

Employer Satisfaction Towards the Quality and Marketability of Polytechnic Graduates

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Abstract. Polytechnics in Malaysia provide skilled, knowledgeable, and competent workers with strong soft skills to meet industry demands. This study aims to assess employers' satisfaction with polytechnic graduates employed in their organizations. The study employed a quantitative methodology, with 178 employers participating as respondents. A Likert-scale questionnaire was distributed to industries and government agencies where graduates of Politeknik Balik Pulau, Penang, are employed. Four main constructs were measured, namely skills, knowledge, soft skills, and the level of employer satisfaction with graduates' performance in the workplace. The data were analyzed using descriptive statistics, including mean scores and percentage analyses, in the Statistical Package for the Social Sciences (SPSS) version 21. The findings indicate that polytechnic graduates have skills in using a computer to process information ($M=4.4551$, $SD=0.7136$), possess competencies in information management ($M=4.4045$, $SD=0.6759$), and in technology applications ($M=4.3652$, $SD=0.7638$). In addition, they have the discipline in carrying out tasks assigned by industries or organizations ($M=4.5337$, $SD=0.7063$), the ability to work effectively in teams ($M=4.5281$, $SD=0.6821$), and demonstrate strong communication skills ($M=4.4775$, $SD=0.7067$). Moreover, the findings show that polytechnic graduates practice good work ($M = 4.5000$, $SD = 0.7306$), can adapt to work situations ($M = 4.4888$, $SD = 0.7149$), and dependability ($M = 4.4719$, $SD = 0.7378$). This study contributes to polytechnics by identifying aspects of graduates' technical and generic skills that need to be further enhanced in order to improve educational quality and relevance while also increasing the marketability of graduates. It is suggested that future research employ interview techniques to qualitatively explore employers' perspectives in greater depth.

Keywords: Employer Satisfaction, Marketability, Polytechnic Graduates.

1 Introduction

Graduates' marketability is an important indicator of an institution's success in producing a high-quality workforce. Polytechnic Malaysia plays a significant role in supplying a competent semi-skilled workforce equipped with technical expertise, strong knowledge, and essential soft skills to meet the demands of the job market. Graduates are individuals produced by institutions of higher learning (IHTs) who enter the workforce and become part of the labour market, whether in the public or private sector. Therefore, polytechnics are among the important TVET institutions for producing skilled and competent graduates in technical fields. The Technical and Vocational Education and Training (TVET) system is an educational system that can support the government's goal of producing graduates who can meet industry needs and thus achieve National Transformation 2050 (TN50) [1]. TN50 is a national development program that will be driven from 2020 to 2050. Clearly defined 30-year goals and targets through an inclusive and participatory process will be the driving force behind this project. By 2050, the overall objective of TN50 is for Malaysia to be among the top 20 countries worldwide. This is one of the factors where polytechnics are necessary in producing competitive graduates in the future.

Among the challenges faced by Malaysian government agencies in addressing unemployment between 2020 and 2025 are skills gaps, labour market mismatches, and limited job supply [2]. Past studies have shown that there is a 'skills gap' between graduates and industry demand, which affects careers, productivity, and development [3]. The problem with our graduates today is that they still lack certain skills that are required by businesses or companies. Due to frequent complaints from companies about the lack of required abilities among graduates, the rate of unemployed graduates has increased over time. However, there is a discrepancy between the education of graduates and the industry's needs in terms of skills and knowledge [1]. Therefore, this study examines the satisfaction of employers with polytechnic graduates working in their companies or organizations, and whether it indirectly affects the employability of graduates after graduation. The following are the research questions (RQ) and research objectives (RO) of the study:

- i. RQ: What is the level of employer satisfaction towards polytechnic graduates employed in companies or organizations?
- ii. RO: To examine the level of employer satisfaction towards polytechnic graduates employed in their companies or organizations.

The results of this study are useful for employees or graduates who are entering the field of employment to apply the marketable skills studied. In addition, graduates will be more confident and competent, and able to compete when working in the future. This paper is organised as follows: Section 2 discusses the literature review of the study. The methodology of the study is described in Section 3. Section 4 presents the results and discussion. Section 5 concludes the paper about the research implementation, contribution, and future studies.

2 Literature Review

The main challenge in achieving the nation's aspirations and agenda is to provide the human capital that the industry truly needs and meet employer satisfaction. The curriculum design and implementation, such as TVET, have an impact on graduates' employability. Nowadays, graduates are expected not only to possess strong academic knowledge but also to demonstrate essential soft skills to enhance their competencies [4]. These skills serve as valuable assets in improving graduates' marketability and increasing their chances of securing employment. Furthermore, the social changes occurring in the country, particularly the increasing level of educational attainment among the population, have brought about significant transformations, thus causing the industry to require highly skilled graduates for employment. Soft skills such as communication, problem-solving, and teamwork are often under-emphasized, leaving graduates unprepared to meet the ever-changing demands of the industry [4]. Therefore, graduates who possess strong soft skills, such as the ability to work independently, information technology skills, leadership, and adaptability, are more likely to secure employment within a shorter period of time.

The industry is in dire need of workers who are skilled in a variety of skills. The industry is very much looking to educational institutions to provide the workers they want [5]. Nowadays, unemployed graduates are a major problem for the country. According to labor market statistics, even though the output of a group of workers exceeds the needs of employers, the output of local higher education institutions is still not enough to fill vacant positions in the industry [1]. Therefore, one of the main reasons for this situation is that graduates are still unable to meet the needs of employers. According to the official DOSM report from 2025, the unemployment rate for young people between the ages of 15 and 24 was roughly 10.3% in 2025, and between 298,000 and 300,000 of them were still actively seeking jobs [1]. Moreover, a survey conducted by the Malaysian Youth Research Institute in 2022 showed that the majority of unemployed young people were fresh graduates, indicating an issue of skills mismatch and a lack of suitable job opportunities for those fields in the local market [2,6]. Thus, this study is relevant in providing empirical evidence on employer satisfaction with polytechnic graduates. In addition, improvements can be made to the gaps identified in this study. Employer feedback needs to be analyzed to ensure that the employability needs of graduates are in line with the training and education provided by the polytechnic.

3 Methodology

This study uses a quantitative approach, such as a questionnaire, to collect data from the sample. The respondents of the study consisted of employers of Politeknik Balik Pulau (PBU), Penang graduates in 2025. The total number of PBU graduates was 258. Therefore, a questionnaire was given to 258 employers who employed PBU graduates in 2025. The

relevant sample size is 155 respondents, based on the desired accuracy and a 95% confidence level [7,8]. Thus, 178 respondents (employers) who answered the questionnaire in this study are relevant and valid. A survey was conducted using a questionnaire adopted from a study by Masrakin and As'shikin [9]. The questionnaire comprised four dimensions: skills (5 items), knowledge (4 items), soft skills (7 items), and employer satisfaction (8 items). The questionnaire was measured using a Likert scale.

Thus, respondents were required to rate their responses to the statement items on a 1-5 scale [10,11]. The analysis in this study was primarily focused on descriptive statistics. The interpretation of the mean score is presented in Table 1. The mean scores were interpreted into five levels (very low, low, moderate, high, very high) using equal interval classification.

Table 1. Mean score interpretation.

Mean score	Interpretation of the mean score
4.21 to 5.00	Very High
3.41 to 4.20	High
2.61 to 3.40	Moderate
1.81 to 2.60	Low
1.00 to 1.80	Very Low

4 Result and Discussion

4.1 Demographic Information

This section describes the statistical findings from the study that was conducted. In this section, the frequency, percentage, and mean of each question were computed statistically. The demographic information measured is the type, cluster of organizations, and number of polytechnic graduates currently working in their organizations. A total of 178 respondents (employers) answered the survey. The majority of the organizations are private companies with 92.7% (165 responses), the government sector with 5.1% (9 responses), and government-linked companies (GLC) with 2.2% (4 responses) (see Fig. 1). The finding shows the cluster of organization is 32.6% (56 responses) for Information and Communication Technology, 15.7% (28 responses) for Commerce, 17.3% (13 responses) for Engineering, 2.8% (5 responses) for Tourism & Hospitality, 2.2% (4 responses) for Manufacturing, 1.7% (3 responses) for Retail, 1.7% (3 responses) for Food and Beverage, and others is 26% (66 responses) (see Fig. 2).

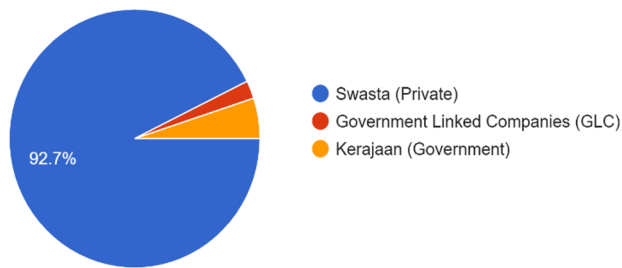


Fig. 1. Type of organization.

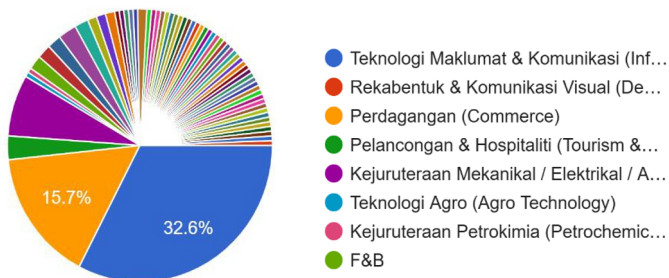


Fig. 2. Cluster of organizations.

Reliability Analysis

Cronbach's Alpha coefficients were computed for the constructs in order to ensure the instrument's internal consistency. Based on the analysis that has been conducted, the scale exceeded the threshold of 0.70 (≥ 0.70). Thus, the reliability of items is excellent [12].

Table 2. Reliability Statistics.

Construct	No. of Items	Cronbach's Alpha
Skills	5	0.952
Knowledge	4	0.940
Soft Skills	7	0.958
Employers' Satisfaction	8	0.981

Number of Employed Graduates and Starting Salary

The graph below shows the number of polytechnic graduates that currently employed in their organisation. The result shows 79.8% (142 responses) with 1-2 employees, 9% (16 responses) with 3-5 employees, 2.2% (4 responses) with 6-7 employees, 3.4% (6 responses) with 8-10 employees, 1.7% (3 responses) with 10-15 employees, 1.7% (3 responses) with 16-20 employees, and 2.2% (4 responses) with 21 employees and above (see Fig. 3). Moreover, the Figure 4 shows the starting salaries for polytechnic and community college diploma graduates who have been hired by their organizations. It shows that the majority of polytechnic graduates, which is 61.2% (109 responses), were given a starting salary between RM1001- RM2000 (The Malaysian Ringgit (MYR)). The second-highest percentage of the frequency, which is 20.8% (37 responses), is for RM2001-RM3000. Followed by 12.9% (23 responses) for RM1000 and below. However, 12.9% (23 responses) for starting salary of RM1000 and below. The study found that the salary received by workers with a Diploma-level education is not appropriate, and it is hoped that employers can increase workers' starting salaries. On the other hand, there is one graduate who received a starting salary of RM750.

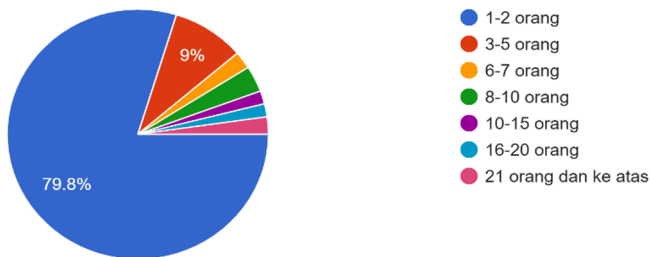


Fig. 3. Number of polytechnic graduates that employed.

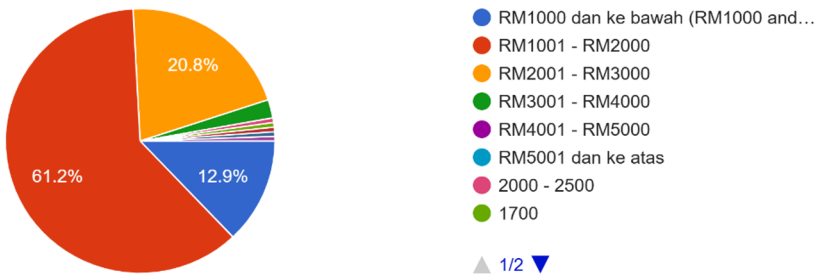


Fig. 4. Starting salary for diploma level (in the Malaysian Ringgit or MYR).

4.2 Employers' Perceptions of Graduates' Skills, Knowledge, and Soft Skills

The result in this section discusses employers' perceptions of graduates' skills, knowledge, and soft skills. Table 3 shows that the items for the skills construct, such as "using a computer to process information" ($M = 4.4551$, $SD = 0.7136$), are very high, followed by "information management skill" ($M = 4.4045$, $SD = 0.6759$). The items for "skills in choosing tools/ technology" ($M = 4.3652$, $SD = 0.7638$), "skill in innovative thinking" ($M = 4.3652$, $SD = 0.7258$), and "skill in creative thinking" ($M = 4.3652$, $SD = 0.7021$) gave the same mean value and were at a very high level. Thus, this finding shows that most of the Politeknik Balik Pulau, Penang graduates were classified as skilled by the employer, and the level of items is very high. Other items that were very high are "skill in problem-solving" ($M = 4.3202$, $SD = 0.7544$) and "decision-making skills" ($M = 4.2697$, $SD = .7405$).

Table 3. Findings for the skills construct.

Items	N	Mean	Std. Deviation	Mean Interpretation
Information management skill	178	4.4045	.6759	Very High
Using a computer to process information	178	4.4551	.7136	Very High
Skill in choosing tools/ technology)	178	4.3652	.7638	Very High
Skill in innovative thinking	178	4.3652	.7258	Very High
Skill in creative thinking	178	4.3652	.7021	Very High

Table 4 shows that the items are very high for the knowledge construct, such as "knowledge of information management" ($M = 4.3820$, $SD = 0.7052$), followed by "knowledge of job scope" ($M = 4.3708$, $SD = 0.7498$) and "knowledge of technology application" ($M = 4.3596$, $SD = 0.7628$). The other item is "technical knowledge based on job requirements" ($M = 4.2978$, $SD = 0.7334$), also at a very high level. Therefore, most polytechnic students are categorized as knowledgeable regarding information management and the scope of their work in the industry or organization.

Table 4. Findings for the knowledge construct.

Items	N	Mean	Std. Deviation	Mean Interpretation
Technical knowledge based on the job requirements	178	4.2978	.7334	Very High
Knowledge of technology application	178	4.3596	.7628	Very High
Knowledge of information management	178	4.3820	.7052	Very High
Knowledge of job scope	178	4.3708	.7498	Very High

Moreover, Table 5 shows the findings of the soft skills construct. The items are very high level such as “discipline in performing tasks” ($M = 4.5337$, $SD = 0.7063$), followed by “able to work in a team” ($M = 4.5281$, $SD = 0.6821$), “practice of moral values” ($M = 4.5000$, $SD = 0.6827$), and “good communication skills” ($M = 4.4775$, $SD = 0.7067$). Therefore, these findings show that polytechnic students are disciplined in carrying out tasks, work in groups, practice moral values, and have good communication skills. Other than that, the items are also very high for the soft skills construct, such as “meticulous in a given task” ($M = 4.3989$, $SD = 0.7313$), “proficient in the English Language” ($M = 4.3258$, $SD = 0.7922$), and “entrepreneurship skill” ($M = 4.2584$, $SD = 0.7958$). The findings of this study show that polytechnic graduates have good soft skills, and they improve their communication skills while working with employers. Therefore, graduates who have good soft skills can get jobs easily and thus increase the institution’s marketability percentage. This finding is in line with the study from Wong et al. [13], whereby soft skills have a positive impact on the marketability of graduates, with higher efficiency, and are associated with increased work readiness by graduates, and meet the needs of employers [13].

Table 5. Findings for the soft skills construct.

Items	N	Mean	Std. Deviation	Mean Interpretation
Discipline in performing tasks	178	4.5337	.7063	Very High
Good communication skill	178	4.4775	.7067	Very High
Able to work in a team	178	4.5281	.6821	Very High
Proficient in the English Language	178	4.3258	.7922	Very High
Meticulous in a given task	178	4.3989	.7313	Very High
Practice of moral values	178	4.5000	.6827	Very High
Entrepreneurship skill	178	4.2584	.7958	Very High

4.3 Employers’ Satisfaction with Polytechnics’ Graduates

Based on Table 6, the items are very high level for the employers’ satisfaction construct, such as “practice good work” ($M = 4.5000$, $SD = 0.7306$), followed by ability to adapt to work situations” ($M = 4.4888$, $SD = 0.7149$) and “dependability” ($M = 4.4719$, $SD = 0.7378$). These items are very high, and the findings also indicate that polytechnic graduates can perform well and adapt to organizational work environments. The finding shows that polytechnic graduates exhibit good work performance ($M = 4.4663$, $SD = 0.7299$), a strong willingness to work hard ($M = 4.4663$, $SD = 0.7822$), and work readiness in industry ($M = 4.4607$, $SD = 0.7296$). Therefore, this shows that employers are satisfied with polytechnic graduates because they perform well, work hard, and are prepared to work in various fields. Other very high-level items are “fast action in performing tasks” ($M = 4.4326$, $SD = 0.7579$) and “ability to prioritize the work” ($M = 4.4326$, $SD = 0.7579$). This shows that polytechnic

graduates can improve their skills to respond quickly to performing tasks and prioritize their work.

Therefore, based on the findings that have been analyzed, employers are satisfied with polytechnic graduates. This shows that polytechnic graduates are of good quality and have potential for marketability in the industry. The skills possessed by graduates include being proficient in using computers, knowledgeable in information management, and technology applications. In addition, polytechnic graduates are disciplined in carrying out tasks given by employers, work in groups, and have good communication skills. Therefore, polytechnic graduates are very much needed in the field of information technology in the industry. This is proven by the support of data from the Center for Collaboration, Industrial Services and Marketability (CISEC) that the marketability of Politeknik Balik Pulau, Penang graduates is 97.9% in 2025. The percentage of PBU graduates who are employed in their field of study or have equivalent qualifications in their field of study is 57.8%. Therefore, the findings of this study also prove that polytechnic graduates have the skills needed by the industry in the workplace. Future studies could consider qualitatively examining the employer's perspective through interviews.

Table 6. Findings for the Employers' Satisfaction Construct.

Items	N	Mean	Std. Deviation	Mean Interpretation
Work readiness	178	4.4607	.7296	Very High
Ability to adapt to work situations	178	4.4888	.7149	Very High
Fast action in performing tasks	178	4.4326	.7579	Very High
Shows a good work performance	178	4.4663	.7299	Very High
Ability to prioritize the work	178	4.4326	.7579	Very High
Dependability	178	4.4719	.7378	Very High
Practice good work	178	4.5000	.7306	Very High
Willingness to work hard	178	4.4663	.7822	Very High

4.4 Improvements for Employer Satisfaction with Polytechnic Graduates

The questionnaire distributed to employers also included suggestions for improving graduates, systems, or curricula at polytechnics. Among the study findings obtained from respondents (employers) were:

- i. Updating the Curriculum in Accordance with Industry Needs: The curriculum is proposed to be constantly updated by taking input from the industry. This includes exposure to the latest technologies and tools, such as web development tools, industrial software, automation systems, and technologies related to IR4.0 and digitalization.

- ii. **Strengthening Soft Skills:** Several respondents emphasized the need to improve communication, leadership, self-confidence, teamwork, time management, and decision-making. English language proficiency is also considered an important factor in enhancing graduates' marketability.
- iii. **Increasing Collaboration with Industry:** Suggestions were also provided to strengthen relationships with industry through programs such as extended industrial training, curriculum development collaboration, industry certification, and pre-graduation interview opportunities with companies.

5 Conclusion

Polytechnic graduates have value in their information management, knowledge, and soft skills. This demonstrates that graduates' achievements are comparable to those of university graduates. The findings of this study also enable polytechnic management to identify future actions to address the surge in the Malaysian Higher Education Plan (RPTM) 2026-2035. The research contributes to the polytechnic by identifying areas for improvement to enhance the quality of education, such as technical and generic skills among graduates. At the same time, it can help graduates secure employment in a real-world work environment. It is suggested that future studies qualitatively examine employers' perspectives through interviews to obtain more detailed findings.

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