

The Differences of Career Self-efficacy in the Selection of Careers among Malay Students at International Islamic University Malaysia

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Abstract: This study was conducted to examine the link between career self-efficacy and career selections of university students. The study was also aimed to find out the differences of career self-efficacy in terms of gender and socio-economic status. The study was restricted to Malay students, and Malay is one of the main races in Malaysia. Participants selected for this study were undergraduate Malay students from different faculties at International Islamic University, Malaysia. The number of samples selected was 200, consisting of 100 males and 100 females. The instrument used in the study was designed by Bentz and Hackett (1981) and was adapted by the researcher to suit the Malaysian context. Data was analyzed using t-test and one-way variance. The result indicates significant differences in career self-efficacy in successfully completing the educational requirements and performing job duties of traditional and non-traditional careers with regard to gender. The result of this study also indicates that female students show higher career-self-efficacy for both traditional and non-traditional careers, compared to male students. The study also shows that students from high economic status reported higher career self-efficacy compared to students from medium and low socio economic-status.

Key words: Career self-efficacy, Gender, Socio-economic Status, Women's Career Choices

Introduction

Women's career choices have always been an issue as women tend to be engaged in traditional female sex-stereotyped occupations. Women's career choices are still affected by their sex and they would preferably select traditionally-dominated female careers such as teaching, or nursing. Although there are many women graduates in the working world, not many of them are choosing careers in scientific and technical fields. Women's career selection is shaped by the family, culture and feminine sex-typed experiences in childhood that have restricted their exposure for the development of self-efficacy beliefs in many careers especially non-traditional careers for women (Bandura, 1995).

Bentz (2000), states that traditional female socialization has also led to loss in sources of efficacy information to the development of strong self-efficacy with respect to male-dominated areas such as engineering and technology careers. It has been a concern among researches of the problem of the underutilization of women in higher status, usually male dominated occupations (Hackett, 1995). In this study, self-efficacy is believed to be a powerful predictor of career choices.

Self-efficacy Theory

Self-efficacy is defined as a person's beliefs and confidence concerning his or her ability to successfully perform a given task or behavior, Bandura as cited in Bentz (2000). In other words, beliefs in one's capabilities to organize and execute the courses of action required to a given behavior. Such beliefs in their efficacy influence the courses of action people choose to pursue, how much effort they put, how long they persevere in the face of obstacles, their resilience to adversity, whether their thought patterns are self-aiding or self-hindering, how much stress they experience in coping with taxing demands and the level of accomplishments they realize, (Bandura, 1995).

These efficacy beliefs are behaviorally specific rather than general. For instance in this study, career self-efficacy means one's confidence in his or her capabilities to meet educational requirements and perform job duties of a career successfully.

Bandura specified four sources of self-efficacy expectations which are learned and can be modified. The sources include:

- 1 Performance accomplishments which are experiences of successfully performing the behaviors in question. In relation to career self-efficacy, performance accomplishments are linked to the experiences of successful academic performance in relation to career choice;
- 2 Vicarious learning or modeling. In this study, vicarious learning is related to seeing and visualizing people similar to oneself perform successfully in a career;
- 3 Verbal persuasion which is encouragement and support from others. It is related to the expression of confidence in one's capabilities than doubt in relation to career choice;

- 4 Physiological arousal, for example, anxiety in connection with the behavior. In this case, it relates to stress and tension one experiences in reaction to their capabilities. If confidence of performing well in a career is increased, anxiety should decrease.

Research Questions

The self-efficacy theory is useful in understanding career choice. This study is to examine career self-efficacy as a predictor of selection of careers among female and male students of a university. The following research questions were formed:

- 1 Is there a significant difference in career self-efficacy in the selection of traditional or non-traditional careers among female students?
- 2 Is there a significant difference in career self-efficacy in the selection of traditional or non-traditional careers among male students?
- 3 Is there a significant difference in career self-efficacy in relation to socio economic status?

In order to answer the research questions the following null hypotheses were formulated.

Null Hypotheses

- 1 There is no significant difference in career self-efficacy with respect to successfully completing educational requirements and performing job duties of traditional careers for female and male students.
- 2 There is no a significant difference in career self-efficacy with respect to successfully completing educational requirements and performing job duties of non-traditional careers for female and male students.
- 3 There is no significant difference in career self-efficacy in the selection of traditional or non-traditional careers with respect to gender.
- 4 There is no significant difference in career self-efficacy with respect to socio economic status.

Method

Research design

This study is to look into the influence of career self-efficacy in the selection of careers among female and male students. The independent variables involved are gender and socio-economic status whilst career self-efficacy in the selection of traditional and non-traditional careers is the dependent variable.

Sampling

The sample for this study was selected randomly using stratified sampling (Wiersma, 1995) from the undergraduate students of International Islamic University Malaysia. The study was restricted

to Malay students only. The number of undergraduate students was 4728, with 3332 females and 1398 males. A total number of 200 students participated in the study. Out of the 200 students, 100 females and 100 males were selected from various faculties which were Economics, Laws, Engineering, Architecture, Islamic Revealed Knowledge and Human Sciences. The distribution of respondents' gender and faculty is presented in table 1 below.

Table 1: Distribution of respondents' gender and faculty

Faculty	Male	Female	Frequency	Percent
Laws	19	10	29	14.5
Economics	66	52	118	59
Islamic Revealed Knowledge and Human Sciences	9	35	44	22
Engineering	4	2	6	3
Architecture	2	1	3	1.5
Total	100	100	200	100

Instrument

Data was collected using occupational self-efficacy scale which was developed by Bentz and Hackett (1981). The scale was to measure the confidence ratings. The instrument is an acceptable way of assessing self-efficacy expectations with respect to the educational requirements and job duties, Bentz and Hackett (1998). The occupational titles used were adapted by the researcher to suit the Malaysian context in accordance with the statistics in 8th Malaysia Plan that listed non-traditional occupations (male-dominated careers) as presented in table 2 below.

Table 2: Occupational Titles Used in the Occupational Self-Efficacy Scale

Traditional (Female-Dominated)	Non-Traditional (Male- Dominated)
Teacher	Auditor
Social Worker	Hotel Manager
Sales representative	Architect
Secretary	Mathematician
Nurse	Lawyer
Counselor	Accountant
Public Relation Officer	Engineer
Physical Therapist	Scientist
Translator	Judge
Travel Agent	Financial Analyst

The socio-economic status differences were calculated in accordance with the Circular presented by Civil Service Department of Malaysia (2002) as illustrated in table 3 below.

Table 3: Category of Socio-Economic Status

Points	Category of Socio-Economic Status
11-15	High
6-10	Middle
1-5	Low

The table illustrates that a student is categorized in high socio-economic status if calculation of points is between 11 to 15. The student's category is in middle socio-economic status if the calculation of points is between 6 to 10 whilst between 1 to 5 points indicates low socio-economic status.

Pilot Study

40 students participated in the pilot study. The pilot study was conducted to test the reliability of the instrument. Cronbach's Alpha was run to test the reliability of the instrument. It was found that the reliability coefficients for the scale (traditionally-female and male-dominated occupations across

educational requirements and job duties) is an alpha of .93 (total score). The result is an evidence that the instrument was highly reliable.

Data Analysis and Results

T-test was applied to analyze the strength of self-efficacy expectations in successfully completing the educational requirements and performing job duties for traditional and non-traditional careers for male and female students.

Table 4: Means and Standard Deviations of Career Self-Efficacy Scores (Confidence Ratings).

	Males N=100		Females N=100			
Career Self-efficacy Scores	M	SD	M	SD	t	p
Educational requirements of traditional careers	26.10	8.07	30.13	7.15	-3.74**	0.000
Job duties of traditional careers	23.65	8.83	30.47	8.31	-5.62*	0.047
Educational requirements of non-traditional careers	22.11	7.07	24.13	7.21	-1.99**	0.000
Job duties of non-traditional careers	21.45	7.02	24.81	8.28	-3.09**	0.002

*p <.05 **p<.01

Notes: Means: M; Standard Deviations: SD; t: values; p: values.

Table 4 illustrates the means and standard deviations of self-efficacy scores for male and female students with respect to completing educational requirements of traditional careers and performing job duties of traditional careers. The first null hypothesis was rejected. (Null Hypotheses 1- There is no significant difference in career self-efficacy with respect to successfully completing educational requirements and performing job duties of traditional careers for female and male students).

The data shows that there is a significant difference in career self-efficacy with respect to successfully completing educational requirements and performing job duties of traditional careers for female and male students. Female students show significantly higher self-efficacy for completing educational requirements for traditional careers than male students (M=30.13) (t=-3.74, p<.01). Female students also show significantly higher self-efficacy for performing job duties for traditional careers than male students (M=30.47) (t=-5.62, p<.05).

The data also rejects the 2nd null hypothesis. (Null Hypotheses 2- There is no significant difference in career self-efficacy with respect to successfully completing educational requirements and performing job duties of non-traditional careers for female and male students). In this case, there is a significant difference in career self-efficacy with respect to completing educational requirements and performing job duties of non-traditional careers. Female students show higher self-efficacy with regard to successfully completing educational requirements for non-traditional careers than male students (M=24.13) (t=-1.99, p<.01). Female students also show higher self-efficacy with regard to performing job duties for non-traditional careers than male students (M=24.81) (t=-3.09, p<.01).

Table 5: Means and Standard Deviations of Career Self-Efficacy Scores (Confidence Ratings).

	Males		Females		t	p
	N=100		N=100			
Career Self-efficacy Scores	M	SD	M	SD		
Traditional Careers	49.75	15.98	60.60	14.73	-4.992**	0.000
Non-Traditional Careers	43.56	13.44	48.94	15.18	-2.654**	0.009
Total	93.31	26.64	109.54	25.11	-4.43**	0.000

*p <.05 **p<.01

Notes: Means: M; Standard Deviations: SD; t: values; p: values.

Table 5 illustrates the means and standard deviations of self-efficacy scores for male and female students. The data rejects the third null hypothesis. (Null Hypotheses 3- There is no significant difference in career self-efficacy in the selection of traditional or non-traditional careers with respect to gender).The data indicates that there is a significant difference in career self-efficacy for traditional and non-traditional careers with respect to gender. Female students show significantly higher self-efficacy than male students for traditional careers (M=60.60) (t=-4.992, p<.01). Female students also show significantly higher self-efficacy than male students for non-traditional careers (M=48.94) (t=-2.654, p<.01).

Table 6: Means and Standard Deviations by Gender for Self-efficacy Scores (Confidence) in Meeting the Educational

Occupation	Requirements of 20 Occupations	
	Males	Female
	N=100	s
		N=100

Traditional (Female- Dominated)		M	SD	M	SD	F	p
Teacher		4.08	0.98	4.13	0.92	1.102	0.710
Social Worker		3.00	1.57	3.51	1.09	30.839**	0.008
Sales representative		2.66	1.45	2.74	1.25	4.712	0.677
Secretary		2.39	1.27	2.86	1.28	0.036*	0.010
Nurse		2.04	1.10	2.25	1.18	2.642	0.194
Counselor		2.43	1.57	3.52	1.02	2.613*	0.000
Public Relation Officer		2.46	1.23	3.25	1.13	1.475*	0.000
Physical Therapist		2.13	1.13	2.01	1.10	0.017	0.450
Translator		2.40	1.25	2.78	1.05	3.073*	0.021
Travel Agent		2.51	1.22	3.08	1.20	0.744*	0.001
Non-Traditional (Male- Dominated)		M	SD	M	SD	F	
Auditor		2.34	1.14	2.70	1.32	4.354*	0.040
Hotel Manager		2.83	1.47	3.27	1.32	3.341*	0.027
Architect		2.09	1.26	1.60	0.97	7.829*	0.002
Mathematician		2.24	1.17	2.64	1.45	16.690*	0.033
Lawyer		2.16	1.27	2.75	1.45	7.891*	0.003

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Accountant	2.21	1.1	2.52	1.34	5.793*	0.046
		8				
Engineer	1.99	1.0	1.59	1.01	0.018*	0.008
		9			*	
Scientist	1.97	1.0	1.63	0.96	0.206*	0.020
		8				
Judge	1.96	1.0	2.56	1.46	22.534	0.001
		8			**	
Financial Analyst	2.32	1.2	2.82	1.36	1.818*	0.007
		4			*	

*p < .05 **p < .01

Notes: Means: M; Standard Deviations: SD; F: values, p: values.

Table 6 shows detailed descriptions of the means and standard deviations by gender for self-efficacy scores in meeting the educational requirements and job duties of 20 occupations. The data points out that female students show higher self-efficacy with regard to meeting educational requirements for traditional careers such as social worker (M=3.51), secretary (M=2.86), counselor (M=3.52), public relation officer (M=3.25), translator (M=2.78) and travel agent (3.08) based on the mean comparisons with significance level at .05 and .01. Similarly, female students also show higher self-efficacy in meeting educational requirements for non-traditional careers such as auditor (M=2.70), hotel manager (M=3.27), mathematician (M=2.64), lawyer (M=2.75), accountant (M=2.52), judge (M=2.56) and financial analyst (M=2.82). However male students also show higher self-efficacy in meeting the educational requirements for careers such as architect (M=2.09), engineer (M=1.99) and scientist (M=1.97).

Table 7: Means and Standard Deviations By Gender for Self-efficacy Scores (Confidence) in Performing the Job Duties of 20 Occupations

Occupation	Male		Female			
	s		s			
	N=10		N=100			
	0					
Traditional (Female-Dominated)	M	SD	M	SD	F	p

Teacher	2.80	1.53	4.31	0.77	92.266	0.000
					**	
Social Worker	2.66	1.57	3.58	1.18	23.168	0.000
					**	
Sales representative	2.57	1.42	2.86	1.37	0.273	0.143
Secretary	2.22	1.24	2.84	1.45	8.050*	0.001
					*	
Nurse	1.98	1.14	2.25	1.29	5.362	0.119
Counselor	2.55	1.23	3.69	1.02	6.439*	0.000
					*	
Public Relation Officer	2.52	1.29	3.38	1.18	3.024*	0.000
					*	
Physical Therapist	1.99	1.07	2.10	1.06	0.733	0.467
Translator	2.08	0.97	2.54	1.14	10.075	0.002
					**	
Travel Agent	2.28	1.22	2.92	1.26	0.022*	0.000
					*	
Non-Traditional (Male-Dominated)	M	SD	M	SD	F	p
Auditor	2.19	1.14	2.82	1.27	2.666*	0.000
					*	
Hotel Manager	2.63	1.43	3.40	1.36	1.193*	0.000
					*	
Architect	2.01	1.13	1.71	1.07	0.177	0.056
Mathematician	2.18	1.18	2.65	1.51	24.450	0.015
					*	
Lawyer	1.94	1.19	2.77	1.49	16.746	0.000
					**	
Accountant	2.19	1.33	2.55	1.57	12.845	0.081
Engineer	1.92	1.08	1.74	1.07	1.459	0.238

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Scientist	1.96	1.05	1.73	1.04	1.468	0.122
Judge	2.07	1.04	2.60	1.44	21.945	0.003
					**	
Financial Analyst	2.36	1.29	2.84	1.43	3.018*	0.014

*p <.0.5

**p<.0.1

Notes: Means: M; Standard Deviations: SD; F: values; p: values.

Table 7 illustrates that female students show higher self-efficacy in performing job duties for traditional careers such as teacher (M=4.31), social worker (M=3.58), secretary (M=2.84), counselor (M=3.69), public relation officer (M=3.38), translator (M=2.54) and travel agent (M=2.92). They also indicate higher self-efficacy in performing job duties for non-traditional careers, for instance auditor (M=2.82), hotel manager (M=3.40), mathematician (M=2.65), lawyer (M=2.77), judge (M=2.60) and financial analyst (M=2.84) based on the mean comparisons with significance level at .05 and .01.

In brief, based on the results, it is concluded that female students show higher self-efficacy with regard to meeting educational requirements and performing job duties for both traditional and non-traditional careers.

Table: 8 Socio-Economic Status (SES) Means Comparisons for Career Self-efficacy

	High SES (N=49)		Middle SES (N=46)		Low SES (N=105)		Total N=200	
Career Self-efficacy	M	SD	M	SD	M	SD	F	p
	6.99	1.98	6.05	1.72	6.20	1.85	3.822*	0.024

*p <.0.5

Notes: Means: M; Standard Deviations: SD; F: value; p: value.

One-Way Analysis of Variance was run to evaluate the socio-economic status differences with regard to career self-efficacy as illustrated in table 8. The data shows that students from high socio economic status (SES) show higher career self-efficacy with significance level at .05, F-value=3.822 and M=6.99, than students from middle SES (M=6.05) and low SES (M=6.20). Thus this rejects the 4th null hypotheses. (Null Hypotheses 4- there is no significant difference in career self-efficacy with respect to socio economic status). It can be seen in the table that there is a significant difference in career self-efficacy with regard to socio-economic status.

Discussion of the Results

The result of the study clearly indicates that career self-efficacy is a powerful predictor of the range of occupational selections for the male and female students. It can be seen from the study that there is a significant difference in career self-efficacy with respect to successfully completing educational requirements and performing job duties of traditional careers for female and male students. Female students show significantly higher self-efficacy for traditional careers. The findings indicate that female students tend to select traditionally female-dominated careers, such as teacher, social worker, secretary, counselor, public relation officer, translator and travel agent. Numerous studies have been conducted to investigate the link between career self-efficacy and career choices. The results also show that women's career self-efficacy is significantly higher for traditionally female-dominated occupations, Bentz as cited in Bandura (1995). Gati, Givon and Osipow (1995) argue that women tend to be engaged in traditional occupations and female sex-stereotyped jobs and where salary levels are relatively low compared to non-traditional occupations that are male-oriented. Women continue to be employed in traditionally female careers, such as social worker, teaching, nursing, sales and administrative support positions (Rainey and Borders, 1997). The reason for this, according to Hackett and Bentz as cited in Bandura (1995) is that career self efficacy beliefs play a powerful role than interests, values, and abilities in the restriction of women's career choices. In addition, traditionally sex-typed experiences in childhood often limit women's exposure to the sources of information necessary for the development of strong beliefs in many occupational areas. Appropriate gender roles and accompanying stereotypes about appropriate occupational roles for women resulted in women pursuing traditional careers (Scheye and Gilroy, 1994). Rainey and Borders, (1997) argue the influence of mother's education, work-experience, personality, and gender role attitudes on females' career aspiration, which resulted in women choosing female-dominated careers.

The study also indicates that male students do not have high career self-efficacy in traditionally-dominated female careers. Clement (1987) as cited in Bonett (1994), argues that men are less willing to consider traditionally female occupations because they believe they would not enjoy doing these jobs rather than they lack confidence in their capabilities in performing job-related tasks.

The result of the study also illustrates that female students show significantly higher self-efficacy than male students for non-traditional careers. The findings indicate that female students probably have more confidence in pursuing male-dominated careers compared to the past. These non-traditional careers are auditor, hotel manager, mathematician, lawyer, accountant, judge and financial analyst. McCracken and Weitzman (1997) argue that commitment to multiple roles increases as non-traditional career choice increases. In this case women planning non-traditional careers show commitment to multiple role lifestyles. Weitzman (1994) as cited in McCracken and Weitzman (1997)

states that multiple role realism is defined as the recognition that simultaneous work and family involvement is a complex and stressful lifestyle and it results in awareness of the interface between work and family roles.

The result of the study also indicates that male students show higher self-efficacy in meeting the educational requirements for careers such as architect, engineer and scientist. It is of increasing concern to educators and scientists the relatively low number of scientists and engineers who are women. Hyde, Fennema and Ryan (1990) as cited in Martinez-Pons, O'Brien and Kopala, (1999) speculate that the low career interest in science and engineering is influenced by their lowered levels of mathematics self-efficacy. Hackett and Campbell (1987) as cited in Martinez-Pons et al., (1999), found that male college students showed significantly higher self-efficacy in mathematics and science than female students. In this case self-efficacy generates greater interest in science and mathematics on the part of male students. Hackett and Campbell (1987) as cited in Martinez-Pons et al., (1999) claim that lowered mathematics self-efficacy is a likely contributor to the low number of women in those fields. The implication of the study is that future studies should be conducted on how to develop high mathematics self-efficacy among female students to increase their interest to select careers related to mathematics and science such as engineer and scientist. As a result there would be more representation of women in careers related to mathematics and science in the future.

The result also indicates that there is a significant difference in career self-efficacy with regard to socio-economic status. Students from high socio-economic status (SES) show higher career self-efficacy than students from middle SES and low SES. Further research should also be conducted to look into reasons for low career self-efficacy among low and middle socio-economic status students compared to high socio-economic status students.

Conclusion

In the past Malay families would prefer females in the families to take up traditional careers only, such as teaching and nursing as they thought the careers best suited females. In the study, not only the Malay female students show higher career self-efficacy in traditional careers, but they also show higher career self-efficacy in non-traditional careers compared to male students. This study suggests that the younger generation of Malay female students, has a different outlook on pursuing non-traditional careers. It can be inferred that the younger Malay generation is more educated and open-minded because the females would consider taking up careers that were previously dominated by males. Career self-efficacy can be modified and shaped in childhood. Thus career self-efficacy can be shaped through family upbringing, school education and media. Finally, the findings from the study are important as Malaysia is heading towards becoming a country with a new generation that is brave to face any challenges ahead: a generation who is educated, motivated, brave and innovative, no matter if you are a male or a female.

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