CAREER MANAGEMENT COMPETENCY AMONG TECHNICAL STUDENTS: IS DIFFERENCE BETWEEN COURSE FIELD AND UNIVERSITY

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Abstract

Purpose of Study: Challenge to place themselves in jobs, require graduate that have high competency in career management to compete and fulfill the human resource demand. Thus, this research is to find the different technical student in their career management competency between courses field and university. Samples are final year students from Universiti Tun Hussein Onn Malaysia (UTHM) and Universiti Teknikal Malaysia Melaka(UTeM), with sample size (n), are 581. A questionnaire was used as the instruments to measure the career management competency among students. The data were analyzed using an independent t-test and One Way ANOVA to answer the research questions. The finding revealed there is a significant difference in career management competency between students’ courses field, p < .05 and university, p < .05, with mean difference value =0.13. The implication of this study can give a positive picture to the student how to manage their career own then right path.

Methodology: This study uses a quantitative approach by using survey method to answer the question of the study. The purpose of this study was to involve the views and perceptions of respondents about the career management competencies to identify the difference career management competency based on the course fields and among the final year of Engineering Technical University students.

Results: The data obtained through this study were analyzed using the Statistical Package for Social Sciences (SPSS) version 20.0. Table 1 shows the total distribution of 581 students by the university. Table 2 shows the mean score of career management competency based on seven-course fields namely FKMP, FKEE, FKAAS, FKE, FKEKK, FKP, and FKM.

Implications/Applications: This research was conducted based on the need to review the competency to manage a career in technical university engineering students. The need to review the career management competency by identifying the differences based on career fields and universities among final year students of Engineering Technical University is based on the lack of research in the relevant field.

Keywords: Career Management Competency, Vocational training, Competency model, Technical education, Anova

INTRODUCTION

Rapid changes of globalization have made labor needs advanced as one of the main agendas of the country towards the country’s development through the vision and mission of the country namely ‘Wawasan 2020’ in achieving better standards of developed countries by 2020. Thus, in an effort to reach the level of developed countries, a number of things need to be taken by certain pillar attention which is the firstly the addition of labor in fields related to engineering and Polytechnic and secondly the addition of the educational institutions of engineering and Polytechnic (Nordin, 2011).

The transformation of education is in line with national higher education strategic plan in transforming education and training towards the production of human capital that has a first-class mentality and to meet market needs. The Government, through the Ministry of Education (MOE) has developed the national higher education strategic plan (NHESP) with seven cores which is expanding access and increasing equity, improve the quality of teaching and learning, empowering institutions of higher learning, towards strengthening research and innovation, strengthen the delivery system of MOE, empowering institutions of higher learning, intensify an internationalization and cultivate the life-long learning. (Parvizian et al., 2015; Rusmin, 2010).

The large allocation has been given to public education institutions to upgrade and finance the program development and
give jobs to the potential, capable and skilled graduates. According to the data released by the national economic action Council, there are five factors why graduates are difficult to get employed. The five factors are less skillful and no work experience, the field of study does not meet the requirements of the industry, limited communications capabilities especially in English, lack of awareness of the existence of various job vacancies as well as negative attitudes towards graduates' jobs selection.

Career management skill of each individual claims the personal ability to change quickly according to the current needs, focus on qualities, creative and always have a responsibility towards their work. Individuals who know how to manage his career will be more confident in a new work environment (Rasdi et al., 2009). This is because the industry environment now has become complex, especially the impact of changes in technology and the economy. Jobs now require a variety of ability, skill, and knowledge. This indirectly gives the implications at the individual as graduates of the university. The individual will be faced with less experience in mastering technologies in the current market (Abdul et al., 2008). The objectives of this research are to compare:

1. managing competencies based on university
2. managing competencies based on student’s course fields

Although there are thousands of job options, the selection process is very difficult. There are many reasons for the difficulty in selecting the individual’s career interests in diverse fields. It is unable to assess his / her ability and personality well and lacks the knowledge and information regarding the career to be chosen. (Rohana et al., 2010).

MODEL OF CAREER MANAGEMENT COMPETENCY

Based on the research done by (Bridgstock, 2005) it was mentioned that the competency in managing the career is the main key to develop and design the country’s economy in the borderless world challenges. In the career management model, there are two constructions i.e. the self-management skill and career development skill which are the catalyst to the certain discipline skill and individual generic skill as shown in Figure 1.

![Figure 1: Career Management Model Competency](image)

METHODOLOGY

This study uses a quantitative approach by using survey method to answer the question of the study. The purpose of this study was to involve the views and perceptions of respondents about the career management competencies to identify the difference career management competency based on the course fields and among the final year of Engineering Technical University students. This method was chosen because it was able to explore the issues of career management competency. Descriptive statistics such as min and statistical inferential such as independent t-test and one-way ANOVA was used to analyze and explain the issues of study.
Population and Sample

The population for this study was the final year students for courses in engineering at UTEM and UTHM. Determination of sample size for this study was based on the calculation proposed by (Bartlett et al., 2001) using formula (William, 1977). Based on the calculation of sample size, the numbers of students required as the sample were a total of 581 people.

Research Instrument

A questionnaire was carried out among 581 students as a respondent. The rational selection of this sample because they are final year engineering students who meet the demands, needs, and wishes of the study to be carried out. All the respondents are the final year students and of the same age. They are also students who have gone through learning at the university for at least four years and were taught about the career management skill by lecturers. (Khalil et al., 2015)

Data Analysis

Data analysis uses descriptive and inferential analysis. In this study, a descriptive analysis was used to describe information such as a university, courses, a selection of courses followed and aspirations respondents. The inferential analysis used an independent t-test and one-way ANOVA.

RESULT

The data obtained through this study were analyzed using the Statistical Package for Social Sciences (SPSS) version 20.0. Table 1 shows the total distribution of 581 students by the university. Table 2 shows the mean score of career management competency based on seven-course fields namely FKMP, FKEE, FKAAS, FKE, FKEKK, FKP, and FKM.

Table 1: of students based on respondents.

| Respondents | FREQUENCY (N) |
|-------------|---------------|
| UTHM        | 298           |
| UTEM        | 283           |
| TOTAL       | 581           |

Table 2: Mean score of career management competency by course field

| Course Fields | Mean Score |
|---------------|------------|
| FKMP          | 4.11       |
| FKEE          | 4.19       |
| FKAAS         | 4.08       |
| FKE           | 4.02       |
| FKEKK         | 3.94       |
| FKP           | 3.94       |
| FKM           | 3.92       |

The data analysis from Table 3 shows the existence of a significant difference in statistic based on the specialization that is between FKEE with FKEKK, p < .05 and FKEE with FKP, p < .05. While other areas showed no significant difference.

Table 3: Post Hoc Tukey HSD Test

| Course Fields | Sig. Value |  |  |
|---------------|------------|  |  |
| FKM           | .920       | No significant difference |
| FKEE          | .697       |  |  |
| FKAAS         | .205       |  |  |
| FKE           | .038       | There is a significant difference |
| FKEKK         | .040       |  |  |
| FKP           | .160       | No significant difference |
Table 4 shows the results of data analysis of the two universities. Results of data analysis showed there is a significant difference in statistic between UTHM and UTEM in career management competency with the value, p < .05 despite differences between mean were small, with the difference mean value, .013.

| University | Mean Score | Sig.Value | Mean Difference |
|------------|------------|-----------|-----------------|
| UTHM       | 4.12       | .01       | .013            |
| UTEM       | 3.99       |           |                 |

FINDINGS AND DISCUSSION

The difference in career management competency based on course fields and universities among final year students of Engineering Technical University were analyzed. The findings of this study showed that there is a significant difference between the career management competency by course fields. The outcome of the studies shows there is a difference between the students of the Faculty of electrical engineering and electronics (FKEE, UTHM) and the Faculty of electronic engineering (FKEKK, UTeM) and the Faculty of manufacturing engineering (FKP, UTeM). The study by (Rashid and Rashahidi, 2005; Salleh, 2010) which states that the selection of the fields has a relationship and a strong regression to the competency of the individual career. Students career management competency depends on the students’ selection area of specialization. This is because each area of specialization taken by students is given the application of the same to the skills of managing a career but differentiated according to areas of specialization. (Kassim, 2008; Rasul et al., 2009). For example, each specialization has a compulsory subject that must be taken by different students to pass as the subject of entrepreneurship and soft skills. The findings show, there are significant differences in the career management competency between UTHM and UTeM. This outcome is in line with the results of a study conducted by (Khalil et al.2015; Neustroev et al. (2016)) that the performance of a university is always measured based on the competencies of the students. Although both universities show the level of competency to manage their career was high among students, differences between the two universities still remain. This is because, every university has a different mission, vision, and goals. The study by (Ameen et al., 2018; Burgos et al., 2018; Dalir et al., 2014)also states that, in reality, there is no specific model used in the strategic planning of an institution of higher education.

CONCLUSION

This research was conducted based on the need to review the competency to manage a career in technical university engineering students. The need to review the career management competency by identifying the differences based on career fields and universities among final year students of Engineering Technical University is based on the lack of research in the relevant field. In addition, there are statistics issued by CARE, UTHM, and PJİM, UTeM stated that this University engineering graduate employability is just moderate. Every year there will be an increase in graduates who have completed their studies. A graduate who finishes their studies is not promised to get jobs. Most of the graduates had to find their own career opportunities to get the job that fits their field during their study at the University. In order to obtain a good job, they had to compete with other graduates have the same academic excellence. On the other hand, for those who lack in career management competency, they have difficulties in finding career opportunities because of the lack of self-efficiency to survive like everyone else. Therefore, the importance of career management skill as an added value which allows a person the individual selected to get secure jobs and fits with their skills.

Conclusions from this study indicate student’s career management is also in line with the expectations of researchers who will be more likely to manage a career in the same field as the course taken during their studies. Based on the experience of researchers itself, although students venture into the field of study that is not their interest, the students will do their best to receive and love their field of study. This is because the interest and love of the course can be nurtured through a variety of ways, including the role of the lecturer can attract students to continue their studies.

Once interest has been cultivated, it will make students planning to venture into the field more profoundly and this will make them choose to work in the same field. The researcher found that over 80% of students were more likely to work in the same field as the courses taken during their studies. These finding can be used by the university to help students learn more about a career that will be their future undertakings.
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