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# **The Causal Relationship between Fertility Rate and Economic Growth: Empirical Evidence from Malaysia**

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## **INTRODUCTION**

The declining trend of fertility rate across countries has raised concerns among economist since it could bring severe consequences on the long run economic growth. The current population trend in Malaysia which shows the country is moving towards the ageing country due to higher life expectancy and lower fertility rate indicate that the country will face a serious challenge in the future as they will be highly dependent on the elderly to support the labour market if the fertility rate continues to decline over time.

## **PURPOSE/AIM & BACKGROUND**

As reported by Department of Statistic in 2018, the national fertility rate is expected to decline to the lowest level recorded since independence to 15.8 births per 1000 people in 2018 compared to 21.9 in 2000. The total fertility rate has also shown to decline from 6 children per woman in 1957 to 1.9 children per woman in 2018 which indicate a severe decline in the fertility rate in Malaysia. This study aims to analyse the effect of fertility rate on economic growth in Malaysia.

## **METHODOLOGY**

This study utilized yearly data from the period 1960 to 2016 to examine whether a long-run relationship exists between fertility rate and economic growth and identify the direction of causality between the two variables. The unit root test of Augmented Dickey Fuller (ADF) is performed based on the model with intercept, and, with trend and intercept. Other than that, The Granger causality test is employed to clarify the direction of any existing interactions and to verify the results of cointegration among variables (Granger 1969; 1983). E-views 9.0 was used to analyse the data and to test the hypotheses.

## **FINDINGS**

The result of the preliminary test based on the Augmented Dickey-Fuller (ADF) test confirm that both fertility rate and economic growth is integrated at order one,  $I(1)$ , therefore the Johansen cointegration test can be applied to test for the long run cointegration of the variables. The result of the cointegration test confirms that the long run relationship exists between fertility rate and economic growth while the result of Granger causality test shows that there is unidirectional causality which runs from economic growth to fertility rate.

## **CONCLUSIONS/RECOMMENDATIONS**

Since the findings of this study found that the economic growth will affect the fertility rate and not the other way around, hence, policy intervention should focus on influencing the economic growth to influence the fertility rate. As such, government should focus more on health care expenditure as it is the significant factor which contributing to the development of human capital and enhancing the economic growth. However, further analysis is needed to estimate the impact of economic growth on fertility rate so an effective policy can be designed to tackle the low fertility issue.

**Keywords:** Economic Growth, Fertility Rate, Malaysia, Population, Cointegration, Causality