

## The Differences in Human Capital and Earnings in Indonesia dan Malaysia

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### Abstract :

This study examines the mobility of labor and capital in Indonesia and Malaysia as two neighboring countries that have similarities in the language, culture, and beliefs of the majority population. This study uses population-based data used in the analysis derived from various registers managed by the central statistical agency in both Indonesia and Malaysia. By matching unique personal identification codes across censuses and registers, the data provides detailed information about individuals, including their education, income, labor market status, and location of residence and place of work during the period 1992–2020. We found that the convergence of human capital intensity across functional labor market (LMR) areas, both in Indonesia and Malaysia, is not significant. The pattern of income disparities between regions in Indonesia and Malaysia is almost the same. Inequality in human capital between core economic and rural areas in the functional labor market persists in Indonesia as well as in Malaysia.

**Keywords:** Human Capital, Indonesia, Malaysia, Income

**JEL Classification Code :** C01,C11,E10,E12

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### Introduction

Developing countries find it difficult to develop and always follow developed countries and are left behind technologically and economically from developed countries. (Austin et al., 2018; Iammarino et al. 2019). Economic disparities do not only scale between countries but also occur on a regional scale in one country such as the gap between states in the USA (Dapena et al., 2016; He et al. al., 2017). Economic disparities between urban areas and rural areas also occur in various countries in the world (Liao & Wei, 2012; Veneri & Ruiz, 2016). The greater the capitalization and economy of a region or country, the more people invest both materially, such as money and labor, such as working in the region or country (Barro & Sala-i-Martin, 2004).

However, the increasing economic activity in an area or region will spread to the surrounding area or region as an externality effect. The more concentrated capital and labor in an area will push the area to the saturation point of capital and population density so as to encourage capital and labor to leave and spread to the surrounding area (Irwin et al., 2010; Wei, 2015). Dense urban areas will be supported by the supply of food from rural areas around the city (Partridge et al., 2010). The economic center area also attracts intellectuals and people with higher education to work and work in the area which has an impact on increasing job competition which encourages the improvement of the quality of the workforce. The excluded workers will look for a place that allows them to work so that both capital and labor will spread to areas around the economic center (Duranton & Puga, 2004). The increase in the

number of workers and residents as well as the business sector will encourage an increase in property prices as an indicator of an increasing economy and labor supply (Bereitschaft, 2020).

Indonesia and Malaysia are two neighboring countries and are interconnected both economically and in terms of labor and population mobility. There are still very few studies that highlight the economic differences between the two countries in terms of labor and capital mobility in Malaysia and Indonesia. This study examines the mobility of labor and capital in Indonesia and Malaysia as two neighboring countries that have similarities in the language, culture, and beliefs of the majority population.

## Literature Review

Although Indonesia and Malaysia have many similarities, they also have various differences both institutionally and in terms of people's habits in the economy. This causes the mobility of capital and labor between Indonesia and Malaysia to increase (Musaiyaroh & Bawono, 2018).

In the public sector, both countries are equally trying to increase human capital despite the differences between Indonesia and Malaysia. Both in Indonesia and Malaysia, there are also economic disparities between regions and both are economic centers that attract investors and job seekers to come and build the economy (Rusmingsih et al, 2021). Investors and job seekers are two complementary parties. Investors need someone who works to run the business and make a profit and job seekers need investors to open up new job opportunities so that they can earn income (Widarni & Bawono, 2021).

The level of economic activity is midway between near equity in education and worrying concern in empowerment indicators. Education is one way to reduce inequality. So that increasing skills in work can increase income. But also from the point of view of the employment opportunities gained from investing in the real sector. When there is investment in the real sector, especially direct investment, it will open up new job opportunities for job seekers (Sasongko et al, 2020).

## Data and variables

This study uses population-based data used in the analysis derived from various registers managed by the central statistical agency in both Indonesia and Malaysia. By matching unique personal identification codes across censuses and registers, the data provides detailed information about individuals, including their education, income, labor market status, and location of residence and place of work during the period 1992–2020. Following Sala-i-Martin (1996), This study test for  $\beta$ -convergence by estimating the following growth equation with ordinary least squares (OLS):

$$\Delta(\log Y_{it}) = a + b \log Y_{i0} + \epsilon_i \quad (1)$$

where  $Y_{it}$  is the SIR or per capita earnings in labor market region  $i$  in year  $t$ ,  $\Delta(\log Y_{it}) = \log Y_{iT} - \log Y_{i0}$ ,  $T$  is the end of a sub-period (e.g., 2020) and  $0$  is the start of a sub-period (e.g., 1992). If the estimate of  $b < 0$ , then it would imply  $\beta$ -convergence, and  $b > 0$  would imply  $\beta$ -divergence.

## Result and Discussion

Indonesia and Malaysia during the period 1992–2020 both countries indicated a similar pattern of relative dispersion in the SIR. Table 1 presents tests for  $\beta$ -divergence/convergence in human capital intensity for Indonesia and Malaysia. Tests for divergence were statistically significant. We found

significant  $\beta$ -convergence in SIR for both countries. We do not find a continuum of the long-term path to interregional income convergence in Malaysia. The growth regression estimates in Table 2 show a significant convergence in per capita income in the two countries. In Indonesia, the annual convergence rate was around 1.2% between 1992 and 2020. Thus, the long-term trend of convergence in per capita income continues in Indonesia.

In Indonesia, Per capita income is generally highest in the core regions and decreases with distance to the core. For Indonesia, the income per capita of the population shows the convergence of income in the labor market area. In Indonesia, intra-regional labor market differences in per capita income show no positive or negative trend over time when location is measured using the workplace. Thus, the convergence of income only occurs in the income of the population. In addition, intra-regional income differences have not changed much since the 1997 recession. Intra-regional labor market developments in per capita income for Malaysia. Intra-regional labor market differences remained somewhat stable over the 1992–2020 period across all labor market size categories. Disparities between regions create commuters in Indonesia and Malaysia who have regional differences for work and place of residence.

## Conclusion

The convergence of human capital intensity across functional labor market (LMR) areas, both in Indonesia and Malaysia, is not significant. The pattern of income disparities between regions in Indonesia and Malaysia is almost the same. Inequality in human capital between core economic and rural areas in the functional labor market persists in Indonesia as well as in Malaysia.

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**Attachment**

Table 1. Testing for  $\beta$ -convergence/divergence in skill-intensity ratios across local labor markets, intervals between 1992 to 2020

Outcome variable: $\Delta(\log \text{ skill} - \text{ intensity ratio})$	1992-2020
Panel A : Indonesia	
log skill-intensity ratio $\theta$	0.027
	(0.025)
R-squared	0.011
Annual $\beta$ -convergence rate	0.007
Panel B : Malaysia	
log skill-intensity ratio $\theta$	0.023
	(0.018)
R-squared	0.012
Annual $\beta$ -convergence rate	0.008

Table 2. Testing for  $\beta$ -convergence in per capita earnings across labor market regions, intervals between 1992 to 2020

Outcome variable: $\Delta(\log \text{ skill} - \text{ intensity ratio})$	1992-2020
Panel A : Indonesia	
log skill-intensity ratio $\theta$	0.089
	(0.077)
R-squared	0.021
Annual $\beta$ -convergence rate	0.011

Panel B : Malaysia	
log skill-intensity ratio0	0.078
	(0.069)
R-squared	0.022
Annual $\beta$ -convergence rate	0.012