INCLUSIVE GROWTH: EMPIRICAL EVIDENCE FROM MALAYSIA

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Abstract

Inclusive growth is the major issue discussed in post COVID-19 pandemic. Certainly, policy maker should restructure the government's incentive program with more focus on health to economic development programs. This study investigates the economic growth effect of inclusive growth variables, proposed by the Asian Development Bank, by employing the Ordinary Least Squares (OLS) estimator. The result indicates that employment in industry and mortality underage of 5, respectively representing labour demand and labour supply, significantly affect economic growth. This indicates that the labour market plays a key role in shaping inclusive growth in Malaysia. The policymakers are advised to pay greater attention to promote and widen the public employment services in the labour market. Therefore, an optimal match between employer and job seeker, with an optimal match between skilled and unskilled could be realized. Since labour earning is an important source of income for most individuals, an inclusive labour market is key for ensuring inclusive growth in Malaysia.

Keyword: Inclusive growth, Malaysia, employment, human development, mortality rate, economic growth

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1.   Introduction

Inclusive growth refers to a direct link between the macro and micro determinants of a country's development (Lanchovichina & Lundström, 2009). It also includes improvement in living condition, particularly in the developing world (Ranieri & Ramos, 2013). Accordingly, the definition of inclusive growth varies based on the objective of the studies, despite the fact that the primary aim of inclusive growth is to use it as a strategic pillar for guiding the economic activities of the country (Klasen, 2010). In the recent years, inclusive growth has been used to measure people's well-being using income and non-income dimensions (Boarini et al., 2015) as well as has been seen from the perspective of how money is being distributed equitably to the society (Gyamfi et al. 2022).

Since its independence in 1957, Malaysia has been progressing well in addressing the issues of income inequality and poverty, among the three major communities, through decades of efficient economic policies such as the New Economic Policy (NEP), National Development Policy (NDP), Heavy Industrialization Policy, Malaysia Madani and others alike. Indeed, with the government and economic transformation program significantly reducing poor households, Malaysia's effort to become a high-income country is now more focused on poverty and sustainable improvements to individual and societal well-being (Nixon et al., 2017). Worldwide, the Millennium Development Goals are used to measure social well beings in terms of poverty, hunger, disease, unmet schooling, gender inequality, and environmental degradation (Sachs, 2012). Asian Development Bank indicates that enhancing the growth of income per person is basic in advancing inclusive growth by creating and expanding economic opportunities (Drury et al., 2018).

Durry et al., (2018) proposed that identifying the trend of economic growth is essential country to observe the country's growth. As the first indicator for observing inclusive growth, Figure 1 shows that Malaysia's GDP keep increasing since the year 2000 except in the year 2009 slide drop caused by the world recession.

The distribution of income is one of the important indicators for the policymaker to monitor the productivity of employment by sectors. Figure 2 shows that the total employment in the industry sector was reducing and the involvement of females in service sectors kept increasing since the year 2000.

Another importance in inclusive growth is the access of the population to infrastructure. The recent trends suggest that progress on access to mobile phones has increased rapidly, compared to access to the internet and fixed telephone lines (Durry et al., 2018). Figure 3 shows that mobile cellular subscriptions (per 100 people) keep increasing since the year 2000.

Lastly to monitor the labor demand and the associated generation of income and its distribution whether equitable or not among the population measure using the mortality rate under age five. The mortality rate under age five also reduced significantly since the year 2000 (Figure 4).

Asian Development Bank incorporates social protection as an additional dimension of its inclusive growth strategic framework by including public investment or public expenditure in general suitably disaggregated to reflect government commitment to expenditures for various forms of economic (Durry et al., 2018). A positive relationship was observed between domestic general government health expenditure per capita with GDP per capita (Figure 5). This indicates that government did not neglect the primary needs of the nation such as health.

international $)

The unexplored relationship between GDP per capita (economic growth), employment by sectors (productive employment), employment in services, female

(employment by gender), mobile cellular subscriptions (economic infrastructure), the mortality rate (human capabilities), domestic general government health expenditure per capita (social protection), as it could emanate Malaysia's inclusive growth. Thus, this study plan to investigate the relationship between all variables discussed, in assisting policy maker to plan strategic priorities for the country to achieve inclusive growth.

Literature Review

Jacobsen (2003) and Lum (2011) found that mobile cellular subscription has a positive impact on economic growth. Hence, in ASEAN countries, mobile cellular subscription is one of the key drivers of economic growth (Mahyideen et al., 2012). Likewise, the Middle East, mobile subscription has a higher and greater positive impact, compared to the case of OECD countries (Habibi et al., 2020). According to Irshad et al. (2022), however, investment in telecommunication could stimulate growth only in lower-middle income countries; and that growth stimulating effect could only be realized in the short run (Yelkesen, 2023), with the long run will see a negative growth effect of increased mobile cellular subscription.

On the other hand, a study conducted in Indonesia shows that 5 mortalities have an insignificant effect on two decades of economic growth (Houweling et al., 2006). However, a study conducted in India shows that child mortality has been positively attributed to three decades of economic growth (Bhalotra,2006). On the contrary, in a study conducted in 16 developed countries and 14 developing countries it is found that the mortality rate has a negative and significant effect on economic growth (Somayeh et al., 2014). Taken together, based on the literature, mortality rate plays an uncertain role in economic growth.

With respect to government health expenditure, studies conducted in Turkey show that it has a direct, long-term and positive impact on economic growth (Kurt,

2015, Atilgan et al., 2017). Similar result is found in a study conducted in Nigeria (Bakare & Olubokun, 2011). In the recent literature, however, health expenditure is found to be less important in stimulating economic growth, compared to social and infrastructural (Vyas et al., 2023) expenditure as well as compared to security on expenditure (Sunny & Olufemi, 2023). The change in the direction of relationship reflects the evolution in health expenditure-growth nexus, over the time.

Lastly, studies on implications of gender discrimination have been extensive recently (Greene & Brush, 2023; Reshi & Sudha, 2023), due to its importance to the achievement of the sustainable development goal of gender equality. In fact, an investigation conducted in the United States, as early as in the 1980s, using 1970s data, shows that female labor contribution in the service sector contributes to the country's economic growth (Fuchs, 1980). Meanwhile, a study conducted in South Mediterranean countries shows that a higher female labor participation rate lead to higher economic growth (Tsani et al., 2013). Similar finding is noted in South Asia - female employment in service sectors has a positive relationship with GDP growth in India, Bangladesh, Pakistan, Sri Lanka, and Thailand in the years 1982 and 2006 (Bosworth and Maertens, 2009).

As a summary, the existing literature on the health expenditure, mortality, female labour participation and mobile cellular subscription, in the context of economic growth, reflects a mixture of finding and hence need more studies to confirm the relationship. In addition, inclusive growth does really matter, compared to a mere economic growth. This study analyses inclusive growth in the Malaysian context, a emerging economy in Southeast Asia.

2. Methodology

The data estimation period covers from 2000 to 2019 yearly, which has a total of 20

observations. E-view software was used to analyse the data. All the data was collected from the World Bank database. The data analysis consists of three stages analysis. In the first stage, preliminary analyses such as correlation and unit root tests were conducted. This study exercised two types of unit root tests: Augmented Dickey-Fuller (ADF) and Philip-Perron (PP) test was conducted to test the order of integration. In the second stage, the Ordinary Least Squares method is used to test the relationship with the variables. At the final stage residual diagnostic test involving four tests was conducted such as heteroscedasticity, autocorrelation, and multicollinearity test.

Figure 6 illustrate that model of economics growth towards the economic infrastructure, productive employment, equity and human capabilities. The variables for this study adapted from McKinley (2010) to measure inclusive growth of country. The following represent functional form of this study:

$$GDP = \int (MB, EMPI, EMPS, MR)$$

The regression form to examine the relationship as follows:

$$GDP_{t-1} = \beta_0 + \beta_1\ MB_t + \beta_2\ EMPI_t + \beta_3\ EMPS_t + \beta_4\ MR_t + \beta_5\ GH_t + \varepsilon_t$$

Where:

GDP = GDP per capita (constant 2015 US$)
MB = Mobile cellular subscriptions (per 100 people)
$EMPI$ = Employment in industry (% of total employment)
$EMPS$ = Employment in services, female (% of female employment)
MR = Mortality rate, under-5 (per 1,000 live births)
GH = Domestic general government health expenditure per capita, PPP (current international $)
β_0 = Constant coefficient
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = coefficient of independent variables
ε_t = error term

Research Hypothesis

Hypothesis 1
H_0: There is no significant relationship between economic growth and economic infrastructure.
H_1: There is significant relationship between economic growth and economic infrastructure.

Hypothesis 2
H_0: There is no significant relationship between economic growth and productive employment.
H_2: There is significant relationship between economic growth and productive employment.
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Hypothesis 3
H_0: There is no significant relationship between economic growth and equity.
H_3: There is significant relationship between economic growth and equity.

Hypothesis 4
H_0: There is no significant relationship between economic growth and human capabilities.
H_4: There is significant relationship between economic growth and human capabilities.

3.   Result And Discussion

The correlation test is shown in Table 1. Mobile cellular subscriptions, female employment in services sectors, and domestic general government health expenditure per capita have a positive relationship with GDP per capita. According to Ratner (2009), mobile cellular subscriptions and female employment in services sectors have a moderate relationship, and domestic general government health expenditure per capita has a weak relationship with GDP per capita. The total employment in the industry sector and mortality rate, under-aged 5 have a negative relationship with GDP per capita. Interestingly, the mortality rate, under-aged 5 has moderate and total

employment in the industry sector has a weak relationship with GDP per capita.

The Table 2 shows that unit root test results. The result shows that all variables stationary at level and do not have unit root.

The estimated result for economic growth model obtains as follows:

$$GDP_{t-1} = -2.399 + 0.030\ MB_t + 0.632\ EMPI_t + 0.228\ EMPS_t - 0.384 MR_t + 0.002\ GH_t + \varepsilon_t$$

S.E   (2.917)   (0.051)   (0.330)   (0.531)   (0.202)   (0.042)

t-statistic = [-0.822] [0.592]   [1.914*]   [0.429]   [-1.902*]   [0.046]

$R^2 = 0.433$; Adjusted $R^2 = 0.215$; Durbin-Watson stat = 2.969

The result shows that explanatory variables accounted for 43.3% of the variation in the economic growth model. The estimation revel that the independent variables such as employment in industry and mortality rate under-aged 5 were the most important variables with statistical significance at 10% respectively.

Inclusive growth is primarily given importance to the demand side of labour to address the production of employment. In this study, we used employment in industry as demand side labour which shows a significant positive relationship exists between GDP growth and employment in the industry. A 1% increase in employment in industry, and a 63.2% increase in GDP growth. This finding is similar to the previous study (Cui et al., 2020). Economic growth is important for a country a good job creation and utilizes the labour market for economic activities.

Inclusive growth narrowly defines to the supply side of labour through the mortality rate under-aged 5 (Durry et al., 2018). This indicator is used to address the working population's dominant human capabilities in the future to take the available economic opportunities in the labour market and generate the country's productivity. This study result shows a 1% reduction in the mortality rate under-aged 5, and a 38.4% increase in GDP growth in Malaysia. This finding is like the previous study (Somayeh et al., 2014). This indicates that Malaysia has inclusive development through human development. Table 3 shows that the economic growth model's residuals are normally distributed, with no heteroscedasticity, no serial correlation, and no multicollinearity in the residual diagnostics test.

Overall, this study's finding indicates that employment in the industry creates economic growth in Malaysia economic. The employability of the nation will make sure the nation has income for sustainable living and away from poverty. Moreover, employability also creates demand for the labour market. On the other hand, the reduction in mortality rate indicates that Malaysia has sufficient human capital for economic activities and labour supply in the labour market. To achieve inclusive growth in Malaysia, the government should focus on balancing the demand and supply of labour in the labour market. The demand in the labour market has job creation and tax income for the country. For the labour supply, nations have employment intensive and job opportunities to utilize and free from poverty and unemployment. Labour earning is an important source of income for most individuals (ElGanainy et al, 2021). Thus, an inclusive labour market is key for ensuring inclusive growth. This indicates that income equality will achieve through the labour market.

4.   Conclusion

Utilizing the OLS method, this study investigates the relationship between economic growth and indicators of inclusive growth conducted in Malaysia for the period of 2000- 2019. employment in the industry creates economic growth in Malaysia. Indeed, Malaysia achieves inclusive development through human development. Here we proposed, to achieve inclusive growth in Malaysia

policy maker should consider that through the labor market. The Ministry of Huma Resource should promote and utilize MYFutureJobs (public employment services) which currently available to help reduce the mismatch between labor demand and supply. By providing wider job-search assistance to unemployed individuals, MYFutureJobs help to overcome market failures arising from imperfect information between job seekers and employers. The public employment services should promote both parties to have a wider search of job opportunities and enhance the productivity of the firms.

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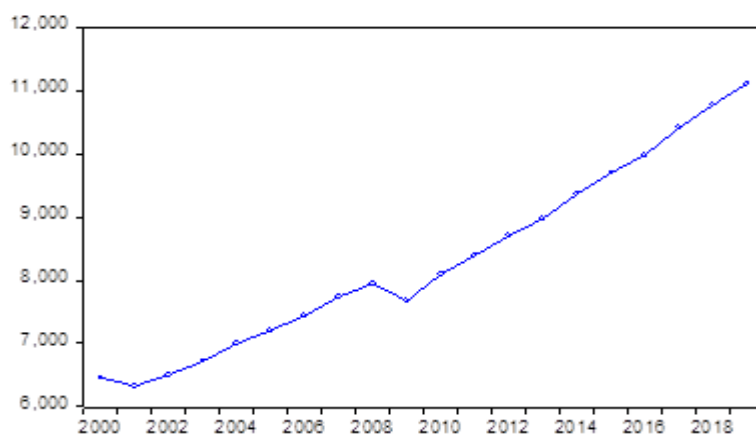
Figures

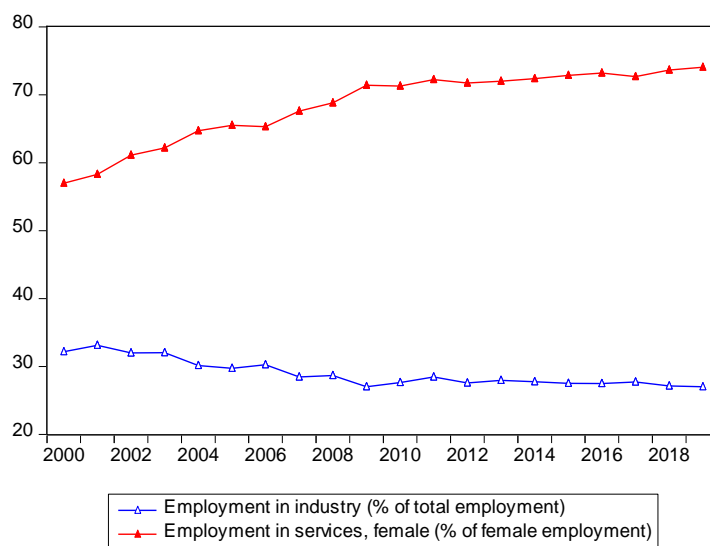Figure 1: GDP per capita (constant US$)

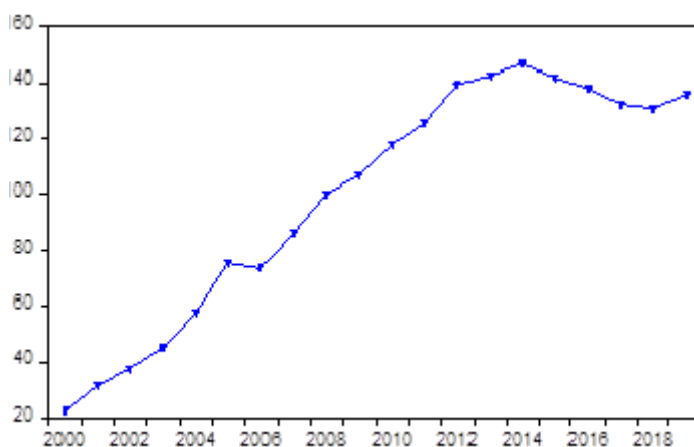Figure 2: Employment by sectors

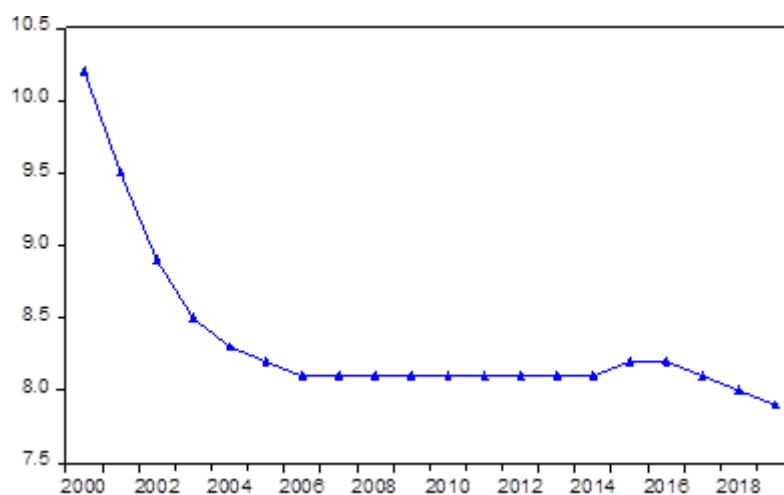Figure 3: Mobile cellular subscriptions (per 100 people)

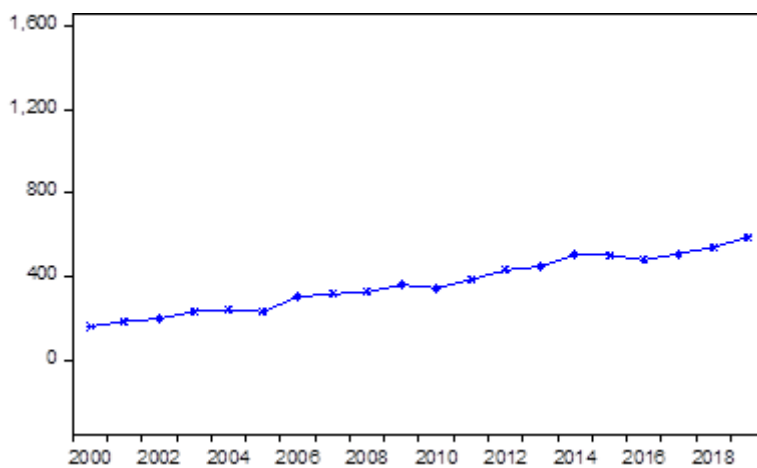Figure 4: Mortality rate, under aged 5 (per 1,000 live births)

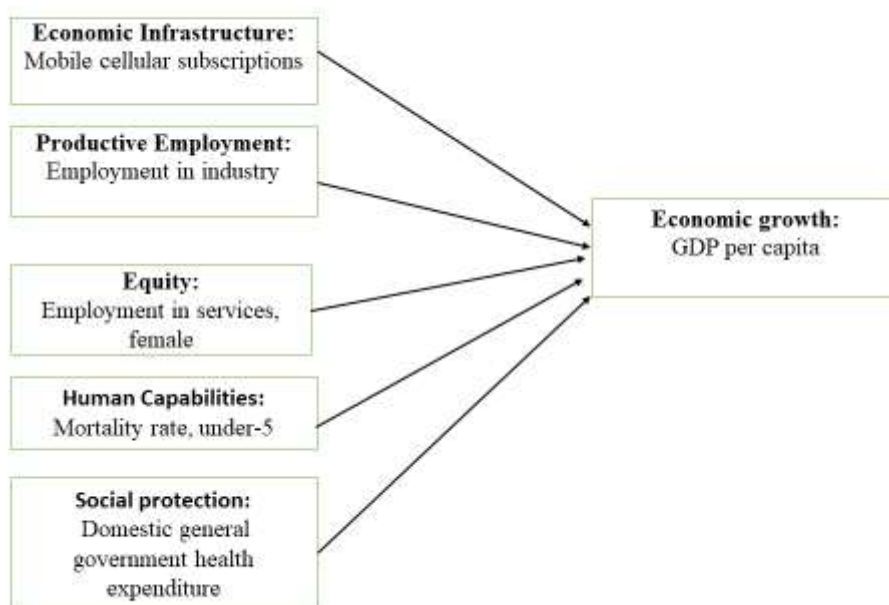Figure 5: Domestic general government health expenditure per capita, PPP (current $)

Figure 6: Conceptual Framework for Economics growth towards inclusive growth indicators

Tables

Table 1: Correlation test

	GDP	MB	EMPI	EMPS	MR	GH
GDP	1.000	0.344	-0.221	0.310	-0.462	0.298
MB	0.344	1.000	-0.956	0.984	-0.838	0.930
EMPI	-0.221	-0.956	1.000	-0.974	0.835	-0.897
EMPS	0.310	0.984	-0.974	1.000	-0.834	0.946
MR	-0.462	-0.838	0.835	-0.834	1.000	-0.731
GH	0.298	0.930	-0.897	0.946	-0.731	1.000

Table 2: Unit root test

Variables	Augmented Dickey-Fuller Test		Phillips-Perron test	
	Level	1st difference	Level	1st difference
GDP	-1.112***	-1.973***	-1.112***	-1.437***
MB	-0.164***	-0.282	-0.164***	-0.521*
EMPI	-0.203***	-1.436***	-0.143	-1.436***
EMPS	-0.131***	-0.871***	-0.131***	-0.871**
MR	-0.229**	-0.262**	-0.340***	-0.262**
GH	-0.190**	-1.304***	-0.075	-1.304***

Notes: ***, **, * indicates the significant level at 1%,5% and 10%

Table 3: Summary of Residual Diagnosis

Diagnostic test	Result	Decision
Normality test (Jarque-Bera)	JB statistic: Prob. value	P-value > 0.05 Error term is normally distributed
Heteroscedasticity test (Breusch-Pagan-Godfrey)	$F_{(5,13)}$ statistics: 3.741 Prob. Value: 0.0256	P-value > 0.01 The variance heteroscedasticity
Serial Correlation test (LM)	$F_{(2,12)}$ statistics: 3.912 Prob. Value: 0.0521	P-value > 0.05 No autocorrelation among the residuals
Multicollinearity test (Variance Inflation Factor: VIF)	$VIF = 1/(1-R^2)$ $VIF = 1/(1-0.433)$ $VIF = 1.764$	VIF<5 No multicollinearity among the variables