



## A critical approach to economic development: Concept, measurements and patterns

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### ABSTRACT

*This paper x-rayed the concept, measurement and, patterns of economic development. In doing this, the paper reviewed a vast literature on concepts, measurement of economic development and, economic development patterns and their effects on growth indicators as well as on the quality of life components. This literature was sourced from known academic databases. From the overview of the concept, measurement of economic development and, economic development patterns and their relationship between growth indicators as well as the quality of life components the following were found; as new challenges emerge, the horizon of the concept of economic development expands to accommodate the prevailing challenges. Economic development has no conventional measure/indicator that completely captures its process and, there are various economic development patterns used in tackling the problem of economic growth and quality of life, some of which are; knowledge-based, trade-based, saving-based and ethnic-religious-based pattern. Future studies may use these concepts/measurements of economic development and patterns of economic development and, validate their significance using statistical methods.*

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## Introduction

Economic development is the main objective of the majority of the economies of the world. It involves improving the well-being and socio-economic capabilities of the people. Hence, aid is being received, investments are undertaken, policies and strategies are framed to achieve this goal. But the questions are; how do we conceptualize economic development? How do we measure economic development? This has led to different concepts and measures of economic development. In doing this, many scholars used economic growth and economic development interchangeably when analyzing changes in economic conditions in developing countries. The two terms are used to describe the process of economic performance of developing countries but they are not the same. For clarity purpose, it is important we look at these various concepts and measures of economic development. Therefore, this paper x-rays various concepts and measures of economic development and economic development patterns and, their effects on performance indicators. This resulted to the reviewed of an existing literature on concepts, measurements of economic development and, economic development patterns and their effects on performance indicators.

The rest of the paper is organized as follows: the literature review on economic development, measurement of economic development and patterns of economic development and, its relationship with growth and quality of life variables; and summary and conclusion.

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## Literature Review

The materials for this paper were gotten from literature with the terms economic development concept, measurement of economic development, economic development patterns and, its relationship with growth and quality of life indicators and, from known academic databases.

### Economic development concept

For almost every writer a different concept of development exists. The earliest concept of development was viewed in terms of sustained growth in output over time and later in terms of per capita output (welfare) as a measure of good results. During the classical era, economic development was seen as sustained growth in output over time; hence, they defined it as an increase in the absolute size of annual production regardless of the size of the population, or an increase in the economy's real income over a long period of time. In the same vein, Meier (1964) in his word defined economic development as a process whereby an economy's real national income increases over a long period of time. Todaro (1985) viewed this definition as the capacity of a nation whose initial economic condition has been more or less static over a long period of time to generate and sustain an annual increase in its Gross National Product (GNP) at rates of 5-7 percent or more. There was an assumption by the neoclassical theorists that this growth will automatically translate to improvement in the standard of living of the country's citizens. Hence, the concern was on the instability of GNP growth in relation to human development. The terms growth and development were used interchangeably.

In 1950's and 1960's, many of the developing countries achieved rapid GNP growth and general deterioration in the standard of living of their citizens simultaneously. The achievement of economic growth as well as mass poverty, illiteracy and ill health brought a question mark on the definition of economic development in terms of growth of output over time. In line with this, Okowa(1996) opined that this concept of development brought into focus a situation of worsening poverty conditions, despite a fairly good record of growth of national income. Hence, this conceptualization of development that emphasizes on economic growth as opposed to people was questioned. Given this, many scholars clamored for a humanized concept of economic development. In an attempt to humanize the concept of economic development, there have been many definitions of economic development. Most of these definitions centered on per capital income (welfare) which implies removal of poverty, illiteracy, disease and changes in the composition of input and output. It also includes increase in per capita output of material goods and, political and social factors.

Herrick and Kindleberger (1958) were among the first to conceptualized economic development as an improvement in material welfare of the low income class, the eradication of mass poverty with its correlates of illiteracy, disease and early death and, changes in the composition of inputs and output. They were of the view that changes in the composition of inputs and output should include shifts in the structure of production from agricultural to industrial activities. Also, they asserted that the economy should be organized in such a way that productive employment should not be discriminatory and making decision should be broad based. Drewnowski (1966) also defined development as an increased per capita income and creation of new opportunities in education, healthcare and employment sectors. Implicit in this definition was that development is of no significance if it does not lead to economic welfare, reduction in income inequalities and satisfaction of the people as a whole. Seers (1972) asserted that in evaluating the level of development in any economy the following questions must be considered: (i) what has been happening to poverty? (ii) what has been happening to unemployment? (iii) what has been happening to inequality? *"If all three of these have declined from high levels, then beyond doubt, this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, and especially if all three have, it would be strange to call the result development even if per capita income doubled"*. This conceptualization of development encompasses growth and income redistribution. Singer and Ansari (1977) defined development in terms of an increase in growth of a country accompanied with a decrease in poverty at an individual level. If poverty is effectively dealt along with growth and equitable income distribution, it will be wise to call the result economic development. Kim (2014) pointed out in this connection that economic development is composed of the two dimensions: Quantitative dimension- which consists of economic growth as measured by GDP and Qualitative dimension- which consists of human development and quality of life.

Another question that emanated from late 1960's and early 1970's was in terms of strict economic interpretation of development. At that time, social factors were not considered in the interpretation of development. Thus, the concept of development was reconstructed to incorporate social system. The implicit of this was that the problem of development was no longer set-aside for economists alone but requiring inputs from all the social sciences in a coordinated holistic manner (Okowa, 1996). McGranahan (1972) opined that social factors are important phenomenon in the process of economic development. According to him, it is the neglect of these factors (education, health, housing and other social components) that led to a disappointing rate of economic growth. Todaro (1985) defined development as having three objectives which includes both economic and social choices. These objectives are: (i) to increase the availability and widen the distribution of basic life-sustaining goods such as food, shelter, health and protection (ii) to raise living standard. This is in addition to higher incomes, the provision of more jobs, better education and greater attention to cultural and humanistic value. These will enhance material well-being as well as promote greater individual and national self-esteem (iii) to expand the range of economic and social choices available to individuals and nations by freeing them from servitude and dependence not in relation to other people and nation-states but also to the forces of ignorance and human misery.

As the concept of development continues to evolve, Goulet (1971) considers three interrelated conditionalities or core values as the yardstick by which development can be assessed: (i) life sustenance: This is the ability of a society to meet the basic needs of its people. Some of the basic needs that are essential for improvement in the quality of life include food, shelter, health, clean environment etc. (ii) self-esteem: This refers to a sense of worth, self-respect and independence. Self-esteem eliminates the feeling of being used as a tool by others for their own end. (iii) freedom from servitude: It is a fundamental sense of being free from ignorance, misery, institutions and dogmatic beliefs.

## **Measurement of economic development**

As a multivariate concept with many dimensions, economic development has no conventional measure that completely captures its process. However, for any variable to stand clearly as a measure of development it needs to be valid and can be used for comparison. Some of the indicators of measurement are: national income, per capita income, social indicators and human development index.

*National income:* This is one of the earliest measures of economic development. This indicator measures economic development in terms of sustained growth in national income over a long period of time. However, scholars were dissatisfied with the use of national income as a measure of development based on the following reasons: (i) this measure does not recognize change in the growth in population. A population growth rate that is higher than national income growth will bring about no development but economic retardation. (ii) it does not consider income distribution in the economy (iii) it does not account for costs of environmental pollution, urbanization and industrialization on the society (iv) it does not account for the availability of happiness, justice, security, freedom, or leisure to a given society and for measuring well-being of people. According to Jhingan(1997), GNP as an index of development has not been successful in reducing poverty, unemployment and inequalities and raising living standard in developing countries. This is because it was assumed that with increase in national income the above problems will be solved in the long run when the poor begin to feel the impact in the form of job creation. Hence, national income cannot be seen a true measure of development.

*Per Capita income:* This generally measures how much income an individual of a country would receive if the national income were to be shared equitably. Per capita income has been widely used as an indicator for measuring economic development. It is a primary indicator which measures welfare. The rate of poverty can be viewed through the size of per capita income. A country can be classified as developed or less developed based on per capita income. A lower per capita income of a country is an indicative of high poverty, high unemployment, high rate of population growth, low level of technology, low capital formation, poor health and low level of education and vice versa. Per capita income can be readily accessible and simply use as a measure for identifying a country as developed or less developed. It also helps in formulating policies and plans for development as it shows the state of an economy.

However, since the measurement of GDP is associated with problems and per capita income is derived from GDP, hence per capita income cannot be free from the same problems. Some of the problems are:

- i. Per capita income does not account for free and non-market goods/services rather it account for only monetary transactions.*
- ii. It ignores activities such as domestic work, housekeeping, care for the elderly and children, cleaning, food preparation and voluntary services, clean air, and family stability, community/family activities, volunteer services.*
- iii. It does not evaluate impact of negative externalities on the society's well-being.*
- iv. It does not take note of local differences in the quality of goods that is why cross border comparisons of GDP can be inadequate.*
- v. Per capita income also does not account for the underground economy. In this situation, illicit trades and tax avoiding activities, crime, black economy transactions are not captured.*
- vi. Per capita income does not account for the availability of happiness, justice, security, freedom, or leisure to a given society and for measuring well-being of people*

Dissatisfied with Per capita income as true measure of economic development, scholars have advocated for other development measurement indicators. One of which is the use of social indicators.

*Social indicators:* The social indicators measure basic needs. The basic needs include a wide range of items. Some of the items are; education, health, employment, water, food, sanitation etc. some of these indicators may be inputs while others may be outcomes. For instance, the number of doctors per head of population is an input while improvement in sickness rate is an outcome. The provision of these basic needs is aimed at alleviating poverty in the short run. For a clear assessment of developmental performance of countries, Hicks and Streeten(1979) specified six social indicators for basic needs. These are:

**Table 1:** Social Indicators for Basic Needs

	<b>Basic Needs</b>	<b>Social Indicators</b>
<b>A</b>	Health	Life expectancy at birth, maternal mortality and infant mortality.
<b>B</b>	Education	Literacy, gross enrolment as percent of population at different levels of education.
<b>C</b>	Food	Calorie supply per head
<b>D</b>	Water Supply	Infant mortality and percent of population with access to safe water.
<b>E</b>	Sanitation	Population with access to sanitation.
<b>F</b>	Housing	None

**Source:** Adapted from Jhingan (1997)

For easy assessment, scholars now use composite indices such as Human Development Index (HDI), Physical Quality of Life Index (PQLI) and Human Poverty Index (HPI) to measure development. HDI, PQLI and HPI are used to measure the performance of basic needs of countries using various indicators. These indices are incorporated into the United Nations Development Programme (UNDP) human development report to capture development of countries

### **Human development index**

Human Development Index (HDI) is a composite index measuring average achievement in three basic dimensions of human development- a long and healthy life, knowledge and a decent standard of living. It also takes into account of per capita income. The three basic needs are measured through combined variables (indicators) such as life expectancy at birth, Mean years of schooling and expected years of schooling. A country with relatively HDI value below 0.5 is considered to have a low level of human development, between 0.5 to 0.8 have a medium level of human development and above 0.8 have a high level of human development. HDI ranks compare countries with each other.

Each of the social indicators- life expectancy at birth, Mean years of schooling, expected years of schooling and per capita income also has an index (performance is expressed in years). A country with relatively low average life span, low level of education for all and low standard of living indicates how far it has to go to achieve the maximum possible value of one or its basic needs goals. These indices are incorporated into the United Nations Development Programme (UNDP) human development annual report.

#### *A Long and Healthy Life*

Healthy living is an important factor in measuring the quality of human capital and a driver of economic and social development. This is used to assess performance of an economy. In assessing economic performance of a country, life expectancy at birth is commonly used. Life expectancy at birth measures number of years a newborn infant could expect to live if prevailing patterns of age-specific mortality rates at the time of birth stay the same throughout the infant's life. Table 2 shows that life expectancy is directly related to the increase in per capita income. Very high developed countries like Norway, Australia, USA and Canada reported high average life expectancy as well as high income while low developed countries like Kenya, Cameroon and Nigeria reported low average life expectancy as well as low income.

#### *Knowledge*

Education is an important indicator of development performance of a country. Education is the act of acquiring knowledge, skills, values and attitudes which promote a better quality of life. In assessing economic performance of a country, mean years of schooling and expected years of schooling are used. Mean years of schooling measures average number of years of education received by people ages 25 and older, converted from education attainment levels using official durations of each level. Expected years of schooling measures number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life. In developed countries, mean years of schooling and expected years of schooling are very high while in the developing countries like Kenya, Cameroon and Nigeria they are lesser (Table 1). Table 2 also indicates that higher level of mean years of schooling and expected years of schooling are directly related to the increase in per capita income and better healthy living.

#### *A Decent Standard of Living*

This is measured by Gross National Income (GNI) Per Capita: Aggregate income of an economy generated by its production and its ownership of factors of production, less the incomes paid for the use of factors of production owned by the rest of the world, converted to international dollars using purchasing power parity (PPP) rates, divided by midyear population. A country with a relatively high GNI per capita value is considered to be rich while a country with a relatively low GNI per capita value is considered to be poor. For example, Norway with a per capita income of \$47,557 is relatively considered to be rich while Nigeria with a per capita income of \$2,069 is relatively considered to be poor.

However, HDI cannot be said to be exhaustive rather it supplements other human development indices. HDI does not measure social indicators such as infant mortality, maternal mortality, fertility rate, nutrition etc.

**Table 2:** Human Development Index and its components

HDI Rank	Country	Human Development Index (HDI) Value	Life expectancy at birth (years)	Mean years of schooling (years)	Expected years of schooling (years)	Gross National Income (GNI) per capita (Constant 2005 PPP\$)	GNI per capita rank minus HDI rank
Very High Human Development							
1	Norway	0.943	81.1	12.6	17.3	47,557	6
2	Australia	0.929	81.9	12.0	18.0	34,431	16
4	United States	0.910	78.5	12.4	16.0	43,017	6
6	Canada	0.908	81.0	12.1	16.0	35,166	10
HIGH Human Development							
48	Uruguay	0.783	77.0	8.5	15.5	13,242	12
51	Cuba	0.776	79.1	9.9	17.5	5,416	52
79	Jamaica	0.727	73.1	9.6	13.8	6,487	19
94	Tunisia	0.698	74.5	6.5	14.5	7,281	2
MEDIUM Human Development							
96	Algeria	0.698	73.1	7.0	13.6	7,658	-5
106	Gabon	0.674	62.7	7.5	13.1	12,249	-40
113	Egypt	0.644	73.2	6.4	11.0	5,269	-6
123	South Africa	0.619	52.8	8.5	13.1	9,469	-44
Low Human Development							
143	Kenya	0.509	57.1	7.0	11.0	1,492	15
150	Cameroon	0.482	51.6	5.9	10.3	2,031	-4
156	Nigeria	0.459	51.9	5.0	8.9	2,069	-12
173	Zimbabwe	0.376	51.4	7.2	9.9	376	11

**Source:** Human Development Report 2011 - Sustainability and Equity: A Better Future for All.

The human development index report of 2011 presented the HDI values, HDI rank, life expectancy at birth, mean years of schooling, expected years of schooling and gross national income per capita for 187 developed and developing countries. Out of the 187 countries 47 were in the very high development category (with an HDI value of 0.943 to 0.793), 46 in the high development category (0.783 to 0.698), 46 in the medium development category (0.698 to 0.522) and 35 were in the low development category (0.510 to 0.286). Norway, Australia and USA led the very high development category. In the high development category, Uruguay, Palau and Romania led the HDI rank of 46 countries. In the medium category, Jordan, Algeria and Sri-Lanka led the HDI ranking of 46 countries. In the low category, Solomon Island, Kenya and Sao Tome and Principe led the HDI ranking of 35 countries. Nigeria falls under low development category and it ranks 156 with HDI value of 0.459. Its HDI value of 0.459 is two times less Norway's of 0.943 which is at the top.

### Physical Quality of Life Index (PQLI)

Physical Quality of Life Index (PQLI) is a composite index measuring average achievement in quality of life. The quality of life is measured through the combination of three indicators; literacy, life expectancy at birth and infant mortality. Hence, PQLI is an average measure of the three indicators with equal weight assigned to each. PQLI is scaled from 0 to 100. A country with relatively high PQLI value is considered to have significantly improved on its quality of life while a country with relatively low PQLI value is considered not to have improved significantly on its quality of life.

Each of the three indicators; literacy, life expectancy at birth and infant mortality has an index (performance is expressed in years). There will be an improvement in the overall quality of life if literacy rate rises, life expectancy increases and infant mortality rate falls. This index was considered inadequate as it does not cover other indicators development as well as total welfare. Also, it is a subjective dimension of development.

### Human Poverty Index (HPI)

Human Poverty Index (HPI) measures the quality of standard of living in a particular country. Specifically, it measures the amount of various deprivations people experience in different countries. These deprivations include the intensity of deprivation, population vulnerable to poverty, population in severe poverty and population below income poverty line. Intensity of deprivation is the average percentage of deprivation experienced by people in multidimensional poverty. This is the adjusted percentage of poverty Index of the population that is multi-dimensionally poor. Population vulnerable to poverty shows the percentage of the population at risk of suffering multiple deprivations—that is, those with a deprivation score of 20–33 percent such as Gabon, South Africa, Kenya and Zimbabwe. Population in severe poverty indicates the percentage of the population in severe multidimensional poverty—that is, those with a deprivation score of 50 percent or more such as Rwanda, Ethiopia and Mali. Population below PPP \$1.25 a day indicates percentage of the population living below the international poverty line \$1.25 (in purchasing power parity terms) a day.

**Table 3:** Human Poverty Index and its components

HPI Rank	Country	HP Index	Intensity of deprivation (%)	Population vulnerable to poverty (%)	Population in severe poverty (%)	PPP \$1.25 a day
<b>Very High Human Development</b>						
21	Slovenia	0.000	0.0	0.4	0.0	-
30	United Arab Emirate	0.002	35.3	2.0	0.0	-
36	Hungary	0.016	34.3	0.0	0.0	0.0
46	Croatia	0.016	36.3	0.1	0.3	0.0
<b>High Human Development</b>						
48	Uruguay	0.006	34.7	0.1	0.0	0.0
66	Russia	0.005	38.9	0.8	0.2	0.0
92	Turkey	0.028	42.0	7.3	1.3	2.7
94	Tunisia	0.010	37.1	4.9	0.2	2.6
<b>Medium Human Development</b>						
97	Sri-Lanka	0.021	38.7	14.4	0.6	7.0
101	China	0.056	44.9	6.3	4.5	15.9
106	Gabon	0.161	45.5	22.4	13.2	4.8
123	South Africa	0.057	42.3	22.2	2.4	17.4
<b>Low Human Development</b>						
143	Kenya	0.229	48.0	27.4	19.8	19.7
145	Pakistan	0.264	53.4	11.0	27.4	22.6
156	Nigeria	0.310	57.3	17.8	33.9	64.4
166	Rwanda	0.426	53.2	14.9	50.6	76.8
173	Zimbabwe	0.180	45.3	24.0	14.8	-
174	Ethiopia	0.562	63.5	6.1	72.3	39.0
175	Mali	0.558	64.4	7.6	68.4	51.1

Source: Human Development Report 2011 - Sustainability and Equity: A Better Future for All.

### Economic development patterns

Economic development patterns are strategies of improving on the economic growth as well as quality of life. Kim (2014), using factor analysis method identified various patterns of economic development among 222 countries based on 20 quantitative variables (measures of economic growth) and seven qualitative variables (measures of human development and quality of life). The patterns are: knowledge-based, trade-based, savings-based and ethnic-religiously based. Kim (2014), in the analysis, examined the effect of each of the patterns on growth indicators as well as quality of life components. The growth variable or quality of life component is considered significant when its coefficient is equal to or greater than 0.50. The coefficient of the variable/component indicates the degrees of correlation between each of the growth variables/ quality components as against the corresponding pattern. Eigenvalue shows the percent variation in economic growth attributed to each pattern. Kim (2014) results on development patterns, growth and, quality of life are analyzed below.

### Economic development patterns and economic growth

#### Knowledge-Based Pattern

The knowledge-based pattern indicates that only 11 variables are significant. The variables are; knowledge index, knowledge economy, globalization, education, economic growth, corruption, global competitiveness (GCI), population growth, urbanization, economic freedom, and political freedom. Countries categorized under this pattern record high knowledge index, knowledge economy, globalization, education, economic growth, urbanization, economic freedom and political freedom as well as a low population growth. Also these countries document low corruption index together with high global competitiveness. This indicates that these countries are transparent in their political affairs and are capable of sustaining their current and medium-term economic growth through effective institutions and policies. The following are the most knowledge-based economies: Singapore, Belgium, Norway, Austria, Denmark, Australia, Sweden, Canada, Germany, and Malaysia. These countries are ranked according to the factor score and sorted out in descending order of the size of the factor score. The critical role of knowledge in achieving sustainable growth and development is well acknowledged in contemporary literature. The key component of a knowledge-based economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources. Knowledge-based economy is anchored on knowledge and ideas as the key factor of economic growth and development. According to Iyoha et al. (1996), the high growth rate experienced by East Asian countries are attributed to physical investment accompanied by an important effort at human capital formation. .

#### Trade-Based Pattern

Trade-based pattern indicates that only seven variables are common and significant in countries that are documented as trade-based economy. These variables are: economic growth, corruption, global competitiveness (GCI), economic freedom, export/pc (per capita export), import/pc (per capita import), and foreign direct investment (FDI). Countries categorized under this pattern record high

growth, global competitiveness, and economic freedom but less strong than in knowledge-based economy. Also, this pattern indicates a high FDI, export and import (trade) while corruption is low. The low corruption index together with high global competitiveness indicates that countries categorized under this pattern are transparent in their political affairs as well as sustaining a high global competitiveness. Growth, corruption, global competitiveness, and economic freedom are common in both knowledge-based and trade-based economy pattern. This signifies that some countries pursue more than one economic strategy- knowledge- based and trade-based patterns in order to achieve economic growth. Denmark, Sweden, and Norway are good example of countries that have pursued more than one economic strategy. The following are the most trade-based economies: Finland, US, Denmark, Sweden, Estonia, Norway, Belgium, France, Canada and Japan.

**Savings-Based Pattern**

Savings-based pattern indicates that only five variables are common and significant in countries that are categorized as savings-based economy. These variables are: oil, defense, terms of trade, political freedom and savings/GDP while growth is insignificant. Countries documented under this savings-oriented pattern record high oil, defense and terms of trade, political freedom and savings/GDP. Oil-rich countries and countries with favorable terms of trade are able to sustain large savings high revenue generated from oil and trade. This implies that the sources of savings of savings-based economies could be from their oil-richness and also from their international trade. The high savings and political freedom (politics) recorded in this pattern turned out to be an avenue for large defense spending resource allocation at the detriment of economic growth. Resources accumulated through savings seem to be channeled to the defense spending, which turn out to have an insignificant effect on economic growth. The following are the most savings-based economies: Saudi Arabia, Russia, Azerbaijan, US, China, Venezuela, Kazakhstan, Singapore, Norway and Malaysia.

**Ethnic-Religiously Affected-Based Pattern**

Ethnic-religiously affected-based pattern indicates that only two variables are common and significant in countries that are categorized as Ethnic-religiously affected-based economy. These variables are: religious and ethnic fractionalizations. Growth(GDP/PPP) is insignificant in this pattern. This indicates that diversity in religious and ethnic compositions were found to have no significant effects on economic growth in countries that record high religious and ethnic fractionalizations. The following are the most Ethnic-religiously affected-based economies: US, Ghana, Canada, UK, Australia, South Africa, Malaysia, Germany, Brazil, and Pakistan.

Given the Eigenvalue in Table 4, the knowledge-based pattern was the most dominant pattern of economic development, followed by the trade-based and savings-based patterns. The Eigenvalue shows the percentage variation in economic growth/development that is attributed to knowledge-based pattern, trade-based, savings-based pattern and Ethnic-religiously affected-based pattern.

**Table 4:** Factor Analysis: Patterns of Economic Growth

<b>Variables/Patterns</b>	<b>Knowledge Based (1)</b>	<b>Free trade Based (2)</b>	<b>Savings Based (3)</b>	<b>Ethnic-Religiously Affected (4)</b>	<b>CV (SD/Mean)</b>
<b>Knowledge (KI)</b>	0.939	0.284	-0.063	0.006	0.50
<b>Knowledge Economy (KEI)</b>	0.921	0.340	-0.110	0.030	0.49
<b>Globalization</b>	0.813	0.396	-0.185	0.025	0.30
<b>Education</b>	0.787	0.078	0.055	0.018	0.22
<b>GDP/PPP</b>	0.751	0.600	0.052	0.017	1.11
<b>Corruption</b>	0.738	0.540	-0.139	0.048	0.52
<b>Global Competitiveness(GCI)</b>	0.685	0.540	0.169	0.076	0.16
<b>Population Growth</b>	-0.655	0.270	0.187	0.015	0.96
<b>Urbanization</b>	0.649	0.300	0.177	0.061	0.42
<b>Economic Freedom</b>	0.649	0.532	-0.160	0.284	0.20
<b>Export/pc</b>	0.569	0.907	0.030	-0.061	2.00
<b>Import/pc</b>	0.312	0.892	-0.074	0.003	2.10
<b>FDI</b>	0.076	0.850	0.006	0.060	3.65
<b>Oil</b>	0.124	-0.139	0.817	0.167	2.44
<b>Defense</b>	-0.015	-0.023	0.707	0.216	1.00
<b>Terms of Trade</b>	-0.011	0.052	0.684	-0.290	0.87
<b>Political Freedom</b>	0.577	0.088	-0.598	0.126	0.37
<b>Saving/GDP</b>	-0.262	0.380	0.589	-0.363	0.53
<b>Relig Fractionalization</b>	0.190	0.090	0.059	0.714	0.53
<b>Ethnic Fractionalization</b>	-0.491	-0.027	-0.054	0.576	0.72
<b>Eigenvalue (%)</b>	(44.6)	(13.8)	(9.4)	(6.0)	

Source: Adapted from Kim (2014).

## Economic development patterns and quality of life

This section focuses on the relationship between each pattern of economic development and components of quality of life as shown in Kim (2014). The study shows how growth determined variables translate to improvement in quality of life. The components of Quality of Life are: poverty, relative deprivation, peace/conflict, unemployment, income distribution, human development (HDI) and quality of life (Table 5).

Table 4 shows that knowledge-based economy has a significant correlation with poverty level, peace/conflict, income distribution, human development (objective quality of life), and quality of life (subjective quality of life). On the other hand, it has an insignificant correlation with unemployment and the relative deprivation. Knowledge-based economy has a negative correlation with poverty level, conflict, and income inequality while it has a positive correlation with objective and subjective quality of life. This indicates that knowledge-based economy reduces poverty level, conflict, and income inequality and the same time enhances objective and subjective quality of life. On the contrary, knowledge-based economy was unable to solve the problem of unemployment and the relative deprivation.

Trade-based economy has a significant correlation with peace/conflict and relative deprivation, objective quality of life and subjective quality of life. On the other hand, it has an insignificant correlation with poverty, unemployment and income distribution. Trade-based economy has a negative correlation with peace/conflict and relative deprivation while it has a positive correlation with objective and subjective quality of life. The implicit of this is that trade-based economy brings about reduction in conflict (promotes peace) and relative deprivation among people. This supports scholars' argument that relative deprivation causes internal conflict. Also trade-based economy has a positive correlation with objective quality of life (HDI) and subjective quality of life. This implies that trade-based economy brings about improvement in objective quality of life and subjective quality of life. On the contrary, the insignificant correlation of trade-based economy with poverty level, unemployment, and inequality in income distribution implies that trade-based economy was unable to solve these problems among the selected countries.

Savings-based economy has a significant correlation with peace/conflict and relative deprivation. On the other hand, it has an insignificant correlation with income distribution, objective quality of life, subjective quality of life, poverty reduction and unemployment. Savings-based economy has a positive correlation with peace/conflict and relative deprivation. The implicit of this is that savings-based economy increases conflict (reduces peace) and relative deprivation among people. On the contrary, the insignificant correlation between savings-based economy and income distribution, objective quality of life, subjective quality of life, poverty reduction and unemployment implies that savings-based economy was unable to solve these problems among the selected countries.

Religious and ethnic fractionalization-based economy has a positive correlation with poverty and income inequality while it has an insignificant correlation with objective quality of life, subjective quality of life, poverty and unemployment, peace/conflict and relative deprivation. The significant positive correlation between religious and ethnic fractionalization-based economy and poverty level and income inequality implies that religious and ethnic fractionalization-based economy promotes poverty and income inequality. Specifically, unemployment was seen as a major problem to each of these patterns of economic development irrespective of heterogeneity among the selected countries.

**Table 5:** Pattern of economic growth and quality of life: correlations

Quality of life/Patterns	Knowledge Based	Trade Based	Savings Based	Ethnic-Religiously Affected	CV=(SD/Mean)
<b>Poverty</b>	-0.351*	0.128	-0.140	0.427*	0.55
<b>Relative deprivation</b>	-0.042	-0.397*	0.362*	0.051	1.14
<b>Peace/Conflict</b>	-0.573*	-0.411*	0.324*	0.170	0.23
<b>Unemployment</b>	-0.076	-0.198	0.123	0.071	1.08
<b>Income distribution/Gini</b>	-0.310*	-0.112	0.199	0.334*	0.24
<b>Human Development(HDI/objective Quality of life/subjective</b>	0.904*	0.320*	0.042	-0.034	0.25
	0.679*	0.479*	-0.198	-0.164	0.16

\*The underlined coefficient is significant at 0.05.

**Source:** Adapted from Kim (2014). CV = coefficient of variations, SD = Standard deviation

Despite providing an empirical evidence of the relationship between development patterns and, economic growth and quality of life among 222 countries using factor analysis, there are still limitations in Kim (2014) analysis. First, there is heterogeneity problem. This analysis does not provide remedy for the differences among the selected countries; such differences include structure of economic and social organizations and, political institutions. Therefore, analyzing the economic growth and quality of life of these countries collectively leads to unrealistic assumptions. Second, the yardstick for selecting economic growth and quality of life variables are not specified. Third, the selected variables of economic growth and quality of life are not the only measures of economic growth and quality of life.



## Conclusions

In the paper, a review of literature on the concept, measurement and economic development patterns was carried out. After looking at various concepts and measurement of economic development, economic development patterns and, their effects on growth indicators as well as on quality of life components based on Kim (2014) study were reviewed. From the literature review of the concept and measurement of economic development and, on the relationship between economic development patterns and growth indicators as well as quality of life components the following conclusions were drawn:

- i. As new challenges emerge, the horizon of the concept of economic development expands to accommodate the prevailing challenges. That is, in an attempt to incorporate these challenges, there have been many definitions of economic development.
- ii. Economic development has no conventional measure/indicator that completely captures its process. This is because of the multivariate concept of economic development. Some of the valid measures of economic development are; national income, per capita income, social indicators and human development indices.
- iii. There are various economic development patterns used in tackling the problem of economic growth and quality of life. Some of which are; knowledge-based, trade-based, saving-based and ethnic-religious-based pattern. In tackling the problem of economic growth the knowledge-based pattern was the most dominant pattern of economic development, followed by the trade-based and savings-based patterns respectively. These patterns were able to improve on the economic growth indicators. Similarly, in tackling the problem of quality of life, specifically, unemployment was seen as a major problem to each of the economic development patterns.

Future studies may use these concepts/measurements of economic development and patterns of economic development and, validate their significance using statistical methods.

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