

Unemployment Problem among Graduates of Technical Field: Competencies of the Graduates and Quality of the Education

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Abstract

The issue of unemployment is an issue not only in Malaysia but around the world. Report show that nearly 30 percent of graduate trainees public skills training institutes in Malaysia continue to be unemployed. Therefore, this study aims to investigate the factors that contribute to the unemployment problem among Malaysian graduates from two aspects, which are graduates' competency and the quality of education, which are related to the learning and curriculums of the programmers offered in educational institutions. This study focuses on the factors of unemployment problems among graduates of technical fields. This study was conducted qualitatively through interview among eight experts, who have experiences in teaching and working in the industries. The majority of the respondents agreed that the graduates' competency and the quality of education are among the factors that contribute to the unemployment problem among graduates of technical fields nowadays. Therefore, appropriate efforts and actions should be taken in curbing this problem since graduates are important resources of human capital for an organization or a country. Human capital with the knowledge and qualified skills contribute to the enhancement of the country's economic productivity.

Keywords: Unemployment; competency; quality of education; curriculum

Abstrak

Isu pengangguran merupakan suatu isu yang bukan sahaja berlaku di Malaysia namun di seluruh dunia. Statistik di Malaysia menunjukkan bahawa hampir 30 peratus pelatih lepasan institut latihan kemahiran awam di Malaysia masih belum mendapat pekerjaan. Oleh itu, kajian ini dijalankan bermatlamat untuk melihat faktor permasalahan berlakunya pengangguran dalam kalangan graduan di Malaysia dari dua aspek iaitu kompetensi graduan dan kualiti pendidikan yang menjurus kepada pembelajaran dan pengajian serta kurikulum program di Institusi Pengajian. Kajian ini akan memfokuskan faktor permasalahan pengangguran dalam kalangan graduan di bidang teknikal. Kajian kualitatif ini menggunakan kaedah temu bual ke atas lapan orang responden yang berpengalaman mengajar serta bekerja di industri. Majoriti responden bersetuju bahawa kompetensi graduan dan kualiti pendidikan merupakan antara faktor penyumbang kepada berlakunya masalah pengangguran dalam kalangan graduan di bidang teknikal pada masa kini. Justeru itu, sewajarnya pelbagai langkah dan tindakan perlu diambil untuk mengurangkan sekaligus mengatasi permasalahan ini. Hal ini kerana, graduan adalah modal insan atau sumber tenaga kerja terpenting bagi sesebuah organisasi atau negara. Modal insan yang mempunyai pengetahuan dan kemahiran yang berkualiti menyumbang kepada peningkatan dalam produktiviti ekonomi Negara.

Kata kunci: Masalah pengangguran; kompetensi; kualiti pendidikan; kurikulum

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1.0 INTRODUCTION

Based on the report by the Department of Statistics Malaysia (2011), it is found that the unemployment rate in Malaysia had increased from 3.2% in 2007 to 3.7% in 2009. Besides, a report on graduates tracer study in 2010 found that almost 25% of the graduates of the Higher Educational Institutions were unemployed (Graduates Tracer Study System by Ministry of Higher Education, 2010). The Tracer Study Report by Ministry of Higher Education (MOHE) also found that the unemployment problem mostly occurs among the graduates of the field; i) Science (28.6%); ii) Information Technology and Communication (27.7%) and; iii) Technical (27.6%) (Graduates Tracer Study System by MOHE, 2010). This raises a question, why it happens when the country has allocated a large amount of investment in the educational system especially in the field of Technical and Vocational Education (Abd Hair *et al.*, 2007).

Even though the unemployment rate in Malaysia is considered low as compared to countries like the United States and other countries in Europe, this issue should not be ignored. This is because graduates are human workforce that is vital and become the core for innovative and productive high-income economy. Through the Tenth Malaysian Plan (2010-2015), the government has aimed 33% of the human workforce is categorized under high-skilled workers by 2015 and by 2020, 40% of high-skilled workers are needed. This shows that the country really needs skilled and semi-skilled workers, especially from the graduates with technical qualifications. Therefore, it shows that TVET plays an important role in producing high-skilled workers in Malaysia by providing excellence education to students with the

interest and potential towards the technical and vocational fields. The source for human capital, that is highly potential and competitive, is highly needed in this globalization era. However, producing human capital resources that are comprehensive and at a world class level is not an easy task and it is a challenge to Malaysia. Therefore, this paper aims to identify primary factors that lead to the unemployment issue among the Malaysian graduates in technical fields and hence it can hopefully become guidelines in curbing this problem.

■ 2.0 LITERATURE REVIEW

2.1 Unemployment Issue among the Graduates of Technical or Engineering Fields

Abd Rahim and Ivan (2007), states that the Technical Education and Vocational Training (TVET) system is designed to produce skilled human resources in order to meet the needs of the industry. However, it is found that nearly 80,000 technical graduates are still unemployed and they are depending mostly on the academic qualifications and not on the employability skills in order to get jobs (Ahmad, 2005).

Based on a statistic by World Bank Education, it is revealed that Malaysia had only 28% of skilled human capital, whereas other countries (Singapore:51%, Finland:43.8%, Australia:42.9%, United Kingdom:42.5% and Republic of Korea:29.3%) had a higher percentage of skilled human capital (10MP, 2010). This shows that the majority of the human capital in Malaysia has a low level of academic achievement and this also shows that there is a big gap for Malaysia to achieve a world-class level of human capital development. Based on a report by the Ministry of Human Resources (2011) related to job vacancies and job placements of graduates and non-graduates according to the types of industry in Peninsular Malaysia in 2012, it is found that; i) industries based on technical skills or engineering such as manufacturing, construction and repair of motor vehicles show the highest job vacancies compared to the other industries; and ii) the number of the job vacancies increased from January until March 2012. However, the vacancies were filled only by a small number of employees. This raises a question of where about the other job registrants in the situation where the number of job seekers are increasing and there are still job vacancies in most of the industries (Ministry of Human Resources, 2012)

Nasrudin (2004), stated the eleven factors that lead to the unemployment problem among the graduates are the relationship between capital intensive economy, a rapid increase of graduated workforce, lack of the relationship between educational institutions and the industry, lack of training for work preparation, rapid increase of the population rate and rapid decrease of the mortality rate, educational development, economic recession, quality of education, capability of graduates, and the graduates' skills and personalities. Based on the Economic Planning Unit of the Prime Minister's Department (2011), it is revealed that there are a few issues that make TVET a not popular choice among Malaysian students. The issues include; i) the technical and vocational areas do not provide a clear working path to the student; ii) unattractive range of salaries; iii) too many skills training centers with different standards and; iv) training centers that operated not at a maximum state.

Besides, from the aspect of the training centers and the industry relationships, it is revealed that the skills needed by the industries are not parallel with the curriculum provided in skills training centers. The industries also do not give full support and recognitions to skills training centers. In addition, there is no specific platform available for the industry and the skills training institute to discuss on the suitable skills needed by both of the parties. There is also lack of apparent initiative, which is done in order for the industry to get in touch with the skills training centers. Consequently, these problems lead to the production of graduates from the skill training centers, whom do not fit the standard of an occupation. This also leads to the unemployment problem among the graduates, especially among the technical graduates.

2.2 Competencies of Technical Graduates

According to Palan (2003), competency consists of five characteristics which are knowledge, skills, self-esteem, attitudes and motivation in doing a task. This study focuses on two types of competency, which are technical skills and employability skills. Rosa (2000), defines technical skills as the skills associated with the procedures, methods or techniques. While according to Mohd Yusof and Seri Bunian (2009), employability skills can be called with other names such as non-technical skills, generic skills, soft skills, key skills and core skills. Technical skills need to be mastered by the graduates since it is the base that allows the graduates to be employed in the industry. Dacre Poll dan Sewell (2007), stated that employability skills are referred to a set of skills, knowledge, understanding and personality of an individual that qualifies the individual to choose and be successful in a work.

Mahyuddin and Norrafidah (2010), in their study related to the selection of engineers based from the employers' perspective found that most of the employers are concerned with employability skills such as creativity, innovative, problem solving, cooperation, information management and entrepreneurship, in the process of selecting engineers. Based on a report by Final Report Engineering and Technology Labour Market Study among Engineers Canada and Canadian Council of Technicians and Technologists (2009), it is found most of the engineering graduates have no problem in terms of technical skills and employers are satisfied with the level of technical skills of the graduates. However, these graduates have problems in terms of non-technical or employability skills such as communication skill, project management skill, team working and entrepreneurial skill. This is also depicted in a study by Syed Hussain (2008), in which he revealed that almost 62.3 % of the technical graduates are unemployed due to the lack of employability skills compared to the technical skills.

A study conducted by Akmarya Syukhairilnisah (2005), found that graduates of Public Skills Training Institutes are less competent in using new technologies while performing a given task. Mastering technology skill is one the important technical skills and it is an asset for graduates, which would enable them to work in the industries. Azami (2008), mentioned that most of the employers agreed that elements such as ability to apply knowledge related to engineering field into real situation, highly competent in applying practical skills that are engineering oriented, and able to solve problems that are related to engineering field are the important elements to technical skills and need to be mastered by engineering graduates. Employability and technical skills are indeed important criteria among graduates, which would enable them to get a job. Besides, Yahya (2004) mentioned that a qualified worker is a worker, who do not only has technical skills but also has employability skills.

2.3 Quality of Education in Technical Field

According to Ashraf and Ibrahim (2009), the quality of education is difficult to measure and it is defined as the students' learning outcomes from educators and institutional environment itself. Quality in education is necessary to achieve customers' satisfaction. Students as customers are entitled to a good quality of education and they have the right to assess to an educational institution (Roselena, 2007). Hoy and Miskel (2005), pointed out that the factors that influence effective education institutions are leadership, quality of curriculum, classroom climate, achievement-oriented, effective learning time, structured teaching and the recognition of success. There are five standards in quality of education in Malaysia set by the Ministry of Education (2010), namely; the leadership and direction, organizational management, curriculum, co-curricular and sports, student affairs, teaching and learning process and student excellence.

According to Harvey (1993), a study conducted by the project of *Quality in Higher Education* found that the quality of teaching, the content of the program, the evaluation by the trainers are key factors affecting the educational quality. This research is focused on the educational quality in terms of curriculum studies and teaching and learning. According to Tang (2002), the evaluation of teaching effectiveness is the main approach in measuring the quality of teaching and learning. Marsh (1987) also stated that measuring the effectiveness of teaching involves various dimensions of constructs for instance the lecturers' willpower, course content, organization, scope of interaction, coverage of course content and assessment.

Deputy Human Resources Minister Datuk Abdul Rahman Bakar at that time also said that the major contributor to the unemployment among graduates is the failure to match educational syllabus or curriculum with the requirements in job market (Utusan Malaysia, May 18, 2005). The component of curriculum and subject in university is not in line with workplace literacy required by the industry. This problem affects the graduates' employment as they are unable to obtain a job that suits their skills and abilities as well as hinder them from being competence workers. A graduate tracer study (2004) revealed that the curriculum for teaching and learning in the Polytechnic did not aid the students in mastering language and technology skills. The students also argued that the contents of the program taught in classroom was less relevant with the skills required in the workplace.

A study conducted by Soo Wee Leng and Jumayah (2001) found that the curriculum offered by Vocational Institutions is not in accordance with the demands of industry resulting in lack of skills from post-vocational students in meeting the needs of the industry. This contributes to the arising problems among graduates as they are unable to apply what they have learned in their job and cannot adapt to the new working environment. In addition, a study conducted by Zalina, Zainol & Norkisme (2011) on students' perceptions related to quality of tertiary education in engineering found that most students showed moderate satisfaction with the learning aspect of the institutions. They also stated that aspects like infrastructure need to be maintained, a complete series of computer's information, laboratory equipment and workshop should also be upgraded regularly in order to produce the necessary improvement in the quality of teaching and learning in engineering. Moreover, the quality of the lecturers is an important factor in determining the quality of the students who graduated from a certain place of training or learning institutions. Lecturers are not only responsible for the daily tasks in educating but also need to portray good behavior as they will be an example and role model to the students (Nur Zakiah Hani and Masnora, 2011).

3.0 METHODOLOGY

This study is a qualitative study involving semi-structure interview. This study involved eight respondents. The respondents are lecturers who are teaching at the universities, lecturers who are teaching at the Public Skills Training Institutes in Malaysia as well as employers in the industry area. Researchers have selected respondents through purposive sampling, where researchers identified individuals who have access to information in accordance with the phenomenon of the study (Merriam, 2009).

4.0 RESULTS

The results showed that majority of the respondents agreed that the graduates' competency and quality of education (including curriculum studies and teaching and learning) are the main factors affecting the problem of unemployment among graduates of technical.

4.1 Competencies of Technical Graduates

Results showed that majority of the respondents agreed that a lack of technical skills and poor employability skills is one of the factors that contribute to the problem of unemployment among graduates in technical fields. This is reflected in the statements below:

"Technical skills are considered an asset to the graduates. If they could not master the skill, how they are going to work? Most of the students understand what have been taught to them but they would forget about it the day after." (Aminah)

"Technical skills, which are important, include aspects related to wiring, choosing equipment, maintaining equipment, identifying damage and fixing damage." (Suhaimi)

"Employability (skills), which are important, are self-discipline, has the knowledge on many things, leadership, entrepreneurship, students' attitudes that do not care about fines and ineffective time management." (Nora)

"Employability skills, which are important, are communication, teamwork, ethics and entrepreneurship. The employers are not looking at skills certificates." (Suhaimi)

"Employability skills are essential to retain the jobs. (This includes) communication, body language and commitment." (Syiris)

4.2 Quality of Education in Technical Field

The results showed that majority of the interviewed respondents agreed that the curriculum of teaching and learning is an aspect of educational quality and it gives a great impact on the problem of unemployment among graduates of technical fields. This can be seen in the list of statements below:

"Curriculum gives less exposure to the real working environment and not in accordance with current developments." (Suhaimi)

"Every curriculum developed should meet the requirements and in line with industry needs." (Nora)

"The curriculum needs to be improved by creating links with the industry". (Ramlan)

"The present lecturers have inadequate experience, less exposure to the industry, lack of competence and some are not interested in the field of work. Have problems in teaching's techniques." (Suhaimi.)

"Most of the new lecturers have lack of skills in terms of teaching methods, classroom control, lecturers have to change and need exposure to the industry to be able to command higher skills, lecturers need to become pioneer and find new ideas." (Ramlan)

5.0 DISCUSSION AND CONCLUSION

Education and training is a learning process that is designed to change attitudes, improve knowledge and skills of the individuals in order to produce high personal or career performance. On the aspect of competency, the findings of this study focus on two competency skills that are technical skills and employability skills, which contributed to the problem of unemployment among technical graduates. The findings showed that majority of respondents agreed that most of the graduates of technical have series of problems. Among the problems faced by the graduates are having difficulty in applying what they have learned in Public Skills Training Institutes and Institutes of Higher Education with a real job situation and having a weak mastery of employability skills such as time management skills, poor self-discipline, lack of communication skills especially in English and do not have leadership qualities.

Rahmah and Lai Wei Siang (2011), mentioned that one of the factors that contribute to the unemployment problem among the Malaysian graduates is the quality of the graduates. There are employers in the industry, who gave negative comments on the graduates and mentioned that the graduates do not have the suitable skills and qualifications, which meet the needs of the industry. Ahmad Rizal *et al.* (2008) also noted that most of the graduates of various skills training centers fail to put themselves in the workplace due to their employability skills that do not match or do not meet the job requirements. This matter is a regret because the inability for the Malaysian graduates to fulfill job vacancies in Malaysia resulting in the hiring of foreign workers. Technical and employability skills become the main factors for a graduate to get employed. Therefore, it is important to include elements of technical and employability skills across the curriculum for each of the technical or engineering field of study offered at Public Skills Training Institutes and Institutions of Higher Learning.

Meanwhile on the aspect of the quality of education, the results show that curriculum employed by the technical studies and teaching and learning that focuses on the lecturers' teaching is also a contributing factor to the unemployment problem among graduates of technical fields. Ismail (2012), argued that the quality of education depends on exemplary teachers, the use of reference materials and a conducive environment (infrastructure, social, location, etc.) that contribute towards the construction of admirable character and excellent academic achievement. A research by the National University of Malaysia (2007), reported that employers and curriculum on industry in Institutions of Higher Learning should be redesigned because they found that most graduates do not have a satisfactory level of job competency.

In addition, the findings also show that each lecturer in higher education institutions should be given intensive training and continuous education courses in order to increase their level of skills or competence in line with the changing technology and the addition of new information. A field of study offered by the education and training must meet the requirements of the employer or the job market to ensure that the program gain recognition by all parties. Bracey (2006), stated that it is difficult to know what the appropriate skills required by employers in the industry. Therefore, the employer should work together and cooperate with the learning institutions in providing any information related to the world of education. Overall, effective skills training will produce graduates with high level of education and skills before they enter a working field.

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