

RELATIONSHIP BETWEEN MALAYSIAN QUALITY OF LIFE AND GROSS DOMESTIC PRODUCT

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ABSTRACT

Malaysia has followed most countries in the world in focusing on economic growth which is a general guideline towards achieving developed nation status. In line with this, Malaysia has set an initial target for the GDP of the country through various Malaysia Plans. Through careful planning of national development, quality and balanced development of the country is focused on ensuring sustainable economic growth in order to maintain continuity in economic and social prosperity and political harmony. The rapid economic growth does not necessarily reflect the quality of life of the people of a country are in good condition where all walks of life enjoy every amenity provided by the government through various policies that have been implemented. The existence of Quality of Life Index (MQLI) since the 1990s are expected to provide a measure of rising living standards. MQLI based on eleven components of life, namely, income and distribution; work environment; transport and communication; health; education; housing; the environment; family life; social participation; public safety; and culture and leisure. However, through this study, only eight of the most effective components analyzed to see its effectiveness against MQLI itself in general and in particular GDP.

Keywords: Quality of Life Index, *Malaysia Wellbeing Index*, Gross Domestic Product, Malaysia

INTRODUCTION

Economic growth is the driving force in increasing the income and standard of living. However, it will only remain as plans if it does not guarantee an equitable income distribution and ensure the welfare of the people. There are aspects such as the balance of economic, social and political development, that should be given priority and translate the concept of balanced economic development and quality of life. The rapid economic growth reflects the high quality of life for the people of a country where all walks of life enjoy the amenities provided and implemented by the government's various policies. Among the issues discussed was whether the distribution of the budget allocated by the government for each of the components involved in measuring the quality of life of Malaysians can increase and affect economic growth. This study is important for studying the relationship between economic growth and the MQLI components. This study also aims to identify the major components of MQLI that contribute to the enhancement of Malaysia's economic growth. The method used is Ordinary Least Squares (OLS) using the *backward elimination method*. The results showed that there were positive and significant correlation between the index and the distribution of income; health; and education on economic growth in Malaysia. Government spending on components that has high impact needs to be emphasized to enhance the sustainability and equitable economic growth.

RESEARCH ISSUES

Some studies related to the quality of life and economic growth of a country was carried out either theoretically or empirically according to each case study. The former are related to the distribution of government spending leads to many impacts on economic growth. For example, studies conducted by Craigwell et al. (2012), Teles Andrade (2008) and Shamsudin Razali (2006) state that spending on education and health sectors which are considered as investment in human development as a way to improve the quality of life and sustain economic growth. This is because the expenditure for these two sectors will lead to the efficiency of resource utilization resulting in higher productivity and increased income levels in economic output.

Muhammad Azeem Qureshi (2009) found that the effect of specific public expenditure in education and health sectors to human development leads to better economic indicators in improving the socio-economic performance in turn leads to economic growth. This study is a continuation of studies done previously stating that high economic growth does not lead to human development indicators which better high expenditure on health and education will produce better results even if the economy grows at a slower rate.

Development of a country is measured by the Gross Domestic Product (GDP) variable. Countries that enjoy a high per-capita income is seen as having the most potentially better IKRM or MQLI score. Per-capita income that is high does not necessarily reflect a country's development, but it was seen to be enclosed with all components of the MQLI. Although Malaysia is a rapidly developing country, but the issue of income distribution to be prevalent is the main agenda of the government to ensure that the distribution of income among the regional, ethnic and strata factions can be diminished and distributed fairly. In Malaysia, the income level is an important issue in the national development agenda. Many efforts have been taken to improve the income level to ensure elimination of income inequality gap between ethnic or racial-ethnic groups, urban and rural areas and less developed regions with more developed regions.

LITERATURE REVIEW

Quality of Life

Quality of Life Index (QOL) was developed by the Economist Intelligence Unit (EIU) and measure objective and subjective aspects of quality of life for 111 countries. This index has been published once, namely in 2005 and Malaysia is ranked 36th. QOL was measured through a survey of life satisfaction for nine factors of quality of life that is material wealth, health, political stability and security, family life, community life, climate and geography, job security, political freedom and gender equality. The importance of quality of life aspects continue to be improved through the Commission Report on the Measurement of Economic Performance and Social Progress (Commission on the Measurement of Economic, Social, Stiglitz, Sen, and Fitoussi, 2009) for the countries of the Organisation of Economic Cooperation and Development (OECD), where a proposal for measuring progress and economic development not only takes into account the aspects of production but also welfare aspects were highlighted.

Some efforts to assess the progress of a country in advance to find a variety of sizes available. Among the index proposed by ecological economists in the early stages of Sustainable Economic Welfare Index or Index of Sustainable Economic Welfare (ISEW). According to Eric Neumayer (1999) ISEW has been developed as a result of reflection of the concerns that GDP is not a sufficient indication to prove the status of welfare provision during or attainment of sustainability. The economists began to realize over the years that the traditional methods which have been long been used to measure the rate of development such as Gross Domestic Product and Gross National Product per capita, is limited and restricted because it is not seen to ignore the various dimensions involved in the development process. A benchmark for efficient formation seen urgently needed to enable the changes that occur in the process of development of various dimensions are taken into account. The method chosen should combine various indicators into one composite index, which reflects the trends and achievements in development. The index is seen most coincides with the business is Quality of Life (QOL).

Quality of Life Report 1999 has become the cornerstone of a series of publications on the quality of life and welfare. As the quality of life Malaysia 1999 report issued by the Economic Planning Unit in 1999, which involves a series of data for the period 1980 to 1998, reported quality of life index has increased significantly in 1998 compared to 1990. Among the sub-indices that are experiencing the highest increase revenue and distribution, education, family life, health, transport and communications, social participation, housing and working environment.

According to The People's Welfare Report 2013 (*Indeks Kesejahteraan Rakyat Malaysia*, IKRM), Malaysia has achieved high economic growth and socio-economic development since the last four decades. Malaysian Quality of Life Index (MQLI) was developed in 1999 with some changes in terms of components and indicators. This index has become the guideline to measure national progress beyond the Gross Domestic Product (GDP). MQLI initially consisted of 10 components and 38 indicators and then 11 components and 45 indicators referred to as giving an overview of socio-economic life of the various communities and quality of life more accurately. In line with the progress achieved Malaysia towards a high income economy, MQLI indicators is strengthened in order to be seen as more comprehensive in scope.

MQLI is updated and enhanced with new branding and known as the IKRM. IKRM is developed based indexes and indicators of domestic and internationally recognized variables. Communication, culture, education, environment, family, governance, health, housing, income and distribution, vacation, public safety, social inclusion, transport and work environment. IKRM takes into account the status of the high and middle-income countries has a unique multi-ethnic society. Periodic assessment in social progress, environment and economy through the IKRM be made to facilitate the formulation and implementation of socio-economic development policies.

Income and Distributions

Income and wealth distribution has also become the focus of the Malaysian government since May 13, 1969 race riot. The various development policies managed to increase economic growth and narrow the income inequality gap, but it was interrupted by the financial crisis in 1998. However, the implementation of anti-poverty programs is still intact and recovered and managed to reduce poverty. Quality of working environment has been improved with a reduced number of industrial accidents, particularly due to the drafting of Occupational Safety and

Health Act 1994. The financial crisis that began in July 1997, has apparently stopped the growth of incomes, especially in 1998. This impact is also involved several business sectors and households. However, Income and Distribution Index for the period 1980 to 1998 has increased except for the 1998 due to the impact of the financial crisis.

Transport

Transportation and communication is essential for economic development and prosperity. Transport aspects listed as recorded rapid progress for the period 1980-1998. Favorable economic and rapid technological developments have helped to accelerate progress in this field. Added ownership of private and commercial vehicles, as well as the advancement of communications services has been increasing advances in transportation and communications sectors. Based on Quality of Life Report, Transport and Communication Index has been calculated using the five components. Four of them were measured by the ratio per thousand. Ratio taken into account is the number of motorcycles, commercial vehicles, telephones and the average daily newspaper circulation per thousand population. The fifth component is the sub-index for highway construction. The trend of Transport and Communications Index generally increased from 1980 to 1998 with an increase of 87.4 points to 112.8 points.

Health

Health status in this country has increased significantly as a result of the commitment and support of the government which considers health as a social responsibility. This commitment is based on the recognition of health as an important factor in the development process associated with improved quality of life. Malaysian health care implemented in the two public and private sectors. However, the provision of health services involve more public sector. According to the quality of life, health status in Malaysia is on par with the developed countries, particularly in terms of life expectancy at birth and infant mortality rate which is rendered in the Health Index. The health care is one of the priorities of the government. Provision of basic health care is proving to be the most effective method since it does not require high expertise. In addition, the government is also encouraging healthy lifestyle campaigns, immunization programs, disease prevention and control, environmental health care and hygiene, school health services, nutrition and occupational safety and health program.

Education

Education is an important aspect of quality of life and contributes significantly to the reduction of poverty and inequality in society (Quality of Life Report 1999 by the Economic Planning Unit). Better educational level has a positive impact on other aspects such as health, work environment, environment and family. Therefore, most of the development expenditure was allocated to education. The education system is the main tool for transmitting knowledge and culture from one generation to another. It provides the foundation for the establishment and improvement of the technology needed to sustain and improve the quality of life (Unit Perancang Ekonomi: 1999). Education component has contributed significantly to the advancement of the quality of life in its index increased 18.4 points between 1990 and 2000. Rates of literacy, enrollment rates in secondary school, university participation rates, the ratio of teachers and students in primary and secondary schools have been used in the calculation of this index. More higher education institutions were offered following the establishment of private universities through the implementation of Private Higher Education Institution Act, 1996 (Economic Planning Unit: 2002).

The Index consists of six indicators of pre-school enrollment rate, secondary enrollment, university participation rates, literacy rates, the ratio of teachers to students in primary schools and teacher-student ratio in secondary schools. Participation in the education system was assessed at pre-school, secondary school and university. Participation in primary school education is not included in the index because participation is always high with an average of 96 percent during the period and its inclusion in the index estimates do not affect the overall trend of the relevant index. The increase in overall participation rates in all levels considered as indicative of an increase in the Education Index.

Housing

Housing is a basic social need for a comfortable life and to provide protection and security to the family. Development component is due to an increase in the percentage of low cost housing units compared with the number of low-income households. It also takes into account the percentage of housing units have piped water and electricity. For calculating the housing index, four indicators used in the average home price, percentage of housing units with electricity, housing units with piped water and low-cost housing units to total low-income households. The combined implementation of housing programs for public and private sectors has enabled the low and medium income earners have their own residences.

Social Participation

Social participation can be portrayed with various aspects such as family life, divorce rates, juvenile crime and the crude birth rate. Social participation has increased by the increase in the number of registered voters and membership in selected voluntary organizations. Social participation also improve the quality of life because it reflects the commitment and willingness of people to engage in social, political, religious and community. Such participation involves members of various non-profit organization solely. Social Participation Index comprised registered voters and experts in selected voluntary organizations.

Security

In assessing the quality of life, it is undeniable that public safety is important. In assessing the safety component, the Economic Planning Unit in 1999 has created the Public Safety Index as a measure of where the index consists of two components, namely, crime and road accidents. The crime rate is measured per thousand population while road accidents per thousand vehicles. The average rate of road accidents per thousand vehicles for a period of 19 years is 22.6. The study also found, use the road network reaches a maximum during the festive season, especially for a few days before and after a celebration. Records show that the increase in road accidents during the festive season as compared to a normal day.

Culture

According Kagawa-Singer and Chung (1994) defined culture as a good behavior to ensure they are in good position in the social network, with the aim of completing community life and promote their welfare. Culture is important for determining the quality of life of current. It also serves as a thrust to the objectives and prescriptions for life to be more meaningful, whether sick or healthy. Culture is the main staple in people's lives, it provides two functions that determine the way of life of a group of people to make their life journey prosperous and provide confidence and values and give meaning and purpose of life. Each culture was formed to meet three global needs. The three requirements are safety, a sense of integrity and meaning or purpose in life and consciousness to belong as members of integrity in one of the social fabric. Every culture has a set of beliefs and practical values unique to each identity group and usually not isomorphic with other cultural groups.

RESEARCH METHODOLOGY

The aim of this study was to measure and evaluate the Gross Domestic Product (GDP) per capita, with eight major components in Quality of Life (QOL), and the distribution of income, education, family life, health, transport and communications, social participation, housing and work environment. GDP is the dependent variable of the model in this study. Whereas, QOL is the independent variables for this study model.

Data

Data was collected from field work conducted throughout Peninsular Malaysia by the Department of Statistics. Data collected from 1990 to 2010. The sample size was chosen based on the actual proportion of the total population in urban and rural areas. This study uses a two-stage stratified random design provided by the Department of Statistics

(DOS), where applicable data is lawfully published. This study uses eight main components MQLI potentially have a positive relationship with the dependent variables such as economic growth and income distribution, transport and communication, health, education, housing, social participation, public safety, as well as culture and leisure. This study was also supported by the Malaysian Public Welfare Report published by the Economic Planning Unit for the year 2012. The sample selection was done based on the development status defined by the Development Composite Index (DCI) and implemented by the Economic Planning Unit (Malaysia, 2006).

Pearson correlation analysis (r)

Pearson correlation analysis (r) according Sekaran & Bougie (2009) will show you the direction, strength and importance of the relationship between all variables measured on interval and ratio levels. This study used the Pearson correlation analysis (r) was conducted to determine whether there is a relationship between the independent variables (Quality of Life (QOL), and the distribution of income, education, family life, health, transport and communications, social participation, housing and environment work) with the dependent variable (Gross Domestic Product (GDP) per capita). The use of correlation methods are also considered suitable for showing relationships between variables because it can assess the degree of magnitude or strength of the relationship between the variables and it can also determine the direction of the relationship variables either negative or positive.

Multiple Linear Regression Analysis

Multiple Linear Regression analysis was used in order to determine the extent to which each of the independent variables (Quality of Life (QOL), and the distribution of income, education, family life, health, transport and communications, social participation, housing and working) describes the variables lean (Gross Domestic Product (GDP) per capita).

According Fah & Hoon (2009) equation for linear regression model can be written as follows:

$$Y = b_0 + b_1 (X_1) + b_2 (X_2) + b_3 (x_3) + e$$

whereby:

Y = dependent variable,

b₀ = constant

b₁ = regression coefficient for X₁

b₂ = regression coefficient for X₂

b₃ = regression coefficient of X₃

X₁ = independent variables 1,

X₂ = 2 independent variables,

X₃ = 3 independent variables, and

e = Error

Based on the variables used in this study, a simple linear model of the form may be issued, namely:

GDP =

Instructions:

GDP = Gross Domestic Product per capita

INC = **Income and Distribution** Index (proxy for welfare or quality of life)

TRANS = **Transport and Communications** Index

HEA = **Health** Index

EDU = **Education** Index

HOU = **Housing** Index

SOC = **Social Participation** Index

SEC = **Public Safety** Index

CUL = **Index of Culture and Tourism**

e = Error

FINDINGS

Multiple Regression Linear

Multiple linear regression analysis model is a statistical technique used to analyze the relationship between the dependent variable (DV) and a set of independent variables (IV). The independent variables are all factors that can affect the change in the dependent variable. Multiple linear regression analysis was conducted in this study to assess the overall impact of the eight major components of Quality of Life (QOL), and the distribution of income, education, public safety, health, transport and communications, social participation, housing and cultural and leisure to Product National Product (GDP) per capita.

Table 1 shows the results of the multiple linear regression analysis conducted to answer the research objective. R^2 value of 0.994 indicates that the independent variables together explain 99.4% of the variation in Gross National Product (GDP) per capita. F value (249 818) shows that this model is statistically significant ($p < 0.01$). T value coefficients suggest that all coefficients are significant. Only two variables showed a significant positive correlation with Gross National Product (GDP) per capita, ie income and distribution and health. Other variables, have a positive but not significant correlation with GDP, transport and communication ($t = 0.982$, $p = 0.346$); education ($t = 0.336$, $p = 0.743$); housing ($t = 1.258$, $p = 0.232$); social participation ($t = 0.651$, $p = 0.528$). Other variables, has a negative and no significant relationship with GDP, public safety ($t = 0.982$, $p = 0.346$) and culture and leisure ($t = -0.1469$, $p = 0.168$).

In conclusion, only two of the eight independent variables; ie income and the distribution and health are important in influencing GDP per capita. In addition, the beta coefficient also shows that health is a variable that influences the GDP per capita ($\beta = 0.581$), followed by income and distribution ($\beta = 0.202$).

Table 1: Coefficients^a eight QOL components with Gross National Product (GDP) per capita

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-5467	2,971		-1840	.091
Income and distribution	.816	.312	.202	2,615	.023
Transport and communications	.552	.562	.150	.982	.346
Health	2,938	.639	.581	4,600	.001
Education	H.263	.784	.074	.336	.743
Housing	.335	.266	.086	1,258	.232
Social inclusion	.341	.524	.039	.651	.528
Public safety	-.468	.222	-.087	-2105	.057
Culture and leisure	-.817	.556	-.156	-1469	.168

a. Dependent Variable: GDP per capita; $R = 0.997$; $R^2 = 0.994$, Adjusted $R^2 = 0.990$, F Value = 249 818 ($p = 0.0001$)

In summary, it can be concluded that the GDP per capita was influenced by two-dimensional or independent variables and the distribution of income and health. All these factors indicate the importance of positive, with GDP per capita. This means that if these factors are reduced or impaired, GDP per capita would be affected or otherwise.

Discussion

Based on the analysis performed, there are two components of QOL showed a positive association with GDP. In addition, through the beta coefficient, health components were variables that affect GDP per capita. This was followed by income component and distribution where it reflects equity and distribution of economic resources (Economic Planning Unit: 1999). Improvement of quality of life was assisted by the components that comprise the economic aspects of a good job, life status and so on (Oliver et al: 1996). Welfare and quality of life is assessed based on gross income or income per capita. In addition, the government's role is crucial in ensuring the country's GDP increased QOL and in parallel. To ensure that this role is fulfilled, the government should focus on the components selected QOL and health components of the distribution of income and to improve the quality of life in Malaysia.

Government can help people to improve their health through increased efforts in line with the objectives of health. Efforts by the government can not be denied based on the annual budget allocation announced by the government. Health care is the most effective method for improving the effectiveness of the health component. In addition, the government is also encouraging healthy lifestyle campaigns, immunization programs, disease prevention and control, environmental health care and hygiene, school health services, nutrition and occupational safety and health program.

Positive changes in income and distribution as measured by GDP per capita, Gini coefficient and poverty rate for the period 1980 to 1997. The rapid economic growth coupled with stable inflation position has been successful in driving significant progress was made with the equal distribution of income. This stimulates the overall success of poverty reduction and social restructuring made in line with the New Economic Policy and the National Development Policy.

CONCLUSIONS

This study aimed to investigate the relationship between Quality of Life Index and Gross Domestic Product. This study measured and evaluated the country's GDP per capita, against eight major components in QOL - the distribution of income, education, family life, health, transport and communications, social participation, housing and working environment. GDP is the dependent variable of the model in this study. Whereas, QOL is the independent variable for this study model. The study concludes that the GDP per capita is significantly influenced by two-dimensional or independent variables and the distribution of income and health.

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