Note

Returns to Education between the Self-employed and Employed Sectors: Evidence from Malaysia

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Investment in human capital in terms of returns to education is considered a crucial factor that contributes to the remarkable economic growth especially in the rapidly developing countries. Since poverty and education are closely related, this paper attempts to examine whether returns to education differ between the self-employed and employed sectors in the rural Malay area in Rantau, Malaysia. Using the adjusted Mincerian Earnings function and the dummy variables approach, the empirical finding shows that returns to education do not differ between the self-employed and employed sectors in the rural Malay society. Thus, it can be deduced that there is no significant difference between the self-employed and employed sectors in those two sectors. Interestingly, it also reveals that private rates of return (ROR) increase by the level of schooling and they are the highest at the Secondary level. Finally, appropriate strategies are further suggested to alleviate poverty in the case study area.

INTRODUCTION

Investment in human capital in terms of returns to education is considered a crucial factor that contributes to the remarkable economic growth in the rapidly developing countries like Malaysia. Not surprisingly, returns to education have a significant impact on individual earnings and are one of the main determinants of the earnings differential between the self-employed and employed sectors which can be measured by using the rates of return (ROR). The ROR is the profitability of the educational investment which is estimated in terms of future benefits as compared to the cost of schooling [Woodhall (1995)]. Pursuing this issue, several studies on returns to education have been conducted in Malaysia since the 1980s [Blau (1986); Psacharopoulos (1986); Soon (1987); Demery and Chesher (1993); Mazumdar (1994)]. Nevertheless, none of these studies has focused on the returns to education for the self-employed and employed sectors of the rural Malay community in Malaysia. Consequently, an attempt is made here to examine the hypothesis that returns to education do not differ between the self-employed and employed sectors in the rural Malay area. It is also attempted to estimate the private ROR in the area as well as to relate this matter to poverty alleviation strategies in the society.

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DATA SPECIFICATION AND LIMITATION

The primary data were randomly collected (Simple Random Sampling) in a household survey, in Rantau, Negeri Sembilan, Malaysia (1996), which provided an equal opportunity for every household to be selected and be representative for both the self-employed and employed sectors [Soon (1987)]. (Fig. 1.) In order to estimate the earnings function and to examine the differences between the self-employed and employed sectors, the simple Mincerian earnings function approach (adjusted) has been adopted in this study (Table 1). It is assumed that there are only two sectors of employment and there was no mobility between sectors in which both may have reached equilibrium (supply of labour = demand for labour). It is also important to note that other variables, such as age, ability, managerial ability, urban Malays, etc., have not been included in this study. This owes to the fact that certain variables have been eliminated because of their insignificance in this case study.
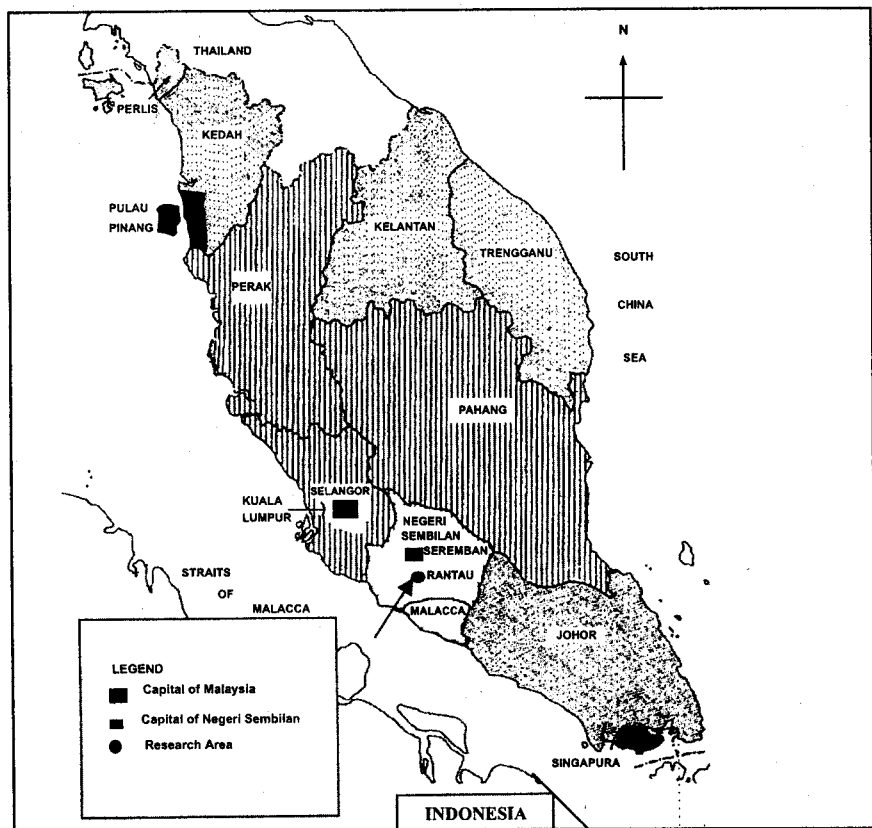

Fig. 1. Location of Rantau, Negeri Sembilan, Malaysia.

Table 1

Variables, Names, and Definitions

Codes	Variables, Names, and Definitions
Log Y (Log Earnings)	Rural Malays' monthly income (dependent variable)
Dsector	= 1, If self-employed, else = 0 (Dummy Sector)
Dprimry	= 1, if completed primary school, else 0 (dummy primary)
Dsecdry	= 1, if completed secondary school, else = 0 (dummy secondary)
Duniv	= 1, if completed university, else = 0 (dummy university)
Dskill	= 1 if has skill, else = 0 (dummy skills)
Dhlth	= 1, if good health, else = 0 (dummy health)
Exp	Work experience
Expsq	Experience squared
Secpry	Dsector x Dprimry (Shift Dummy variable)
Secdry	Dsector x Dsecdry (Shift Dummy variable)
Secuniv	Dsector x Duniv (Shift Dummy variable)
Secskil	Dsector x Dskill (Shift Dummy variable)
Sechlth	Dsector x Dhlth (Shift Dummy variable)
Secexp	Dsector x Exp
Secexpsq	Dsector x Expsq

Source: Field Study 1996.

RESULTS

The results of the estimated earnings function are presented in Table 2. The main finding (OLS parameter shift) accepts the hypothesis that returns to education (variables) on the whole do not differ between the self-employed and employed sectors in the rural Malay society. This means that there is no significant difference between the self-employed and employed sectors. The reason why returns to education do not differ is that the Dsector is not significant at the 5 percent level. Moreover, the variables Secpry, Secdry, Sechlth, Secexp, and Secexpsq are not significant at the 5 percent level, indicating that returns to education (variables) do not differ between sectors. The other significant finding is that the private ROR[1] increase from primary level (12.7 percent) to secondary level (14.2 percent).

[1]To estimate the private ROR per year, the coefficients (multiply by 100 and round-up to the two decimal places) are divided by the total number of schooling years for each level of education, including the previous levels: Primary, 6 years; Secondary, 9 years; and University, 15 years.

Table 2

Multiple Regression Results ([2]Parameter Shift)
(Dependent Variable = Log Earnings)

Variables	Coefficient	Std. Error	t-ratio	Significance of T
Intercept	5.3601	0.3859	13.890	0.0000
Dsector	0.95557	0.5891	1.622	0.10671
Dprimry	0.75703	0.3061	2.473	0.01443
	(12.7%)			
Dsecdry	1.2773	0.3273	3.902	0.00014
	(14.2%)			
Duniv	2.0183	0.3697	5.459	0.0000
	(13.5%)			
Dskill	0.24626	0.1318	1.869	0.06343
Dhlth	0.28082	0.1705	1.647	0.10145
Exp	0.025395	0.01246	2.039	0.04312
Expsq	−0.00046931	0.0001606	−2.922	0.00397
Secpry	−0.22614	0.3309	−0.683	0.49536
Secdry	−0.44412	0.3639	−1.220	0.22412
Secuniv	−1.0790	0.4426	−2.438	0.01585
Secskil	−0.40172	0.1843	−2.179	0.03075
Sechlth	0.0010282	0.2047	0.050	0.96000
Secexp	−0.037005	0.02349	−1.576	0.11707
Secexpsq	0.00055220	0.00028930	1.909	0.05805

Source: Field Study 1996.
R^2 = 0.739002.
n = 178.

However, the ROR show a slight decline when they reach the university level (13.5 percent), probably due to the fact of the higher cost of education at this level. Generally, this demonstrates that there is a strong relationship between the level of education and the earnings, which suggests that educational attainment is the determinant of earnings function in the rural Malay areas. In addition, it also suggests that investment in education is rewarding especially in terms of the individual perspective, particularly with respect to reducing poverty in the research area.

COMPARISON WITH PREVIOUS STUDIES

Interestingly, this finding is quite similar to that of the study by Demery and Chesher (1993), which also finds that returns to education do not differ between the

[2]These results were derived by multiplying all independent variables by Dsector (Dummy Sector).

self-employed and employed sectors among the male Chinese in Malaysia. The main difference is that we focused on the rural Malay area, while Demery and Chesher (1993) concentrated on the urban Chinese area. However, Blau (1986) concluded that both rural self-employed men and women have earnings close to those of the employed sector. Furthermore, he indicated that education contributes relatively little explanation of earnings differences among employees, which is quite comparable to our findings. Unlike in our case study, the difference is that he included the plural community of the rural-urban population of the Malays, Chinese, and Indians in Malaysia. On the other hand, Soon (1987) concluded that the schooling coefficient was significantly lower for the self-employed workers than for the wage employed, and the two groups have different earnings structures. He also noticed that the self-employed were mainly related to the managerial activity, but this is not completely in line with our studies of the rubber plantations in the rural Malay area. In the same field of study, Mazumdar (1994) also revealed that rates of return to education differ between the self-employed and employed sectors in which the returns of the self-employed are generally lower than those of the employed sector. While Psacharopoulos (1986) did not highlight the earnings differential between the two sectors, it was not comparable to this study. Nevertheless, in terms of estimation of ROR, our finding corroborates Bennell's study (1995), that returns to education are the highest at the secondary level. Above all, the differences of these findings could be attributed to the differences in data, time, locality (rural area), approach to the issue, and methodologies. In fact, this is probably the first study which gives an assessment relating to investment in education in the area.

CONCLUSION AND POLICY IMPLICATION

In addressing this issue, the main findings reveal that returns to education as a whole do not differ between the self-employed and employed sectors in the rural Malay society, due to Dsector being insignificant. As there is no significant difference between the self-employed and employed sectors, this implies that differences in personal characteristics can not be attributed to the earnings differences between those two sectors as a whole. Furthermore, since there is no obvious difference (inequality) that occurs between these sectors, future policies should consider assisting both sectors in terms of poverty alleviation programmes in the rural Malay areas; for example, government educational aid should be given to both sectors. However, priority may be given to the self-employed sector as it is formed by the majority of the poor in the study area. Finally, the Government should consider focusing on investment in Secondary Education instead of Primary Education, especially for the future generation. The former would yield more ROR (14.2 percent) than Primary Education (12.7 percent), and would help further reduce the rural Malay poverty problem in the research area.

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