

HIGHER EDUCATION IN THE ASIA PACIFIC

Emerging Trends in Teaching and Learning



Editors

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Gender Differences in Graduate Employability: The Role of Inclusive Higher Education in Malaysian Universities

HARIYATI SHAHRIMA ABDUL MAJID, SHUKRAN ABDUL RAHMAN, SAODAH WOK, AINOL MADZIAH ZUBAIRI, DANIAL MOHD. YUSOF, AND NOOR AZLAN MOHD. NOOR

Introduction

The main aim of any institution of higher learning is to enable all its graduates to compete in an increasingly global world of work. Therefore, the employability of students is an important consideration. The employability of graduates is a combination of subject knowledge and understanding, personal and key skill development, self-efficacy beliefs, and students taking responsibility for their own learning and personal development. These are important not just for enhancing academic learning but also for future career prospects. In short, the employability skills and attributes that are developed whilst studying are therefore most likely to be deployed in the work setting.

The consideration of the differing requirements in the development of employability skills for students of various educational backgrounds with a variety of experiences and expectations is thus paramount. In other words, it is useful to consider whether the employability needs are the same or different for graduates across socio-demographic characteristics, including gender.

In its recent announcement of the Ninth Malaysia Plan (RMK-9), the Malaysian government is concerned with employability issues and is aware of the need for universities to produce graduates capable of competing and co-operating in the global economy, regardless of their background (Economic Planning Unit, 2006). However, labour markets in Malaysia continue to contain several significant gender based inequalities. Statistics indicate that women account for one third of the Malaysian labour force, and their labour force participation rate has increased from 37.2 per cent in 1970 to 44.5 per cent in 2000 (Economic Planning Unit,

come from what is referred to as 'care responsibilities', such as childbirth and child care, single motherhood, sharing roles and responsibilities with a partner in a 'dual-earner' family, or caring for ageing parents. In other words, the theory emphasises the importance that gender roles and prestige play in making career decisions. In short, despite gains in representation in educational and employment settings, women continue to be in jobs and sectors with lower pay and less prestige because they continue to remain the primary caregivers, responsible for both homemaking and childrearing responsibilities.

Another factor that may contribute to the gender differences in the labour market is educational and career aspiration of Malaysian students. Males and females are long known to have different inclinations towards different subjects. While males are more likely to study Engineering and IT, females favour the Arts and Humanities. Thus, any gender bias in subject choice at school or university will be reflected in later suitability for particular jobs.

The questions that arise are: whether gender differences exist in employment status and employability patterns among graduates in Malaysia, and whether these differences can be attributed to the effectiveness of the university in providing the necessary knowledge and skills important for employment as perceived by the graduates.

Method

Participants

The respondents of the study are the first degree graduates of the 21st International Islamic University Malaysia (IIUM) Convocation of 2005 (N = 2,234), comprising 678 (30.3 per cent) males and 1,556 (69.7 per cent) females. The graduates are from various socio-demographic backgrounds. Of the 2,234 graduates, 94 per cent are Malays. The respondents represent various faculties from which they graduate: 30.6 per cent are graduates of Human Sciences, 16.2 per cent from Economics and Management Sciences, 15 per cent from Islamic Revealed Knowledge, 18.5 per cent from Law, 8.3 per cent from Engineering, 4.3 per cent ICT, 4.1 per cent Architecture and Environmental Design, and 3 per cent from Medicine.

2001) to 48 per cent in 2005 (RMK-9). Statistics also show that the proportion of women in high paying occupations is increasing, with 7.5 per cent being employed as professionals in 2005, compared to 7.3 per cent in 2000 (Economic Planning Unit, 2006). Women remain concentrated in jobs and sectors with lower pay and less prestige, and are under-represented among those in the management positions. They are mainly involved in the manufacturing, wholesale and retail trade as well as agriculture. Associated with these vertical and horizontal segregations of the labour market is a persistent gender wage gap of 20 to 25 per cent. In short, although the number of women in the labour market is increasing, the types of occupation of women continue to be considered less desirable compared to those of men (Aminah, 1998). Studies on Malaysian graduates provide evidence that gender differences in the employment trend continue to persist (e.g., Shukran et al., 2005; 2006a; 2006b).

On the contrary, there is a unique scenario of gender gap in Malaysian education, whereby males are found to be 'substantially outnumbered in obtaining secondary, and tertiary education by a high margin' (BERNAMA, 2004). In 2005, females made up about 80 per cent of education programs while less than 40 per cent of the student enrolment at tertiary education are males (Aminah and Yaacob, 2006). Statistics over four years (between 2000 to 2004) of boys and girls at primary school saw consistently higher rates of boys than girls dropping out from school (SUHAKAM, 2006).

The disparity in enrolment patterns at the different levels of education in Malaysia does not mean that females have dominated all the disciplines. It is normal to see that enrolment in vocational and technical fields in Malaysian tertiary educational institutions are male dominated. Women, on the other hand, are more inclined to enrol in courses traditionally considered more suitable for them, such as arts and education, but less in courses related to science and technology, which tend to lead to higher paying jobs.

The gender differences in employment patterns in Malaysia can be attributed to several factors. One such factor is practice of the traditional gender role. Career development research has long acknowledged that the career path of women is different from that of men. The lifespan theory attributes the differences to gender-role issues in childhood, adolescence, and adulthood (Gottfredson, 1996). According to this theory, major influences in women's career decisions appear to

Design

The design of the survey is cross-sectional.

Procedure

The questionnaires were mailed to the graduates a month before the university's 21st Convocation Ceremony in August, 2005. The respondents submitted their questionnaires when collecting the graduation regalia.

Material

The questionnaire for this study was prepared by the Economic Planning Unit (EPU) at the Prime Minister's Department. It comprises six different parts, which assess information related to the respondents:

1. Background
2. Intention to pursue further study
3. Satisfaction with programmes and services offered by the university
4. Employment pattern
5. Workplace adaptability
6. Suggestions for improving teaching and learning in the university

Analysis

Descriptive statistical analyses were performed to obtain characteristics of graduates across various dimensions assessing employment status and employability patterns. A stepwise multiple regression analysis was performed to identify variables that predict employment status among graduates of the university at the point of convocation.

Results

Gender differences in academic characteristics

Gender differences are observed in several of the academic characteristics of the graduates. Approximately 15 per cent of graduates from the science fields such as Engineering and IT are males, compared to only 10 per cent females. There are

more female graduates from the Humanities and Social Sciences, compared to males. Approximately similar percentages of males and females graduated from Medicine and Law. Results show that female graduates obtain a higher mean CGPA upon completion of their studies ($m = 2.42$) compared to males ($m = 2.31$) [$t = -3.22$, $df = 2460$, $p < 0.0001$].

Gender differences in patterns of employment

Results indicate that 53.3 per cent of the graduates are employed at the time of graduation. There is a difference in the status of employment between male and female first degree graduates. More females (54.5 per cent) are employed at the point of graduation compared to males (50.6 per cent). On the other hand, slightly more males (31.7 per cent) are unemployed compared to females (31.0 per cent). More males are also furthering their studies (17.7 per cent) at the point of graduation compared to females (14.5 per cent). Further analyses indicate that, at time of the study, more females (55.8 per cent) compared to males (49.5 per cent) are 'still seeking for a job', while more males compared to females are doing chambering or other apprenticeship programs (36.8 per cent vs. 28 per cent).

Next, results show that more males are in permanent employment at the time of graduation (51.8 per cent) compared to females (38.4 per cent). On the other hand, more women are working on a contract basis (27.9 per cent) compared to men (26.9 per cent); more women are also hired on a temporary basis (31.2 per cent) compared to men (17.8 per cent).

There are slight but significant gender differences in the sector to which graduates are employed. More females (37.3 per cent) compared to males (28.6 per cent) are employed in the government sector, whilst more male graduates, compared to female graduates are employed in multinational (13.5 per cent vs. 10.4 per cent) and local companies (36.7 per cent vs. 29.5 per cent). There are, however, no gender differences in the following employment sectors: statutory bodies and self/own businesses.

The results indicate that male graduates earn significantly more compared to female graduates at the time of graduation. The average salary earned by male graduates is RM2,149 compared to RM1,290 by females ($t = 3.83$, $df = 256$, $p < 0.001$).

TABLE 1 Patterns of employment by gender

Employment characteristics	Gender		χ^2	t	p
	Male (%)	Female (%)			
Employment status					
Employed	338 (50.6)	840 (54.5)			
Unemployed	212 (31.7)	478 (31)			
Pursuing studies	118 (17.7)	224 (14.5)			
Employability status				57.7	< 0.001
Permanent	175 (51.8)	320 (38.4)			
Contract	91 (26.9)	232 (27.9)			
Temporary	60 (17.8)	260 (31.2)			
Employment sector				2.64	< 0.001
Government	180 (28.6)	496 (37.2)			
Statutory body	33 (5.2)	74 (5.6)			
Local companies					
Multinational companies	231 (36.7)	392 (29.5)			
Others	85 (13.5)	138 (10.4)			
Self-employed	50 (7.1)	94 (7.9)			
Salary	50 (7.1)	134 (10.1)			
	149.93	1290.74		8.14	< 0.001

Gender Differences in Satisfaction with the University Academic and Non-Academic Facilities and Services

Analyses were also performed to identify gender differences in graduates' satisfaction towards the university's academic and non-academic facilities and services. Gender differences are observed in several of the items that assess their perceptions concerning the program at the university which they attend. More male graduates perceive that the academic program they had pursued at the university is relevant to their current job (75.8 per cent), compared to about 70 per cent of female graduates who perceive the same ($\chi^2 = 0.19, p < 0.01$). Male graduates are also more satisfied with their program in terms of relevance to their job compared to female graduates ($m = 3.67$ vs. $m = 3.47$) [$t = 3.58, df = 1411, p < 0.001$].

Male and female graduates are compared on the basis of the following factors: satisfaction towards overall degree and courses, specialisation courses, curriculum at the university, career and counselling services, skills obtained at the university, language proficiency, and co-curricular activities as well as level of involvement in co-curricular activities. Analyses indicate that graduates differ significantly in two of the above dimensions: skills acquired at the university, and level of involvement in co-curricular activities. Male graduates are more satisfied with the skills (e.g., problem-solving skills, workplace adaptability skills, teamwork skills, and communication skills) that they have developed from the program they attended at the university compared to female graduates [$t = 2.81, df = 1382, p < 0.01$]. Male graduates also report that they are more involved in co-curricular activities at the higher levels (state, national, and international) compared to female graduates [$t = 7.83, df = 1540, p < 0.001$].

TABLE 2 Gender differences in perceptions towards academic and non-academic facilities and services of university

Academic and non-academic facilities and services	Mean (SD)		t	p
	Male	Female		
Overall degree	3.19 (0.53)	3.20 (0.46)	-0.68	n.s.
Specialisation courses	3.18 (0.54)	3.21 (0.46)	-1.30	n.s.
Curriculum	3.55 (0.67)	3.55 (0.64)	0.11	n.s.
Counselling and career services	3.19 (0.89)	3.25 (0.83)	-1.58	n.s.
Skills	3.87 (0.59)	3.77 (0.58)	2.81	< 0.01
Language proficiency	4.10 (0.66)	4.04 (0.64)	1.37	n.s.
Involvement in co-curricular activities	1.88 (1.03)	1.49 (0.86)	7.83	< 0.001
Co-curricular activities	3.26 (0.50)	3.27 (0.49)	-0.49	n.s.

Predictors of employment status

Stepwise regression analyses are also performed to identify variables that predict employment status, ranging from working for family ('1') to permanent employment ('6'). The variables that are included for analyses are perceptions of overall degree and courses, specialisation courses, curriculum at the university, career and counselling services, skills obtained at the university, language proficiency and co-curricular activities as well as level of involvement in co-curricular activities, and gender.

Results indicate that four of the variables are significantly related to employment status. They were graduates' gender, perceptions of suitability of curriculum, involvement in co-curricular activities and suitability of co-curricular activities. Together, they account for approximately 6 per cent of the variance. There were more males graduates compared to female graduates ($\beta = -0.09, p < 0.05$), who were satisfied with the academic curriculum ($\beta = 0.14, p < 0.01$), and co-curricular activities at the university ($\beta = 0.10, p < 0.05$). And those who are more involved in higher levels of co-curricular activities ($\beta = 0.14, p < 0.01$) are more likely to have stable employment at the time of graduation.

Discussion

The survey reveals several interesting findings on gender differences in employment and employability status among graduates of a local university. Although the number of female graduates is higher compared to males, and the employment status is comparable between the two groups, it is the male graduates who have better employment status, working in more prestigious multinational agencies, and earn better salaries compared to female graduates. Female graduates are more likely to be employed on a contract or temporary basis, and they also earn significantly less compared to their male counterparts.

Although there is evidence to show that the gap between male and female graduates is gradually declining, gender differences in patterns of employment continue to prevail (Economic Planning Unit, 2006). Female graduates are more likely to be employed in gender-stereotypical occupations, such as teaching, the retail trade, and sales. Although more females are graduating in courses that many consider male-dominated such as ICT and Engineering, it is the male graduates who are more likely to be hired by employers in these fields. It is also interesting to note that female graduates were less satisfied with the suitability of the current job to the university training they had received. In contrast, more male graduates agreed that their job was relevant to the degree they had obtained. The findings further reveal that male graduates are also more likely to have secured employment compared to females. It is thus not surprising that there are differences in the salary or wages earned by male and female graduates.

Several factors could contribute to the differences in these important employment indicators between the two groups. A potential factor is the effectiveness of the academic training provided by the university in providing and imparting the necessary knowledge and skills to its graduates, which in turn, will allow the graduates to compete in the world of work. The findings of this study indicate that male and female graduates differ in their perceptions of the effectiveness and/or suitability of the university academic training in providing them with the necessary employment and employability skills. Male graduates were more satisfied with the education received at the university in terms of applying various skills at their workplace. They reported that the training at the university imparted problem-solving skills, communication skills, teamwork, and confidence to perform at the workplace. Male graduates also report that they were more satisfied with the internship and industrial attachment programs they attended compared to female graduates.

Another factor that may contribute to the gender differences in employment among graduates in this study is the effectiveness of the university co-curricular activities in providing the soft skills needed for employment success. The findings reveal that more male graduates, compared to their female counterparts, are involved in co-curricular activities of a higher standing, i.e., at the state level, national level, and the international level. More males also reported that the co-curricular activities at the university had equipped them with the necessary knowledge and skills relevant to their present job, and these activities enable them to play a more effective role in community development and also gave them the opportunity to work in various sectors.

One other factor to which the gender differences could be attributed is the attitude and motivation of female graduates in job seeking. As the study indicates, given the same formal education and training at university, female graduates are less satisfied with the training provided for their careers. Therefore, it is necessary to conduct a study which examines female university students' attitude towards education, and their motivation in securing quality and high level employment. Equally important is to conduct a study on stakeholders' expectations of female employees. The fact that male graduates are also more likely to have secure employment compared to females could also be due to employers' preferences. As such, a study on the industries' expectations and commitment in ensuring equal gender opportunity is called for.

In Malaysia, there has been rapid expansion of education opportunities and openings for women and men to improve their economic participation. Under the Eighth Malaysia Plan (RMK-8), more females were employed as professionals than ever before. It is expected that this trend will continue with the implementation of the RMK-9 (Economic Planning Unit, 2006). However, despite the improvements in female participation in the competitive local and global market, gender differences are expected to continue to exist over the next few decades. Women, regardless of their educational background, will still be more likely, compared to men, to be employed in occupations that are considered less prestigious; they are also expected to have relatively lower paying jobs and of lower status compared to men.

Several strategies need to be developed and implemented to decrease the gender gap in employment among Malaysian graduates. One such strategy is by adopting inclusive education. While there has been improvement in terms of female participation in science and technology courses, more needs to be done to address problems of gender stereotyping in education. This is prevalent at all levels of education, from secondary school to the pre-university and university level. A comparison of enrolment in the arts and science-based programs at the pre-university level shows a distinct predominance of males in Engineering courses while females continue to prefer the Arts and the Humanities. Hence, the training received in the education system can determine the employment one takes up – female dominated courses tend to lead to relatively lower paying jobs of lower status.

The practice of 'segregation in education' arising from gender stereotyping may be a result of the socialisation process that takes place within the education system itself. Evidently, females are more inclined and subsequently, encouraged to enrol in courses traditionally considered more suitable for women. They may have been trained to view courses that fit their traditional roles as more suitable for their role as future primary caretakers of family. Bartoza et al. (2006) have found that women perceive that they may be punished for making choices that do not follow a non-traditional academic career path. Similar findings are reported by Packard and Wong (1999). Female college students were interviewed concerning their career decisions in science. The findings show that students questioned whether they were in the right field because they were now unable to identify images that were consonant with their desired future images. For

instance, the students' positive image of being 'collaborative' clashed with the field's negative projected image of being 'competitive'; the positive image of 'combining family and career' clashed with the negative projected image of 'being childless and unbalanced'; the positive image of scientific work as 'contributing to society' clashed with the negative projected image of scientific work as done 'for the money or sake of science'. These findings imply that for female college students, to enrol in male-dominated courses or to be involved in high-flying curricular activities may result in social disapproval. It is thus important that higher learning institutions provide women access to programs and courses that are not tied or bound to traditional roles.

This can be done by providing appropriate assessment of person-job suitability, and continuous vocational or career counselling to students at the secondary or pre-university level. Khamsiah (2006) suggests that career counselling at this stage may increase awareness among female students as well as parents regarding opportunities in fields other than the Arts and the Humanities. Students can be encouraged to explore educational and career paths in professional and technical fields. The counselling career services should aim at making the student choose an education path that maximises his/her potential and aptitudes, and not to choose an education path based on traditional gender expectations.

Meanwhile, higher learning institutions should provide equal access to all fields of study for both men and women; female students can be encouraged to enter the Science and Engineering fields while male students can be encouraged to take up Management and the Humanities. Female students should also be encouraged to participate in non-academic activities that are generally male-dominated; positions in student societies, for instance should be based on students' merit, not gender. Training and retraining opportunities should be provided to enable female students to acquire new and advanced skills that are relevant to the needs of the industry, particularly in view of the changes in technology (Economic Planning Unit, 2006).

Conclusion

Although there is evidence that the gender gap in access to education and employment is decreasing in Malaysia, certain gender differences continue to prevail, particularly in terms of the quality or prestige of employment. The findings of this study highlight one main issue that needs special attention: the differences in employment patterns could be the result of the differing ways by which the higher learning education system provides the necessary knowledge, skills, and values to its male and female graduates. As Malaysia is going on a 'leapfrog into the globalised 21st century world' [Summary of Proposals for the Ninth Malaysian Plan Report (2006–2010), 2005: 2], it is vital for policy makers to revisit the education content at the tertiary level so as to promote knowledge, soft skills, and values suitable for both male and female students' needs. Unless inclusive education is practiced in its entirety, the gap in education and employment will continue to exist.

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