning Learning input; Learning process; Learning assessment and evaluation, and Theory of Entrepreneurship Education.

This framework of categorization is based on an analytical review of program evaluation to judge its performance. Harvey (2002) noted that assessment may focus on input (such as teaching staff, learning resources), process (such as teaching, learning, support services) or

outcomes (such as students' academic standards of achievement or professional competence, employment rates, student perception of their learning). Assessment evidence includes statistical indicators, direct observation and direct evaluation of research output, student and graduate views, employer views, student performance, self-assessment and other documentation, discussion and interviews with teachers, students and managers, and perceptions of other agencies, such as professional bodies (Harvey, 2004). The characteristics of those classes can be seen in Table 2.

Table 2
Characteristics of Article Classification

NO	CLASSES	CHARACTERISTICS
1	Learning Input	The purpose of the program, target audience, the type of knowledge, skill and attitude that students are expected to acquire.
2	Learning Process	The process of learning in order to fulfill students' cognitive needs, affective needs, psychomotor needs and social needs through different teaching methods such as discussion, guest speakers, case studies, lectures, video presentations, computer simulations, role play, research projects, real venture set-ups, internships, company visits, workshops, games and competitions, feasibility studies, small business consulting, community development, web-based assignments, entrepreneurship courses on the web, offering information on the web, offering management and technical assistance; other institutional facilities that support the learning process such as lecturers, tutors, administrators, entrepreneurship budgets, roles in the community and outreach activities.
3	Learning Assessment and Evaluation	Indicators for impact assessment such as examination scores, start-ups by graduates, business performance, attitude and intention to act, student or alumni satisfaction; assessment methods such as tests/examinations, making business plans, making research papers; the quality of the program's performance.
4	Framework of Entrepreneurship Education	Framework or concepts concerning entrepreneurship education; a set of principles on which the practice of an entrepreneurial activity is based; a set of principles regarding proper entrepreneurs behavior.

Step 4: Analysis of classified articles

This step identifies the similarities and differences of classified articles to find research gaps of EE in empirical research, in addition to presenting significant findings from existing literature. As stated in numerous studies, EE is becoming more and more important worldwide. While research work in entrepreneurship is growing and gaining increased legitimacy within the scientific community, on the other hand it lacks comprehensive elements of entrepreneurship learning within university. Thus, it can be said that the research in entrepreneurship is still at an exploratory stage. This is probably due to the fact that most studies focus on specific programs or courses. Few studies present developed hypotheses and even fewer build on theories to elaborate the hypotheses. There are four classifications of articles with six main attributes of related issues in EE: coverage of background factors, curriculum, pedagogy, institutional supports, assessment, and theories of entrepreneurial learning within universities. Most authors perform empirical or non-empirical studies with main scopes of curriculum, pedagogy, institutional support, and assessment.

The Literature Review Analysis

Entrepreneurship Education (EE) assumes extraordinary relevance within academic programs all over the world (Alberti et al., 2004), and there seems to be widespread recognition that entrepreneurship can contribute to economic development (Szirmai et al., 2011). The objective of EE as presented by the European Union (2002) includes raising peoples' awareness of self-employment as a career opportunity, promoting the development of personal qualities that are relevant to entrepreneurship such as creativity, risk taking, and responsibility, and providing the technical and business skills that are needed in order to start a venture. EE is defined as purposeful intervention by an instructor in the life of a learner, to impart entrepreneurial qualities and skills that enable the learner to survive in the business world (Isaacs et al., 2007). Alberti et al. (2004) defined EE as the structured and formal transmission of entrepreneurial competencies; it refers to the skills, concepts and mental awareness used by individuals during the process of starting and developing their growth-oriented ventures.

A study conducted by Varblane & Mets (2010) focused on mapping EE in 774 higher education institutions in 22 European transition countries. Analysis of information obtained from web-based sources and a questionnaire identified 332 institutions in the region offering entrepreneurship-oriented courses, modules or curricula. They explored entrepreneurship courses, curricula of entrepreneurship, entrepreneurship centers and teaching methods, with results provided by descriptive statistics.

Similarly, a study conducted by Solomon (2007) explored mapping of course offering, teaching methods, periodicals used in class, and technological support from institutions. This study, the sixth survey conducted by the author since 1979, provided an analytical overview of EE in the USA from 2004 to 2005 in 270 institutions. It also provided results by descriptive statistics.

According to Co & Mitchell (2006), the most popular courses focused on Entrepreneurship and Small Business Management as an overview of the knowledge and skills needed for the identification, evaluation, and exploitation of opportunities. The findings showed that teaching of entrepreneurship focused on traditional classroom delivery, such as lectures, while entrepreneurship research in South Africa was considered less rigorous than other management disciplines.

Another study from Indonesia measured the effectiveness of entrepreneurship courses within Bengkulu University; but they were concerned with learning and teaching resources, common teaching methods used, and student satisfaction toward learning outcomes by using questionnaires (Abduh et al., 2012). It provided results by descriptive statistics.

The study conducted by Fayolle et al. (2006) was experimental research, but their focus was only on evaluation of certain programs using entrepreneurial intention (Theory of Planned Behavior) as a tool to measure the effectiveness of EE. It provided results with statistical tools to examine the relationship between variables in the study.

The viewpoint conducted by Gelderen (2010) presented the importance of autonomy as the guiding aim of EE. The primary aim was to allow students to work from their own inner motivational resource base. The review conducted by Dhliwayo (2008) presented the importance of student selection. They state that only students with the right entrepreneurial attitude would be successfully processed or graduate into an entrepreneur. Another review conducted by Ibrahim & Soufani (2002) presented the model of entrepreneurship training, in which they discussed the importance of entrepreneurial traits, competences, and managerial skills to produce

entrepreneurial graduates. Henry et al. (2005) reviewed learning processes in different situations, namely in the classroom and real world, and concluded the criteria of success within both situations. An important review conducted by Mwasalwiba (2010) assessed the alignment existing between generic objectives, target audience, teaching methods used, and impact indicators used to measure effective learning in EE.

Salamzadeh et al. (2011) proposed a systematic framework for entrepreneurial university. The framework includes special input (resources, culture, rules and regulations, structure, mission, entrepreneurial capabilities, and expectations of society, industry, government and market.), processes (teaching, research, managerial processes, logistical processes, commercialization, selection, funding and financial processes, networking, multilateral interaction, and innovation, research and development activities), output (entrepreneur human resources, effective research in line with market needs, innovations and inventions, entrepreneurial networks, and entrepreneurial centers) and aimed to mobilize all of its resources, abilities and capabilities in order to fulfill its Third Mission. They conducted a set of semi-structured interviews with 25 experts in this domain.

It is very important to know the definition of systematic framework before beginning to propose it in this research. According to the basic definition of systematic and framework from several dictionaries, there are various explanations. The mapping definition of systematic and framework can be seen in Table 3.

Table 3
The Mapping Definition of Systematic and Framework

WORD	DEFINITION	REFERENCES
Systematic	Characterized by, based on, or constituting a system: systematic thought.	(American Heritage® Dictionary of the English Language, 2011)
	Working or done in a step-by-step manner; methodical: a systematic worker; a systematic approach.	
	Characterized by the use of order and planning; methodical: a systematic administrator.	(Collins English Dictionary - Complete & Unabridged, 2003)
	Having, showing, or involving method, plan or an ordered and comprehensive assemblage of facts, principles, doctrines, or the like in a particular field of knowledge or thought	(*Systematic-1*, n.d.)
	Relating to, or concerned with classification; neat, orderly, organized, regular, methodical, systematized	(*Systematic-2*, n.d.)
Framework	The basic structure of something; a set of ideas or facts that provide support for something	(*Framework*, n.d.)
	A set of assumptions, concepts, values, and practices that constitutes a way of viewing reality.	(American Heritage® Dictionary of the English Language, 2011)
	A structure or frame supporting or containing something	(Collins English Dictionary - Complete & Unabridged, 2012)

Based on the basic definition of systematic and framework from dictionaries, the definition of Systematic Framework can then be formulated. A systematic framework is a well-organized basic structure of assumptions, concepts, values, and practices that constitutes a way

of viewing reality, showing a comprehensive (complete and includes all aspects that are important) assemblage of facts or principles in a particular field of knowledge.

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).

According to the articles for this literature review, studies on entrepreneurship education can be analyzed by an implementation framework from Herrmann et al. (2008) with which to discover the research gap from entrepreneurship education literature. The results of analysis that uses the set of guiding principles from Herrmann et al. (2008) can be seen in Table 4.

Table 4
Mapping of Articles for Entrepreneurship Education Framework

Author/Year	Guiding Principles for Entrepreneurship Education Strategy		
	Institutional environment	The engagement of key stakeholders within and outside the institution	Development of entrepreneurial pedagogic approaches in teaching, learning and support practices
Ibrahim and Soufani (2002)	-	-	√
Co and Mitchell	√	-	√

Table 4 Mapping of Articles for Entrepreneurship Education Framework			
(2006)			
Tan and Ng (2006)	-	-	√
Solomon (2007)	√	-	√
Dhliwayo (2008)	√	-	-
Gelderen (2010)	-	-	√
Mwasalwiba (2010)	√	-	√
Varblane and Mets (2010)	√	-	√
Salamzadeh (2011)	√	√	√

According to the above mapping, little attention has been dedicated to all elements of learning that are important to develop entrepreneurial graduates within a university context. Most studies focused on the institutional environment (curriculum, institutional supports, entrepreneurial traits, partial assessment) and the development of entrepreneurial pedagogic approaches in teaching, learning and support practices. There are limited studies that focused on a systematic framework of entrepreneurship education.

The study 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 study 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) assurance of learning, which are concerns expressed since the last evaluation, including but not limited to the target population, objectives, resources and personnel responsibilities

The analysis of framework proposed by literature based on the systematic framework's characteristics can be seen in Table 5.

Table 5
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)
(a)	Context of entrepreneurship education	x	√	x
(b)	Comprehensive	√	√	√
(c)	Well-organized	√	√	√
(d)	Allocated resources	√	x	x
(e)	Assurance of Learning	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.

According to the research gap from literature, the following research questions are formulated:

RQ-1: What is the systematic framework of entrepreneurship education for effective learning within a university context?

RQ-2: How is the systematic framework of entrepreneurship education for effective learning within a university context?

The objective of this research is to build a systematic framework for entrepreneurship education within a university context.

BUILDING THE PROPOSED CONCEPTUAL MODEL

Conceptual framework possesses ontological, epistemological, and methodological assumptions, and each concept within a conceptual framework plays an ontological or epistemological role. The ontological assumptions relate to knowledge of the way things are, the nature of reality, real existence, and real action. The epistemological assumptions relate to how things really are and how things really work in an assumed reality. The methodological assumptions relate to the process of building the conceptual framework and assessing what it can tell us about the real world (Jabareen, 2009). Based on the title of Building a systematic framework for entrepreneurship education, the meaning of entrepreneurial graduate will be discussed in Phase 1 as the ontological assumptions; the question of how do we know who entrepreneurial graduates really are? will be discussed in the Phase 2 as the epistemological assumptions; and the question of how do we build the entrepreneurial graduates within a university context? will be discussed in Phase 3 as the methodological assumptions. The procedures to build a conceptual framework are as follows:

Phase 1: Mapping definition of entrepreneurial graduate (ontological assumptions).

Ontology is defined as the study of being (Crotty, 2003). It is concerned with what kind of world we are investigating, with the nature of existence, with the structure of reality as such. Guba & Lincolin (1989 as cited in Adam, 2014) state that the ontological assumptions are those that respond to the question of what is there that can be known? or what is the nature of reality?

Blaikie (2000 as cited in Adam, 2014) states that ontology refers to claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. The reality of what exists is ontology. It is about asking about what constitutes reality and how we understand its existence. Ontology is the science or the analysis of what is and how it is (Foerster, 1996 as cited in Adam, 2014). Ontology is all about the nature of the world around us. Particularly, it is about the small part of reality which the researcher chooses to address.

The topic of this research concerns a phenomenon which is about the building of a systematic framework for EE to develop entrepreneurial graduates. This phenomenon of entrepreneurial graduates is important to investigate because some countries have a low number of established businesses that can contribute significantly to economic development. According to literature, the way to improve well-established business is through entrepreneurship education. Entrepreneurship education has a vital role in guiding all students to become more entrepreneurial-minded (entrepreneurial graduates). The entrepreneurial-minded leads the students to become successful entrepreneurs.

Based on the topic of this research, the ontological questions are what is the form and nature of reality in the entrepreneurial graduates? and how can we understand its existence of entrepreneurial graduates? The answer to these questions, the nature of reality for the entrepreneurial graduate is external to the researcher and represented by objects in space. The reality of the entrepreneurial graduate can be captured by our senses and predicted.

The nature of reality is that the role of entrepreneurs has been respected as a great contributor to economic development in most nations. Nations will develop faster if they have high quality, creative, and innovative entrepreneurs that implement new ideas into practical action in every business. This means the reality of successful entrepreneurs is assumed to be the most important aspect in economic development. But in reality, some countries have a low number of established business ownerships, due to a lack of education. In other words, there is a lack of educated entrepreneurs that could be sustained in its highly competitive environment. The reality of low-educated entrepreneurs leads universities to participate through creating entrepreneurship education programs that are expected to create more entrepreneurial-minded students (entrepreneurial graduates). In turn, the entrepreneurial graduates lead to the creation of more successful entrepreneurs. An entrepreneurial graduate is objectively interpreted and constantly emerges through a series of entrepreneurial processes (creative processes) within education boundaries. This ontological position directly influences the view of what knowledge about entrepreneurial graduate means.

The next task is to map the spectrum of disciplinary literature regarding the phenomenon of entrepreneurial graduate. This process includes identifying text types and other sources of data. The word entrepreneurial graduate can be found in the discipline of education within the entrepreneurship context. Thus, the headword of Entrepreneurial and Graduate are defined based on dictionaries. The mapping of the definition can be seen in Table 6.

Table 6 Mapping of the Definition of Entrepreneurial Graduate (Ontological Assumptions)		
WORD	DEFINITION	REFERENCES
Entrepreneurial	An adjective word relating to a person who organizes, operates, and assumes the risk for a business venture.	(American Heritage Dictionary of the English Language, 2011)
	An adjective word relating to an entrepreneur; entrepreneurial risks	(WordNet 3.0, Farlex Clipart Collection, 2012)
	An adjective word; willing to take risks in order to make a profit	(WordNet 3.0, Farlex Clipart Collection, 2012)
	An adjective word; characterized by the taking of financial risks in the hope of profit; enterprising: an entrepreneurial culture, entrepreneurial spirit thrives on meeting the next challenge	(*Entrepreneurial*, n.d.)
Graduate	A person who has received a degree from a university or college.	(Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, 2003)
	A person who has been awarded a first degree from a university or college; a student who has completed a course of studies at a high school and received a diploma	(Collins English Dictionary, 2003)
	A person who has received a degree or diploma on completing a course of study at a university, college, or school; a student who holds a bachelor's or first professional degree and is studying for an advanced degree.	(Random House Kernerman Webster's College Dictionary, 2010)
	A holder of an academic degree or diploma; a person who has successfully completed a course of study or training, especially a person who has been awarded an undergraduate or first academic degree.	(*Graduate-1*, n.d).
	Receive an academic degree upon completion of one's studies	(*Graduate-2*, n.d).
	A person who has successfully completed a course of study or training, especially a person who has been awarded an undergraduate or first academic degree.	(*Graduate-3*, n.d).

According to the definitions from dictionaries, Entrepreneurial Graduate is a person who has successfully completed a study that has the spirit or mindset, behavior, attitude, and skills of an entrepreneur, such as opportunity-seeking, initiative-taking, ownership of development, commitment to see things through, personal locus of control (autonomy), intuitive decision-making with limited information, networking capacity, strategic thinking, negotiation capacity, selling/persuasive capacity, achievement orientation, and the willingness to take risk in order to make a profit, and addresses economic and social needs.

Phase 2: Identifying and naming concepts (epistemological assumptions)

The aim in this phase is to read and reread the selected data and discover concepts. This phase answers the question of how do we know what entrepreneurial graduates really are? Generally, this phase allows concepts to emerge from the literature.

Epistemology is a way of understanding and explaining how we know what we know. Epistemology is also concerned with providing a philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate (Crotty, 2003).

According to Blaikie (2000 as cited Adam, 2014) epistemology is the possible ways of gaining knowledge of social reality, whatever it is understood to be. Epistemology refers to the theory of knowledge, particularly how we acquire knowledge. It is best understood as the science to analyze the way of human beings comprehend knowledge about what is perceived to exist (Niehaves, 2005 as cited in Adam, 2014). Epistemological assumptions about a research issue under investigation concern the criteria by which valid knowledge about that phenomenon may be constructed (Chua, 1986 as cited in Adam, 2014). It is the theory about reality and is concerned with how we come to know what we know. There is a connection between a theory of reality (epistemology) and reality itself (ontology) (Adam, 2014).

For the epistemological question of how do we know what entrepreneurial graduates really are? The answer is constrained by the answer to the ontological question above. This means that any relationship cannot be assumed. The knowledge of the entrepreneurial graduate is objective and generated deductively from theory of entrepreneurship education.

The knowledge and concept of the entrepreneurial graduate are created in interaction between people and their environment (learning process) within education boundaries. With this view, knowledge of the entrepreneurial graduate is seen as objective constructs. This epistemological assumptions directly influence how the knowledge of Entrepreneurial Graduate is produced.

An important factor that cannot be ignored from the entrepreneurial graduate is entrepreneurial competency; Obschonka et al. (2011) found that early entrepreneurial competence in adolescence had a positive effect on making progress in the venture creation process. Thus, the entrepreneurial graduate is characterized by having entrepreneurial competence.

Competence encompasses knowledge, skills and abilities (Argyris, 1993 as cited in Markowska, 2011). Knowledge is defined as understanding acquired through education and experience; skills are defined as experientially-acquired procedural knowledge, and ability is the aptitude to use knowledge and skills. In an entrepreneurship context, the knowledge, skills and abilities relate to building the capacity to successfully create new means-ends frameworks (Sarasvathy, 2001). Entrepreneurial competencies that are commonly inherent in entrepreneurs are identifying and evaluating business opportunities, decision-making, networking, identifying and solving problems, oral communication abilities, and innovative thinking (Izquierdo et al., 2005).

Phase 3: Constructing the methodological assumptions of the entrepreneurial graduate

Methodology is the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of the methods to the desired outcomes (Crotty, 2003). The methodological aspect of the theory of knowledge (epistemology) explains

how a researcher forms perceptions about a phenomenon being investigated. The methodology refers to the modes of acquiring knowledge about the phenomena. One way of achieving this is through induction. Induction is understood as the extension from individual cases to universal cases. An inductive conclusion means the transfer from (observed, empirical) individual cases to a universal law. On the other hand, knowledge can be acquired through a deductive method. Deduction is the derivation of a statement from other statements with the help of logical conclusions. It is the derivation of the individual from the universal (Becker & Niehaves, 2007 as cited in Adam, 2014).

The question under the methodological assumptions is of how a researcher forms perceptions about the phenomenon of the entrepreneurial graduate? The transactional nature of this research topic is acquired through the deductive method. It is important to study the previous literature regarding how to develop entrepreneurial graduates, so that it can be synthesized in building a systematic framework. To answer the methodological question of how the researcher will go about finding whatever (s)he believes can be known is through other statements with the help of logical conclusions. The methodological assumptions of how to develop entrepreneurial graduate is a longitudinal process of social interaction within education boundaries and it should have consequences for the theoretical framework of entrepreneurship education and use of theory in the entrepreneurship education field.

Developing entrepreneurial graduates is therefore essential to our future success (Herrmann et al., 2008). It means that the entrepreneurial graduate leads to becoming a successful entrepreneur as a job creator. Entrepreneurial competencies as the important factors embedded within the entrepreneurial graduate will be discussed in this phase. To answer the question of how do we build that entrepreneurial graduate within a university context, is through discussion of how to build the entrepreneurial competencies. This assumption is based on characterizing the entrepreneurial graduate as having entrepreneurial competencies. This phase describes the phenomena from the previous literatures.

The importance of entrepreneurial competence development to entrepreneurial action is well-established. Research suggests that competence reflects the ability to effectively interact with the environment (Skinner, 1995). Johannisson (1991) recognizes that entrepreneurial competence, except for knowledge (know-what) and skills (know-how), also requires the development of appropriate attitudes and motives (know-why), social skills (know-who) and insights (know-when). The know-when competence in particular gains value in dynamic environments.

Entrepreneurial competence development can be studied from the input side (triggers to competence), process (task or behavior leading to competence), or consequences (outcomes of achieving standards of competence). There is also emerging research on triggers of competence development, specifically the process and the consequences of it. Previous research of entrepreneurial competence development can be seen in Table 7 (Markowska, 2011).

Table 7
Previous Researches on Entrepreneurial Competence Development

AUTHORS	TRIGGERS	PROCESS	CONSEQUENCES
Chandler and Jansen (1992)	Roles	(not available)	Venture success (growth and profitability)

Table 7 Previous Researches on Entrepreneurial Competence Development			
Chandler and Hanks (1994)	Roles Self-efficacy	(not available)	Venture performance
Bird (1995)	Motive/trait Self-concept Social role Skills	Entrepreneurial Learning	Venture success
Schmitt-Rodermund (2004)	Contextual input (including role models) Beliefs (self-concept, self-efficacy) Achievement orientation	(not available)	Entrepreneurial success
Man (2005)	Self-image/social role Motive Trait	Entrepreneurial Learning	(not available)
Man (2006)	(not available)	Entrepreneurial Learning	Entrepreneurial success
Markowski (2011)	Beliefs, Goals, Contextual Embeddedness	Entrepreneurial Learning	Potential domain expertise, entrepreneurial identity

As the consequence, increasing levels of competence do not automatically result in expertise. Bird (1995) makes an important distinction between competence as contributing to excellence in performance and competence as a minimum standard or a baseline. The competencies necessary to launch a venture or implement a business idea may be conceived as baseline competence and highly-effective entrepreneurs (excellent competence) are those that go beyond launch into organizational survival and growth.

Therefore, according to recent research for the framework focus on EE, this phase discusses factors related to entrepreneurial competence within the educational institution setting, encompassing triggers, process, and consequence. The important aspect in EE is setting goals, which assumes the role of the trigger in creating the appropriate process to develop entrepreneurial competence. Goals are an inherent aspect of intentional goal-directed behavior. The extant literature on goals affirms that they can be used by individuals as a self-management technique to arrive at aspired outcomes (Bandura, 1977). The goals of EE should be connected to learning (Fayolle & Gailly, 2008). Two general orientations have been distinguished: learning and performance orientation (Elliott & Dweck, 1988 in Markowska, 2011).

Learning orientation allows individuals to treat failures as challenges and learn from them, while performance orientation is beneficial in situations when results are expected. Individuals with learning orientation search for challenges and learning opportunities and are not afraid of experimenting and trying new things, because their focus is on attaining more competence and skills (Wood & Bandura, 1989). On the other hand, individuals who set performance goals are more inclined to refrain from trying new, often-challenging tasks because they want to remain within their perception of intelligence. They see new challenges as threatening their identity and their perception of their capability (Wood & Bandura, 1989). Thus, to see entrepreneurs grow and develop their entrepreneurial competencies requires that they have a learning approach that sees failures and obstacles as challenges and opportunities for learning.

Learning goals are better when the task at hand is more complex, as is usually the case in entrepreneurship or when the outcomes are unknowable (Noel & Latham, 2006).

The process of competence development is defined as a change in what an entrepreneur is capable of doing, and it refers to a change in the pattern of action coming from the use of available means (Markowska, 2011). Some researchers argue that the different modes of knowledge acquisition can produce different outcomes as they build upon different experiences. Thus, competence development reflects an ability to acquire and use new means (i.e. knowledge). The ability to acquire new knowledge is referred to as learning (Corbett, 2007). Subsequently, learning is seen as a skill that underlies capability development. Thus, understanding how entrepreneurial competence develops requires an understanding of entrepreneurial learning (Markowska, 2011).

The consensus among scholars is that to become entrepreneurial is through direct experience, i.e. learning-by-doing or direct observation (Lackeus, 2013). Hence, entrepreneurial learning is the only way to promote entrepreneurial graduates that have entrepreneurial competencies. The extant literature considers entrepreneurial learning as the main vehicle for competence development (Markowska, 2011). Entrepreneurial learning covers a wide variety of audiences, objectives, contents and pedagogical methods. In this context, the methodological assumptions relate to the educational level that designs an educational program around five specific interrelated questions, which should be addressed in the following order (Fayolle et al., 2006):

(a) Why (objectives, goals)?
(b) For whom (targets, audiences)?
(c) For which results (evaluations, assessments)?
(d) What (contents, theories)?
(e) How (methods, pedagogies)?

Phase 4: Integrating concept

The aim in this phase is to integrate the process in phases 1, 2 and 3; and to group together the concept that emerges from literatures. This phase describes the ontological, epistemological and methodological assumptions related to entrepreneurial graduate. The framework is illustrated in Figure 2:

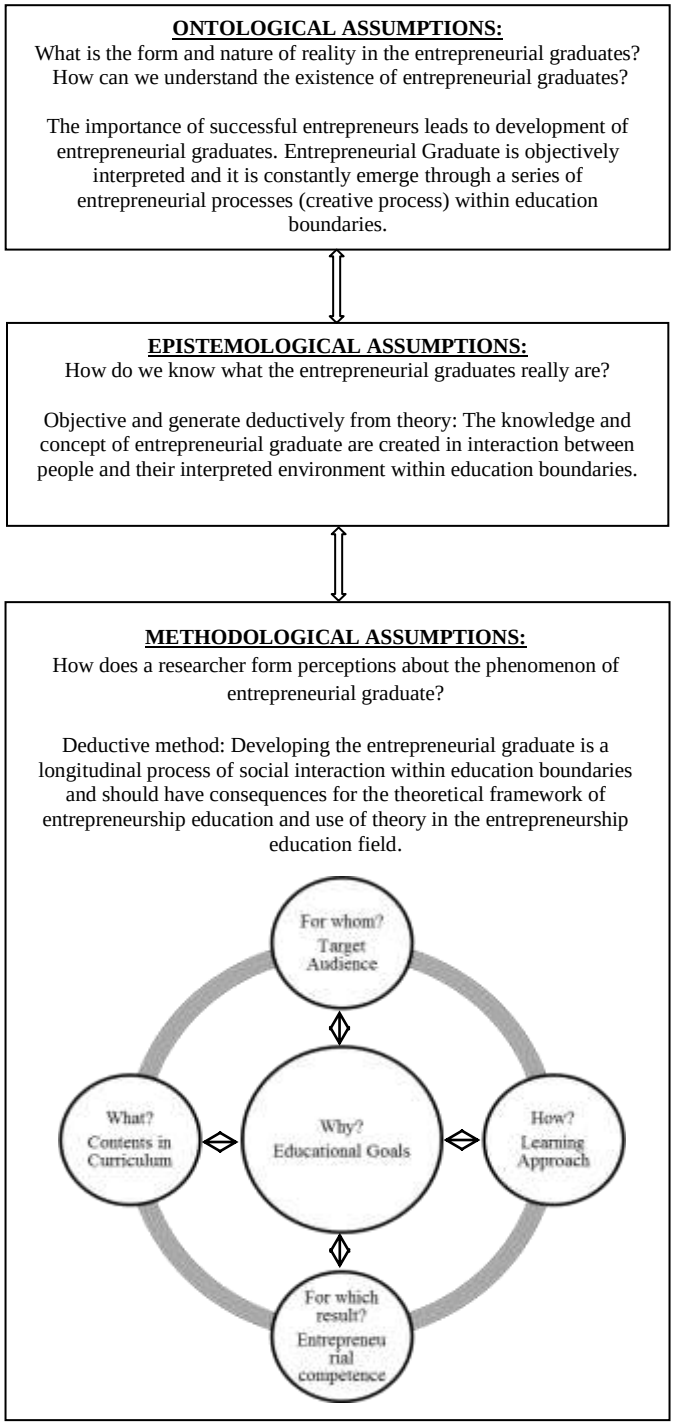

Figure 2
The Framework of Entrepreneurial Graduate

Phase 5: Synthesis and making sense of it all

The aim in this phase is to synthesize concepts into a theoretical framework. This process is iterative and includes repetitive synthesis until the general theoretical framework makes sense. This phase is explained through an in-depth discussion of how to build entrepreneurial graduates in educational level.

The EE has goals to develop entrepreneurial graduates who achieve standards of competencies, whether as professionals or entrepreneurs. The institutional goals can be placed on the input side as a trigger to develop the graduates' competencies. In order to support their goals, the university creates course content and establishes it into curricula related to its goals and target audiences, and it needs an appropriate learning approach to deliver it effectively. 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. The framework for EE can be seen in Figure 3.

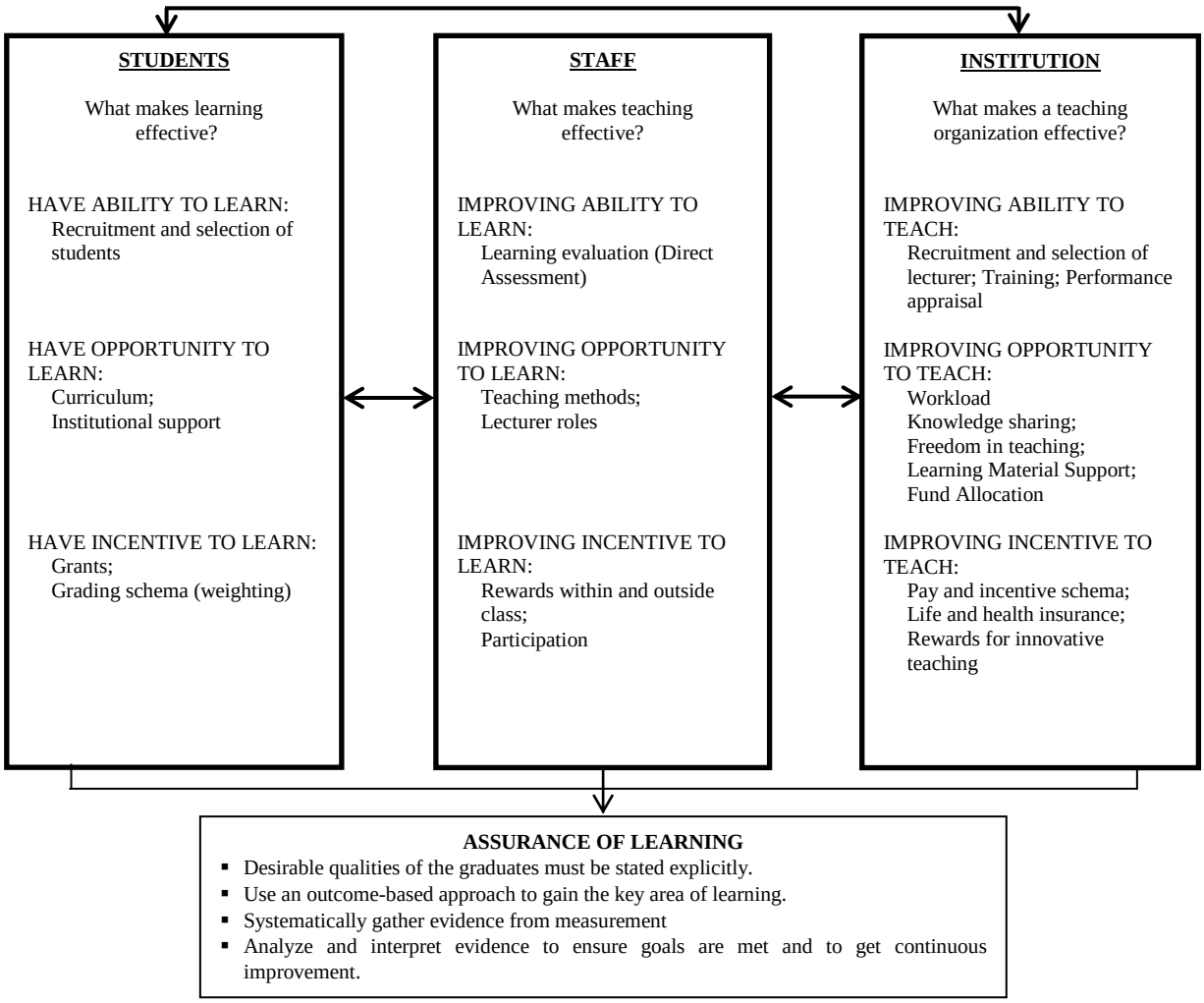

Figure 3
The Framework of Effective Learning for Entrepreneurship Education

Assurance of learning 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).

Phase 6: Resynthesize the concept and build the entrepreneurial learning framework

The challenge after proposing the framework of effective learning for EE is to adapt it in a systematic framework with logical sense. This phase is a resynthesize from several concepts and is reintegrated to build the systematic framework of EE in order developing entrepreneurial graduates. A systematic framework for entrepreneurship education can be seen in Figure 4.

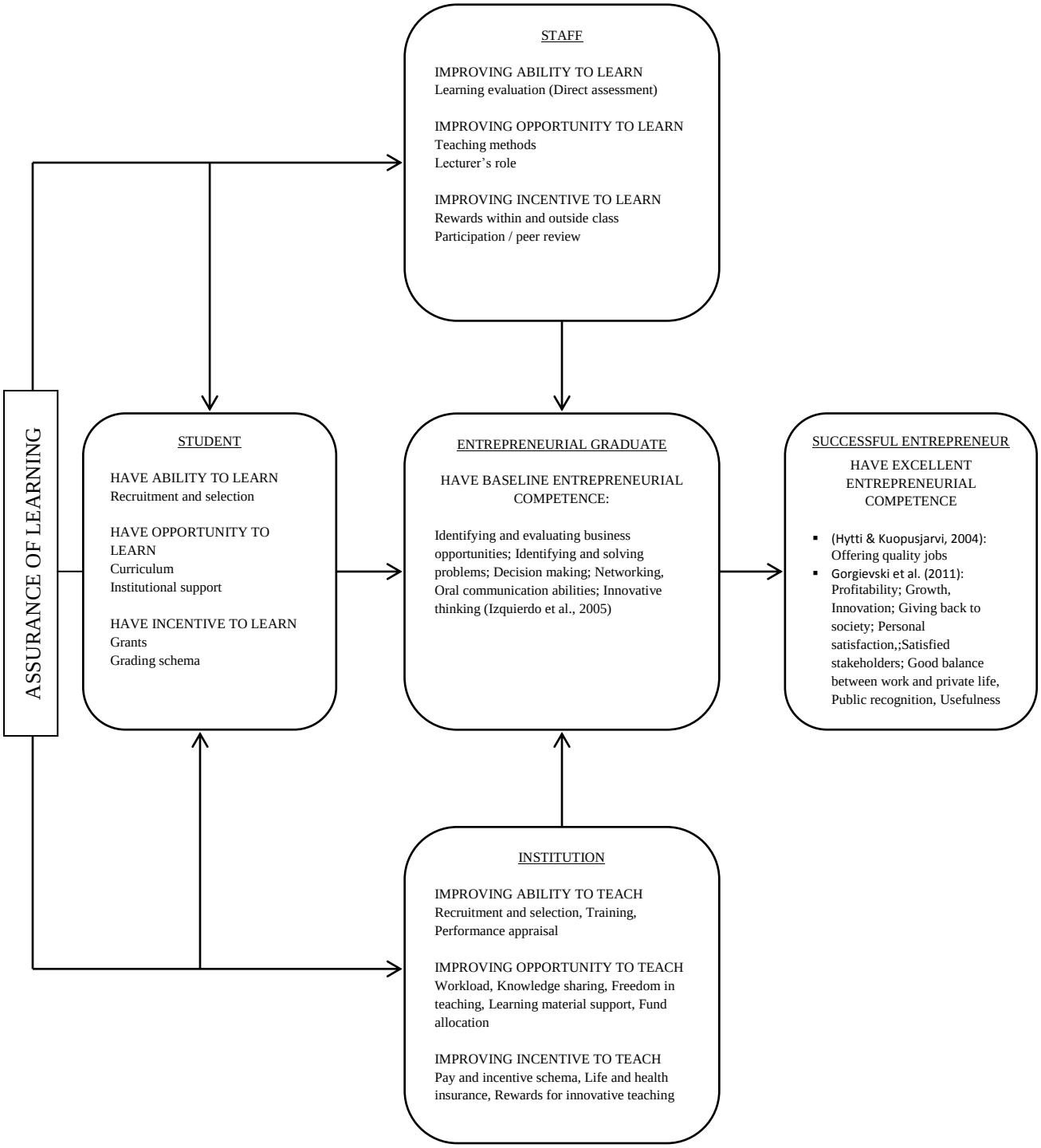

Figure 4
A Systematic Framework for Entrepreneurship Education to Develop Entrepreneurial Graduates

The entrepreneurial graduates who have baseline entrepreneurial competence are capable of launching new ventures. The graduates who have excellent entrepreneurial competence after completing the entrepreneurial learning within the university will sustain and grow beyond launch to becoming successful entrepreneurs. The criteria of successful entrepreneur include capability to offer quality jobs (Hytti & Kuopusjarvi, 2004); high profitability; significant business growth; unique business innovation; business contribution to society; personal satisfaction for the entrepreneur; stakeholders' satisfaction with the entrepreneur; the entrepreneur has a good balance between work and private life; the business has good public recognition; and the product or service has valuable usefulness for consumers (Gorgievski et al., 2011).

DISCUSSION

The main finding from this conceptual research is the conceptual model analysis of a systematic framework for EE to develop entrepreneurial graduates. This framework covers all key actors within the university; each actor has its own role to create an effective learning process. The scientific contribution from this research is the use of this proposed systematic framework for several goals: (a) as a guideline for effective learning to develop entrepreneurial graduates; (b) to understand the priorities for effective learning to develop entrepreneurial graduates; (c) to help university management to understand the key stakeholders' needs to develop entrepreneurial graduates; (d) to identify areas of opportunity for learning improvement.

There are three conditions that are necessary for students to perform satisfactorily: they must have the ability to learn in order to undertake their studies involved (recruitment and selection); they must have the opportunity to learn to conduct the studies satisfactorily (curriculum, institutional support); and they must have incentives to learn in order to encourage their willingness to study (grants, grading schema). The important aspects for staff members to teach effectively are that they can improve their students' ability to learn (learning evaluation); their students' opportunity to learn in order to conduct their studies satisfactorily (teaching method, lecturer role); and their students' incentive to learn in order to encourage their willingness to study (rewards, participation). The environment is necessary for an educational institution to make a teaching organization effective. It needs to improve the ability to teach its staff members (recruitment and selection, training and development, performance appraisal, pay schema); improve opportunities to teach its staff members to perform their work satisfactorily (workload, knowledge sharing, freedom in teaching, learning material support, fund allocation); and improve incentives so that its staff members are encouraged to do their work satisfactorily (incentive schema, life and health insurance, rewards for innovative teaching).

Those three conditions are necessary as requirements for effective learning. The university management can gain a better understanding of the three key stakeholders' needs, so they can make priorities to develop entrepreneurial graduates. Based on all aspects of learning proposed, this systematic framework can be used to identify the areas of opportunity for learning improvement within the university context.

The previous studies were limited to conducting evaluation of EE within an institution as the whole system. The findings in the previous studies were partial and tended to focus on students and institutions only. There are several studies which focused on input such as the importance of student selection (Dhliwayo, 2008); the importance of entrepreneurial traits, competence, and managerial skills to promote successful entrepreneurs (Ibrahim & Soufani,

2002); and the importance of internal motivation of the students (Gelderen, 2010). Most studies were concerned with mapping entrepreneurship education. The mapping included popular courses, existing teaching focus, curriculum of entrepreneurship, entrepreneurship centers, teaching methods, periodicals used in the classroom, and technological support from an institution (Co & Mitchell, 2006; Solomon, 2007; Varblane & Mets, 2010). Two other similar studies were also conducted, with one focusing on teaching methods (Tan & Ng, 2006) and the other focusing on learning processes in both the classroom and real world (Henry et al., 2005).

An experimental study on entrepreneurial education within the university level based on the entrepreneurial-directed approach was conducted by Heinonen & Poikkijoki (2006). They used a qualitative method combined with an observation to evaluate the approach feasibility and applicability to entrepreneurial education. They also focused their study on discovering, evaluating, and exploiting the core role of learning opportunities. There were other similar studies, but they only focused on the impact of entrepreneurial education on students, such as participant satisfaction (Abduh et al., 2012; Millman et al., 2008) and entrepreneurial intention (Fayolle, 2006). Few previous studies researched or explored the support from institutions in enhancing staff members' competence. Therefore, this research tries to offer a fully-systematic approach in exploring existing learning, with regards to opportunities, abilities and incentives in learning or teaching. This systematic framework is expected to review the role of students, staff members and the institution in creating satisfactory learning.

CONCLUSIONS

There are several important findings from this conceptual research. The first aspect is a systematic framework as a guideline for effective learning to develop entrepreneurial graduates. The second aspect is that the institution has to manage three key stakeholders to achieve learning goals, namely students, staff, and the institution itself. The third aspect is the assurance of learning to guarantee the students' learning effectiveness that also has to be well-managed by the institution. Previous studies mostly discussed learning and institutional supports partially. They mostly focused their research on the opportunity to learn, such as programs, teaching methods, and facility support. Few explored staff members' competence and ways to improve the EE. This research offers a fully-systematic approach in exploring existing learning, with regards to opportunities, abilities and incentives for students and staff. This systematic framework is expected to review the roles of the students, staff members and the institution in creating satisfactory learning.

The scientific contribution of this research is a building process of proposed systematic framework and the usage of a concept structure that is arranged according to a system that functions as a guideline to view reality. It can be used to describe successful learning practices in managing EE within a university. This approach is expected to enable the exploration of all aspects, instead of only some aspects, which are necessary for effective learning to occur within an institution.

It is expected that this conceptual research provides a guideline for practitioners such as policy-makers, lecturers, researchers, and curriculum developers for the development of a systematic framework for EE that is useful to develop entrepreneurial graduates, thus creating more jobs and reducing open unemployment. In addition, this research will support clarity for the qualification level of EE in order to promote more entrepreneurial graduates. The future research suggested is conduct-mapping and evaluation to gain a better understanding of the effectiveness

of learning and institutional support. This mapping should be applied in several business schools in order to gain insight regarding the best learning practices. Cross-case analysis can be conducted to discover patterns that can be used to build a learning theory of entrepreneurship education in developing successful entrepreneurs.

REFERENCES

Abduh, M., Maritz, A., & Rushworth, S. (2012). An evaluation of entrepreneurship education in Indonesia: a case study of Bengkulu University. *The International Journal of Organizational Innovation*, 4 (4), 42-43.

Adam, I. O. (2014). *The ontological, epistemological and methodological debates in information systems research: a partial review*. Unpublished essays from Dissertation. University for Development Studies, School of Business and Law, University of Ghana. Retrieved March 8, 2015, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2411620.

Alberti, F., Sciascia, S., & Poli, A. (2004). Entrepreneurship education: notes on an ongoing debate. *14th Annual IntEnt Conference*. Italy: University of Napoli Federico II.

American Heritage® Dictionary of the English Language (Fifth Edition). (2011). Houghton Mifflin Harcourt Publishing Company. Retrieved March 8, 2015, from http://www.thefreedictionary.com.

Bandura, A. (1977). *Social learning theory*. Eaglewoods Cliffs, N.J.: Prentice-Hall.

Bird, B. (1995). Towards a theory of entrepreeurial competency. *Advances in entrepreneurship, firm emergence and growth*, 2, 51-72. JAI Press Inc.

Co, M. J., & Mitchell, B. (2006). Entrepreneurship education in South Africa: a nationwide survey. *Journal of Education + Training*, 48 (5), 357-358.

Collins English Dictionary – Complete and Unabridged, (2003). Harper Collins Publishers. Retrieved March 6, 2015, from http://www.thefreedictionary.com/graduate.

Collins English Dictionary – Complete and Unabridged, (2012). Harper Collins Publishers. Retrieved March 6, 2015, from http://www.thefreedictionary.com/graduate.

Corbett, A. (2007). Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing*, 22(1), 97-118.

Crotty, M. (2003). *The foundations of social research: meaning and perspectives in the research process* (3rd Edition). London: Sage Publications.

Dhliwayo, Shepherd. (2008). Experiential learning in entrepreneurship education: A Prospective Model for South African Tertiary Institutions. *Journal of Education +Training*, 50 (4), 329-332.

Directorate-General for Enterprise and Industry. (2008). *Survey of entrepreneurship in higher education in Europe (Main Report)*, 199-202. Retrieved January 29, 2015, from http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/highedsurvey_en.pdf

Fayolle, A., Gailly, B., & Clerc, N. L. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30 (9), 701-720.

Fayolle, A., Gailly, B. (2008). From craft to science: teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32 (7), 569-593.

Entrepreneurial. (n.d.). Oxford Dictionaries. Retrieved March 26, 2015, from http://www.oxforddictionaries.com/definition/english/entrepreneurial.

Framework. (n.d.). An Encyclopædia Britannica Company. Retrieved March 26, 2015, from http://www.merriam-webster.com/dictionary/framework.

Gelderen, M. V. (2010). Autonomy as the guiding aim of entrepreneurship education. *Journal of Education + Training*, 52 (8/9), 710-721.

Global Entrepreneurship Monitor (2013). *Key indicators*. Retrieved January 16, 2015, from http://www.gemconsortium.org/key-indicators.

Graduate-1. (n.d.). An Encyclopædia Britannica Company. Retrieved March 26, 2015, from http://www.merriam-webster.com/dictionary/graduate.

Graduate-2. (n.d.). Oxford Dictionaries. Retrieved March 26, 2015, from http://www.oxforddictionaries.com/definition/english/graduate.

Graduate-3. (n.d.). Vocabulaty.com. Retrieved March 26, 2015, from http://www.vocabulary.com/dictionary/graduate.

Gorgievski, M.J., Ascalon, M.E. & Stephan, U. (2011). Small business owners' success criteria, a values approach to

personal differences. *Journal of Small Business Management*, 49, 207-232.
Harvey, L. (2004). *Analytic quality glossary.* Quality Research International. Retrieved March 19, 2013, from http://www.qualityresearchinternational.co m/glossary/assessment.htm.
Hegarty, C. (2006). It's not an exact science: teaching entrepreneurship in Northern Ireland. *Journal of Education + Training*, 48(5), 321-322. http://dx.doi.org/10.1108/00400910610677036.
Heinonen, J. and Poikkijoki, S. A. (2006). An entrepreneurial-directed approach to entrepreneurship education: mission impossible?. *Journal of Management Development*, 25 (1), 80-94.
Henry, C., Hill F., & Leitch C. (2005). Entrepreneurship education and training: can entrepreneurship be taught? Part I. *Journal of Education + Training*, 47 (2), 98-107.
Herrmann, K., Hannon, P., Cox, J., Ternouth, P., & Crowley, T. (2008). *Developing entrepreneurial graduates: putting entrepreneurship at the centre of higher education*. The Report made by CIHE, NCGE, and NESTA, 1-40.
Hytti, U. and Kuopusjarvi, P. (2004). *Evaluating and measuring entrepreneurship and enterprise education: methods, tools, and practices*. Small Business Institute, Business Research and Development Centre, Turku School of economics and Business Administration.
Ibrahim, A. B., & Soufani, K. (2002). Entrepreneurship education and training in Canada: a critical assessment. *Journal of Education + Training*, 44 (8), 421-430.
Isaacs, E., Visser, K., Friedrich, C., & Brijal, P. (2007). Entrepreneurship education and training at the further education and training (FET) level in South Africa. *South African Journal of Education*, 27, 613-629.
Izquierdo, E., Deschoolmeester, D., & Salazar, D. (2005, July). The importance of competencies for entrepreneurship: a view from entrepreneurs and scholars' perspective. *Present at IntEnt Conference in Reino Unido.*
Jabareen, Y. (2009). Building a conceptual framework: philosophy, definitions, and procedure. *International Journal of Qualitative Methods*, 8(4), 49-62.
Johannisson, B. (1991). University training for entrepreneurship: Swedish approaches. *Entrepreneurship and Regional Development*, 3(1), 67-82.
Lackéus, M., Lundqvist, M., Williams Middleton, K. (2013, May). How can entrepreneurship bridge between traditional and progressive education?. *Presented at ECSB Entrepreneurship Education Conference in Århus, Denmark.*
Mabin, V.J. & Marshall, S.J. (2011). Beyond assessment: assuring student learning in higher education. *Proceedings of the symposium on assessment and learner outcomes*. Retrieved February 3, 2013, from http://www.victoria.ac.nz/vbs/teaching/publications/Beyond-Assessment.pdf.
Markowska, M. (2011)., *Entrepreneurial competence development: triggers, processes, and consequences*. Jönköping International Business School Jönköping University. Unpublished Dissertation, 2011, pp. 28-40
Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health (Seventh Edition). (2003). Saunders, an imprint of Elsevier, Inc. Retrieved March 6, 2015, from http://www.thefreedictionary.com/graduate.
Millman, C., Matlay, H., & Liu, F. (2008). Entrepreneurship education in China: a case study approach. *Journal of Small Business and Enterprise Development*, 15 (4), 802-815.
Mishra, S. (2007). *Quality assurance in higher education: an introduction*. The Director of National Assessment and Accreditation Council (NAAC), pp.1-101. Retrieved January 29, 2015, from http://www.col.org/sitecollectiondocuments/pub_qahe_intro.pdf.
Mwasalwiba, E. S. (2010). Entrepreneurship Education: A Review of its objectives, teaching methods, and impact indicators. *Journal of Education + Training*, 52 (1), 20-47.
Noel, T. W., & Latham, G. P. (2006). The importance of learning goals versus outcome goals for entrepreneurs. *Entrepreneurship and Innovation*, 7(4), 213-220.
Obschonka, M. Silbereisen, R. K., Rodermund, E. S., & Stuetzer, M. (2010). Nascent entrepreneurship and the developing individual: early entrepreneurial competence in adolescence and venture creation success during the career. *Journal of Vocational Behavior*, 79(1), 121-133.
Ogbo, A. (2012). The role of entrepreneurship in economic development: the Nigerian perspective. *European Journal of Business and Management*, 4(8), 95-96. Retrieved January 29, 2015, from http://iiste.org/Journals/index.php/EJBM/article/view/1937/1917.
Piper, D.W. (1993). *Quality management in university* (Volume 1). Canberra: Australian Government Publishing Service.
Random House Kernerman Webster's College Dictionary. (2010). Random House, Inc. Retrieved March 6, 2015,

from http://www.thefreedictionary.com/graduate.
Salamzadeh, A., Salamzadeh, Y. and Daraei, M.R. (2011). Toward a systematic framework for an entrepreneurial university: a study in Iranian context with an IPOO model. *Global Business and Management Research: An International Journal*, 3(1), 30-31. Retrieved January 29, 2015, from http://files.eric.ed.gov/fulltext/ED530376.pdf.
Sarasvathy, S. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26, 243-263.
Skinner, E. A. (1995). *Perceived control, motivation, and coping* (Vol. 8). Thousand Oaks: Sage Publications.
Solomon, G. (2007). An examination of entrepreneurship education in the United States. *Journal of Small Business and Enterprise Development*, 14 (2), 168.
Systematic-1. (n.d.). *Dictionary.com Unabridged*. Retrieved March 26, 2015, from Dictionary.com website: http://dictionary.reference.com/browse/systematic.
Systematic-2. (n.d.). *An Encyclopædia Britannica Company*. Retrieved March 26, 2015, from http://www.merriam-webster.com/dictionary/systematic.
Szirmai, A., Naude, W., & Goedhuys, M. (2011). *Entrepreneurship, innovation, and economic development: an overview*. Oxford University Press.
Tan, S. S. and Ng, C. K. F. (2006). A problem-based learning approach to entrepreneurship education. *Journal of Education + Training*, 48 (6), 416-428.
U.S. Department of Commerce. (2013). *The innovative and entrepreneurial university: Higher education, innovation and entrepreneurship in focus*. Office of Innovation and Entrepreneurship, Economic Development Administration. 18-20. Retrieved January 29, 2015, from http://www.eda.gov/pdf/The_Innovative_and_Entrepreneurial_University_Report.pdf.
Varblane, U. & Mets, T. (2010). Entrepreneurship education in the higher education institutions (HEIs) of post-communist european countries. *Journal of Enterprising Communities: People and Place in The Global Economy*, 4 (3), 204-219.
Wadhwa, V., Aggarwal, L., Holly, K. Z., & Salkever, A. (2009). *The anatomy of an entrepreneur: making of a successful entrepreneur*. Kauffman: The Foundation of Entrepreneurship.
Wood, R. E., & Bandura, A. (1989). Impact of conception of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56(3), 407-415.
WordNet 3.0, Farlex Clipart Collection. (2012). Princeton University: Farlex Inc. Retrieved March 6, 2015, from http://www.thefreedictionary.com/graduate.