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IT MATTERS WHERE YOU GRADUATE FROM AND HOW GOOD YOU ARE: RECENT FINDINGS FROM TWO MALAYSIAN UNIVERSITIES

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Abstract

Using a 2016/2017 unique dataset of 1,107 freshly minted university graduates sampled from a public and a private university in Malaysia, this paper deals with the intricate recent issue of batches of university graduates' demand for better starting salaries. We examine whether their salaries are associated with academic performance in the form of CGPA, and which type of institution they graduated from, i.e. a public or private university. Estimation results reveal that these are two statistically significant determinants of the graduates' starting salaries. Our results are robust to different model specification and different sets of controls. The results support the conventional perception that top academic performers and where you graduate from are indeed crucial to having a good salary prospect. As an aside, claims of gender wage discrimination are not substantiated by our empirical findings, i.e. gender shows no statistical significance on salaries.

Keywords

starting salary, CGPA, academic performance, public/private university, new university graduates,

INTRODUCTION

University graduates in Malaysia have been lamenting on the low starting salaries. Against the backdrop of skyrocketing living costs, graduates are demanding as high as RM6,500 per month (NST 2016a; 2016b). A key finding from the Malaysian Ministry of Higher Education Graduate Tracer Study in 2015 reveals that, 54% of the approximately 270,000 graduates with Bachelor's and Diploma degrees had a starting salary of less than RM2,000. From the graduates' perspective, one way to stand out and compete among their peers in obtaining a job with high salary is through academic excellence and the university one graduates from.

The link between academic performance and salary expectations of university graduates can be traced back to the theoretical underpinnings of the human capital investment theory (Mincer 1958; Schultz 1961; Becker 1962) and the job market screening and signalling theory (Arrow 1973; Spence 1973). Achieving good labour market outcomes and quality education are two of the important aspirations of the 2016-2020 Eleventh Malaysia Plan to produce more holistic graduates with better job prospects (Ministry of Education Malaysia 2015). Malaysian studies looking at academic performance and graduates' salaries are somewhat lacking, perhaps with a notable exception of a related study which investigates the effects of the levels of education on the earnings of working adults (Arshad & Ghani 2015). Their study however emphasised on working adults, not fresh university graduates per se.

This paper therefore contributes to the literature pool by examining specifically the issue of Malaysian university graduates' starting salaries using a recent unique dataset collected in the 2016/2017 period. The paper's objective is to investigate how much salary

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graduates on their first job upon graduation are earning, in relation to how good they are academically and from which type of university they have graduated from.

METHOD

The target population for this study is the 2016/2017 batch of recently minted graduates of public and private universities in Malaysia. This paper uses a sample of 1,107 respondents selected from a public university (Universiti Utara Malaysia, UUM), and a private university (Sunway University). There were 710 respondents from UUM, and 397 from Sunway University. Only Malaysian graduates made up the final usable sample. The respondents were surveyed during their respective graduation robe collection period (a week prior to the graduation ceremony), i.e. November 2016 for UUM graduates, and July 2017 for Sunway graduates. In collecting their robes, the graduates were assigned designated days and time slots. The designated robe collection slots were based on programme types. Graduates from UUM and Sunway University are selected for this study because they are comparable in terms of programme types.

An OLS model of $y = X\beta + \varepsilon$ is used, in which the dependent variable (y) is the amount of salary earned for graduates who are employed, and where y and ε are $n \times 1$ vectors, β is a $k \times 1$ vector, and ε is a vector of error terms. X is an $n \times k$ matrix with k explanatory variables for n observations. The explanatory variables of interest here are the CGPA scores and type of university (i.e. public or private university).

FINDINGS AND DISCUSSIONS

Summary statistics

Table 1 reports the summary statistics in two panels. Figures are reported as means for continuous variables, and proportions for categorical variables. The number of observations, N, is only reported for categorical variables. The panel on the left corresponds to statistics based on employment status. The panel on the right reports statistics by quantiles of the monthly salary. About less than half of the 1,107 respondents in this study are gainfully employed at the time of the survey (i.e. being employed full/part-time or self-employed). There is no apparent differences in the CGPA scores between those employed (3.32) and unemployed (3.33). Among the employed, their average monthly salary is RM2,054. The panel on the right shows four salary quantiles; the 'All' column combines all the quantiles. Salaries of those employed are first sorted in an ascending order and then grouped into the respective quantiles, with those in the highest quantile earning an average salary of RM3,254. Table 1 also provides summary statistics for two groups of control variables: academic-related variables and demographic variables, which are self-explanatory from the table. Other remaining control variables (unreported here) are such as the type of programmes pursued in university, pre-university academic achievements, work-related information, and squared/interaction variables.

Table 1: Summary statistics

	N	All	Q1	Q2	Q3	Q4
Dependent variable						
Monthly salary (RM)	-	2054	1091	1955	2351	3254
No. of observations, N	544		181	138	91	134
CGPA scores	-	3.32	3.26	3.30	3.37	3.37
Private university graduates	396	0.35	0.16	0.36	0.34	0.59

Joined societies	405	0.42	0.46	0.40	0.37	0.44
Offered job before graduating	322	0.33	0.25	0.35	0.42	0.38
Internship salary (RM)	-	632	533	586	673	770
Household size	-	5.6	6.3	5.6	5.2	5.1
Mother postsecondary educ*	242	0.20	0.17	0.21	0.18	0.25
Father postsecondary educ*	281	0.22	0.18	0.23	0.24	0.28
Parents' income (RM)	-	3463	3467	2649	2741	4786
Age	-	24.5	24.8	24.4	24.4	24.3
Female	748	0.68	0.72	0.67	0.72	0.63
Malay ethnic group	429	0.38	0.67	0.37	0.18	0.12
Chinese ethnic group	598	0.55	0.23	0.58	0.75	0.81
Indian ethnic group	45	0.03	0.04	0.03	0.02	0.04

Notes: Figures are reported as means for continuous variables, and proportions for categorical variables.
The number of observations, N, is only reported for categorical variables.
*Parents with postsecondary education i.e. diploma/STPM, Bachelor degree, postgraduate degree.

Discussion of findings

This section examines the effects of CGPA on the salaries earned by graduates who are employed (at the time of our survey). The OLS estimation results in Table 2 show statistically significant marginal effects of CGPA scores on the salaries earned, across all five model specifications. The dependent variable is the natural logarithm of the graduates' monthly salary. A 1.0-unit increase in CGPA scores results in between 16.6 to 32.7% increase in salary, depending on model specification. The first specification, M1, looks only at the marginal effect of the variable of interest (i.e. CGPA scores) on the dependent variable. The M2 specification includes academic-related and types of programme controls (Set A). The third specification, M3, expands the control list to include pre-university academic achievements (Set B). In the M4 specification, demographic controls are included. The M5 specification includes work-related controls (Set C); this specification is used as the main specification since its Bayesian Information Criterion gives the lowest readings (unreported here) across the five specifications The M5 specification shows that a 1.0-unit increase in CGPA scores is associated with a nontrivial 24.4% increase in salary, ceteris paribus. As for the marginal effects of the type of university, graduating from a private university is associated with a salary increment of between 23.7% and 27%, depending on specifications. From the main M5 specification, we see that graduates from private universities earn a salary of 23.7% higher than their counterparts graduating from public universities, ceteris paribus.

Table 2: OLS estimations of the effects of CGPA on salaries

Dependent variable: ln(Salary)	M1	M2	M3	M4	M5
CGPA scores	0.166***	0.260***	0.219***	0.297***	0.244***
	(0.0615)	(0.0703)	(0.0827)	(0.0934)	(0.0919)
Private university graduates		0.270***	0.262***	0.252**	0.237*
		(0.0584)	(0.0757)	(0.114)	(0.121)
Joined societies		-0.0539	-0.0328	-0.0419	-0.0599
		(0.0455)	(0.0475)	(0.0539)	(0.0534)
Offered job before graduating		0.0823*	0.112**	0.0924	0.0567
		(0.0477)	(0.0498)	(0.0617)	(0.0613)
Internship salary (in logarithm)		0.159***	0.211***	0.235***	0.192***
		(0.0520)	(0.0482)	(0.0549)	(0.0569)
Household size				-0.0275*	-0.0254*
				(0.0157)	(0.0149)
Mother postsecondary educ				0.0645	0.0904
				(0.121)	(0.115)
Father postsecondary educ				0.00274	-0.0287
				(0.124)	(0.118)
Parents' income (in logarithm)				0.00866	-0.000874
				(0.0432)	(0.0418)
Age				0.0560***	0.0569***
				(0.0196)	(0.0204)
Female				-0.0457	-0.0435
				(0.0597)	(0.0577)
Malay ethnic group				-0.158*	-0.0815
				(0.0875)	(0.0858)
Controls (Set A, B, C)		✓A	✓A, B	✓A, B	✓A, B, C
N	544	437	387	302	302

Notes: Standard errors in parentheses. Dependent variable is the log of monthly salary. Controls: Set A (types of programme), Set B (pre-university academic achievements such as university entrance exam CGPA scores, English language grade, and the national language grade), and Set C (work-related controls: geographical state the company is located; the type of company – e.g. public-listed, small-and-medium enterprises, foreign-owned; business sector – e.g. manufacturing, service, construction). Significant at the *10%, **5%, and ***1% level.

CONCLUSION

This paper uses a 2016/2017 unique dataset of recent university graduates sampled from a public and a private university, with a total of 1,107 observations. The emphasis of the paper is on the marginal effects of the variable of interest – academic performance, proxied by CGPA, on the salaries earned. This paper contributes to the literature pool by examining the issue of graduates' starting salaries. The key findings are: a 1.0-unit increase in CGPA scores is associated with a nontrivial 24.4% increase in salary, and graduates from private universities earn a salary of 23.7% higher than their counterparts graduating from public universities.

It appears that CGPA scores and university type are key determinants of freshly minted graduates' starting salaries. The finding on the positive marginal effects of CGPA scores on salary levels is consistent with conventional wisdom that academic excellence equates job earnings. As for the finding on the positive marginal effects of private university graduates earning higher salaries than those from public universities, it further solidify the general perception that private universities perform better in the labour market. This could be plausibly due to private university graduates possessing better articulation skills, real-world exposure and professional attitude – all the hiring criteria that employers look for.

Our findings can provide further insights and complement the Malaysian Tracer Study (access to that dataset is off-limit to the public), a large-scale comprehensive study conducted nationwide by the Ministry of Higher Education on fresh university graduates. Policy-makers from the ministry could scrutinise our findings here for improved decision-making in outlining education policies in the near future. Admittedly, the limitation of this study lies in the sample; it would be ideal if the sample could be expanded to include recent graduates from more public and private universities.

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