

## **Effects of Triangulation Entrepreneurship Training on Trainees' Performance**

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### **ABSTRACT**

This paper examines the effect of triangulation entrepreneurship training towards trainees' performances and their entrepreneurship intentions. In this quasi-experiment, a triangulation entrepreneurship training program was designed to integrate theories understanding; field work supervisions and business promotion and development. The entire entrepreneurship training involves trainees, researchers/ lecturers and SME owners. The trainees were assigned with a specific small and medium enterprise as their working cases. First, the trainees were given a series of lectures to expose them to various business and entrepreneurship concepts. Then, they carried out various field works including primary data collection and observing

market situation, where they interviewed the entrepreneurs and visited the SMEs' premises. The trainees then developed a business plan to help the SMEs for future business development. Through out the process, university researchers provide necessary guideline and consultation for the trainees. This study found that the trainees understanding and their entrepreneurial mind were enhanced at the end of the training section. However, the result varies depending on the levels of involvement of the trainees. Implications of these findings for future practice and research are also discussed.

**Keywords:** Entrepreneurship, training, performance

## INTRODUCTION

Conceptualization and research on entrepreneurship is yet to be fully explored. In addition, entrepreneurship training is expected as a driver in enhancing trainees' entrepreneurship intentions. However, to date empirical study examines trainees' performance of triangulation entrepreneurship training program is still lacking. Conventional entrepreneurship training which emphasize on theory understanding and class room setting is one of widely used approach. Nevertheless, with regard to research and development in entrepreneurship training, a more practical approach is encouraged that lead to introducing of triangulation training approach. The examination on this relatively new approach is important because resources are usually limited. The priority resource allocation in improving potential entrepreneurs' performance is dependent on its significant impact on trainee's performance. Therefore, this study examines the effect of triangulation entrepreneurship training towards trainees' performance and their entrepreneurship intentions to identify the applicability of practical approach in entrepreneurship education.

## SMALL AND MEDIUM ENTERPRISES (SMEs) TRAINING

Research on small and medium enterprises has been gaining momentum in the past decade. The interests have been increasing with the realization of the important role Small and Medium Enterprises (SMEs) play to a nation's economy. The growth of SMEs is anticipated and welcome, since the development of SMEs contributes significantly to job creation, social stability, and economic welfare across the globe (Ladzani and van Vuuren, 2002).

One of the most researched areas in SMEs is concerning the training needs of SMEs. Various literatures have discussed the needs of training for SMEs (Webster, Walker and Brown, 2005; Storey, 2004; Storey and Westhead, 1997). Training has been identified as the driver for success and growth of SMEs (Cosh, et. al., 1998), to assist SMEs gaining competitive advantage in a global economy (Huang, 2001) and more importantly, training and education are effective ways to reduce small business failure (Ibrahim and Soufani, 2002; Menzies and Gasse, 1999). Webster et. al. (2005) emphasized that training is crucial to the small business sector for both competitive success and business strategy.

In many countries, governments have been setting up various agencies to help and train SMEs. (Webster, et. al., 2005; Johnston and Loader, 2003; Ladzani and Vuuren, 2002). In Malaysia, many seminars, short courses and training programmes in entrepreneurship were introduced by government agencies such as Ministry of Entrepreneur and Cooperative Development (MECD), Majlis Amanah Rakyat (MARA) and Small and Medium Industries Development Corporation (SMIDEC) (Mohd Fauzi et. al., 2006). All these training are meant to provide all the SMEs business owners with relevant skills and new knowledge of business in light of the dynamic nature of today's business environments.

Apart from trainings that are being focused directly towards the business owners of SMEs, more and more trainings in the form of entrepreneurship education have been conducted by higher educational institutions to prepare their graduates for self employment through establishment of own business venture upon leaving their full time education. This is important in term of preparing the graduates with the right skills and knowledge of business and the same time motivation for them to venture into new business establishment.

## IMPORTANCE OF ENTREPRENEURSHIP EDUCATION

Entrepreneurship education and training are important to economic development, particularly in improving the quality and quantity of future entrepreneur (De Faioite, et al., 2003; Hynes, 1996; Garavan and O'Kinneide, 1994). There have been great interests on entrepreneurship education and training in recent years (Galloway and Brown, 2002; Johannisson, et al., 1998; Garavan and O'Kinneide, 1994), this is based on the findings of the growth in the number and type of programme offerings, particularly at universities and other educational establishments internationally (Gibb, 1993; Fiet, 1997, and Ulrich, 1997). Realising the importance of entrepreneurship education, many universities from different countries such as USA (Jones and English, 2004; Lord, 1999), Canada (Menzies and Gasse, 1999), Australia (Jones and English, 2004), UK (Collinson and Quinn, 2002; Galloway and Brown, 2002) and Sweden (Klofsten, 2002, Johannisson, et al., 1998) have been offering entrepreneurship courses and programmes.

Following the trend, more and more universities in Malaysia have recently introduced courses related to entrepreneurship. Public universities like Universiti Utara Malaysia (UUM), Universiti Malaysia Sabah (UMS), Universiti Pendidikan Sultan Idris (UPSI) and Universiti Teknologi Malaysia (UTM) do offer entrepreneurship courses and programmes. In addition, private universities in Malaysia, for example, Multimedia University (MMU) and Universiti Tenaga Nasional (UNITEN) are also offering Bachelor of Business Administration, majoring in Entrepreneurship. (Mohd Fauzi et. al., 2006)

The offering of programmes from these universities and educational establishments, as much as being appreciated and welcomed, nonetheless the effectiveness of such education programmes to produce a successful entrepreneur is being questioned. Traditional business schools tend to over-emphasize quantitative and corporate techniques at the expense of more creative skills needed for being successful entrepreneurs (Porter, 1994). Hence there was a call for restructuring the entrepreneurship education programmes to emphasis more on imagination, creativity, and risk taking. (Porter, 1994).

### **TRIANGULATION ENTREPRENEURSHIP TRAINING**

Academia has always been criticized for providing industry with graduates who are theoretically strong, but lacking in practical skills (O'Brien and Clark, 1997; Middleton and Long, 1990). This is based on the argument that the traditional education programmes failed to incorporate the needs of the changing business environment (Jones and English, 2004).

With reference to record from MARA, many fund providers are reluctant to finance fresh graduates in new business venture due to several reasons. First, fresh graduates are perceived as lack of practical knowledge in business operation. Second, there is evidence of high failure rate among the new venture of fresh graduates in the past (Mohd Fauzi et. al., 2006). Nevertheless, a study conducted by O'Brien and Clark (1997) has discovered that graduates do have an important role to play in the small firm sector. This role is clearly of an entrepreneurial nature with many small firms using graduates to generate new innovative ideas and provide an objective viewpoint for the firm.

In realizing the importance of practical aspects of business in entrepreneurship education, programmes like The Profit Through Knowledge Scheme in Scotland (Collinson and Quinn, 2002) and the establishment of Enterprise units in universities across UK (O'Brien and Clark, 1997) have been seen as significant approaches in providing graduates with the crucial experience in real business activities. By incorporating both hands-on training and entrepreneurship education, it is hoped that the quality of graduates in term of their business knowledge would be enhanced. This shows that practical-based education training programmes like triangulation entrepreneurship training is may be one of the effective methods to educate and prepare graduates to be potential successful entrepreneurs.

The triangulation entrepreneurship training shares some similarity with the usage of enterprise units in universities across UK that acts as a link between academia and small firms and their owners. According to O'Brien and Clark (1997), the linkages are important in helping the students to understand the necessary skills required both for working in the small firm and encouraging them to start their own enterprises on leaving full time education. On the other hand, the involvement of entrepreneurs in the educational process has allowed them to have an input in the curriculum, and at the same time gaining a better understanding of the academics' role in educating future entrepreneurs.

## RESEARCH METHOD

In this quasi-experiment, a triangulation entrepreneurship training program adapted from Japan was used. The training cost is fully sponsored by the Research Institute of Economy, Trade and Industry (RIETI), Japan; and it is co-implemented by AsiaSEED (Asia Science and Education for Economic Development Institute) and Faculty of Economic and Business, UKM. Triangulation approach refers to close training-practical relationships between (a) researchers, (b) the participated SME owners and (c) trainees. As this is a pilot project introduced in Malaysia, only 20 trainees were selected to participate and gone through the entire training program. Trainees were selected from a group of undergraduate and graduate students who were interested in entrepreneurship training. Several SMEs within the Selangor region were visited to seek their cooperation in this training. The two interested SMEs were then invited and provide their full support for this training. The 20 students were divided into two groups that each group would develop a business plan for the participated SME and did the marketing for the company. Six researchers/ lecturers from the Faculty of Economics and Business, UKM were involved in this training program and responsible as trainers and provide necessary on-going supervision.

This training program emphasized on practical activities. The content of the training include SWOT analysis, brain storming, critical assumptions, attribute map, business plan, product life cycle, elevator speech, competitor analysis, milestone planning, the learning cycle and consumption chain. The training includes several stages. At the beginning, lectures were provided to brief trainees on business concepts and how to prepare a business plan. In terms of lecturing Prof. Dr. Takeru Ohe from Waseda Business School, Japan and Mr. Stephen Paterson, National University of Management, Cambodia were invited to conduct the sessions. This is to provide the latest practical knowledge in the business field and regional development on SMEs.

Following each lecture, trainees would have to apply the learned business concepts for the SMEs and carried out the business activities in the real market. They need to visit the business operation of the SMEs and interviewed the owner and staff of the SMEs to gather first-hand information. Subsequently, the trainees would access market information via field surveys that include interviewing the potential customers of the products produced by the SMEs. In these cases, the related businesses are pizza products and oyster sauces. At the end the trainees have to develop a business plan to help the SMEs for in future business development. Through out the process, university researchers provide necessary guideline and consultation for the trainees.

## TRAINEES' PERFORMANCE

The assessment of trainee performance is divided into two parts, before and after the training. At the beginning and at the end of the training session, questionnaires have been distributed to test on trainees' perception of various aspects related to entrepreneurship education and management concepts. Generally, the multi discipline trainees teams have worked well with good cooperation among their members and their various skills and knowledge have resulted in creative and innovative proposal.

First we examine trainees past experience of involvement in entrepreneurship activities. From Table 1, it is indicated that about 55% of the trainees never or have limited past experience in entrepreneurship. However 45% of the trainees were reasonably exposed to entrepreneurship activities. The majority of the trainees (75% before training and 94.4% after training) perceived that entrepreneurship education would contribute to the needs of development of a market economy and local businesses development. About half of the trainees were very much interested in becoming an entrepreneur and this proportion increase to about 60% after attending this program. In addition one fourth of the trainees that had not indicated interest in entrepreneurship were having reasonable intention to become entrepreneur in future after attending this training (refer to Table 2). It is obvious that trainees have better understanding and attitude towards entrepreneurship after the involvement in this type of entrepreneurship education. Thus, these justify the importance of conducting this type of practical-based entrepreneurship education program.

**Table 1 Trainees' Past Experience in Entrepreneurship Activities**

Past experience in entrepreneurship activities	Frequency	Percent
Very much	0	0
Reasonably	9	45
Not much	5	25
Not at all	6	30
Total	20	100

**Table 2 Trainees' Perception and Intention of Entrepreneurship**

	Entrepreneurship Contribution in Local Economy and Business Development		Intention to become an Entrepreneur	
	Before	After	Before	After
Very much	15 (75.0%)	17 (94.4%)	11 (55.0%)	11 (61.1%)
Reasonably	4 (20.0%)	1 (5.6%)	4 (20.0%)	7 (38.9%)
Not much	1 (5.0%)	0	5 (25.0%)	0
Not at all	0	0	0	0
	20 (100.0%)	18 (100.0%)	20 (100.0%)	18 (100.0%)

Trainees' self-confident level and their perceived capability for planning and business venture also has shown to increase after participating this training as shown in Table 3. In addition, trainees' understanding of various business terms and concepts were also enhanced. A comparison of before and after training indicated that after the training, the majority of the trainees have a good understanding of SWOT analysis (94.1%), brain storming (82.4%), critical assumptions (82.4%), attribute map (70.65), business plan (70.6%), product life cycle (70.6%), elevator speech (64.7%), competitor analysis (64.7%), milestone planning (62.5%), the learning cycle (62.5%), consumption chain (56.3%) (refer to Table 4).

**Table 3 Trainees' Perception on their Capability for Planning and Business Venture**

	Capability for Planning and Business Venture	
	Before	After
Very much	3 (15.0%)	3 (16.7%)
Reasonably	7 (35.0%)	11 (61.1%)
Not much	10 (50.0%)	4 (22.2%)
Not at all	0	0
	20 (100.0%)	18 (100.0%)

**Table 4 Trainees' Understanding of Business Terms and Concepts**

Terms/ Concepts	Level of Understanding				
	Never heard the term before	Have heard it but do not know the term well	Have a vague understanding of the term	Have a good understanding of the term	Total
<b>SWOT Analysis</b>					
Before	2 (10.0%)	3 (15.0%)	10 (50.0%)	5 (25.0%)	20 (100.0%)
After	0	0	1 (5.9%)	16 (94.1%)	17 (100.0%)
<b>Brain Storming</b>					
Before	0	0	13 (65.0%)	7 (35.0%)	20 (100.0%)
After	0	1 (5.9%)	2 (11.8%)	14 (82.4%)	17 (100.0%)
<b>Critical Assumptions</b>					
Before	6 (30.0%)	11 (55.0%)	3 (15.0%)	0	20 (100.0%)
After	0	2 (11.8%)	1 (5.9%)	14 (82.4%)	17 (100.0%)

<b>Attribute Map</b>					
Before	6 (30.0%)	10 (50.0%)	4 (20.0%)	0	20 (100.0%)
After	0	2 (11.8%)	3 (17.6%)	12 (70.6%)	17 (100.0%)
<b>Business Plan</b>					
Before	1 (5.0%)	3 (15.0%)	9 (45.0%)	7 (35.0%)	20 (100.0%)
After	0	0	5 (29.4%)	12 (70.6%)	17 (100.0%)
<b>Product Life Cycle</b>					
Before	1 (5.0%)	4 (20.0%)	8 (40.0%)	7 (35.0%)	20 (100.0%)
After	0	0	5 (29.4%)	12 (70.6%)	17 (100.0%)
<b>Elevator Speech</b>					
Before	6 (31.6%)	11 (57.9%)	2 (10.5%)	0	19 (100.0%)
After	0	0	6 (35.3%)	11 (64.7%)	17 (100.0%)
<b>Competitor Analysis</b>					
Before	2 (10.0%)	8 (40.0%)	5 (25.0%)	5 (25.0%)	20 (100.0%)
After	0	0	6 (35.3%)	11 (64.7%)	17 (100.0%)
<b>Milestone Planning</b>					
Before	3 (16.7%)	7 (38.9%)	5 (27.8%)	3 (16.7%)	18 (100.0%)
After	0	1 (6.3%)	5 (31.3%)	10 (62.5%)	16 (100.0%)
<b>The Learning Cycle</b>					
Before	2 (10.0%)	7 (35.0%)	9 (45.0%)	2 (10.0%)	20 (100.0%)
After	1 (6.3%)	0	5 (31.3%)	10 (62.5%)	16 (100.0%)
<b>Consumption Chain</b>					
Before	6 (30.0%)	10 (50.0%)	4 (20.0%)	0	20 (100.0%)
After	1 (6.3%)	1 (6.3%)	5 (31.3%)	9 (56.3%)	16 (100.0%)

As this is an intensive training, some of the terms and concepts were only briefly introduced due to the time constraints. Those concepts such as SWOT analysis, brain storming, critical assumption, attribute map and business plan were frequently used and adopted by the trainees during their class exercises and field works. Thus, an action orientated training program enhances both trainees' understanding of the theoretical concepts and increase their confident level in handling practical business issues.

## CONCLUSION

This entrepreneurship training project emphasizes on Triangulation approach between university researchers/lecturers, trainees and local SMEs under the support of Japanese experts is proven to be fruitful. This entrepreneurship education program has already been proved to be effective in Thailand and Cambodia before being introduced to Malaysia. In convention entrepreneurship training, it focuses concept education and class-room based training; whereas this entrepreneurship program emphasizes on Experimental Management Method meaning learning via doing it in experimental basis. In conclusion, this research project provides support for several propositions. First, Experimental Management method has a positive effect on entrepreneurship training program. Second, training program that utilize triangulation approach with university serve as center of excellence in knowledge diffusion and human resource development is more beneficial and sustainable in long-term. Third, Experimental Management method and triangulation training approach has a positive effect on the improvement of local SMEs businesses performance either direct or indirect. In long term, it leads to better planning, new product development and market expansion.

Furthermore, practical-based training program able to attract students' attention and interests and enhance students' ability and capability in handling real business issues and situation. Moreover the practical approach also produce active and outgoing students with positive attitudes; where students frequently go to town, company production site to explain and discuss their business plan with the business owners and potential customers. The students also took the products and promoted it at various locations around the Selangor state. They also organized temporary counter to promote the products at supermarket and university. With regard to the positive feedbacks and responses, this education program is potentially applicable in different locations in Malaysia as well as neighboring countries.

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