

Career Self-Efficacy among Undergraduate Student in a Public University

Efikasi Kendiri Kerjaya dalam Kalangan Pelajar Ijazah Pertama di Universiti Awam

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ABSTRACT

Career readiness among university students including careerplanning, choosing and making career decisions. This study aims to identify the career self-efficacy among first-degree students and to measure the differences between education field clusters and gender. This study uses survey design to identify the student's career self-efficacy pattern. 1391 first-degree students involved as sample in this study. Instrument used in this study is Career Decision Self-Efficacy (CDSE-SF). Data was analysed descriptively, t-test and one-way ANOVA. Results found that career self-efficacy level was low (1.5%), moderate (37.1%) and high (61.4%). One-way ANOVA analysis shows that there are no significant differences between science and technology, health and medical science, and social science [$F(2,1388) = 2.81, p > .05$]. While t-test found that there are no significant differences between gender [$t = -1.539, p > .05$]. This study implies that first-degree students that have low and moderate level career readiness needs appropriate intervention. Implication of this study to develop career profiling and build a career intervention programs based on needs of the students. Also the important of career counsellor in university to enhance graduate employability rate through a systematic career development programs. Future study needs to focus on the career intervention that improves career readiness among students. And also focus on longitudinal study to comparison of the few batches of the undergraduate students.

Keyword: Career readiness; career self-efficacy; first-degree students; education field cluster; gender

ABSTRAK

Kesediaan kerjaya pelajar university melibatkan perancangan, pemilihan dan membuat keputusan kerjaya. Kajian ini bertujuan untuk mengenal pasti efikasi sendiri kerjaya dalam kalangan pelajar ijazah pertama. Di samping mengukur perbezaan efikasi sendiri kerjaya antara gugusan pengajian. Menggunakan reka bentuk kajian tinjauan bagi menentukan tahap efikasi sendiri kerjaya pelajar. Seramai 1,391 orang pelajar ijazah pertama terlibat sebagai sampel kajian. Instrumen yang digunakan adalah Career Decision Self-efficacy (CDSE-SF). Data dianalisis secara deskriptif, ujian t dan ANOVA sehalu. Dapatan kajian menunjukkan tahap efikasi sendiri kerjaya berada pada tahap rendah (1.5%), sederhana (37.1 %) dan tinggi (61.4%). Di samping analisis ANOVA satu hala menunjukkan tidak terdapat perbezaan signifikan antara sains dan teknologi, sains kesihatan dan perubatan dan sains sosial [$F(2,1388) = 2.81, p > .05$]. Sementara ujian t mendapati tidak terdapat perbezaan antara jantina [$t = -1.539, p > .05$]. Implikasi kajian menjelaskan bahawa pelajar ijazah pertama mempunyai tahap kesediaan kerjaya rendah dan sederhana yang memerlukan intervensi yang bersesuaian. Disamping, peranan kaunselor kerjaya di university dalam meningkatkan kebolehpasaran graduan dengan melaksana program pembangunan kerjaya secara sistematik. Cadangan kajian lanjutan hendaklah memberi fokus terhadap kajian intervensi kerjaya bagi meningkatkan kesediaan kerjaya dalam kalangan pelajar; dan juga menjalankan kajian perbandingan antara tahap pengajian pelajar.

Kata kunci: Kesediaan kerjaya; efikasi sendiri kerjaya; pelajar ijazah pertama; cluster pengajian; jantina

INTRODUCTION

Career development of university students in this 21st century emphasizes technological skills in knowledge, skills and abilities of graduates to meet the needs of the job market (Othman, 2016). The job market requires graduates who are competent and skilled in their respective fields (Ishak et al. 2008; Muhammad Hazrul 2012). Thus, this determine the graduates that meet the needs of the market measured

by the extent to which university graduates get jobs after graduation. Benchmarking of universities to produce graduates who are competent and highly skilled will affect the national policies (Zailan 2007). Based on the present situation, it has been recognized and certified graduates produced lack of knowledge and skills required by the job market (Institut Penyelidikan Pendidikan Tinggi Negara 2003). The issue of unemployed graduates and graduates looking for work be an obstacle to the

university and industry players to jointly find a solution (Zaini 2009).

Career counselling in this 21st century focuses to the importance of individual competency that determine the career one will venture into in the future. Looking at the current working world that is getting more challenging, career opportunities are decrease and specific skills are needed. In the World Economic Forum, 10 skills that were proposed as needed in order to obtain career opportunities in this 21st century are complex problem solving, critical thinking, creative, human management, emotional intelligence, human coordination, decision making, service orientation, negotiation and flexible thinking (Green & Staff, 2012). These skills are needed in this century to maintain adjustment and job satisfaction with increasing productivity. Thus, specialization and specific skills that are needed in this 21st century have to be instilled in one to help students to apply for current career opportunities which are limited. Besides, each individual has to be creative and competitive in order for them to get a job and salary to continue their living.

Previous studies found that undergraduate students at the university have low and moderate career self-efficacy (Zalizan et al. 2013; Mohd Izwan et al. 2019b), pre-university students also have moderate entrepreneur self-efficacy (Rosna Mohamad & Norasmah Othman (2018). Career self-efficacy influenced individual's ability to make career choices that are appropriate taking into account factors that affect career development such as family, organization, social and economic (Reardon et al. 2012; Sampson et al. 2013). Therefore, career self-efficacy is a capacity and capability of university students in providing themselves with career planning and systematic exploration. The concept of career self-efficacy is also defined as the individual's ability to consider their capability to organize and implement the course of action required to achieve the desired goals. Not only has the skills and knowledge related to career, but also able to make judgments about what to do based on the knowledge and skills possessed (Bandura 1986).

CAREER SELF-EFFICACY

Self-efficacy is explained by social cognitive theory that explains individual confidence towards ability to organize and implement the cognitive, behavioural and social skills necessary for success on a task (Bandura 1986; Lent et al. 1994). Comparatively,

career self-efficacy is needed to determine the extent of the impact on career decision-making process (Komarraju et al. 2013; Sidiropoulou-Dimakakou et al. 2012) low career self-efficacy tend to have a career malfunction thinking (Andrews et al. 2014). High self-efficacy can explain individuals who have confidence in completing tasks and tend to make career exploration. While low self-efficacy has to do with lack of confidence in making career decisions and tends to prevent career activities (Komarraju et al. 2013). Thus, high self-efficacy are capable of making an informative career decision, responsible for taking action on the decisions and execute career tasks through appropriate training and programs (Sidiropoulou-Dimakakou et al. 2012).

Gysbers (2013) have identified six career readiness skills which are social efficiency, various skills, positive work attitude, personality and emotion, and entrepreneurship. Besides, Lombardi, et al. (2012 and Conley (2011) defined career readiness as knowledge, skill and learning strategies at the beginning of learning/training context in career pathway including readiness to work, basic job training about attitude at workplace and specific knowledge. However, career readiness is the cognitive strategy such as ability to interpret, problem solving and ability to make decision (Bullock-yowell et al. 2012).

Self-efficacy is a ability of the individual to make assessments, structure and implement needed action plan in order to achieve the aim based on possessed skills (Bandura, 1986). Self-efficacy plays a major role in individuals through believes to function, be motivated, levels of effectiveness and act based upon what they believe objectively and in reality by correcting their early perceptions supported by existing knowledge and skills. High self-efficacy describes individuals with confidence in completing career tasks and ability to make a career decision. However, low self-efficacy is show the individuals lack of confidence in making a career decisions and lacking career behavior seeking (Komarraju et al. 2013).

The application of SCCT theory in the aspect of career started early 1994 (Lent, et al. 1994). This theory was produced by widening the social cognitive theory that was introduced by Bandura and developed by Lent, Brown and Hackett (1996) which covers the academic and career fields. The concept of this theory is that individuals make career decisions by personality, experience and environment. This theory combines self-efficacy believes, expectation

of effect and self-expectation as well as learning factors in order to explain academic achievement and career selections of an individual (Brown & Lent, 1996). According to this theory, personal career is influenced by four crucial elements which are behaviour, self-efficacy beliefs, expectation of effect and aim. Apart from that, aspiration and career development of an individual are also influenced by those factors. Career self-efficacy is the confidence of the individual towards their ability to plan and implement cognitive, behaviour and social skills that are needed to succeed a task (Bandura, 1986).

Previous studies shown university students have low and moderate career self-efficacy (Zalizan et al. 2013; Mohd Izwan et al. 2019b). In this context, university students' career readiness is measured based on the career self-efficacy. These factors affect oneself in terms of career development (Hirschi 2015). Career readiness is also affected by external factors such as family, social, economy and organization. There are students who are in education course not self-chosen but due to other factors such as parents, family following peers, qualification and academic qualification in secondary school (Fan et al. 2014).

Previous studies also found that many students have low self-confidence towards their self-ability to success in academic and execution of tasks in career they wished to get involved into (Te Tie Seng et al. 2019). In addition, level of career maturity, career self-efficacy and career decision making ability among respondents were moderate and low (Ishak, et al. 2008). There are also students who experienced low self-confidence to make career decision by themselves and poor self-efficacy caused difficulty to look the tasks of the career one would like to involve. These factors contribute to the graduate's inability to make career decision because of the negative career thoughts (Institut Penyelidikan Pendidikan Tinggi Negara (2003).

In this research, the career self-efficacy of the university students are related to their ability, confidence and beliefs regarding career planning including career selection, career decision making and responsibility towards made decision. Related studies showed that career self-efficacy is crucial towards the career development of an individual. Researches on self-efficacy with other variables were such as self-appreciation (Norida et al. 2014); dysfunctional career thinking (Sidiropoulou-Dimakakou et al. 2012) career dissatisfaction (Chang & Edwards 2015) and other variables

(Gore, 1996; Restubog, Florentino, & Garcia, 2010; Hsieh & Huang 2014; Andrews et al. 2014). Thus, individuals with high self-efficacy are able to informed career decisions, be responsible by taking actions towards made decisions and implement career tasks by attending suitable trainings and programs (Sidiropoulou-Dimakakou et al. 2012; Andrews et al. 2014).

RESEARCH OBJECTIVE

This study aimed to examine the construct of career self-efficacy among undergraduate students. Three objectives were proposed in this study.

1. To identify the level of career self-efficacy among undergraduate students at public university.
2. To examine the difference between education cluster with career self-efficacy.
3. To examine the difference between gender with career self-efficacy.

RESEARCH METHODOLOGY

This study used a combination of descriptive and comparison design study. Descriptive study aimed to get the mean score, standard deviation and level of career self-efficacy variables. While comparative study designed to measure the differences of gender and education cluster of career self-efficacy. The sample involved is a total of 1,391 undergraduate students at the National University of Malaysia who are divided into three clusters which are science and technology ($n = 247$), health and medical science ($n = 252$) and social science ($n = 892$). This study uses the instrument of Career Decision Self-Efficacy-Short Form (CDSE-SF) to measure the career self-efficacy variables. Data was analysed descriptively to identify the normality of sample, mean, standard deviation and level of variables involved. In addition, the used of one-way ANOVA to measure the difference between education cluster in career self-efficacy. Also used of t-test analysis to measure the difference between gender in career self-efficacy.

CAREER DECISION SELF-EFFICACY – SHORT FORM (CDSE-SF)

CDSME inventory is an inventory built by Betz, Klein and Taylor (1996). However, CDMSE was changed to Career Decision Self-Efficacy Scale-

Short Form (CDSE-SF) by Betz and Taylor in 2006. This questionnaire consists of 25 items which was modified from the original 50-item sub-scale and self-efficacy which includes five sub scale (i) self-appraisal, (ii) occupational information, (iii) goal selection, (iv) careerplanning, and (v) problem solving. The scoring for CDSE-SF uses five-point Likert scale where each question was given five-dimensional scale which are (1) – (Extremely Not Confident) to (5) – (Extremely Confident). The mean score interpretation are 1.00 to 2.33 (Low), 2.34 to 3.66 (Moderate), and 3.67 to 5.00 (High) proposed by Betz and Hackett (2006), Betz, et al. (2005), and Betz, et al. (1996).

CDSE-SF have high stability of validity for study results that have been conducted on students’ sample in Australia and Africa among various ethnic groups. Test validity conducted by Luzzo (1996) found significant positive correlation between test Career Decision-Making Attitudes and CDSE-SF ($r = .41$). Students with high scores for career decisions attitude also have a high score for CDSE-SF. Similarly, a study conducted by Chung (2002) on gender and race differences in making a career self-efficacy and career commitment among postgraduates. Results showed that there were significant differences between CDMSE-SF and Career Commitment Scale.

Taylor and Betz (1983) reported that the reliability of the total score obtained for Cronbach alpha was .96 while Alpha value for the five subscales were between .86 to .89. Luzzo (1996), reported the test retest reliability in six weeks showed the coefficient score .83; Betz and Taylor (2001) .83; Mau (2001) .83; and Gaudron (2011) .81. Meanwhile, according to Zalizan et al. (2013) used the same instruments in a Malay version were conducted a pilot study on 94 students involved two schools, public and private higher institutions have found the value of Alpha Cronbach was .92. While Buyukgoze-Havas (2013) conducted a reevaluation of the CDSE-SF on a total of 695 university students in Turkey and found that CDSE-SF value of Alpha Cronbach was .92, self-appraisal .74, occupational information .61, goal selection .81, planning .72, and problem solving .68. Analysis of back-to-back test conducted on 52 sample in two weeks, and the stability coefficient is .91. While convergent validity was performed on the CDSE-SF with the Generalized Self-Efficacy Scale (GSES), the correlation between

the two tests was positive .65 ($p < .01$). Furthermore, pilot test using the Malay version of CDSE-SF was done on first degree student population and the reliability coefficient value of career self-efficacy to be .911, and range of sub scale is .561 to .797 (Mohd Izwan, et al. 2019)

FINDINGS

The findings are categorized to two parts which are descriptive analysis related to level of career self-efficacy and inferential statistics related to the career self-efficacy with education clusters and also gender differences.

CAREER SELF-EFFICACY BASED ON EDUCATION CLUSTERS PROFILE

Table 2 shows the distribution of respondents according to the education clusters. This study involved 1,391 undergraduate students of National University of Malaysia. A total of 17.8% of respondents ($n = 247$) from science and technology, 64.1% of respondents ($n = 892$) from social science, and 18.1% of respondents ($n = 252$) from health and medical science.

TABLE 2. Distribution of respondents according to education cluster

Education Cluster	Number	Percentage
Science and Technology	247	17.8
Social Science	892	64.1
Health and Medical Science	252	18.1
Total	1391	100.0

LEVEL OF CAREER SELF-EFFICACY

Table 3 shows the results of the descriptive analysis of the variables career self-efficacy (low 1.5%, moderate 37.1%, high 61.4%). Career self-efficacy is divided into 5 sub-scale which are Self-Appraisal (low 1.6%, moderate 46.7%, low 51.8%), Occupational Information (low 1.7%, moderate 33.7%, high 64.6%), Goal Selection (low 1.8%, moderate 32.4%, high 65.9%), Career Planning (low 3.3%, moderate 38.1%, high 58.6%), and Problem Solving (low 1.7%, moderate 41.9%, high 56.4%). This finding shows that most of students have moderate and high career self-efficacy.

TABLE 3. Level of Career Self-Efficacy

Category	Career Self Efficacy	Self-Appraisal	Occupational Information	Goal Selection	Career Planning	Problem Solving	
Mean	3.80	3.71	3.88	3.88	3.79	3.76	
SD	0.62	0.62	0.65	0.64	0.70	0.62	
Level	Low	1.5%	1.6%	1.7%	1.8%	3.3%	1.7%
	Moderate	37.1%	46.7%	33.7%	32.4%	38.1%	41.9%
	High	61.4%	51.8%	64.6%	65.9%	58.6%	56.4%
Alpha Cronbach	.953	.757	.803	.834	.848	.758	

$N = 1,391,$

Hypothesis 1, to examine there is no significant difference between education cluster of Science and Technology, Social Science, and Health and Medical Science Cluster with Career Self-Efficacy. As shown in Table 4, the results of one-way ANOVA which

found no significant difference between science and technology, health and medical science and social science education cluster for career self-efficacy variables [$F(2,1388) = 2.81, p > .05$]. Hypothesis 1 failed to be rejected.

TABLE 4. Statistical Analysis of One-Way ANOVA To Measure the Difference Between Career Self-Efficacy and Education Cluster

		Sum of Squares	df	Mean Square	F	Sig.
Career Self-Efficacy Mean	Between Group	1.536	2	.768	2.181	.113
	Within Group	489.001	1388	.352		
	Total	490.537	1390			

$p = .05$

Hypothesis 2, to examine there is no significant difference between gender with career self-efficacy. As shown in Table 5, the results of the t test which found no significant difference between gender and career self-efficacy variables [$t = -1.539, p > .05$].

This analysis also showed that male and female have the same mean where, male (Mean = 3.84, SD = .639), and female (Mean = 3.79, SD = .574). This score clearly describes both genders have high career self-efficacy. Hypothesis 2 failed to be rejected.

TABLE 5. t-test Difference Between Gender for Career Self-Efficacy

	Gender	N	Mean	SD	t	Sig.
Career Self-Efficacy	Male	416	3.84	.639	- 1.539	.124
	Female	975	3.79	.574		

* $p < .05$

DISCUSSIONS AND RECOMMENDATIONS

This study also shows that 37.1% of subjects have moderate level of career self-efficacy and 1.5% of subjects have low level of career self-efficacy. This finding is consistent with the tracking study data which shows the percentage graduate employability for 2016 and 2017 are 63.0% and 62.5% respectively (Kementerian Pengajian Tinggi 2016 & 2017). Career self-efficacy is an individual's confidence towards one's ability to make career decisions, including self-appraisal, occupational information, goal selection, career planning and problem solving. Comparatively, career self-efficacy are needed to determine the extent of the impact on career

decision-making process (Komarraju et al. 2013; Sidiropoulou-Dimakakou et al. 2012). This means that individuals who are at low and moderate levels do not have confidence and belief in themselves to do career activities (Mohd Izwan et al. 2019b). As a result, they may not be able to make career decision, inaccurate or uncertainty in making career decisions that will contribute to the low employability rates.

Besides, the findings indicate comparison between self-efficacy and education cluster has no difference except for the sub-scale of career planning where social science were better than health and medical science. However, in contrast to the study conducted by Mohd Izwan (2017) which found that generally students in social science cluster is better

than students in science cluster. Similarly, the mean scores between male and female has no differences, and this explains the implementation of career interventions can be carried out the same for both genders. However, different from studies by Zalizan et al. (2013), shown women are better than men in career self-efficacy. It shows the career self-efficacy can be enhanced through the involvement of students in vocational activities while at university. From this study, career self-efficacy for both genders are at high level and demonstrate the ability of students in making career decisions is high.

Based of the available discussions, career self-efficacy can assess the level of career readiness in the process of individual career development and this elements can be learned and improved through a systematic method (Andrews et al. 2014; Mohd Izwan 2017; Mohd Hakimie, et al. 2019). Usually, a systematic method of career development programs to help students improve their ability to make career decisions such as career fairs, resume clinics, job shadowing, mock interviews, career talks and others (Sampson et al. 2013).

This study assists career counsellor in university to use CDSE-SF instrument to understanding client, building profile and identify the needs of career interventions suitability that can be implemented. Practitioners can use a variety of counselling and psycho educational interventions to explore and identify the career issues faced by students in the early stages of their studies (Hirschi et al. 2015). Thus, through the identification of career profile in early years of education can help career counsellor at university to (i) understand the career issues faced by the students; (ii) understand the needs of students' career readiness by category; (iii) develop career intervention programs that are suitable with the student needs; (iv) execute assessment towards the effectiveness of career intervention carried out; and (v) monitoring of the effectiveness of the program through continuous evaluation.

In the public university context, there is a need towards appropriate career intervention to be run specifically with regards of psychological factors that contribute to graduate's employability (Mohd Izwan et al. 2019a). Clearly, the implication of this study towards the needs of career development program in university need the following (i) conduct phenomenal or issue studies that are happening among students; (ii) instil career and counselling theory application in development of module; (iii) tests validity and reliability of module/instrument; (iv) run module based on the appropriate population

or target group; (v) conduct continuous assessment towards each activity in the module; and (vi) continuous improvement towards the module/instrument. These elements are the implications for the career intervention needs that can be applied in career development program towards university students. In addition, career counsellor competency in university have to be improved especially related to the latest career theories, usage of instruments, and application of technology in career development program towards university students (Sampson, et al. 2013).

The implications for counsellor in university to develop career profiling and build a career intervention programs based on needs of the students. Career counsellors can use the instrument of CDSE-SF in career intervention programs and also in counselling sessions. While, further research should involve students from all public universities in Malaysia from different education clusters to understand the overall career readiness pattern of public universities undergraduates which explains the graduate employability rates. In addition, career counsellor competency in university have to be improved especially related to the latest career theories, usage of instruments, and application of technology in career development program towards university students.

CONCLUSION

Career self-efficacy is the important element that is needed to be given attention especially among the university students where the education process is between 3 to 5 years in university which will be evaluated after graduation with the employability and career availability being benchmark to the quality of a university. University graduates career development focused on the ability to make career decisions that have relationship with career self-efficacy level. Career self-efficacy is a factor that affects the career readiness including preparation of career planning with regard to value, talent and abilities including family, organization, social and economic factors. Therefore, to improve career readiness, students need to improve the level of career self-efficacy through self-involvement in career programs organized by respective universities such as resume writing, mock interview, career fairs, and others. Such programs could help students in the process of career planning while studying in university.

Psychological factors such as career self-efficacy is an aspect that need to be given attention to help students to improve self-confidence in organizing and systematic career planning process. This variable is a predictor to the student's career readiness improvement if appropriate intervention with the needs of students can be fulfilled. To realize this, the career counsellor's role has to be improved by running more comprehensive career development program that covers the student's need for each education level throughout their education process.

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