Graduates' Characteristics and Labour Market Entry: A Study Among Malaysian Graduates

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GRADUATES' CHARACTERISTICS AND LABOUR MARKET ENTRY: A STUDY AMONG MALAYSIAN GRADUATES

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Abstract

Malaysia's economy has been growing at an annual rate of 6.6 percent for the past three decades and yet the unemployment rates increases from 2.6 percent in 1996 to 3.6 percent in 2003 (Economic Planning Unit and Ministry of Human Resource). In year 2000, 15.2 percent of the unemployed are those with tertiary education and the numbers are growing each year although the rate of employments are expected to drop further with the implementation of the Ninth Malaysia Plan and the National mission which would provide more employment opportunities. This scenario has caused a great outcry among politicians and concerned citizens. Some placed the blame on the education system, mismatch between education and skills required by labour market, macroeconomic uncertainty or lack of innovative readiness among the Malaysian firms. The fact that many graduates are unable to secure jobs in the private sector companies, one begins to wonder as why this is happening. The questions are whether there are not enough job or our graduates are not qualified enough to be employed. There is a need to match the requirements of industry with the supply of labour especially in the situation where too many workers chasing after too few jobs. Since Malaysia has given a top priority on economic growth which is the foundation of employment generation, the other challenge is to ensure that the entrants into labour market meet the requirement of industries.

This paper does not concern with the availability of job markets, rather, it main objective is to investigate the effects of background of students, academic achievement and training, the institutions of study, areas of studies in the university, personalities of graduates on the chance of being unemployed among Malaysian graduates. This study involved 3025 graduates of both public and private institutions in Malaysia from 2001 to 2004. Of the sample respondents, around 18% were employed graduates and the rest are unemployed. The study employs logistic regression analysis and found that the chance of being employed did not depend on the academic achievement but on certain demographic characteristics and skills of graduates.

Introduction

According to the definition of the Labour Force Survey, unemployed include persons who are available for work but did not work during the reference week. They could either actively looking for work or not during that said week. The Malaysian economy seems to have experienced a significant unemployment rate in the mid-1980s as the unemployment rate exceeded 7 percent in 1986 and 1987. This shows evidence of some mismatch problems during this period when the economy was adjusting from the transition of reliance on mining and agriculture to manufacturing. The increase of unemployment rate during this period is a short term adverse affect as the country consistently achieved more than 7 percent GDP growth with low inflation in the 1980s and 1990s and this could also lead to the steady decrease of unemployment rate from 1988 to 1997. However, since 1998, the rates of unemployment are on the rise again though the increase is not as high as in the mid-1980s. It is interesting to find out why this is happening so that action can be taken to avoid the problem to be prolonged.
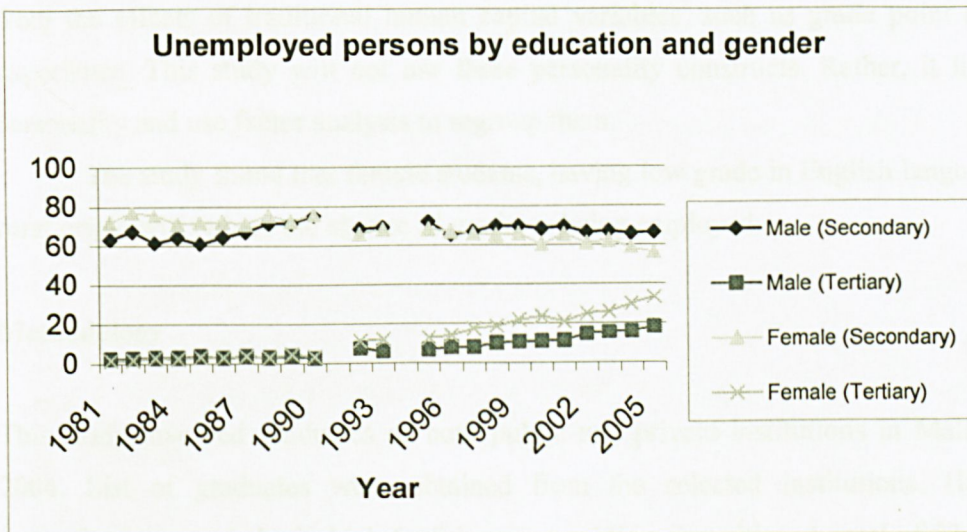
Figure 1: Unemployment Rates (%), 1982 - 2005

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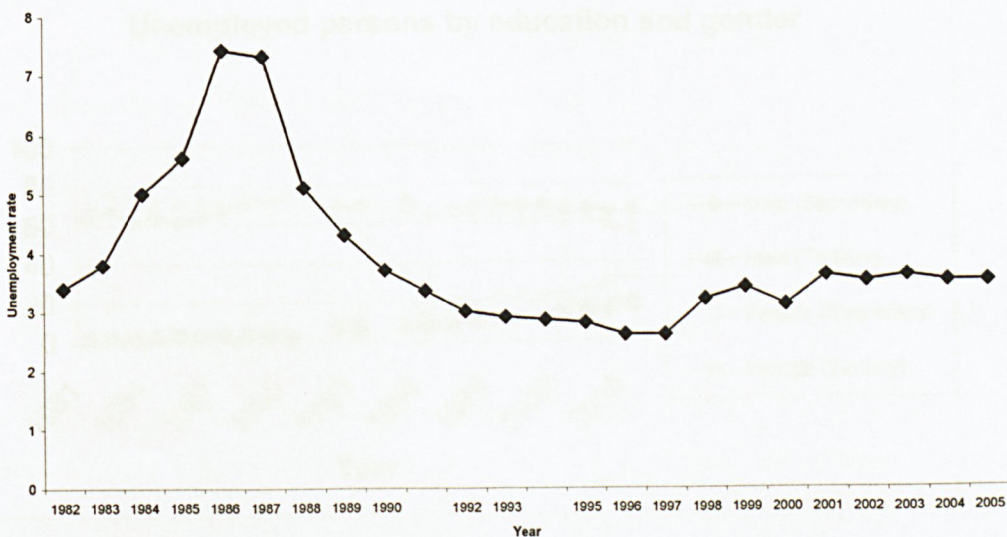
Traditionally, labour market entry depends on traditional human capital variables such as grade point averages, work experience and study field. In recent years, working environments require people to be more flexible, where more emphasis is placed on 'soft' factors and 'generic' competencies such as communication skills and personality features (Spencer & Spenser, 1993).

The background of students in this study includes variables such as ethnic group, gender and place of origin. As far as Malaysia is concerned, it is important to mention that ethnic group is the key factor that determines businesses, education policy, social policy, cultural policy, entry to educational institutions and others and thus therefore serve as an important variable to be included in this study. Meanwhile, the participation of women in the labor force is still considered low although it has substantially increased over the years. Figure 2 shows that the rates of unemployment of graduates are on the rise and it is more rapidly for female graduates than their male counterparts. This is a strange fenomena since the percentage of female students studying in the higher institutions is much higher than male counterparts. However, other countries such as countries in the Asian region and Middle East had also faced the same problem where women's participation rates are often remain lower than men's (Malhotra & DeGraff, 1997; Mehra & Gammage, 1999; Khuri-Tubbeh, 1995).

Figure 2: Unemployed Persons by Education and Gender (1982 – 2005)

The place of origin can also plays a vital role in determining unemployment among graduates. This is due to the fact that some graduates chose to go back and search jobs in their hometown. Unfortunately, job opportunities in small cities are smaller as compared to larger cities in Malaysia.

This study also includes academic achievement and training which is represented by overall academic achievement, competencies in English language and whether graduates did internship during their studies. These variables are believed to increase the chance of graduates to be employed. The institution is represented by type of institution and is divided into two categories such as public and private institutions. Admissions to a public university in Malaysia are very competitive and therefore receive many good students as compared to private higher institutions. However, a growing concern now is that many graduates produced by public universities had to compete with those from private institutions in order to get the job. Area of studies were also divided into two groups namely science and social science. It would be interesting to find out whether the area of study affect employment among graduates in Malaysia.

The other two factors considered in this study are good personalities and high competencies among graduates. Various definitions of personality float around in the literature (Pervin, 1990). However, personality measures that are frequently used in studies of relationship between personality features and work characteristics are called Big Five personality constructs (Tett et al, 1991). Other personality constructs are 'locus of control' (Boone et al, 1996), 'type A behaviour' (Tett et al, 1991), 'sensation seeking' (Van den Berg, 1992 in Semeijn et al, 2005) and 'self-monitoring' (Kilduff & Krackhardt, 1994). Recently, Semeijn et al (2005) used all four specific construct and found significant personality effects on labour market entry, which are independent from the effects of traditional human capital variables, such as grade point averages and work experience. This study will not use these personality constructs. Rather, it lists down items on personality and use factor analysis to regroup them.

The study found that female students, having low grade in English language and come from rural origin will reduce the chance of graduate being employed.

Methodology

This study involved graduates of both public and private institutions in Malaysia from 2001 to 2004. List of graduates were obtained from the selected institutions. However, only nine institutions responded of which 5 of them are public universities. A total of 23,996 graduates were involved during this period and this study choose to interview around 3025 graduates due to limited

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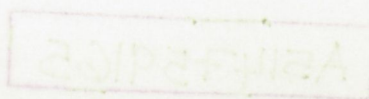
time and cost involved. The most challenging task in carrying out this survey is to locate the graduates especially those who already employed. This is due to the fact that some universities did not keep track of their graduates and therefore do not have their current address. The Alumni associations were just formed in some of the institutions. The researchers had to depend on the addresses given during the study and most of these addresses are the graduates' family addresses. Since then some of the graduates had been relocated and others were not available at the given address when the study was carried out. The problem is more pertinent for the employed graduates as they had moved to the place of work.

The overall academic achievement is represented by the final cumulative grade point average (CGPA) obtained by the graduates, taking values from 0 to 4. On the other hand, the English proficiency is represented by the grades obtained for English language at the *Sijil Pelajaran Malaysia* (SPM) level, which is equivalent to O level. The actual grades started from 1 to 9 with 1 representing the highest grade. However, for the purpose of easy interpretation, the order of the grades is reversed with 1 representing the lowest grade and 9 the highest.

The analysis begins by summarizing and reducing the information on graduates' personalities and competencies using factor analysis. There were a total of 34 items used in measuring personalities using graduates' perspective on themselves. The scores from the reduced data are used in the further analysis. Then the next analysis started by fitting a univariate logistic regression for all the variables involved. If there is evidence that the variable has some association ($p < 0.25$) with unemployment using the likelihood ratio test, the variable will be included in the multivariable analysis. Otherwise, it will be dropped. The scale of the continuous covariates in the model is also examined using the method of fractional polynomials.

Description of the sample

Out of the total of 3025 graduates who responded to this study, more than eighty percent of the respondents are unemployed graduates. Of the sample respondents, most of them are female, originated from rural area, did undergone industrial or practical training, graduated from the public institutions and studied in the area of arts and social science. The Malays contributed the highest percentage responded to the survey. This is followed by the Chinese and Indians. In this paper, the responses of other racial groups were discarded due to the small number of respondents in this group. On average, the graduates obtained a CGPA around 3.0 with moderate variation (standard deviation = 0.39). The mean of English proficiency is 4.75, implying that on average, the English proficiency among graduates were at the satisfactory level.

Table 1: Description of the respondents

Variable		Category	Percentage	Mean	SD
Status	Status of Employment	1 = employed	82.1		
		0 = unemployed	17.9		
Gender	Gender of Respondent	0 = Male	34.4		
		1 = Female	65.6		
*Ethnic Group	Ethnic group of Respondents	1 = Malay	56.7		
		2 = Chinese	28.2		
		3 = Indian	15.1		
ORIGIN	Place of Origin	1 = Rural	73.2		
		0 = Urban	26.8		
CGPA	Cumulative Point Average at the end of study			2.95	0.39
IT	Industrial Training	1 = Yes	60.2		
		0 = No	39.8		
BI	English Proficiency at SPM level	1 = lowest grade		4.75	2.13
		9 = highest grade			
AREA	Area of Study	1 = Science	46.0		
		0 = Arts and Social Science	54.0		
IPT	Type of Higher Institutes of Learning	1 = IPTA	97.8		
		0 = IPTS	2.2		

*Ethnic Group = 1 is used as a reference group.

As mentioned earlier, there are 34 items used in measuring personalities and each item has a 5 point scale or also known as a Likert scale, where 1 indicates very weak and 5 represents very strong. We then use factor analysis to summarize these items. From the scree plot, we find that these items can be recategorized into two factors and since the sample size is large, items with factor loadings will be included. In this case, none of the items are removed. Factor 1 consists of items such as readiness to learn, responsible, able to give focus, able to negotiate, has discipline, initiative, give and take, maturity, obedient, hardworking, determinant, chastity, honest and sincere, skillful and trustworthy. On the other hand, Factor 2 consists of items such as leadership quality, able to organize, able to work in group, have computer, communication and analytical skills, able to work independently, give high commitment, intelligent, able to adapt to new situation, have diplomacy, dedication, mobile, have work experience, able to influence others, motivated, confidence, creative and innovative, able to adapt emotionally. Hence we name Factor 1 as good personality and Factor 2 as high competency.

The results of fitting the univariable logistic regression models to these data show that there is evidence that each of the variables has some association with being employed except for IPT. Hence all of significant variables were included in the multivariable model. Furthermore, all of the continuous variables satisfy the linear assumptions and hence the continuous variables were included in their original form. The results of the final model are shown in Table 2.

Table 2: Final Model Containing Significant Main Effects and Interactions

Variable	Coefficient	Std Error	Wald	p-value	Odds ratio
GENDER	-0.358	0.113	9.931	0.002	0.699
*ETHNIC	-0.340	0.162	4.374	0.036	0.712
ORIGIN	-0.297	0.119	6.224	0.013	0.743
BIX	0.078	0.026	8.789	0.003	1.081
COMPETENCY	0.270	0.061	19.899	0.000	1.311
Constant	-1.394	0.185	56.704	0.000	0.248

-2 loglikelihood = 2147.532

*Ethnic is regrouped into 0 = Malay and Chinese and 1 = Indian since there is no difference in the chance of being employed among Malay and Chinese.

Out of nine variables tested, only 5 variables shows significant effect on the probability of a graduate being employed. The chance of being employed is lower if the graduate is a female or originated from the rural area. Indian graduates were also less likely to be employed as compared with their Malay counterparts but there is no significant difference in the chance of being employed among the Chinese and the Malays. The English proficiency at SPM level plays a role in determining whether a graduate obtain employment or not. The results show that an increase in English proficiency will increase the chance of being employed. Furthermore, graduates with high competency level have high chance of being employed. The non-significant variables are CGPA, IT, AREA and PERSONALITY.

Conclusion

This study shows that having good grades will not guarantee employment for the graduates. The graduates must have good command in English and high competency skills. Since we cannot change the sex, ethnic group and place of origin, the only two actions that can be taken are to improve English proficiency and competency skills while at the university or at the earlier stage. Most of these problems are more pertinent for graduates who come from rural area. They are less exposed to speaking in English and almost all of them studied in the public universities which used Bahasa Malaysia as their medium of instructions.

One of the steps taken by the Malaysian government in enhancing the quality of tertiary education is through implementation of assessment of soft skills in the public universities. Most

public universities had taken steps to improve students' competencies such as making co-curiculum activities and activities in colleges compulsory, presentations in classes, incorporating more application in teaching, encouraging problem-based learning and systematically organized industrial training and many other activities. However, the result of these actions has yet to be seen.

Looking back at the data, we found that there is very little variation in CGPA between employed and unemployed graduates. This explains why the overall academic performance did not affect the chance of becoming employed graduates. It is also surprising to find out that industrial training or practical also not significant especially more than 60 per cent of the graduates went through this kind of training. However, at the point of this study was carried out, the industrial training was not really well implemented especially for the non-professional courses and the main aim for the training is to expose students to the working environment and were not designed to give opportunity for job seeking. Having good personality is a bonus to the employer but they do not take into account this value in determining who are going to be their employees.

References

1. **Boone, C., De Brabander, B. & Van Wittleoostuijn, A.** (1996). CEO locus of control and small firm performance: An integrative framework and empirical test. *Journal of Management Studies*, 33, 667 – 699.

2. **Khuri-Tubbeh, T.** (1995). *Liberation, privatization and women's employment in Jordon.* Seminar on Economic Liberalization and Women's Employment in the Middle East, Nicosia, Cyprus.

3. **Kilduff, M. & Krackhardt, D.** (1994). Bringing the individual back in: A structural analysis of the internal market for reputation in organizations. *Academy of Management Journal*, 37, 87 – 108.

4. **Malhotra, A. & DeGraff, D.** (1997). Entry versus success in the labor force: young women's employment in Sri Lanka. *World Development*, 25(3), 379 – 394.

5. **Mehra, R. & Gammage, S.** (1999). Trends, countertrends, and gaps in women's employment. *World Development*, 27(30, 533 – 550.

6. **Pervin, L. A.** (1990). *Personality: Theory and research* (5th ed.). London: John Wiley and Sons.

7. **Semeijn, J.; Boone, C.; Van der Velden, R. & Van Witteloostuijn, A.** (2005). Graduates' personality characteristics and labor market entry an empirical study among dutch economics graduates. *Economics of Education Review*, 24, 67 – 83.

8. **Spenser, L. M. & Spenser, S. M.** (1993). *Competence at work: Models for superior performance*. New York: John Wiley and Sons.

9. **Tett, R. P., Jackson, D. N. & Rothstein, M.** (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personal Psychology*, 44, 703 – 742.

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