

Evaluating the demand for technology management graduates in the labour market

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ABSTRACT: The purpose of this research is to find out the prospect levels for technology management graduates in the Malaysian labour market from the perspective of graduates and employers. The scope of the research involves several factors, such as suitability of the programme, difficulty in getting employed, rewards and satisfaction gained, the chances for promotion, demand for graduates by companies or organisations, job suitability, and the potential of graduates in developing the company. The results of this research show that technology management graduates are needed in the labour market. According to feedback gained from graduates, the factor concerning the suitability of a programme scored the highest tendency, with a minimum score of 3.95, especially when compared to other factors, such as difficulty in getting employed, rewards and satisfaction gained and chances of promotion. The feedback given by employers shows that, in general, the factor of demand for graduates by companies and organisations, job suitability and potential of graduates in developing a company were favoured by them, each having a minimum score of 4.14, 3.90 and 4.04, respectively.

INTRODUCTION

The economic downturn in Malaysia a few years back has had negative effects in the public and private sectors in terms of employment. This situation has generated a great deal of difficulty for graduates in searching for suitable jobs. Thus, when the matter of prospects of graduates in the labour market arises, it is closely related to the course or programme taken by the graduates at Institutes of Higher Learning (IHLs). This is because choosing the right programme at IHLs enables graduates to get a job easier after graduating.

In general, the purpose of this research is to find out the prospects for graduates of technology management in the labour market from two perspectives, namely graduates' and employers'.

Furthermore, this research has also been carried out in order to determine the overall prospects for graduates given such factors as the suitability of the programme, the rewards and satisfaction gained, and career opportunities in the field. From the perspective of the employer, the research sought to account for the views of employers in terms of particular factors, such as the importance and demand for technology management graduates in developing and managing an organisation.

STATEMENT OF RESEARCH

The development of a country depends upon the Institutions of Higher Learning in that particular country. IHLs are seen as centres that contribute to the production of a skilled workforce and also where and a person's intellect is cultivated so that he/she will have the self-confidence and courage of conviction to face up to challenges that will be encountered in the working world [1].

The role of IHLs are also to act as pillars to the development and management of the planning of human resources. A knowledgeable, skilled and trained worker can contribute to the economic, social and political development of his/her country [2].

As Malaysia develops into becoming an industrialised nation, it needs to be equipped with suitable expertise in accordance with the changes and rapid developments of technology. Technology itself cannot evolve without the necessary skills. Thus, Malaysia needs to have an adequate workforce that is trained in technology in order to expand its own technology.

RESEARCH METHODOLOGY

This research was carried out using quantitative methods. This included the utilisation of surveys completed by a sample of graduates and employers. All the respondents were required to fill out survey forms by stating the degree of agreement on a scale of 5 using the Likert scale. The ratio of the scale was dependent on the items as to whether it was a positive or a negative statement.

The sample population was made up of graduates in technology management from the University of Technology Malaysia (UTM) and the University of Northern Malaysia (UUM), as well as employers who hired these graduates in their organisations. A total of 44 respondents were involved in this study, comprising 22 graduates and 22 employers. The reliability of instruments was measured using Alpha Cronbach using SPSS (version 10.0) in order to obtain the reliability co-efficiency. The outcome showed that the level of reliability was high for graduates: 0.8887, 0.7527, 0.6296 and 0.8643. The level for the employer was 0.8131, 0.9148 and 0.9219. This proves that the questions asked in the survey forms were clear and easy to comprehend.

ANALYSIS AND RESULTS

The survey forms were divided into two where sections B, C, D and E were for graduates, while sections A, B, and C were for employers. Respondents used a Likert Scale in order to answer the questions. The data was collected and analysed with SPSS version 10.0 based on the minimum score. The minimum value obtained from the respondents were used as a measurement to place them in groups of high, average and low tendencies in determining the prospects of the graduates in the labour market.

Table 1 shows the measurement of tendency based on Landell [3].

Table 1: The tendency level based on the minimum scores.

| Minimum Score | Tendency Level |
|---------------|----------------|
| 1.0-2.3 | Low |
| 2.4-3.7 | Average |
| 3.8-5.0 | High |

GRADUATES' PERSPECTIVE

The survey forms were divided into sections A, B, C, D and E. In section A, respondents were required to fill in their personal details. Sections B, C, D and E focused on factors that should be taken into consideration in determining the level of prospects for graduates in the labour force.

Regarding the factor concerning the suitability of the programme, the data was analysed based on the minimum score covering several aspects. As shown in Table 2, the suitability of the Bachelor's Degree in Technology Management (BDTM) has aided graduates of IHLs to acquire skills that can help them in their career. Most respondents with the highest minimum score of 4.18 agreed upon this statement. The feedback given by respondents regarding the correlation between the content of the programme and the skills required in the working world scored only an average tendency level with a minimum score of 3.73.

Table 2: Minimum scores for the factor of programme suitability.

| Suitability of Programme Factor | Minimum Score |
|---|---------------|
| Skills | 4.18 |
| Knowledge | 4.00 |
| Communication skills | 4.14 |
| BDTM curriculum | 3.86 |
| Working exposure | 3.82 |
| Industrial training | 4.09 |
| Application of skills and knowledge in work | 3.86 |
| Skills in the field of work | 3.73 |
| Suitability of posting | 4.05 |
| Theoretical knowledge | 3.86 |
| Job comprehension | 3.82 |
| Programme content | 3.95 |

Table 3 shows the various elements considered with regard to the factor of difficulty in getting a job. The surveyed responses to this factor were found to be at a moderate level. However, respondents did not agree at all with the statement that there is difficulty in getting a job after graduation; this scored a minimum score of 2.05.

Table 3: Minimum scores for the factor of difficulty in obtaining a job.

| Difficulty Factor | Minimum Score |
|------------------------------|---------------|
| Difficulty in getting a job | 2.05 |
| Career opportunities | 3.00 |
| Jobs offered | 2.86 |
| Interview experience | 2.73 |
| Job qualification | 2.50 |
| Job application response | 2.71 |
| Rejection of job application | 3.10 |
| Failing interviews | 3.19 |

The factor of rewards and satisfaction obtained involves the aspect of salary and rewards in terms of promotion. Table 4 shows that the connection between salary increment and one's abilities was accorded the highest minimum score of 4.05. The lowest minimum score given by respondents centred on the aspect of dissatisfaction regarding promotion. Discontented respondents gave a minimum score of 3.00.

Table 4: Minimum scores for rewards/satisfaction gained.

| Rewards/Satisfaction Factor | Minimum Score |
|--|---------------|
| Salary | 4.00 |
| Appropriate salary for academic level | 3.82 |
| Correlation between salary and ability | 4.05 |
| Extra pay | 3.09 |
| Underpaid for the job | 3.32 |
| Dissatisfied about promotion | 3.00 |

The factor of pay increments includes elements such as opportunities for promotion and further studies. As shown in Table 5, most respondents stated that the opportunities for promotion were high. However, regarding the aspect of frequency for promotion, the level of contentment among respondents was average with a minimum score of 3.68.

Table 5: Minimum scores for the promotion factor.

| Promotion Factor | Minimum Score |
|--|---------------|
| Opportunities for promotion among graduates | 4.00 |
| Job assurance | 4.09 |
| Opportunities to further studies | 3.86 |
| Frequency for promotions | 3.68 |
| Opportunities for promotion at the workplace | 3.82 |

Table 6 shows the minimum scores for those factors that have been taken into consideration when determining graduates' prospects in the labour market. The suitability of the programme has the highest tendency with a minimum score of 3.95. This is followed by chances for promotion with a minimum score of 3.89. The rewards and satisfaction gained, and difficulty in getting a job, scored an average tendency level with a minimum score of 3.55 and 2.77, respectively.

Table 6: Overall minimum scores by graduates' factor.

| Graduates Factor | Minimum Score |
|------------------------------|---------------|
| Suitability of the programme | 3.95 |
| Difficulty in getting a job | 2.77 |
| Rewards/satisfaction gained | 3.55 |
| Chances for promotion | 3.89 |

EMPLOYERS' PERSPECTIVE

The second section of the survey forms was for feedback from employers regarding the prospects for technology management graduates in the labour market. The research focused on three main factors, namely:

- The demand for graduates from organisations;
- Job suitability for graduates;
- The potential of graduates.

The aspects involved the regarding demand for graduates from organisations were directly related to the need for graduates and technology management in an organisation. The results are stated in Table 7. Generally, these aspects are in great demand from organisations as the minimum score exceeds 4.00.

Table 7: Minimum scores for the factor of the demand for technology management graduates.

| Demand Factor | Minimum Score |
|---|---------------|
| Demand for technology management graduates | 4.05 |
| Demand for technology management | 4.18 |
| Demand for technology management in managing the administration | 4.18 |

Table 8 shows that most respondents agreed that the element of job suitability was important. The skills acquired by graduates at the varsity level were very useful their career in an organisation. However, the minimum score concerning the curriculum for the Bachelor's Degree in Technology Management (BDTM) was at an average score of 3.76. This goes to show that university curricula in this area has not yet been able to meet employers' demands.

Table 8: Minimum scores for job suitability factor.

| Job Suitability Factor | Minimum Score |
|---|---------------|
| Skills | 4.14 |
| Knowledge | 3.86 |
| Communication skills | 4.09 |
| BDTM curriculum | 3.76 |
| Industrial training | 4.05 |
| Application of skills and knowledge in work | 3.82 |
| Skills in the field of work | 3.86 |
| Suitability of post | 3.82 |
| Theoretical knowledge | 3.82 |
| Job comprehension | 3.82 |
| Understanding in the field of work | 3.86 |

Table 9 refers to the opinion of factors from employers regarding the potential and contributions from graduates towards the development of the company and organisation. The potential of graduates has a high minimum score.

It can be seen that the potential of graduates to help in the management of a company is a huge factor with a minimum score of 4.18. However, employers had a low tendency level when it came to the experience of graduates in their work.

Table 9: Minimum scores for employers' opinions towards the potential of technology management graduates.

| Factor | Minimum Score |
|--|---------------|
| Contribution of ideas | 4.09 |
| Commitment | 4.23 |
| Assisting in the running of the company | 4.18 |
| Usage of skills | 4.05 |
| Able to bring a positive change | 3.95 |
| Contribute to the increase of productivity | 4.09 |
| Motivated | 4.14 |
| Knowledgeable | 3.95 |
| Adapt to work | 3.86 |
| Experience in the work field | 3.73 |
| Able to work in groups | 4.14 |

A summary of employers' points of view about the factors discussed is listed in Table 10. All the factors that were studied have a high tendency based on the minimum score results.

Table 10: Overall minimum scores according to employer factors.

| Employer Factor | Minimum Score |
|--|---------------|
| Demand for graduates in the organisation | 4.14 |
| Job suitability for graduates | 3.90 |
| Work potential of graduates | 4.04 |

CONCLUSION

Even though technology management has just started to expand in Malaysia, the labour market prospects in this field are becoming wider with the creation of new job opportunities by the manufacturing, construction, real estate and services sector. The results of this research, from the perspective of the graduates, show that the suitability of the job and chances for promotion were the contributing factors in determining the prospect levels for graduates in the labour market.

At the same time, from the perspective of the employers, the factors of demand for graduates with a Bachelor's Degree in Technology Management in developing the organisation, job suitability for graduates and graduates' work potential were the main factors in determining the prospect levels for graduates.

On the whole, the research results show that technology management graduates have a large labour market in the technology management field. Thus, it is hoped that future technology management graduates who have specialised in these fields can meet the demands of the labour market.

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