

# ACADEMIA-INDUSTRY LINKAGES: NURTURING THE ENTREPRENEURIAL GRADUATES – A CASE STUDY OF UNIVERSITY SAINS ISLAM MALAYSIA (USIM)

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**Abstract:** *The increasing rate of unemployed graduates is one of the critical issues that triggers world's concerns lately. Malaysia's recent upsurge in graduate unemployment has specific causes relating to economic development, education policy-making, and reforms in the economy as well as in higher education. In Malaysia, every year, almost 200,000 fresh graduates search for employment. Besides academic performance, it has been acknowledged that graduates should be equipped with industrial relevance skills to increase their marketability and competency rate. The Government of Malaysia also encourage active involvement of industries through strategic partnerships and joint ventures with higher education institutions in providing these relevant skills and training to the students. The purpose of this paper is to expose one of the programs called Hands-On Programme of Entrepreneurship (HOPE) which being executed through the academia-industry linkages experienced by University Sains Islam Malaysia (USIM) in nurturing the entrepreneurial graduates. This paper adopts a case study of HOPE at USIM and found that the involvement of industry is pivotal in tertiary's education, especially in terms of students' activities and development. Ultimately, this paper provides a new insight on the academia-industry linkages especially for nurturing students to have entrepreneurial attributes as one of soft-skills upon their graduation.*

**Keywords:** *industry-academia linkages, entrepreneurial, graduates, HOPE, USIM*

## Introduction

Unemployment rate in Malaysia rose to 3.5 percent in December of 2016 from 3.4 percent in the same month the previous year (Trading economics, 2017). The number of unemployed persons rose 1.6 percent from a year earlier to 512,200 (Trading economics, 2017). As compared to other developing country, Malaysia can be said to achieve full employment with unemployment rate of 3.1% in August 2013 by Department of Statistics. According to Deputy Human Resource Minister, Datuk Ismail Abd Mutalib told the Dewan Negara, Malaysia achieved full employment by having unemployment rate less than 4% based on International Labour Organization Standards. However, unemployment among graduates remains unsolved, where 65,500 graduates were recorded unemployed which is 16.7% of the total unemployed labour in 2010 based on Department of Statistics, Malaysia. Although the rate of unemployment in Malaysia decreased throughout the year, the number of unemployed graduate in Malaysia increased (Department of Statistics, Malaysia, 2011).

It has been an afflicting issue when the number of unemployed graduates has increased intensely. Many industries were having difficulty on the quality of fresh graduates applying job vacancies at their organization (Ismail et al., 2011; Singh & Singh, 2008). On the other hand, the university, who provides these graduates also was having problem on their graduate employability. This can be seen from the graduate employability rate which has not been achieved as targeted (Shafie & Nayan, 2010). There are some factors that may contribute to this problem. The general consensus among Malaysian employers indicates that Malaysian graduates are well trained in their areas of specialization but unfortunately, they lack the soft skills (Nurita et al., 2004). Ministry of Higher Education of Malaysia (2006), emphasized that graduates must have soft skills elements for example abilities to communicate in English languages (communication), critical thinking and problem solving, must work as teams, develop business proposals and identify business opportunities (entrepreneurial skill), apply ethical principles and have, plan, supervise, monitor and lead (leadership), build relationship, interact and work effectively (lifelong learning and information management) and professional ethics.

Soft skills cannot be learned directly from the theory or the lecture hall. Hence, students have to earn them through other channels, for example co-curricular activities. Besides that, lack of experience and also lack of industry training were another reason that unemployment of graduates (Omar & Rajoo, 2016; Pillai et al., 2012). The involvement of industry was seen to be one of the success factors to ensure the students performing well upon their graduation (Etzkowitz, 1998). Among the soft skills elements that should be nurtured among students is being entrepreneurial. Adopting upon a case study approach, this paper exposes one of the academia-industry programs called HOPE which being experienced by University Sains Islam Malaysia (USIM) in nurturing the entrepreneurial graduates.

### **Industry's Involvement in Tertiary Education**

The priorities and scope of university-industry collaboration differ significantly between developed and developing countries (Guimón, 2013). For developing countries, the existing collaboration between university and industry is more informal and tend to focus on the firms' recruitment of university graduates for staffing, internships, and consulting. Entrepreneurial university in developing countries provide their students with entrepreneurial activities such as entrepreneurial education and business incubation services. Meanwhile, tertiary education in developed countries encourage their students to be an entrepreneur by conducting spin off companies as well as including entrepreneurial education in their syllabus (Fini et al., 2016).

Previous researchers agree that entrepreneurial educational is an efficient method to equip the students with necessary knowledge about entrepreneurship (Mumtaz et al., 2012; Turker & Selcuk, 2009). Entrepreneurship education also influences students' career choice (Peterman & Kennedy, 2003). A study conducted in Malaysia found that appropriate entrepreneurship education exposure will influence the students to be an entrepreneur (Mumtaz et al., 2012). In Malaysia, the entrepreneurial education can be analyzed upon four main elements namely entrepreneurship center maturity, education programmes offered, development of entrepreneurs and competency of educators.

Hardy(2015) mentioned that the four elements have successfully conducted by universities in Malaysia. For example, 5% of entrepreneurial centers in public universities are able to generate income of more than 30% of spending. Other than that, 53% of universities in are heading towards the right direction by including entrepreneurship elements in their courses to emphasis education programmes (Hardy, 2015). The effort to develop entrepreneurs in tertiary education is considerably high in Malaysia. According to Borges and Jacques (2013), 90% of universities' students in Malaysia have the aspiration to start a business and almost all of universities in Malaysia encourage students to start a business while studying. This effort is further enhanced by having entrepreneurship incubator programmes in 70% of universities in Malaysia.

On the other hand, developed countries like UK, Canada and Singapore had been conducted spin off companies as their collaboration between university and industry. Spin off can be defined as a process which the new firm, its entrepreneurs or the technology either one of these or all three used in the new venture of an existing business or division of a parent company. The result of this process is a new venture, the spin-off (Borges & Jacques, 2013). In other words, university's spin-off entrepreneurs are usually professors, researchers, or undergraduate or graduate students (Nicolaou & Birley, 2003). They may or may not leave the university after the new business venture is created. Many of them lead a double professional life, combining academic activities at the university with business activities in the new venture. One of the main support tools given by universities to encourage the spin-off process is the business incubator.

Government of some developed countries further shape university-industry links by developing science parks in the area of universities and by spurring university research spin-offs and start-ups with university connections, for example through public venture capital and grants to entrepreneurs (Guimón, 2013). The reason being, science parks intended to create clusters and promote collaboration between firms and research institutions, and they often include business incubators to support spin-off and start-up companies. However, for developing countries, there is a lack of evidence to prove such initiatives were successful (Yusuf, 2007). This is because the creation and development of spin-off in a university context is a highly complex task (Fini et al., 2016).

The European Commission Enterprise and Industry Directorate-General Promotion of SMEs Competitiveness (2008) has compiled the Best Procedure Project: Entrepreneurship in Higher Education, Especially in Non-Business Studies. Some of the initiatives that can be implemented in university is by providing case studies basis learning, business planning workshop, inviting guest speakers (namely entrepreneurs) and business simulations. For example, The University of Wolver Hampton (UK) is coordinating the SPEED project (Student Placements for Entrepreneurs in Education), a network of 13 institutions to help students develop self-employment opportunities as an alternative to traditional work placements. Students present their business ideas to a panel. If accepted, they are offered a placement of 9 to 12 months. Each student is helped to develop a personal and business development plan, and is given access to one or more mentors selected for their experience in a related area. The placement may be full time, as part of a sandwich degree course, or part time alongside their academic studies. Each

student is supported by a mixture of bursary payments, finance for business related activities and professional services. The institution provides additional resources in the form of incubation facilities and skills training. Where possible, a SPEED placement will be credit bearing for the student.

Another example in the European Commission Enterprise and Industry Directorate-General Promotion of SMEs Competitiveness (2008) is by the KfW Endowed Chair of Technical University of Munich in Germany. They hold case study seminars to enhance problem-solving skills and the creativity of the students. Real-life case studies, which have been written by members of the chair's team, were given to the students, who have to work in teams to come up with a solution. The results were presented in class or to a jury with members of faculty and of the company. In addition, Turku University of Applied Sciences in Finland hold Practice Enterprise Project which students from different field of study were brought together to participate in this project. There is a real enterprise backing the simulated practice enterprise, in order to support planning and to provide real-life information for business start-up. The actions, products and services of the practice enterprise are similar to those of the real business. Practice enterprises do business with each other in a global network. The project lasts for 25-30 weeks and is divided into three phases: start-up phase, business phase, and closing the books and evaluation phase.

#### **Model of USIM – Hands On Programme of Entrepreneurship (HOPE)**

The educational institutions will require much restructuring to enhance skill development for entrepreneurship (Zamberi, 2013). As the university has experts in theory and technology, the industry win the expertise in practicality. Etzkowitz (1998) in his article discussed about entrepreneurial activities among academics from their research platform. From an industrial perspective, relations with universities have traditionally been viewed primarily as a source of human capital, future employees and, secondarily, as a source of knowledge useful to the firm. The new university–industry relationships involve the multiplication of resources through the university's and faculty members' participation in capital formation projects such as real estate development and formation of firms.

USIM has been actively engaged with the industries especially in nurturing students becoming entrepreneurial. There are some activities being executed in collaboration with industries. For example, Hands-On Programme of Entrepreneurship (HOPE) is conducted by a company named Perfect Triangle which come out with a structured module on entrepreneurship. Established in 2015, this ongoing program involve about 300 students starting in their first year study at USIM. HOPE is a unique, holistic and comprehensive entrepreneurship program designed and developed to provide solution of lack of industrial experiences. Currently, this program is executed through credited course for a co-curriculum subject at USIM.

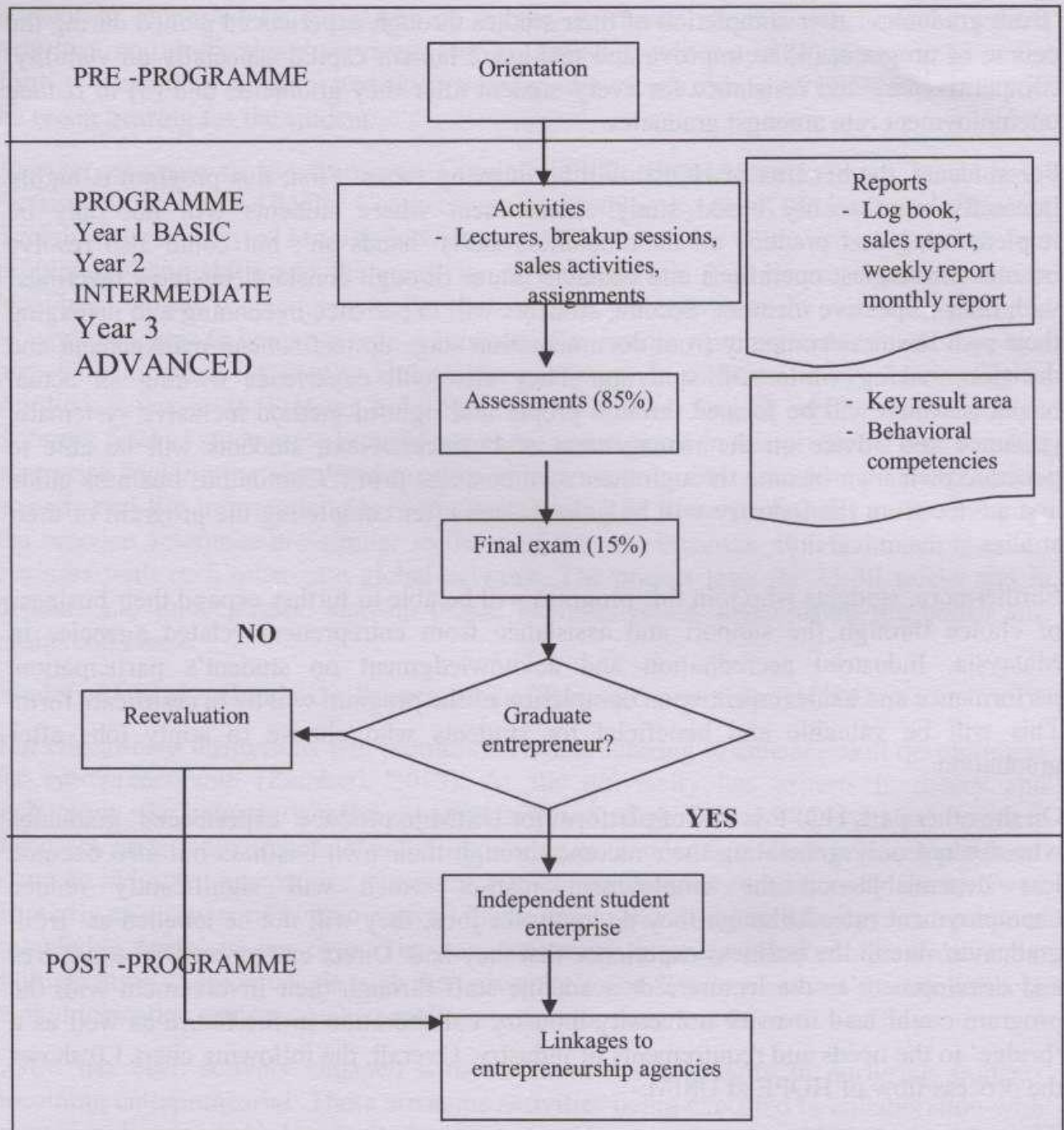
Through the implementation of HOPE at USIM, it is expected to achieve the objectives of (1) to develop students to become entrepreneurs as entrepreneurship is one of the items stated in the Malaysian Education Blueprint, (2) to develop students to become 'hands-on' entrepreneurs rather than 'theoretical' entrepreneurs, (3) to eliminate the label of

'fresh graduates' after completion of their studies through experienced gained during the course of program, (4) to improve and maximize human capital especially on viability, competitiveness and resistance for every student after they graduated and (5) to reduce unemployment rate amongst graduates.

For students, the benefits of HOPE will be in many terms. First, this program is highly interactive and reality based study environment where students will not only be implementing and practice all their business skills 'hands-on', but could also resolve business strategies, operations and obstacle issues through constant 'business meetings' with their respective mentors. Second, students will experience in running and managing their own business/company from documentation stage up to financial management and decision making while still studying. They also will experience owning an actual business which will be formed through proper and rightful method inclusive systematic guidance and advice on the management of business. Next, students will be able to generate their own income through their own business profit. Continuous business guide and advice from the industry will be gained even after completing the program or their studies at the university.

Furthermore, students who join this program will be able to further expand their business of choice through the support and assistance from entrepreneur related agencies in Malaysia. Industrial accreditation and acknowledgment on student's participation, performance and achievement upon completion of the program will be in certificate form. This will be valuable and beneficial for students who choose to apply jobs after graduation.

On the other part, HOPE is one of platform for USIM to produce 'experienced' graduates who are not only generating their income through their own business but also become less dependable on the employment market which will significantly reduce unemployment rate. Although they do apply for jobs, they will not be labelled as 'fresh graduates' due to the business experience that they had. Direct entrepreneurial exposures and development to the lecturers or academic staff through their involvement with the program could lead to more university-industry collaboration in the future as well as a 'bridge' to the needs and requirements of industry. Overall, the following chart 1.0 shows the process flow of HOPE at USIM:-



**Chart 1.0 - Process flow of HOPE**

**Source – Perfect Triangle**

**Issues and Challenges**

There are complex relations between the academy and industry which brought up certain issues (Anderson, 2001). Some of the issues emphasize differences in the culture, policies, expectations and rules of conduct between universities and their industrial partners (Beckman, et. al, 1997; Geisler & Rubenstein, 1989). Bruneel et al. (2010) found that that prior experience of collaborative research lowers orientation-related barriers and that greater levels of trust reduce both types of barriers they studied. The study conducted

also indicates that breadth of interaction diminishes the orientation-related, but increases transaction-related barriers.

In the case of HOPE at USIM, the top management of the university is taking this programme seriously. Since this is one of USIM's industry-academia programme, they learn at their best to accommodate with industry expectations which ultimately will lead to the successful of this program (Wohlin et.al, 2012). A regular meeting is undertaken to ensure any matter arises will be solved smoothly for all parties. Although one specific department was responsible to handle HOPE, every staff at USIM is exposed about this program to ensure the awareness which ultimately will assist the success of this program. The cooperation among all parties in USIM as well as between the industry partners is very crucial to ensure this long-term industry-academia program achieved its objectives.

## Conclusion

Realizing the Government's as well as the university's vision to increase the graduates' marketability, viability and competencies, the involvement of industry is pivotal in tertiary's education. This will also fulfill the industry's requirement for their future recruitment. There are many kinds of industry's involvement with the university especially in terms of students' activities and development that can be applied in Bangladesh context as well. For example, HOPE at USIM could be replicated to Bangladesh Universities. Ultimately, the academia-industry linkages will be valuable for students in nurturing their entrepreneurial attributes upon their graduation and hence reduce the number of unemployment among graduates.

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