A Comparison of Entrepreneurial Learning Education

Charly Hongdiyanto^1

Abstract
The purpose of this research is to analyse and compare entrepreneurial learning model. By doing a comparison of few existing models, the author hope to find a common ground and fundamental things of the models. This will be very useful in preparing the author in making a model of entrepreneurship learning model himself. All data used is secondary data obtained from journals, books, articles and other written sources. Therefore, this study is a conceptual study. From the comparison and analysis of the entrepreneurship learning models chosen by the author, it can be concluded that although each model has different factors but has similarities in the purpose and process of creating a generation capable and willing to be an entrepreneur.

Keywords: entrepreneurial, learning model, conceptual study, entrepreneur

JEL Classification Codes: A22, I25

1. Introduction

Issues related to poverty are a common problem faced by all countries, whether or not it is developed countries, developing countries, and especially poor countries. In revealing this problem, a lot of researches have been done to find out the best way to overcome this issue. One of the best ways positively proven to reduce the poverty level and improve economic condition is through entrepreneurship (Kuratcko, 2005; Packham, 2010). These entrepreneurship activities can create many entrepreneurs so that one link in poverty which is unemployment, can be overcome. Being an entrepreneur not only reduces the level of competition for job seekers whose numbers are inversely proportional to available job vacancies, but also opens new job vacancies. Of course, this not only have a positive effect on the small economic recovery for the entrepreneurs themselves, but ultimately can impact on a wider scale of the economy regionally even to the scale of a country.

To create many new entrepreneurs, of course, the concept of entrepreneurship must first be introduced and understood by the community. Not only that, education or training about entrepreneurship must be really encouraged and be done to be able to provide the right understanding and knowledge so that a good entrepreneur seed can be born in the end. There are many educational institutions that provide entrepreneurial based education to their students. In addition, many good organizations both profit orientated and non-profit orientated provide entrepreneurship-based training to the society.

^1 Lecture, Economic Faculty, Ciputra University, Surabaya, Indonesia, 60219, E-mail: charly@ciputra.ac.id
Speaking of entrepreneurship, many countries even have university graduates who have difficulty in finding jobs. The government certainly has tried to overcome this problem but the number of job seekers more than the job offered, this is a classic problem commonly faced by developing countries and poor countries, which is unemployment. One way that can be done to overcome this problem is by introducing the suitable curriculum in the education system (Ekpiken and Ukpaibio, 2015). Educational system that focuses on entrepreneurship must be oriented towards the process to be able to produce graduates who have the experience and knowledge to become entrepreneurs. Entrepreneurship education is a process that turns ideas into reality. Everyone is believed to have the ability to become an entrepreneur that may have been dormant with the wrong mindset all along. With the education of entrepreneurship, entrepreneurial seeds that have been inactive can be raised and developed. This is the important role of the university to perform that function.

The role of universities in the development of appropriate curriculum for the birth of young entrepreneurs focuses on the implementation of the curriculum. This is highly influenced from the model used by the university as the base of the curriculum reference used. This is corroborated by the many experts who agree that the right model of education can increase the number of entrepreneurs in a country. UNESCO that is aware of this has encouraged the use of entrepreneurship-based curriculum in universities. Along with the development of the era, the concept that was originally only known in developed countries has spread to developing countries, including Indonesia (Noya and Setiadi, 2015).

In the last 10 years, based on the author observation, there have been many universities both public and private universities that have applied entrepreneurial education in the learning curriculum. But it cannot guarantee the success in making university graduates who are able to become entrepreneurs because most of these universities only focus on theory and not practice. Another thing to be considered is the entrepreneurship learning model that is used. Each university uses a different model. The absence of an entrepreneurial learning model that is universal, comprehensive and proven effective becomes one of the obstacles in creating graduates who have the ability to become entrepreneurs.

Based on the background that has been described by the author, the purpose of this research is to analyze and compare the entrepreneurial learning model that existed and used all these times. By making comparisons of some existing and generally used models, the author hopes to find common ground and the basics of those models. This will be very useful in preparing the author in the making of an entrepreneurship learning model design that can cover these basic points and adapted with the place and situation in which the model is applied. Therefore, in this research the author only comes to the stage of analysis and comparison of models.
2. Literature Review

There have been many studies that discuss the relationship between entrepreneurship and the economic growth. One of them is the research conducted by Gibb (2005) that got a positive relationship between the number of entrepreneurs in countries that joined the European Union with the level of economic development in those countries. Not only that, the data obtained from Global Entrepreneurship Monitor (2005) states that the number of entrepreneurs opening new businesses in Ireland increased to almost 10% in 2005 compared to only 7.7% in 2004 which contributed greatly to the economic development in that country. It means that with the increases of entrepreneurs, numbers of new business opened also increases. In the short run it would accelerate the growth of economy in a country. If the numbers of entrepreneurs consistently grow, in the long run it would reflect to the economic stability.

In line with the previous research, Gray (2006) states that the improvement of entrepreneur as measured by the birth of behaviour that shows the characteristic of entrepreneurship is also important and plays a crucial role for the economy of a country. It means that economic condition of a country cannot relied only on number of entrepreneurs but also the quality. Therefore improvement of entrepreneurs should also consider the quality. The increase of entrepreneurs would have direct effect to the birth of new business, but if the quality of the new business is inadequate (as the reflection of the owner), it would only last for a short period of time. Furthermore, Harrison and Leitch (2010) recognize the importance of entrepreneurs in the development of the country's economy not only from the numbers but also the importance of the role of government as policy makers. In addition, they also found that entrepreneurship-based education is also important in improving the level of the economy.

Many researches have been conducted on the importance of entrepreneurship education. Some studies have focused on entrepreneurship education models at the university level (Byabashaija and Katono, 2011). The study by the European Commission (2006) states that the form of entrepreneurship education specifically aimed at students succeeded in encouraging students to become entrepreneurs and to open job vacancies. In addition, there is also a positive correlation between entrepreneurial education and career choice to be an entrepreneur. Talking about carrier and job vacancies, with the proper entrepreneurial education students will have enough experience to open a new business after graduation. Therefore, the possibility to open a new business will increase if the students were exposed with entrepreneurial activities during education. Potter in Hussain (2015) in their research found that the right pattern of education at the university level will change the student's perspective into an entrepreneur by making students' thinking change in their perspective and knowledge provided during their education.

Entrepreneur is someone who has the ability to open/create a small scale business with their own capital according to Peter Dracker cited by Jahanian and Mahjoubi (2013). To create an entrepreneur certainly requires a kind of education
that can shape it. According to Salmanulfarisi (2014), entrepreneurship education is a plan to change the mind-set of a person to dare to own their own business by training approach and development of competence. It means that the proses of entrepreneurship education is focus on how to shape a new mind-set, focus on the basic level of a person behaviour. Speaking of education, this is an ongoing learning process, even starting from a young age. With the right educational model, students are given information about how the entrepreneurial world works in the real business world so that by the time they graduate, when students decide to become entrepreneurs, what they got is enough to be their provision.

According to the European Commission in Packham (2010), there are several important things to be considered in making an appropriate entrepreneur education model, which are:

1. The program should have a clear purpose
2. Consider local contents in the development of the design and delivery of the program to the students
3. Have entrepreneur educators who come from diverse backgrounds
4. Rapid information exchange, for example with practitioners from different sectors and are not limited on a regional/national scale who share experiences directly to students.

Also another point to be understood is that a suitable model of entrepreneurial education in a place/region is not necessarily suitable and applicable and has the same results when applied in different places. This is of course influenced by many factors that can be the cause of it. Therefore, it is important to create and adapt an appropriate model of educational entrepreneurship for a particular region or concentration. The successful model applied in Europe which is a developed country is not necessarily suitable to be applied in Indonesia which is a developing country which geographically, economically and politically different as well as has many differences in culture.

In developing a good model of entrepreneurship learning, there are several things that must be considered, namely concerning skills that must be owned by an entrepreneur. This means that a good model of entrepreneurship education should focus on creating entrepreneurs who have the following capabilities (Ogundele et al., 2012):

1. Technical skills
2. Business management skills
3. Personal entrepreneurial skills

Technical skills include the ability to write, listen, make presentations, organize and be able to be part of the team. Business management skills are the ability to organize an organization, including opening and developing a business. Personal entrepreneurial skills are the features that distinguish a manager and an entrepreneur. The characteristics of an entrepreneur are to have discipline, risk-taking, innovative, flexible, diligent and forward-looking ability (Osugawu, 2006).
Thus it can be ensured that an appropriate model of entrepreneur education able to generate graduates who have a proper and adequate entrepreneur criteria. But the question is, what kind of model is suitable to apply? There are several entrepreneurship education models existed and although each of the model has similarities in function and purpose, there are different elements of each model. Therefore, a clear understanding of the existing entrepreneurship education model is needed to find the essence needed for a model that is suitable to be applied in a particular area, of course, with changes and considerations to be made.

3. Research Model

The focus of this research is the entrepreneurship learning model. The author will do the analysis and comparison of some models that have existed before. From the analysis, the author will summarize the basic things in common of the models compared. All data used is secondary data obtained from journals, books, articles, and other written sources. Therefore, this research is a conceptual research. The first step will be looking for information related to entrepreneurship. The second step is to find the models to be compare with. The criteria for the models are that they (1) have been used and applied for at least 5 years, (2) have been cited and used as a topic in journal at least 5 times, and (3) are similar in the context and element. This last criteria is used as the final consideration from the writer point of view in order to make a comparable analysis. The next step after finding some entrepreneurship learning models is to do a comparison of the selected models. From the analysis conducted, the researcher will summarize what things are the similarities of each model so that it must exist in a good model.

4. Discussion

The first model chosen is the Entrepreneurial Performance Education Model. This model is one of the early models related to entrepreneurship education. This model was invented by Van Vuuren and Nieman. The model was developed to become a reference in the creation of an entrepreneurship education curriculum. The focus of this model is things that can improve entrepreneurship performance. According to Van Vuuren and Nieman, there are 3 factors that determine the performance of one's entrepreneurship; motivation, entrepreneurial skills and business skills. In motivation, there are several things that must be considered, which are: self-control, self-ability, courage, leadership and persistence. In entrepreneurial skill, things to be considered are the ability to see opportunities, dare to take risks and creativity. The last factor which is the business skills, things need to be considered are the ability related to the management area of marketing, finance, operations and human resources. In addition, it is also necessary to have the ability to understand the legal, communication and planning capabilities, and arrangements.

The next model is the Entrepreneurial Education Model. This model is a finding from Pretorius. There are 5 pillars that influence the forming of student entrepreneurial character. In this model, there is an additional function of
facilitator/mentor in guiding students to create and develop new business. The supporting pillars of this model are entrepreneurial success themes, business knowledge and skills, business plan utilization, learning approaches and the facilitator. According to Pretorius, the presence of a facilitator is a key pillar that sticks the other four pillars together. This reinforces the role of a facilitator/mentor with his or her experience and knowledge to use and assemble the other four pillars in a language that the students can understand in the educational process.

Entrepreneurial success themes are factors embodied in a person that is the supporting factor in one’s success. Included in this pillar are leadership ability to see opportunity, motivation to move forward, confidence, tolerance to risk and uncertainty, ability to adapt and creativity. This pillar is directly connected to the pillar of the business plan. In the business plan, it is necessary to have good planning which has basic point and covers all elements of management. After the planning, what needs to be done next in the business plan is a good presentation, maintain ideas and execute it as the last step. The third pillar is business knowledge and skills. This pillar contains the fundamentals of business knowledge and business skills covering the areas of finance, marketing, operations, environment, strategy and cost. The fourth pillar is learning approaches. This pillar is related to the pillar facilitator who will choose what approach is suitable for the students.

The next model discussed is **Timmons Model of Entrepreneurship**. This model was discovered by Jeffery Timmons in his thesis for a doctorate degree at Harvard University. According to Timmons, there are 3 factors that determine the success of a business; opportunities, team and resources. A successful entrepreneur is an entrepreneur who can use these 3 factors evenly. Based on this model, a business comes from an opportunity, when the opportunity is seen and taken then the next step is to find a team that can help to run the business because it is impossible for an entrepreneur to work alone. After that, the factor that is no less important is to find resources such as funds to be able to provide capital for the sustainability of the business. This model is specifically based on the key business activities so even though it looks simple, it is effective to be implemented.

Timmons still requires a business plan as a requirement for a business proposal because without it, it is difficult to find investors who want to inject funds or teams that want to cooperate. Good communication skills are also absolutely necessary to convince potential investors and teams. After finding a team, an entrepreneur needs good leadership to organize and run the business. In addition to leadership, creativity is also absolutely necessary for an entrepreneur because sometimes the opportunity is not visible so it takes intelligence and speed in taking the opportunity, sometimes the opportunity must be created and may even arise from a problem.

The next model is **The Entrepreneurship Ecosystem** found in 2009. According to Isenberg, there are 6 domains that make up an entrepreneur ecosystem. The first domain is the finance that includes various ways of getting models to fund the business through debt, angel investors, capital markets and other
ways. The next domain is culture. Culture symbolizes the support from the environment to a business. This is related to existing habits in society including social norms such as tolerance to risk, error and failure, ambition and desire, the social status of an entrepreneur, value of innovation and creativity. Next is domain support. This domain describes the support gained from institutions and infrastructure. The support provided can be in the form of legal assistance, technical guidance, investment, guidance from institutions engaged in entrepreneurship sector. Human capital is the fourth domain. Human capital is human quality. This means the skills of the workers, management staff, and also the owner. Next is the market. In the market domain we see how the market responds to the product, whether most buyers are early adopters, whether certain goods are referenced to others, how the quality of the product is generated and the number of distribution channels. The last domain is the policy. In the policy domain we must pay attention to the policies implemented in a country/region and its effects on social conditions.

5. Results

The Author used 4 entrepreneurship learning models as a reference and comparison. After the explanation of each model, the author will perform the analysis and comparison of each model to find the key similarities of each model and other important things that can be obtained. The conclusions of this analysis will help the authors in determining a proposal of new entrepreneurial learning model that can be applied in Indonesia especially for higher education. Table 1 summarizes the determinant factors in each model analysed.

<table>
<thead>
<tr>
<th>Table 1. Comparison of Entrepreneurial Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entrepreneurial Performance Education Model</strong></td>
</tr>
<tr>
<td><strong>Motivation</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Entrepreneurial Skills</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Business Skills</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s summary
After making the comparison, writer analysed description and elements from each model to find the similarity of the four models chosen. Table 2 describe 4 factors of similarity between those models. The first step of this process started with listing all the element of each models. The second step is groping similar elements taken from each models. The last step is finding the term of the group as the similar factors as the result of the comparison.

Table 2. Cross Table Model Comparison in Finding the Factors of Similarity

<table>
<thead>
<tr>
<th>Factors in Entrepreneurial Learning Model</th>
<th>Entrepreneurial Performance Education Model</th>
<th>Entrepreneurial Education Model</th>
<th>Timmons Model of Entrepreneurship</th>
<th>The Entrepreneurship Ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Factor</strong></td>
<td>Self-control</td>
<td>Adaptation</td>
<td>Team</td>
<td>Human quality</td>
</tr>
<tr>
<td></td>
<td>Self-ability</td>
<td>Leadership</td>
<td>Leadership</td>
<td>Skill of workers</td>
</tr>
<tr>
<td></td>
<td>Courage</td>
<td></td>
<td></td>
<td>Management</td>
</tr>
<tr>
<td></td>
<td>Leadership</td>
<td></td>
<td></td>
<td>staffs</td>
</tr>
<tr>
<td><strong>Business Ability</strong></td>
<td>Marketing</td>
<td>Marketing</td>
<td>Funds</td>
<td>Fund</td>
</tr>
<tr>
<td></td>
<td>Finance</td>
<td>Finance</td>
<td>Capital</td>
<td>Institution help</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td>Operations</td>
<td></td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Human resource</td>
<td>Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Entrepreneurship</strong></td>
<td>Risk taking</td>
<td>Business Plan</td>
<td>Business proposal</td>
<td>Tolerance to risk</td>
</tr>
<tr>
<td></td>
<td>Creativity</td>
<td>Presentation skills</td>
<td>Communication skill</td>
<td>Ambition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Innovation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Creativity</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Ability to see opportunity</td>
<td>Mentor</td>
<td>Opportunity</td>
<td>Social norms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilitator</td>
<td></td>
<td>Habit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning approach</td>
<td></td>
<td>Type of product</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Distribution</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Policies</td>
</tr>
</tbody>
</table>

Source: Author’s summary

The first thing that each model has in common is the **human factor**. There is a model that evaluates an individual from his or her ability as a person who has skill and capability. Other model sees humans as a combination of several individuals called team because it is impossible that an entrepreneur able to run a business alone, especially if the business develops and grows bigger. When discussing the human side as a team, an entrepreneur must have the ability to manage team members. In addition, although initially the company is built from an individual, as the time flow, there will be other employees who work in that company, it shows that leadership characteristic is absolutely necessary in an entrepreneur.

The next thing is **business ability**. It is also found in each model. If one model specifically requires this ability as the main factor in an entrepreneur, the other model puts this capability in team which means there is a mix of individuals who have different management skills that help each other. Therefore, the requirement of business ability is also a must-have to an entrepreneur in doing business.
The third factor is **entrepreneurship**. This factor contains special and specific things, or can be called as characteristics of entrepreneurs. An individual called an entrepreneur must have this factor to be able to see or even create opportunities. Entrepreneurs also have to see the mechanisms of market change intelligently so that it can make a product that is likable and accepted by the market. This requires sharp eyes and creativity to adapt market tastes into products purchased by consumers.

The next factor is **environmental** factors. This factor is the most varied factor when researcher doing the comparison. Environmental factors are seen from 3 models from different angles although all have similarities. One model looks at the environment from culture point of view, government policy and economy point of view; other model looks from the side of available business opportunities; the last model looks from the facilitator side and the approach used in the learning process.

This environmental factor according to the author is also an important factor to be analysed further because the condition of each country is different, associated with their own culture and other different things. Appropriate model applied in a country may not be suitable if used in another country. Therefore, this factor must be possessed in a good model. Environmental factor can also affects other factors, such as entrepreneurial culture. In a country that has a good entrepreneurial climate and culture, since childhood an individual has been exposed with real practice of entrepreneurship so that the interest to become entrepreneur is also greater compared to individuals in other countries.

Environmental factor also has other impacts such as differences in the economic level. In developed country with good economic environment, the education level in that country is also good. This is related to the ability of educational institutions that have introduced the concept of entrepreneurship to students. From the environmental side, the differences in economic level also affect the differences in access of capital. In some countries, the choice of obtaining funding sources is easier and more open than other countries.

From the comparison and analysis of the entrepreneurship learning model chosen by the author, it can be concluded that although each model has different factors but has similarities in the goals and processes. There are also identical factors that different models have, or factors that are a combination of several other factors in different models. One of the important things from the authors' findings, different models also reflects the background of the inventors as well as when they published it. There is also a model that seems to be a modification of another model after taking into consideration different developmental factors and time. Another thing that also needs to be considered is the appropriateness of a model when applied in a particular country/region, it would require some adjustments to local conditions.

### 6. Conclusion

From the comparison and analysis of the entrepreneurship learning model chosen by the author, it can be concluded that although each model has different factors but has similarities in the goals and processes. There are also identical factors that different models have, or factors that are a combination of several other factors in different models. One of the important things from the authors' findings, different models also reflects the background of the inventors as well as when they published it. There is also a model that seems to be a modification of another model after taking into consideration different developmental factors and time. Another thing that also needs to be considered is the appropriateness of a model when applied in a particular country/region, it would require some adjustments to local conditions.
This research has an important value in which the researcher makes a comparison of 4 different models so that the analysis obtained is more complete and detailed. This will be very useful for other researchers who want to know more about the entrepreneurship learning model. Researchers who want to create a new model of entrepreneurship learning model will also be helped by this paper because it has the essence of each model that has been described by the author and also important factors that compose a model.

This research is a conceptual research where the information obtained is derived from secondary data in the form of books, journals and articles and then analysed by using the author's understanding. Therefore, this research limitation is related to the model used in which solely relied on researcher ability to analyse data obtained. The results of this study are is the essence and summary of the model. Therefore, the author has planned to undertake a further study related to this research to design a new entrepreneurial learning model. This new entrepreneurial model taken from the result of the four factors of similarity after the comparison from the four models chosen, namely Entrepreneurial Performance Education Model, Entrepreneurial Education Model, Timmons Model of Entrepreneurship and The Entrepreneurship Ecosystem. This new model is going to be implemented in Surabaya, Indonesia, therefore writer also should consider the element of culture into the model. At the end, result of future research will give a tangible effect and can be applied.

References


This research has an important value in which the researcher makes a comparison of 4 different models so that the analysis obtained is more complete and detailed. This will be very useful for other researchers who want to know more about the entrepreneurship learning model. Researchers who want to create a new model of entrepreneurship learning model will also be helped by this paper because it has the essence of each model that has been described by the author and also important factors that compose a model.

This research is a conceptual research where the information obtained is derived from secondary data in the form of books, journals and articles and then analysed by using the author's understanding. Therefore, this research limitation is related to the model used in which solely relied on researcher ability to analyse data obtained. The results of this study are is the essence and summary of the model. Therefore, the author has planned to undertake a further study related to this research to design a new entrepreneurial learning model. This new entrepreneurial model taken from the result of the four factors of similarity after the comparison from the four models chosen, namely Entrepreneurial Performance Education Model, Entrepreneurial Education Model, Timmons Model of Entrepreneurship and The Entrepreneurship Ecosystem. This new model is going to be implemented in Surabaya, Indonesia, therefore writer also should consider the element of culture into the model. At the end, result of future research will give a tangible effect and can be applied.

References


Chaiwat Nimanussornkul2 Kunsuda Nimanussornkul3 Anaspree Chaiwan3

Abstract

Thailand has encouraged and promoted household savings through various forms such as saving in financial institutions and investing in fixed income securities, equity securities and mutual funds. Government promotes investment in long term equity fund (LTF) by allowing tax deduction. Therefore, long term equity funds are in consideration among Thai investors.

This research evaluated and compared the performance of nine long term equity funds in Thailand that had the highest net asset value as of December 30, 2016 and operated from December 30, 2011 to December 30, 2016. The rate of returns, risk, Sharpe measure, Treynor measure, and simulation are employed.

This results showed that the top three funds that had the high rate of returns were Bualuang LTF, Bualuang LTF 75/25, and Aberdeen LTF, while K equity dividend, K 20 select LTF, K equity LTF, and K equity dividend LTF were the top three funds that having the high risk. The results of the comparison the performance using the Sharpe and Treynor measures showed that Bualuang LTF, Bualuang LTF 75/25, Aberdeen LTF, K 20 select LTF, and Krungsri dividend stock LTF had the higher rate of return per one unit of risk compare to the stock exchange of Thailand index. Moreover, two simulations were performed with two distributions. One was logistic distribution that tested by the Anderson-Darling statistics and another was normal distribution. This method revealed that Bualuang LTF perform the best, follow by Bualuang LTF 75/25, K equity LTF, and Aberdeen LTF.

Keyword: long term equity fund, Sharpe measure, Treynor measure, simulation

JEL Classification Codes: G10, G11, G19

1 Research Administration Center, Office of the University, Chiang Mai University
2 Assistant Professor, Faculty of Economics, Chiang Mai University, Thailand, 50200, E-mail: chaiwatnim@yahoo.com
3 Assistant Professor, Faculty of Economics, Chiang Mai University, Thailand, 50200