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GENDER AND SKILLS GAP ANALYSIS AMONG INTERNS: INSIGHTS FROM A MALAYSIAN PUBLIC UNIVERSITY

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Abstract

As Malaysia enters the fourth industrial revolution, together with the onset of the global Covid-19 pandemic, there are many changes that has taken place, mainly affecting the job market. From the perspective of graduate employment, more emphasis has been placed on institutions of higher learning to produce graduate employees who are employable and possess the necessary skills to meet the challenges of the new economy. At present, the focus has shifted on to improving the skill acquisition of graduates at university level. However, there exists a gender difference between how the interns assess themselves and how they are assessed by their employers. The purpose of this research as such was to obtain a self-assessment of skills that male and female interns possessed, to identify how employers assessed the level of skill acquisition of male and female interns and to identify the gaps that emerge between required and acquired skills between male and female interns. Respondents comprised students from an arts and social sciences faculty in a Malaysian public university who had completed their internship and their employers who had conducted training for them. Using a simple random sampling method, the final responses compiled came from 164 interns (44 male and 120 female interns) and 43 employers. Female interns were found to generally over-rate the skills they possessed compared to male interns. From the seven main skills that were assessed, six of the skills had been over-rated. The skill with the highest difference was communication, leadership, and team skills while the skill of information management and lifelong learning had no over-rated subskills. The skills gap analysis carried out using the radar chart to show the difference between employer expectations and interns' self-assessment revealed that male and female interns had the smallest gap in the skill of information management and lifelong learning while the largest gap was in the skill of problem solving and scientific skills. There was only a small difference between the self-assessment of male and female interns with regards to the skill acquisition. The feedback of the employers however, showed that female interns tend to perform better in the skill of values, attitudes, and professionalism. This finding is further strengthened from the employer's internship reports. This study also highlighted the subskill within the skills that were lacking by the interns. This study provides insights from a dual perspective analysis by identifying the gaps between actual and expected intern performance based on gender. This information will be a valuable guideline in redesigning university modules so that they will meet the demands of potential employers.

Keywords: Employability, interns/internships, gender differences, employers, skills gap, graduate employability

INTRODUCTION

Over the years the Malaysian labour market has been very competitive with entry of jobseekers graduating not only from public but also private institutions of higher learning (IHL). Private IHLs offer various types of degree programmes via private universities or colleges, twinning programmes with foreign universities or international branch campuses. This led to concerns over the growing number of graduates coming from both public and private IHLs. As the Malaysian labour market is small and faced with a very competitive labour market, there is a noticeable rise in unemployment especially among these graduates. However, IHLs continue to play a significant role in a country's development as they hold the responsibility of imparting knowledge (Charles, 2006) to create skilled workforce. Skilled workforce is essential for the economic development from a supply side perspective as they can increase the productivity level. Various concerns were raised by stakeholders as factors for higher unemployment in Malaysia including skill mismatch (EPU, 2010). Employers are becoming more demanding in the recruitment and hiring process of new employees. Their high expectation of the graduates' soft skills needed for employment has significantly influenced the curriculum design of programs offered to the students by IHLs. Due to the industries' need and requirement for skilled manpower, it is essential that students meet the employability skills to attain a place in today's competitive and swiftly changing economic environment (Isa et al, 2020). The broad range of skills required surpasses that of only technical or theoretical knowledge to include skills that are functional in a globalised world.

Human Capital Theory postulates that investment into education or training would benefit an individual resulting in an increase in income (Becker, 1964) and eventually followed by higher socio-economic status. However, in certain conditions, even though an individual would have invested in training and education, the returns gained does not match what is expected. Mismatch in skills acquired by jobseekers and skills required by employers can have detrimental impact on a country with higher level of structural unemployment. Although reasons such as economic recession and retrenchment caused this, skill acquisition appears to be among the most common reasons mentioned by employers. Several recent studies have highlighted that inadequate employability skills (Kenayathulla et al, 2019; Nadarajah, 2021) and job mismatch (Md. Razak et al, 2014; Yap, 2020; Mohd. Abdul Kadir et al., 2020) as some of the reasons for graduate unemployment. Graduate job seekers do not seem to have skills that are required by the job market. In the current times, having the theoretical knowledge alone is insufficient. Many employers complain of a mismatch in skills among their graduate employees and among jobseekers. This is partly since graduates are not aware of the skills required by the industries and because graduates themselves have a low level of skill acquisition. Since the time spent in university is a crucial period of transition where students are supposed to prepare themselves to enter the job market, the role of IHLs is important in preparing graduates with the right skills and competencies to enter the job market.

Required skills will no longer be job-specific, instead, employees will be required to have skills that cut across the borders of all industries, rendering them as an asset. Employers' expectations are increasing as the need for relevant and high level of skill acquisition increases. The increase in demand for employability skills has resulted in IHLs to tailor courses that cater to the needs of the industry. An important aspect of this is the inclusion of industrial training or internship as a compulsory prerequisite for graduation in many IHLs. The labour market as such must comprise of individuals who are equipped with the necessary skills and competencies to cope and adapt with the changing demands of the economy. The main objective of these programmes is to present the interns with exposure to the realities of the work to better prepare them to face the competitive job market. Additionally, it allows them to put into practise the theoretical

knowledge they have acquired during lectures. Internships as such play an important role to ease the transition from school to work (Paulson and Baker, 1999; Alias, 2019).

The field of arts and social sciences generally produce a high number of graduates and continue to display a lower employability rate. In the Malaysian context, there has been a marked increase in female participation in tertiary education (Abdullah, 2009) especially in arts and social sciences programmes across Malaysian public universities. Although the number of females in IHLs increased tremendously over the years, generally females were more inclined to specialize in courses such as arts, social sciences, and education. In line with this increase, it is important to examine if there is a difference in the way male and female students assess their employability skills and to compare the assessment of skills by employers. According to a study conducted by Pinelli et al (2013), female interns rated their abilities significantly lower than their male counterparts regarding analytical thinking, computational skills, computer skills, and technical skills that represented key areas for Science, Technology, Engineering and Mathematics (STEM). An exception only emerged for skills on collaborating with others. This study also indicated that female interns had lower self-confidence compared to male interns in certain areas of basic knowledge and skills. However, when their mentors rated the interns on the same skills, there appeared to be no significant gender differences.

As female participation in the field of arts and social sciences has increased over the years, it is important to compare the self-assessment of employability skills between the genders to see if there is a significant difference and analyse the gaps that exist between the required and acquired skills of male and female interns. Most previous studies only focused on skills acquisition differences between male and female interns without linking them with the employers' expectation (see for example Dominic and Fulgence, 2019; Mahanal et al., 2021). The present study as such incorporates employers' expectation in analysing skills acquisition differences between male and female interns.

LITERATURE REVIEW

Labour market status of graduates in Malaysia

Generally, graduate labour force participation saw a rise from 4.286 million (2019) to 4.556 million (2020), a rise from 83.5% to 85.0%. For male it rose from 87.7% (2019) to 88.5% (2020) while for female it rose from 79.8% (2019) to 82.0% (2020). There is also a rise in graduate unemployment from 165,200 (2019) to 202,400 (2020), a rise from 3.9% to 4.4%. Male graduate unemployment rose from 3.5% (2019) to 4.3% (2020) while female graduate unemployment rose from 4.2% (2019) to 4.6% (2020). On the other hand, even though graduate employment rose from 4.121 million (2019) to 4.353 million (2020), it recorded a decrease from 96.1% (2019) to 95.6% (2020) (DoSM, 2021). With increase in the number of graduates from both public and private institutions of higher learning and with recent Covid-19 pandemic which hit Malaysia in March 2020, it is not surprising that unemployment as a whole and graduate unemployment is on a rising trend. Although there are many factors contributing to the unemployment among graduates, the most prominent factor is the lack of necessary employability skills as required by the employers (Husain et al, 2010; Hossain et al, 2018).

Employability skills

Employability skills refer to the skill sets that are essential and necessary for acquiring, keeping, and performing well on a job (Shafie & Nayan, 2010). The authors also highlighted how employers are concerned about getting good workers who not only have basic academic

skills but also higher order thinking skills such as willingness to learn, reasoning, thinking creatively, decision making and problem solving. Employees with the right employability skills are considered as being important to an organization as they help to provide the organization with the competitive advantage to survive (Anuar et al., 2016; Hanapi et al., 2016; Rahmat et al., 2016). Previous research has linked the acquisition of employability skills to universities and the job market. Undergraduates need to be more proactive in equipping themselves with skills that will help them to face the challenges of the job market and propel their career towards advancement (Leong and Kavanagh, 2013; Abbasi et al., 2018). IHLs on the other hand, should plan courses that contain elements that help in developing the necessary skills to meet industrial demands especially those related to marketing, management, stress management and technology management skills to contribute towards the advancement of the student (Leong and Kavanagh, 2013). Curriculum revision is one of the most effective strategies to help undergraduates to learn the tackling of future challenges and uncertain situations (Kalei, 2016).

Gender differences in education and skill acquisition

The participation of men and women in tertiary education affects employment since education is seen as a tool to increase the productivity of both men and women in the labour force. Thus, gaps in educational attainment may result in gender differences in labour force participation rate. The rise in educational opportunities and increased awareness on the role of education in improving socio-economic status have led to increased female enrolment in IHLs. In 2020, around 234,080 male students and 358, 600 female students were enrolled in public higher institutions in Malaysia. This reflected the worldwide trend of the increase in the number of women entering higher education than men (Hirschmann, 2022). Despite the increase in enrolment, the labour force participation rate of women was still lower than that of men (Hirschmann, 2021). As the number of female students in the field or arts and social sciences increases, it is crucial to analyse the gender differences that exist in skill acquisition. In a study by Dominic and Fulgence (2019) it was found that male and female students had different levels of core competencies and men generally displayed higher levels of core competencies than female. The present study as such attempts to probe deeper into this claim in the Malaysian context.

RESEARCH METHODOLOGY

Two sets of questionnaires were designed based on seven areas of skills contained in the Malaysian Qualification Framework (MQF), First Edition that need to be acquired by undergraduate students during their study period. The list of respondents was provided by the various departments within an arts and social sciences faculty of a Malaysian public university. The data is collected from 44 male interns and 120 female interns using questionnaire that was designed based on the skills contained in the MQF, First Edition. The rationale for choosing respondents from this field of study was due to the increase in unemployment among graduates from the field of arts and social sciences.

The first set of questionnaires for interns focused on self-assessment of skills possessed. Even though initially, a total of 200 students and 150 employers were identified to participate in this survey using a simple random sampling method, the responses received were from 164 students (comprising 44 male and 120 female interns) reflecting the actual composition of student enrolment pattern in the premier university. The second set of questionnaires for employers focused on the employer's evaluation of the interns they supervised. A total of 43 employers were identified to participate in this survey. The questionnaire was designed in such a way that, as employers assess the skills possessed by the interns, they also rate the skills according to the level of importance to them. The feedback from the employers would provide meaningful data

on the current skill competency level of the interns designed to clearly reveal how employers rate the skills that are currently possessed by the interns. Similarly, the self-assessment completed by the interns will reveal how the interns generally perceive the skills they possess. Based on the responses from the employers and the interns, a skills gap analysis is carried out. The skills gap analysis revealed the gaps that existed between how the employers perceived the interns and how the interns rated themselves. The gaps between required and acquired skills are then mapped out using a radar chart. Radar chart provides a clear visualization of the data to support the communication of the message conveyed by the data (Seide et al, 2021). Reports from employers who supervised those interns are also analysed to provide more information on the performance of the interns during internship.

RESULTS AND DISCUSSION

Demographic profile

Demographic profile analysis indicates that interns surveyed comprised 27% female and 73% female. Large portion of the sample comprises Malay/Bumiputera Sabah and Sarawak representing 77% for male and 69% for female. All respondents are Malaysian for male while for female 99% are Malaysian. Period of internship vary with more female are in 14 weeks of period of internship (84%). For both genders, a big group of them had at least a CGPA of 3.00. In terms of age, both genders had respondents that are young who are fresh school-leavers who have less work experience. In terms of job scope, for both genders more interns are involved in administrative and human resources.

Table 1: Demographic profile

Item	Male (n=44)	Female (n=120)
Race		
Malay/Bumiputera Sabah & Sarawak	77.3	69.2
Chinese	13.6	19.2
Indian	6.8	10.8
Others	2.3	0.8
Nationality		
Malaysian	100	99.2
Non-Malaysian	-	0.8
Period of internship (weeks)		
8	2.3	6.7
14	97.7	84.1
28	-	9.1
Last CGPA before internship		
2.00-2.99	-	.8
3.00-3.69	90.9	87.5
3.70-4.00	9.1	11.7
Age		
22	-	1.7
23	13.6	18.3
24	70.5	58.3
25	13.6	19.2
26	2.3	0.8
36	-	0.8
39	-	0.8

Main job scope		
Administrative	45.5	40.0
Human Resource	15.9	18.3
Customer relations	6.8	8.3
IT	2.3	3.3
Sales & Marketing	9.1	10.8
GIS	4.5	0.8
Media & Communication	4.5	7.5
Social worker	6.8	0.8
Environment & Green technology	4.5	2.5
Finance	-	1.7
Data analysis	-	1.7
Infrastructure & Town planning	-	0.8
Archaeology	-	0.8
Writer/Journalist	-	0.8
Community development	-	0.8
Legal	-	0.8

Skills acquisition

Generally, the results indicated that male and female interns tend to over rate the skills they possessed. This was true for six of the seven skills that were tested. There was also a significant difference in the self-assessment of male and female interns in certain skill sets. Skills with the highest difference were 'communication, leadership and team' skills, 'practical' skills, followed by 'managerial and entrepreneurial' skills. 'Information management and lifelong learning' was the only skill in which both male and female interns did not over-rate themselves. A detailed interpretation of the results obtained is given below.

Employers' assessment versus interns' self-assessment

For 'knowledge', it was noted that male interns had over-rated themselves in one of four of the subskills which is, demonstrating the knowledge, skills, and ability to competently complete the given task/assignment. Female interns had over-rated themselves in the same subskill. Additionally, female interns also over-rated their ability to describe advanced and comprehensive, theoretical, and technical knowledge.

Table 1. Knowledge

	Male				Female			
Subskill	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**
I was given the opportunity to describe advanced and comprehensive, theoretical, and technical knowledge	3.26 (.790)	3.66 (.713)	-0.40		3.26 (.790)	3.77 (.658)	-0.51	Over-rated
I was able to demonstrate relevant skills in a specialized field, or of a multidisciplinary nature related to the field of study, work and/or practice	3.42 (.626)	3.89 (.579)	-0.47		3.42 (.626)	3.85 (.657)	-0.43	
I demonstrated the knowledge, skills, and ability to competently complete the given task/assignment	3.49 (.551)	4.05 (.569)	-0.56	Over-rated	3.49 (.551)	4.00 (.635)	-0.51	Over-rated
I had the opportunity to acquire skills on work coordination and work management within teams	3.72 (.504)	3.84 (.745)	-0.12		3.72 (.504)	3.86 (.748)	-0.14	
Mean	3.47	3.86			3.47	3.87		

Note: (1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

The skill named 'problem solving and scientific skills', comprises of four subskills. The male interns had over-rated themselves in three subskills, namely their ability to apply critical, analytical and evaluation skills in the field of study/work/practice, manage, resolve complex applications, and handle unpredictable issues with creative and innovative solution(s) and apply skill / knowledge to a range of approaches in the field of study/work/practice. Female interns on the other hand, had over-rated themselves in the same subskills as well as their ability to demonstrate intellectual independence in the application of knowledge within specific field(s).

Table 2. Problem Solving and Scientific Skills

	Male				Female			
Subskill	**Employer**	**Interns**	**Difference**	**Conclusion**	**Employer**	**Interns**	**Difference**	**Conclusion**
I was able to demonstrate intellectual independence in the application of knowledge within specific field(s)	3.28 (.630)	3.75 .534	0.47		3.28 (.630)	3.86 .652	0.63	Over-rated
I was able to apply critical, analytical and evaluation skills in the field of study/work/practice	3.09 (.648)	3.68 .561	0.59	Over-rated	3.09 (.648)	3.79 .755	0.7	Over-rated
I was able to manage, resolve complex applications and handle unpredictable issues with creative and innovative solution(s)	3.05 (.653)	3.64 .650)	0.59	Over-rated	3.05 (.653)	3.78 .638	0.73	Over-rated
I was able to apply skill / knowledge to a range of approaches in the field of study/work/practice	3.23 (.611)	3.86 .554	0.63	Over-rated	3.23 (.611)	3.83 .665	0.6	Over-rated
Mean	3.16	3.73			3.16	3.82		

Note:
(1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

For the skill of 'values, attitudes and professionalism', male interns had not over-rated any of the subskills, but female interns had over-rated the subskill of managing time, making decisions and evaluating outcomes. This skill has not been over-rated by the male interns which indicates that their self-rating matches the assessment of the employers. It also suggests that the male interns are more realistic in their self-assessment and may display better work ethics and professionalism compared to female interns.

Table 3. Values, Attitudes and Professionalism

	Male				Female			
Subskill	**Employer**	**Interns**	**Difference**	**Conclusion**	**Employer**	**Interns**	**Difference**	**Conclusion**
I arrived on time, stayed on task, and followed attendance policies	4.23 (.611)	4.52 .505	0.29		4.23 (.611)	4.58 .560	0.35	
I could manage time, make decisions and evaluate outcomes	3.70 (.599)	4.18 .691	0.48		3.70 (.599)	4.36 .591	0.66	Over-rated
I was able to demonstrate adherence and ability to identify ethical issues, make decisions ethically, and act professionally within the varied social and professional environment and practice	3.70 (.558)	4.07 .398	0.37		3.70 (.558)	4.08 .650	0.38	
I modeled honesty, integrity and loyalty and the ability to accept change	4.14 (.560)	4.43 .545	0.29		4.14 (.560)	4.48 .594	0.34	
Mean	3.94	4.30			3.94	4.38		

Note:
(1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

The next skills which are 'managerial and entrepreneurial skills' only has one subskill namely identifying new business opportunities which has been over-rated by both male and female interns. Although both groups have over-rated this subskill, female interns have a higher self-assessment compared to males. The large difference in employers' expectation and interns' performance indicates that more emphasis needs to be given on entrepreneurial skills as presently in arts and social sciences programmes very less emphasis given on this skill.

Table 4. Managerial and Entrepreneurial Skills

	Male				Female			
Subskill	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**
I was provided with a chance to engage effectively in self-directed lifelong learning and professional pathways	3.23 (.684)	3.48 .876	0.25		3.23 (.684)	3.60 .874	0.37	-
I demonstrated entrepreneurial competency with elected project(s)	3.16 (.531)	3.55 .791	0.39	-	3.16 (.531)	3.63 .685	0.47	-
I could demonstrate an appreciation of broader sociopolitical economic and cultural issues at local/national/regional level	2.93 (.669)	3.20 .765	0.23	-	2.93 (.669)	3.18 .950	0.25	-
I had the opportunity to identify new business opportunities	2.63 (.725)	3.52 .849	0.89	Over-rated	2.63 (.725)	3.60 .782	0.97	Over-rated
Mean	2.99	3.44			2.99	3.50		

Note:
(1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

The skills of 'information management and lifelong learning skill' is the only employability skill that has not been over-rated by male and female interns. There is a minimal difference between the self-assessment of the interns and the assessment by the employers. This indicates that the interns' self-assessment was in line with their actual performance and that they had a more realistic outlook compared to the other skills. This is not very surprising as this skill is closely related to the usage and management of ICT related skills. Technology is a common tool used by most of the younger generation and as such, it is expected that they would be well versed in related fields.

Table 5. Information Management and Lifelong Learning Skills

	Male				Female			
Subskill	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**
I can adapt to ever-changing technologies and resources by identifying, learning and applying new skills to improve job performance	3.67 (.644)	4.00 .571	0.33	-	3.67 (.644)	4.05 .548	0.38	-
I was able to use a broad range of information, media and technology applications to support study and/or work	3.74 (.539)	4.09 .603	0.35	-	3.74 (.539)	4.03 .593	0.29	-
I was able to use and combine numerical and graphical/visual data for study/work	3.74 (.621)	3.98 .590	0.24	-	3.74 (.621)	4.08 .568	0.34	-
Mean	3.72	4.02			3.72	4.05		

Note:
(1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

For 'communication, leadership and team skills', this skill has the highest difference between the interns' assessment and employers' evaluation. Male interns had over-rated four out of ten subskills while females had over-rated five out of ten subskills. Among the over-rated subskills of male interns, the ability to work autonomously and showed leadership and professionalism in managing responsibilities within broad organizational parameters had the highest self-rating, whereas the female interns highly rated their ability to convey ideas both in written or oral forms using appropriate and different methods of presentation. It is interesting to note that, while the other over-rated subskills were the same for male and female interns, male interns were found to have a small difference in the subskill of conveying ideas both in written or oral forms using appropriate and different methods of presentation. This suggests that male interns probably had better written and oral communication skills as compared to their female counterparts.

Table 6. Communication, Leadership and Team Skills

	Male				Female			
Subskill	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**
I could work cooperatively as a team member and demonstrated respect for all co-workers	4.05 (.434)	4.16 .568	0.11	-	4.05 (.434)	4.26 .542	0.21	-
I could undertake significant levels of work-related responsibilities of others as well as self	3.47 (.505)	3.66 .526	0.19	-	3.47 (.505)	3.61 .690	0.14	-
I demonstrated decision making capacities and professionalism by working towards pre-determined goals and outcomes	3.12 (.697)	3.93 .545	0.81	Over-rated	3.12 (.697)	4.03 .601	0.91	Over-rated
I worked autonomously and showed leadership and professionalism in managing responsibilities within broad organizational parameters	2.79 (.559)	3.95 .680	1.16	Over-rated	2.79 (.559)	3.86 .677	1.07	Over-rated
I demonstrated accountability especially in professional fields	3.65 (.686)	3.57 .695	-0.08	-	3.65 (.686)	3.72 .892	0.07	-
Communication at workplace was mainly in English	2.91 (.811)	3.55 .663	0.66	Over-rated	2.91 (.811)	3.82 .686	0.91	Over-rated
I was given the opportunity to convey ideas both in written or oral forms using appropriate and different methods of presentation	2.77 (.718)	3.98 .590	0.21		2.77 (.718)	4.03 .641	1.26	Over-rated
I was able to present ideas confidently, accurately and coherently in appropriate context in a well-structured manner to a diverse audience	2.44 (.734)	3.30 .823	0.86	Over-rated	2.44 (.734)	3.29 1.095	0.85	Over-rated
I had opportunities to deal with customers/clients/students (initiating contact, conduction or having a discussion on phone)	3.35 (.650)	3.66 .680	0.31	-	3.35 (.650)	3.63 .734	0.28	-
I was given opportunities to work together with different people in diverse learning and working communities	3.42 (.626)	3.50 .731	0.08	-	3.42 (.626)	3.79 .849	0.37	-
Mean	3.20	3.73			3.20	3.80		

Note:
(1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

The final skill that was assessed was 'practical skills'. Both male and female interns had over-rated two out of four subskills. The subskills that were over-rated were the same for both genders, but female interns had a slightly higher self-assessment compared to males.

Table 7. Practical skills

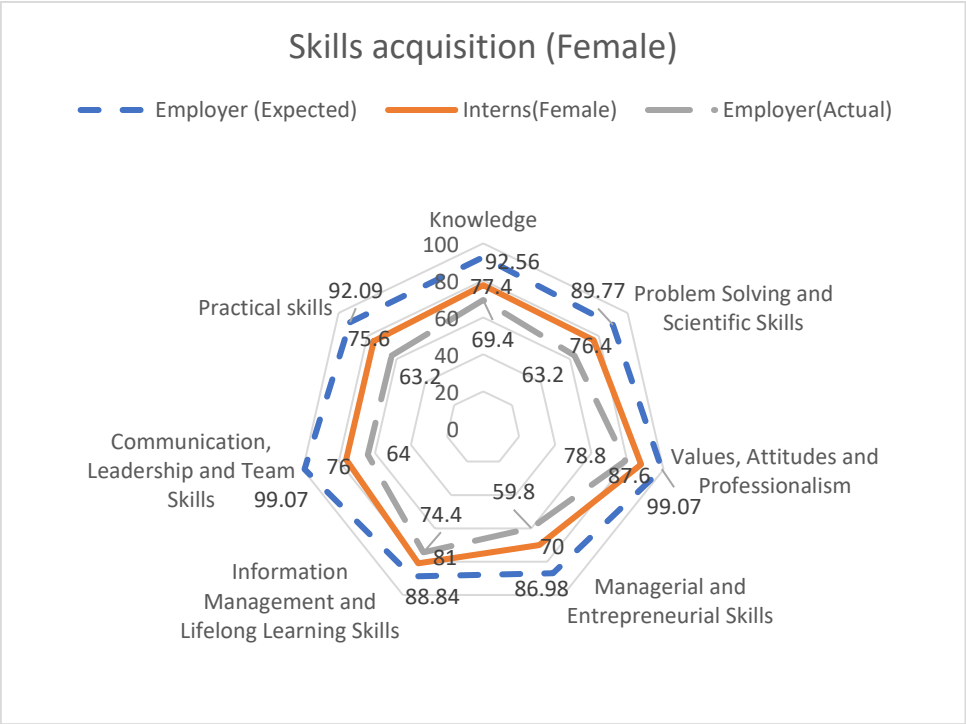
	Male				Female			
Subskill	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**	**Emplo-yer**	**Interns**	**Diffe-rence**	**Conclu-sion**
I was able to apply a range of essential methods and procedures to solving a broad range of complex problems	3.47 (.631)	3.75 (.534)	-0.28	-	3.47 (.631)	3.84 (.710)	-0.37	-
I was able to relate theory with practice	3.30 (.599)	3.68 (.674)	-0.38		3.30 (.599)	3.76 (.799)	-0.46	
I was able to give critical feedback and solutions for tasks assigned	2.86 (.639)	3.66 (.645)	-0.8	Over-rated	2.86 (.639)	3.79 (.685)	-0.93	Over-rated
I was able to review, make adjustments and supervise related practices and processes concerning field of specialization	3.02 (.740)	3.61 (.618)	-0.59	Over-rated	3.02 (.740)	3.72 (.812)	-0.70	Over-rated
Mean	3.16	3.68		-	3.16	3.78		

Note:
(1) Figure in parentheses represents standard deviation value
(2) If the difference exceeds 0.5, then we consider that the interns have over-rated themselves

Skills gap analysis – employers versus female interns' perspective

The radar chart below details the expectation of the employers, self-assessment of female interns as well as the actual evaluation of skills possessed by the employers. The findings are quite similar to that of the male interns with reference to the skills with the biggest and smallest gaps. The results from radar chart seems to reaffirm the results from the skills gap analysis. As indicated earlier, for female interns, several skills that require urgent attention are 'communication, leadership and team skills', followed by 'practical skills', 'problem solving and scientific skills' and 'managerial and entrepreneurial skills'.

Figure 1: Skills gap analysis – employers versus female interns' perspective



Despite those deficiencies, based on employer feedback, several female interns received favourable report from their employers especially for the skill of 'values, attitudes and professionalism' as seen in excerpts below:

> "A has contributed to numerous areas…. Her undivided commitment, which is not only confined to her job scope, has shown her support towards the organization. She is talented person with determination of success and passion for acquiring knowledge. She is very hardworking and has positive attitude towards task that are assigned to her."

(A, Female, Employer Report, Government organization)

> "Z did an excellent job during her internship program. She worked well with the team and show maturity and desire to learn new things. She also shows good discipline and have a bright future".

(Z, Female, Employer Report, Government organization)

> "Y is able to perform her duties well and demonstrate a very high commitment in carrying out the assigned tasks. She has completed all the assignments on time and have her own initiative to learn new things that are related to the field of duty. …. She is diligent, responsible and has team spirit as well as good relationship with others."

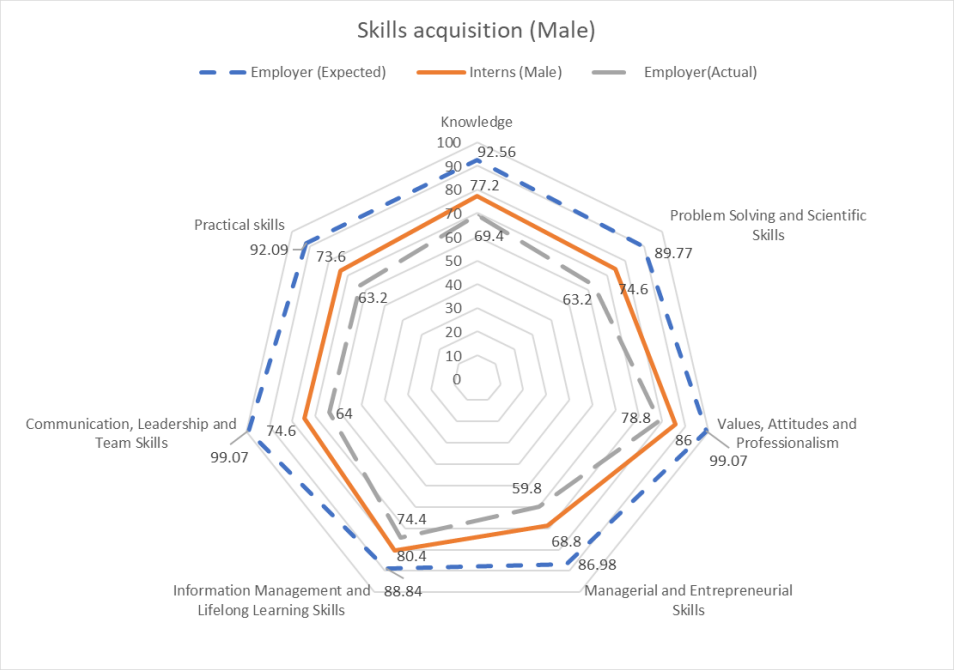
(Y, Female, Employer Report, Government organization)

The employer's reports above pointed out some positive qualities of female interns such as commitment (interns A and Y), disciplined (intern Z), initiative (intern Y) and teamwork (interns A and Y). These positive qualities are foundational for all the skills being investigated.

Skills gap analysis – employers versus male interns' perspective

The radar chart below details the expectation of the employers, self-assessment of male interns as well as the actual evaluation of skills possessed by the employers. From the radar chart, the skills of 'information management and lifelong learning', 'values, attitudes and professionalism' and 'knowledge' had the smallest gaps between the male intern's self-assessment and employers' actual assessment of the skills possessed. The current generation of undergraduates are more tech savvy and as such, the small gap in the skill of 'information management and lifelong learning' indicates that the interns can manipulate and make use of technology to their advantage. Similar to female interns, male interns too seem require urgent improvement in several skills namely 'communication, leadership and team skills', followed by 'practical skills', 'problem solving and scientific skills' and 'managerial and entrepreneurial skills'.

Figure 2: Skills gap analysis – employers' versus male interns' perspective



As evident from the radar chart, 'communication, leadership and team skills' are one of the skills that require urgent addressing among male interns. This result is further reaffirmed by a report excerpted for a male intern as follows:

> "X is a good intern. He is willing to learn and perform various tasks assigned to him. He, however, needs improvement in his communication and writing skills. While he is able to perform some of the standard structured tasks given to him, he needs further analytical skills to complete the non-structured assignments given."
>
> *(MA, Male, Employer Report, Government organization)*

Even though 'values, attitude and professionalism' has a smaller gap, an employer pointed out lack of this skill in one of the male interns as follows:

> "Trainee managed to complete the task given and deliver the task assigned accordingly. However, the trainee lacks sense of urgency and motivation. The trainee needs to be more proactive and passionate about work. Although the trainee was assigned for four months, sense of belonging to the organization should be portrayed".
>
> *(AI, Male, Employer Report, Government organization)*

Further to this, the employers report can provide useful insights on skills that requires improvement. Improvement in analytical skills for example was pointed out by the employer (for intern MA). This particular skills remains foundational for many other skills such as 'practical skills' and 'problem solving and scientific skills' as revealed in the results from the

radar chart irrespective of gender. In addition, inculcating positive values, attitudes and professionalism is also equally important as pointed out by the employer (for intern AI) despite the small gap between the expected and the actual performance of male interns.

CONCLUSION

Overall, the male and female interns have both over-rated certain subskills comprising six out of seven skills. However, the skills that male and female interns performed poorly at are the same with only minor differences in the subskills within the skills. It can be said that the female interns appear to be more confident in the skills they possess which causes them to over-rate themselves. The male interns on the other hand have also over-rated certain subskills like the females but at a much lower rate comparatively. The self-assessment of the male interns also indicate they are much more cautious in their self-assessment and seem to do well in the field of 'information management and lifelong learning' skills. Male interns were also found to have a lower self-assessment in the skill of 'values, attitudes and professionalism' that was close to the assessment of the employers. The findings of this study also suggests that both male and female interns are aware of their low level of competence in the skill of 'communication, leadership, and team skills', as this skill has the biggest gap between the employer's expectation and the interns' self-assessment.

In conclusion, it can be said that there is no significant gender difference between the self-assessment of the skills by the interns. Yet, the female interns had over-rated a few subskills more than their male counterparts, suggesting over confidence as it did not match with the assessment of the employers. It is also evident that female interns generally have a higher rating of the subskills they possess compared to the male interns and probably indicates a lack of knowledge or exposure to the needs and requirements of the industry, although this can also be applied for the male interns as well.

From a broader perspective, employers placed more emphasis on the skill of 'communication, leadership and team skills' as well as the skill of 'values, attitudes, and professionalism'. Both, male and female interns had only managed to somewhat fulfil the expectation of the employers in the skill of 'values, attitudes and professionalism', while the skill of 'communication, leadership and team skills' remains the skill with the biggest gap between expected and actual skill acquisition. However, the weakness in these two skills is much prevalent among male interns which are also reaffirmed by the employer reports.

Malaysian universities generally need to revise the course content to include more elements, specifically targeted at enhancing the subskills that are within this skill. In most cases, the subskills are not given much emphasis, so this study highlights that skill acquisition refers not only to the main skill but also the subskills within these skills which play an equally important role. The university curricula need to be revised by including these subskills in course content to improve the acquisition of the skills by interns. From a gender perspective, although the male and female interns do not have a very significant difference between the assessment of skills by employers, it can be concluded that female interns were found to be overconfident with skills they possessed whereas male interns appeared to be slightly more realistic in the self-assessment of their skills. However, an important point to note is that the review of employer reports obviously concurs with the positive outlook of female interns of their overall skills acquisition.

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