

The Nexus between Standard of Living with Macroeconomics Variables in Malaysia: Pre-Pandemic Case Study

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Abstract

This study examines the relationship between selected macroeconomics variables and standard of living in Malaysia during the pre-COVID-19 period. Specifically, it is to investigate the effects of gross domestic product (GDP), unemployment, taxation, household consumption and population growth on the standard of living, proxied by the Consumer Price Index (CPI), using the time series data from 1976 – 2020. Multiple linear regression, unit root tests, Johansen-Juselius cointegration, and Granger causality analysis are employed to run the analysis. The findings show that taxes significantly affect the standard of living, indicating that changes in taxes are linked to changes in the cost of living. Besides that, GDP, population, unemployment, and household consumption do not have a significant impact. The results also suggest that the relationship among the variables mainly occur in the short term rather than the long term.

Keywords: Gross Domestic Product, Unemployment, Taxation, Household Consumption, Population Growth

Introduction

The standard of living has always been a key indicator of economic and social development in Malaysia, as it reflects the ability of individuals to meet their basic needs and maintain an acceptable quality of life (Ministry of Economy, n.d.). When living standards in the society improve, it is often associated with economic growth, rising incomes, and better access to essential services such as healthcare, education, and housing.

During the pre-pandemic period, Malaysia experienced constant improvements in living standards alongside moderate population growth, as reported by official socio-economic indicators. Malaysia's population expanded from 23.3 million in 2000 to 32.4 million in 2020, although the annual population growth rate slowed from 2.2 per cent between 2000 and 2010 to 1.7 per cent between 2010 and 2020. This demographic trend also occurred alongside increasing urbanisation, with the urban population reaching 75.1 per cent and a decline in average household size to 3.8 persons (Dosm, n.d.-a).

At the same time, Malaysia's population was changing, and people's overall quality of life was generally improving. The overall well-being in Malaysia improved between 2000 and 2020, as shown by The Malaysian Well-Being Index (MyWI), increasing from 100 to 118.3. Although there is a slight decline of 2.1 per cent from 2019. In particular, the economic well-being sub-index reached 126.2, showing higher income levels and better access to transportation (Dosm, n.d.-b).

However, in reality, these improvements do not necessarily reflect the actual living conditions experienced by Malaysian households. There are still households struggling to survive due to the rapid urbanisation, which rose from 65.4% (2000) to 75.0% (2020), creating challenges for household living standards (Norimah et al., 2017). Despite the continuous improvement in the country's well-being indicators, many still experience financial pressure due to increasing living costs, urbanisation, and unequal income distribution. This highlights a potential disconnect between macroeconomics performance and actual living conditions which suggest the need to further examine the determinants of standard of living in Malaysia. Understanding the determinants of the standard of living is especially important in a pre-pandemic context, where economics conditions were relatively stable and not influenced by COVID-19 disruptions. This study focuses on Malaysia during the pre-pandemic period to provide clear picture of how macroeconomics variables influence household well-being under normal economic conditions.

Macroeconomic variables such as gross domestic product (GDP), unemployment rate, taxation, household consumption, and population growth influence income distribution, purchasing power, employment opportunities, and cost of living. Changes in these variables may directly and indirectly affect the household's overall well-being and living standard. Additionally, economic growth theory also suggests that economic growth may increase income and consumption capacity. On top of that, higher unemployment and rising prices may reduce purchasing power and deteriorate living standards. Likewise, taxation and changes in population may influence the allocation of resources and public service provision, which affects the welfare outcomes.

This study aims to examine the relationship between the selected macroeconomic variables, including GDP, unemployment rate, taxation, household consumption, and population, along with the standard of living in Malaysia during the pre-COVID-19 period. By focusing on the period before the pandemic in Malaysia, this research provides a clearer understanding of how these macroeconomic variables affect the living conditions under more stable economic conditions. The importance of this study is that it provides the government or policy maker with an evidence-based insights in developing effective economic and social

policies to enhance living conditions in Malaysia. It also may benefit the households by identifying key macroeconomics variables affecting financial well-being.

Previous studies have examined the relationship between macroeconomic variables and welfare indicators such as GDP per capita and the Human Development Index (HDI). The empirical evidence shows that economic growth is linked to better living standards (Deaton, 2008; Mankiw et al., 1992), while unemployment and labour market conditions influence income stability and well-being (Jabaru & Jimoh, 2020). Moreover, household consumption is also connected to HDI (Palát & Kunc, 2013), and taxation plays a role in redistributing income and supporting public service (Oishi et al., 2012; Cingano, 2014). Additionally, changes in population have been theoretically and empirically associated with per capita income and welfare levels (Bloom et al., 2003). However, most studies focus on the long-term indicators such as GDP and HDI, and do not fully considered the short-term pressures that households experience due to the rising living costs. Therefore, this study addresses the gap by using the Consumer Price Index (CPI) as a proxy for the standard of living, highlighting the cost-of-living perspective.

Literature Review

The concept of standard of living has been widely discussed in economic and development literature. Standard of living is not just about numbers or statistics like income or Gross Domestic Product (GDP), it also involves people's experiences and how they feel about their lives. Moskowitz (2004, p.3, as cited in Watts, 2020) states that living standards are dynamic, perceived and felt as much as being quantitative and are shared across groupings including classes and nations. In line with this view, Jalil and Kamaruddin (2018) emphasise that standard of living is better captured by the Human Development Index (HDI), which combines income, education and health outcomes, and they note that from a standard-of-living perspective, household income and cost of living are essential in ensuring material well-being and a better quality of life for households (Jalil & Kamaruddin, 2018). Furthermore, standard of living is also closely related to cost-of-living conditions where consumer price index (CPI) is used to measure changes in price levels and reflects the purchasing power of households. Latimaha et al. (2020) finding shows that standard of living and cost of living (proxied by CPI), have a strong causal relationship, where rising cost of living worsen the living standards. Thus, indicating CPI can be used as a proxy for standard of living's cost of living dimension.

Standard of living is also often measured in material terms, mostly at the state level (income, consumption and unemployment). Gross domestic product per capita is most used for international comparison of general standards of living (Birčiaková et al., 2015). Despite that, a country's wealth and standard of living depend not only on production efficiency but also on a bigger social and economic factors. Therefore, according to GDP alone should not be used as a comprehensive measure of development (Spěváček, 2005, as cited in Birčiaková et al., 2015). For this reason, this study examines the relationship between macroeconomic variables including unemployment, taxation, household consumption, population and gross domestic product, and the standard of living. Although standard of living is a multidimensional concept, this study focuses on its cost of living dimension. Therefore, CPI is used as a proxy to capture short-term cost of living pressures faced by households

Gross Domestic Product and Standard of Living

According to (Bintang, Ismail & Indra, 2015), the increment of the gross domestic product leads to positive impact on the HDI. Jalil and Kamaruddin (2018) state that HDI measures the average achievement from the three basic dimensions of human development including standard of living. This suggest that HDI acts as a proxy for standard of living which indicates that GDP is associated with standard of living's improvements as reflected by HDI. Furthermore, a study by Jalil and Kamaruddin (2018) also supports that GDP per capita shows positive effect on HDI by using panel Fixed Effects Model (FEM). As mentioned before, Deaton (2008) that analysed correlation between GDP and living standards, found there's a strong correlation between GDP per capita (national income) and living standards across 132 countries, including developing nations like India, China, and several sub-Saharan African countries (e.g., Nigeria, Ethiopia). They used cross-country regression analysis to examine the relationship between average life satisfaction (or health satisfaction) and GDP per capita, measured in logarithmic form using data from the World Bank and the Penn World Table. Based on thorough observation, the results show a strong positive log-linear relationship, indicating that when income doubles, average life satisfaction increases by approximately 0.8 to 1.0 points. This supported research reassure us that living standards are indeed influenced by GDP per capita

Household Consumption and Standard of Living

Household consumption expenditure in Malaysia had been showing a constant growth each year before the outbreak of covid-19. According to the Department of Statistic Malaysia (2017), the mean monthly household consumption expenditure for Malaysia increased from Rm3,578 in 2014 to RM4,033 in 2016 which grew at 6.0 per cent annum at nominal value. Thus, the increase of household consumption expenditure can contribute to the economic growth based on the results of the analysis by Sari et al. (2020). They found out that household consumption and investment expenditure had a positive and significant effect on economic growth. Economic growth plays an important role in any country including Malaysia as it leads to increase in the standard of living (Cheam et al., 2013). According to Sulistyowati et al. (2017), increased household expenditure is influential in reducing poverty. The decline number of poor people will increase the Human Development Index. Increased HDI is an indication of increased welfare, so as to encourage people to increase their household expenditures.

Palát and Kunc (2013) studied the relationships between the household consumption expenditure and the human development index (HDI), where household consumption expenditure is the dependant variable while human development index (HDI) is the independent variable. They found out that there is a statistically significant relationship between household consumption expenditure and HDI in developed countries. However, in developing countries, the relationship was weaker in low-income developing countries. This indicated that the link between household consumption and standard of living depends on a country's level of economic development. In this study, since Malaysia is a developing country, it is expected that household consumption plays a more important role in influencing the standard of living.

Unemployment and Standard of Living

Malaysia had maintained a low and stable unemployment rate, which hovering between 2.7% - 3.7% in 2014 until 2019. The country has only experienced moderate fluctuations during this period with the rate consistently staying below 4.0%. According to the Department Statistic of Malaysia, the unemployment rate in 2014 dropped to a low of 2.85% - 2.9% due to the decline in the number of unemployed persons by 25.1 thousand persons. In 2016 until 2019, Malaysia has maintained unemployment rate between 3.3% and 3.4% before the outbreak of covid-19. This indicated a full employment during those period. Unemployment rate refers to the job lost by individuals in a specific country. The more jobs are lost, the more income is lost which then deteriorates the living standards of people (Grabriel and Waiganjo, 2025). This indicates that, unemployment may have impact or influence over how people lives.

Sumaryoto et al. (2020) analysed the relationship between Human Development Index (HDI) and unemployment rate in Indonesia in 2010 – 2019. The method that they used is time-series data analysis method with quantitative methods. Based on their findings, it was shown that the relationship between the Human Development Index (HDI) and unemployment rate is 0.960, which means that it has a very strong relationship. This suggest that there is a link exist between unemployment rate and standard of living. Jabar and Jimoh (2020) also studied the relationship between unemployment rates and per capita income in Nigeria from 1980 to 2017. The study used gross domestic product as dependent variable, to represent the economy and examined the impact of various macroeconomic variables including unemployment rate on GDP. While their study focused on GDP as a measure of economy, this present study shifts the focus to standard of living as the dependant variable. Therefore, our study will dive more in depth to hypotheses.

Taxation and Standard of Living

In macroeconomic theory, taxation is an important tool used by government to influence income distribution, economic growth and overall well-being. Through the collection of tax revenue, governments are able to finance public goods and essential services such as education, healthcare, and infrastructure, which contribute to improvements in living standards (Gethin, A., 2023). In Malaysia, Sales Tax & Service Tax (SST) had been implemented for more than half of the century since 1970s. The evolution of taxation from 2000-2019, marked by progressive personal income taxes and the 2015 GST has elicited mixed effects on living standards, as evidenced by its links to HDI and consumer burdens (Kamarudin et al., 2024).

Empirical evidence from Saragih (2018), who examined the effect of local tax revenue on Human Development Index (HDI) across 34 provinces in Indonesia between 2013 and 2016, found that tax revenue has a significant effect on HDI. Quantitative method is used along with unit of anaylsis of thirty-four provinces in Indonesia with a total of 134 observation. The finding implies that effective tax collection can enhance human development outcomes and indirectly, improve the standard of living. As previous study have examined the relationship between local tax revenue and the Human Development Index (HDI), it is therefore appropriate for the present study to further analyse the relationship by focusing specifically on standard of living as the dependent variable and taxation as one of the

independent variables. This approach allows for a clearer examination of whether taxation significantly influences the standard of living.

Population and Standard of Living

Population growth is an important macroeconomic factor that affects a country's standard of living which is supported by Furuoka and Munir (2011) that states population growth as a critical macroeconomic variable affecting living standards (proxied by GDP per capita). Changes in population size may affect resource availability, labour supply, public expenditure, and income distribution (Birdsall & Griffin, 1993). In theory, rapid population growth can put pressure on resources and public services, which may impact overall welfare and living standards (World Bank, 1984).

In Malaysia, according to the Department Statistic of Malaysia (DOSM), the total population increased from 32.0 million in 2017 to 32.6 million in 2019, even though the growth rate declined from 1.1 per cent in 2018 to 0.6 per cent in 2019. Most of the population are citizens (90.2%), while non-citizens make up 9.8 per cent of the total population. Changes in population size and growth rate may affect the standard of living. Economic growth theory stated that rapid population growth can put pressure on employment opportunities, public services, and resources, which may reduce per capita income and overall well-being (Mankiw, Romer & Weil, 1992).

Although theory suggests that rapid population growth can put pressure on resources, employment, and public services, there is limited empirical evidence that examining its impact on standard of living. Most of the literature focus on economic growth effects rather than direct welfare outcomes.

Hypothesis Development

There are two types of null hypothesis and alternative hypothesis will be used in this study.

HYPOTHESIS 1

H₀: There is no significant relationship between population and standard of living in Malaysia.

H₁: There is a significant relationship between population and standard of living in Malaysia.

HYPOTHESIS 2

H₀: There is no significant relationship between Gross Domestic Product (GDP) and standard of living in Malaysia.

H₁: There is a significant relationship between Gross Domestic Product (GDP) and standard of living in Malaysia.

HYPOTHESIS 3

H₀: There is no significant relationship between taxes and standard of living in Malaysia.

H₁: There is a significant relationship between taxes and standard of living in Malaysia.

HYPOTHESIS 4

H₀: There is no significant relationship between unemployment and standard of living in Malaysia.

H₁: There is a significant relationship between unemployment and standard of living in Malaysia.

HYPOTHESIS 5

H_0 : There is no significant relationship between household consumption and standard of living in Malaysia.

H_1 : There is a significant relationship between household consumption and standard of living in Malaysia.

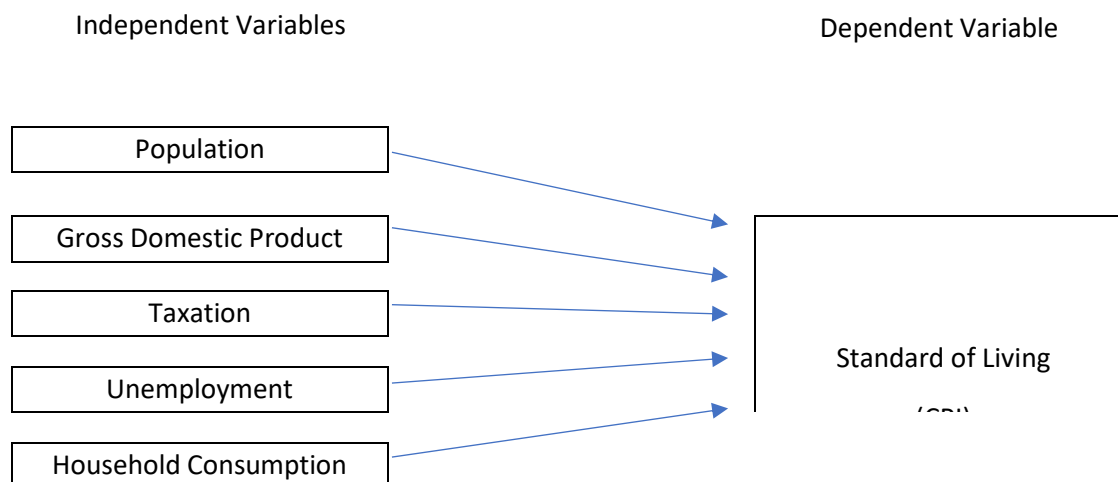
Conceptual Framework

Figure 1. Conceptual Framework

Methodology*Sample Description and Data Collection*

The data has been collected from World Bank Development Indicators (WBDI). In this study, standard of living is the main variable and the data collecting comprises 44 years from 1976 to 2020. This study will explain precisely by using multiple linear regression model.

Empirical Model

The function of the regression model in this study is shown below:

$$Y \text{ (STD)} = \beta_0 + \beta_1 \text{ (POP)} + \beta_2 \text{ (GDP)} + \beta_3 \text{ (TAX)} + \beta_4 \text{ (UNEMP)} + \beta_5 \text{ (CONS)} + \varepsilon$$

Where;

Dependent variable:

- STD : Standard of Living (Consumer Price Index)

Independent variables:

- POP : Population
- GDP : Gross Domestic Product
- TAX : Taxes
- UNEMP : Unemployment
- CONS : Household Consumption
- $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: Regression coefficients
- ε : Error term

The data analysis is the process to exemplify and appraise the data research that will be applied on this study. Basically, this study will use three methods such as unit root test, diagnostic test and multiple regression model to interpret the time series data. Besides that, Johansen-Juselius Cointegration will be used to determine the variables relationship towards standard of living.

Result and Discussion

Regression Model

$$Y \text{ (CPI)} = \beta_0 + \beta_1(\text{POP}) + \beta_2 (\text{GDP}) + \beta_3 (\text{TAX}) + \beta_4 (\text{UNEMP}) + \beta_5 (\text{CONS}) + \varepsilon$$

Descriptive Analysis Ordinary Least Square (OLS)

Table 1

The Results of Ordinary Least Square

Variables	Coefficient	Standard error	T-statistic	Probability
POP	-17.69812	4.665520	-3.793385	0.0006
GDP	0.580382	0.544866	1.065183	0.2943
TAX	14.20412	1.864267	7.619145	0.0000
UNEMP	-1.846848	0.917287	-2.013382	0.0520
CONS	-0.334334	0.368198	-0.908028	0.3703
C	-231.7159	53.93053	-4.296562	0.0001
R2	0.920041			
F-stat	78.24310			

Based on the result above, table 1 shows a regression model equation using logarithm. The results show only gross domestic product and taxes have a positive relationship significantly towards standard of living. This have been proved that standard of living will be comfortable when the economic growth is stable on the ordinary least square (Edoumiekumo and Opukri, 2013). This is also supported by the findings from Jalil and Kamaruddin (2018) study which revealed LGDP is statistically significant and have impact on HDI which is used as a proxy for standard of living. However, the rest of variables such as population, unemployment and household consumption shown insignificantly relationship on dependent variable. This can be interpreted when population risen, therefore the results show the increase on rate of unemployment in the country and this will also effect on the household consumption towards standard of living.

Hence, the regression model equation:

$$Y \text{ (CPI)} = -231.7159 - 17.69812 \text{ POP} + 0.580382 \text{ GDP} + 14.20412 \text{ TAX} - 1.846848 \text{ UNEMP} - 0.334334 \text{ CONS} + \varepsilon$$

Unit Root Test

Table 2

The Results of Unit Root Test

Variables	Unit root test Result			
	TI ADF	TT-1 ADF	TI PP	TI-1PP
At Level				
POP	-4.029520***	-4.251829***	-2.494415*	-1.991756*
GDP	-5.090753***	-5.207520***	-5.094694***	-5.217138***
TAX	-2.739474*	-3.589436**	-1.777039*	-5.818498***
UNEMP	-2.680298**	-3.877410***	-2.526004*	-3.920737***
CONS	-4.717757***	-4.698798***	-3.808007***	-3.685771***
First Diff				
POP	-2.635695**	-2.617255*	-3.058675**	-3.3048771*
GDP	-7.822055***	-7.707443***	-5.094694***	-18.49607***
TAX	-9.676597***	-9.577295***	-25.24691***	-31.31361***
UNEMP	-6.798622***	-6.709268***	-10.17688***	-10.65037***
CONS	-6.895690***	-6.804793***	-13.51619***	-13.50524***

Notes: (***) Significant at 1%, (**) Significant at 5%, (*) Significantly 10%. TI represent as the model with interpret and TT-I represents as trend and interpret on the model results.

Table 2 reveals the variables by unit root test. This significant test will show the results from Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) test. The main function of unit root test is to identify whether there are exist unit root problem or not. Meanwhile, by applying ADF and PP will show the actually significant of the study. From the table 2, it shows that gross domestic product (GDP) and household consumption is significant at level while the population, taxes and unemployment at first different. Meanwhile, at the end of unit root test the data has no unit root problem detected since all the variables is significant relationship at 1 percent and 5 percent level respectively.

Hypothesis statement of unit root test:

H_0 : The data variable has a unit root detected

H_1 : The data variable has no unit root detected

Johansen and Juselius Cointegration Test

Table 3

The Results of Cointegration Test

Null Hypothesis	Alternative Hypothesis	Eigenvalue	Trace Statistics	Critical Values	
				95%	P-Values
$r \leq 0$	$r \geq 0$	0.664749	131.8541***	95.75366	0.0000
$r \leq 1$	$r \geq 1$	0.638632	92.51060	69.81889	0.0003
$r \leq 2$	$r \geq 2$	0.536479	55.86766	47.85613	0.0074
$r \leq 3$	$r \geq 3$	0.402303	28.18716	29.79707	0.0758
$r \leq 4$	$r \geq 4$	0.209379	9.658991	15.49471	0.3079
$r \leq 5$	$r \geq 5$	0.032818	1.201255	3.841466	0.2731
			Max-Eigen Statistic		
$r \leq 0$	$r \geq 0$	0.664749	39.34349***	40.07757	0.0603

$r \leq 1$	$r \geq 1$	0.638632	36.64294	33.87687	0.0228
$r \leq 2$	$r \geq 2$	0.536479	27.68051	27.58434	0.0486
$r \leq 3$	$r \geq 3$	0.402303	18.52816	21.13162	0.1113
$r \leq 4$	$r \geq 4$	0.209379	8.457736	14.26460	0.3341
$r \leq 5$	$r \geq 5$	0.032818	1.201255	3.841466	0.2731

Note: *** specifies on the significant at 5% level

Table 3 above show the results by using Johansen and Juselius Cointegration test. This conclusion is supported by the table where the trace statistics is higher than critical value which is 131.8541 and it is much greater than 95.75366 at 5% level. However, Max-Eigen test result is significantly less than critical value results is 39.34349 which is lesser than 40.07757 at 5% level. Hence, in order to make decision whether this study have a long run or short run relationship the theory of Johannsen and Juselius (1990) will be used, meanwhile in this case Maximum-Eigen theory will be chosen as the value results are more considerable. On the other hand, the results have no long run relationship in this test where short run has detected that might be used together in VAR model on Granger-Causality test.

Granger Causality Test (VAR)

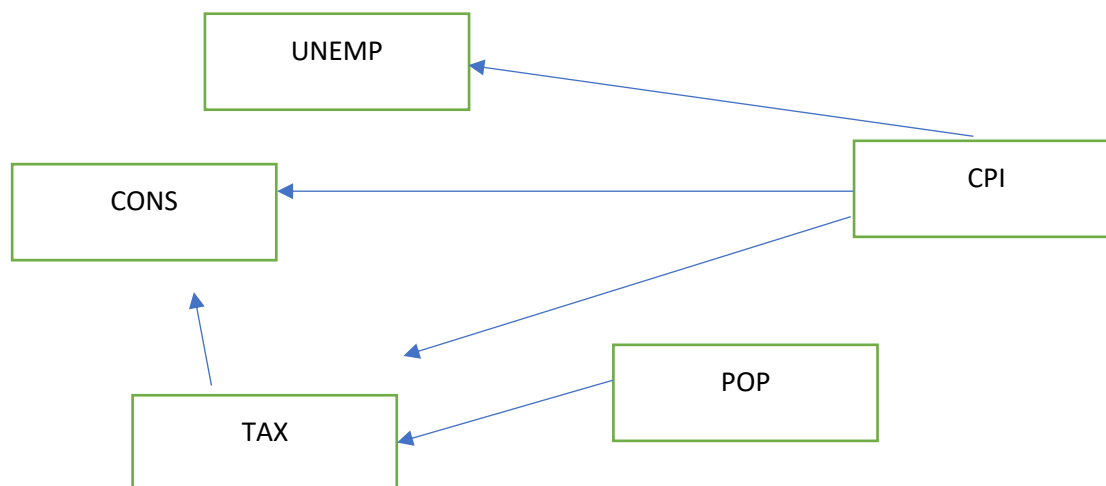
Table 4

The Results of Granger Causality (Variance Argument Ratio) Test

Independent Variables						
DV	CPI	POP	GDP	TAX	UNEMP	CONS
F-Statistic						
CPI	-	1.2129 (0.5453)	0.2470 (0.8838)	0.1919 (0.9085)	0.6573 (0.7199)	0.4652 (0.7925)
POP	0.0316 (0.9843)	-	3.2945 (0.1926)	3.7768 (0.1513)	1.3435 (0.5108)	1.6296 (0.4427)
GDP	2.1609 (0.3394)	0.7317 (0.6936)	-	1.5079 (0.4705)	4.2321 (0.1205)	0.7964 (0.6715)
TAX	12.8693 (0.0016)***	7.9047 (0.0192)**	0.1615 (0.9224)	-	2.5012 (0.2863)	0.1688 (0.9191)
UNEMP	6.5424 (0.0380)**	0.0481 (0.9762)	1.7335 (0.4203)	0.9912 (0.6092)	-	1.4364 (0.4876)
CONS	5.3267 (0.0697)**	0.1292 (0.9374)	0.6366 (0.7274)	7.8163 (0.0201)**	2.2145 (0.3305)	-

Note: *** specifies on the significant at 5% level

From the table 4 above, it shows that as consumer price index are Granger cause taxes, unemployment and household consumption. This can be shown that unemployment and household consumption is significantly at 5 percent, while only taxes significantly at 1 percent level. This have been contended by Konya (2006), he stated that all the variables no need to test it stationary because it has a difference variable that will point on loss of results in the study.



Conclusions

In this study, regression model, unit root tests, Johansen-Juselius cointegration test and Granger causality analysis were used to examine the relationship between macroeconomics variables and the standard of living in Malaysia. The results indicate that taxation has a positive and significant relationship with the standard of living (CPI) suggesting that higher taxes are associated with an increases cost of living pressure.. This finding is align with Mainal et al. (2024), who found direct tax positively correlated with cost of living pressures in Malaysia (1992 – 2022). In this study, although GDP shows a positive relationship with standard of living, it is not statistically significant which indicates that economic growth alone may not directly improve living standards. This finding is consistent with Latimaha et al. (2020), who found that GDP per capita is positively associated with cost of living indicators despite the rising household expenditure pressures. Furthermore, this study shows population has an insignificant relationship with standard of living suggesting rising in population may worsen the economic condition. This is aligned with Mainal et al. (2025) that found population growth is associated with increased living costs. Meanwhile, household consumption does not show a significant relationship where it does not directly influencing the living standards. The unit root test revealed that there is no unit root problem detected in the data. However, the Johansen cointegration test suggested there is no long-run relationship among the variables and its relationship only exists in the short run. The Granger causality test shows that the CPI (standard of living) influences taxation, unemployment, and household consumption in the short run. It also shows that population influences taxation and taxation influences household consumption. Overall, taxation and population are the most important macroeconomics variables related to standard of living during the pre-pandemic period.

As taxation has a positive and significant relationship with the standard of living and is influenced by population as well. Malaysia may adopt a Tax Reform strategy introduced by Vietnam in 2025 which aimed to modernize the tax system and strengthen revenue collection (InCorp Vietnam, 2025). Vietnam government introduced such measures such as lowers corporate tax rates for small businesses, raises the tax threshold for micro businesses, requires digital invoicing, and makes e-commerce platforms and foreign online companies pay or withhold taxes in Vietnam. According to InCorp Vietnam (2025), early responses to the tax reforms showed improved business confidence, stronger digital tax enforcement, and increased attractiveness to foreign investors. With this, Malaysia can strengthening tax

efficiency and enhance government revenue which eventually redistributed toward services and facilities.

According to Abang Abdul Rahman et al. (2019) in their research, they found out that population can be used as an element to forecast the problem of unemployment in the country. On top of that, Aurangzeb (2013; as cited in Abang Abdul Rahman et al., 2019), found that factor like population growth may worsen the unemployment. These findings indicate that population may be able worsen the economic condition and influences taxation. Therefore, it is recommended for Malaysia to initiate a family planning program that had been done by Indonesia before in 2014.

The Indonesian government has increased its budget allocation from US\$65.9 million in 2006 to \$263.7 million in 2014. Babatunde Osotimehin, the under secretary-general of the UN and the executive director of UNFPA said that the family planning program is to promote human capital development, combat poverty and harness a demographic dividend to contribute to equitable and sustainable economic development. According to The Jakarta Post (2016), Indonesian family planning has become a role model for many developing countries after Indonesia succeeded in reducing total fertility rates and population growth

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