QUALITY OF LIFE IN THE CONTEXT OF ECONOMIC DEVELOPMENT: African Experience

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ABSTRACT

The primary objectives of the paper are to review and assess the debate on concept and measurement of quality of life and explain the relationship between it and economic growth. The debate in the literature is that quality of life has two dimensions – objective and subjective. The objective dimension is measured by quantifiable indicators which reflect material conditions of external environments based primarily on economic growth, while the subjective dimension covers personal and psychological perceptions regarding well-being and life satisfaction. Recent conceptualization of quality of life has downgraded income's pride of place. Two major initiatives which subsequently responded to this challenge are the Human Development Index (HDI) which emphasize people and their capabilities as the ultimate criteria for assessing the development of a country instead of economic growth, and the World Happiness Report (WHR) which views happiness as the ultimate outcome of a high quality of life. However, neither of these two initiatives eliminated economic growth or income from the picture. Essentially, both regard income as a necessary but not sufficient condition for achieving high levels of human development (in the case of HDI) or for ensuring high levels of happiness and life satisfaction (in the case of WHR). While HDI and WHR overlap significantly in terms of variables used to measure economic and social performance assessments of countries and the differences between them, they do not generally produce the same results. To fully understand why and under what circumstances HDI and WHR ranks may differ sharply, especially in the context of

African countries, more research is needed. The effective and fruitful use of both mechanisms rest squarely on this.

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1. Introduction

Economics and economists have always been concerned with understanding human welfare and its appropriate measurement and indicator(s), especially when, as is often the case, some concept of quality of life serves as an indicator. However, over time and as the discipline became more rigorous and quantitative, the concept of welfare generally became more narrowly defined in terms of income. As a result, the maximization of human welfare is assumed to depend solely on income which is, in turn, assumed to be determined by the revealed preferences of rational individuals within their monetary budget constraints.

More recently, economics knowledge has advanced in several directions, in order to take into account new insights that address the weaknesses of these assumptions. These advances suggest that people can have different preferences for material and non-material goods and services, while at the same time acting to maximize their welfare (or utility) in the classical Walrasian framework. In addition, the notion of bounded rationality and the key tenets of behavioural economics underline the weakness of the revealed preference theory in some circumstances; while also establishing the idea that interaction between rational and non-rational influences can significantly influence economic behaviour.

In terms of its primary objectives, this paper focuses on a review and assessment of the debate on (i) the concept and measurement of quality of life and (ii) the relationship between quality of life and economic growth. In this context, section 2 of the paper explores the literature on quality of life in terms of the concept, its meaning and measurement. It also discusses the emerging consensus regarding the appropriate quality of life indicators that may be used for measuring human welfare.

Section 3 begins with a discussion of human welfare as the primary objective of economic development and growth. It examines the reasons why income may not necessarily be an appropriate or sole determinant of human welfare; identifies other means of achieving human welfare, and assesses various other

factors, apart from income, which should be included in an appropriate measurement of human welfare.

Sections 4 and 5 focus, sequentially, on the theory, key elements and critiques of the two indicators of human welfare, around each of which there is substantial consensus. These are the human development index and world happiness ranking. Thus, section 4 evaluates the human development index, while section 5 does the same for the world happiness ranking.

In section 6, the paper's focus shifts to the analysis of the African experience, based on the comparative results for African countries generated by the human development index and the world happiness ranking. The central issues addressed in this context relate to similarities and differences in the results, as well as the corresponding policy implications. The paper concludes in section 7 by identifying issues and questions with respect to which further research is warranted.

2. Quality of Life

Quality of life indicators derive their origin from the broader social indicators research whose primary objective is, according to Noll (2007, p.2), "to improve measurement of the level of living by identifying components of welfare and by constructing respective indicators". More specifically, therefore, quality of life indicators are used for measuring levels and monitoring changes in welfare. Both of these activities (i.e, measuring and monitoring) should, obviously, be based on an understanding of what constitutes a "good" life.

This has generally been viewed from two alternative perspectives. One of these focuses on resources and objective living conditions, according to which a person's welfare is determined by his command over resources that are, in turn, used to achieve a specific set of living conditions. Thus, welfare measurement relies exclusively on objective indicators.

The other alternative perspective defines welfare as subjective well-being, and bases welfare measurement on subjective indicators. Under this perspective, it is assumed that welfare is subjectively perceived and experienced by each person. It is therefore this individual who is the best "expert" to evaluate his quality of life in terms of subjective well-being, using appropriate subjective indicators.

Although each of these perspectives is valid in its own right, the emerging consensus of opinion is that welfare measurement should be based on both objective and subjective indicators. In other words, it is the relationship between the subjective elements and a set of objective circumstances which properly and comprehensively define quality of life. This is what transforms quality of life into a concept which is characterized by a complex, multi-dimensional and dynamic nature. Its operationalization requires a combination of different perspectives and levels of analysis, since it combines quantitative, qualitative and social aspects; and it covers both objective and subjective relational elements (Rodicka, 2014).

Noting that the above characterization refers primarily to *individual* quality of life measurement, Noll (2007) went further to argue that *societal* quality of life concept is broader in the sense that it includes several key societal characteristics and qualities which directly or indirectly affect the welfare situation of individuals. Among these are equality, equity, freedom, social cohesion, and social inclusion. In addition, the idea of sustainable development places emphasis on intergenerational equity which is essential for ensuring the quality of life of future generations.

3. Economic Development and Human Welfare

The central question to be examined in this section focuses on the effects that economic development and growth may have on human welfare or people's quality of life (Joshua, 2017; Easterlin and Angelescu, 2007). Previously, the answer to this question was positive, based on the general assumption that (Rodicka, 2014, p. 11) "a country's success or failure depends on its rate of economic development", since "high growth rates mean improvement in the state of the economy". By comparison, the new consensus view is that "GDP growth is not always experienced by society as improvement of living standards and human welfare".

This new view appears to have emerged from two sources. One of these is the distinction between the objective and subjective components of quality of life or human welfare indicators discussed in section 2 above. The other is the recognition that the knowledge of GDP and its rate of growth is not sufficient for a comprehensive assessment of human welfare, due to its various limitations such as income inequality and other negative side effects of economic growth.

The new view essentially reflects the "Easterlin Paradox", whose empirical validation is presented in Easterlin and Angelescu (2007). Based on extensive cross-sectional and time-series data, the following key findings stand out (Easterlin and Angelescu, 2007, pp. 27-28):

- "if one focuses on objective indicators and material well-being, then there can be no disputing that modern economic growth has improved quality of life"
- "if, however, it is recognized that modern growth is associated with some 'bads', then reservations arise about the benefits of economic growth"
- "economic growth may make possible advances in the social and political realms by making more resources available, but the evidence makes clear that such a result is not sure to occur"
- "if one turns to subjective measures of well-being rather than objective indicators, the breakdown between economic growth and quality of life becomes even greater"
- "the common pattern both in rich and poor countries is that typically, increases in per capita income . . . fail to raise levels of happiness and life satisfaction"
- "people may have many more goods and a much wider variety, but whether that means they find their lives more satisfying remains questionable"

The *Human Development Report* (UNDP, 2010) provides a fresh analysis of the puzzle of economic growth and human development. Its key findings (UNDP, 2010, p. 46) suggest that "over the past 40 years the forces driving improvements in health and education are different from those driving improvements in income". This partly explains why "economic growth and human development do not always coincide". In addition, it is argued (UNDP, 2010, p. 47) that the established fact of lack of correlation between GDP per capita growth and life expectancy "is about the lack of relationship between *changes* in income and *changes* in non-income dimensions of human development". In spite of this, "*levels* of income and *levels* of health and education are positively and significantly correlated", in general. While there are long and variable lags in translating increased income into enhanced health and

education outcomes, technological progress tends to make it easier and cheaper for poorer countries to realize larger gains in health and education than richer countries did in the past.

4. Human Development Index

4.1 Focus, scope and indicators

The Human Development Index (HDI) was launched by the United Nations Development Programme (UNDP) in 1990. It is based on the broad concept of human development which underscores sustainability, equality and empowerment. It seeks to understand various patterns of human development that enable people to lead lives that they value, in the context of human progress. Since its emergence, the HDI has become, perhaps, the most commonly used global measure of development.

The HDI emphasizes that people and their capabilities should be the ultimate criteria for assessing the development of a country, rather than economic growth alone. This is based on the idea that people constitute the real wealth of a nation. Therefore, the basic objective of development should be to create an enabling environment for people to live long, healthy and creative lives. Development, in turn, should enhance opportunities for human choice and enlarge human capacity for engaging in the participatory processes which protect and secure their freedom to make choices. Thus, human development is a process of enlarging the scope and coverage of people's choices. The most critical among these choices include those that ensure living a long and healthy life, being adequately educated, and the enjoyment of a decent standard of living. These critical choices are unlikely to be fully utilized in the absence of such additional choices as political freedom, human rights that are fully guaranteed, as well as self-respect.

These key elements of human development can be broadly captured in the following three categories:

(a) Well-being: which involves the expansion of people's real and effective freedoms in the context of which they can flourish.

(b) *Empowerment and Agency:* which enable people, individually and in groups, to act in order to derive valuable outcomes.

(c) *Justice:* This requires expanding equity and sustaining this over time, as well as respecting human rights and other worthwhile societal goals.

These key elements of human development are captured in the HDI, which is then applied to assess levels and progress, using a concept of development that is much broader than income alone. Nevertheless, the HDI simplifies and captures only a critical part of what human development entails. Its primary focus is to re-direct policy attention towards human-centered development and, thus, stimulate debate on how to advance the progress of societies globally.

More specifically, the HDI combines measures of three dimensions of human development represented by life expectancy, education and standard of living in an attempt to quantify the degree of human development enjoyed by individuals within specific countries and regions. The HDI is a geometric mean of normalized indices of the three dimensions. In effect, the HDI presents an integrated view across the different dimensions of human development. In terms of the computation of HDI, the three dimensions are represented by appropriate indicators as follows.

The indicator for a long and healthy life is *life expectancy at birth*. Being knowledgeable (or education) is represented by two indicators; (a) *mean years of schooling* (years that a person 25-years-of-age or older has spent in school) and (b) *expected years of schooling* (years that a 5-year-old child will spend in school throughout his/her life). Finally, having a decent standard of living is represented by *GNI per capita* (gross national income at purchasing power parity per capita). The computed synthetic HDI provides a measure of the degree of human development of each country and it is used to classify countries into very high, high, medium and low levels of human development over specific periods.

4.2 Critique of HDI

Several key aspects of the Human Development Index have been re-examined almost from the beginning. The long list of papers which have challenged the HDI in various ways include the following: Easterlin (1974), Desai (1991), Mc Gillivray and White (1993), Strinivasan (1994), Noorbaklish (1998) Easterly (1999), Neumayer (2001), Ranis, Stewart and Emma (2006), Kovacevic (2010), Dervis and Klugman (2011), Stewart (2013), and Klasen (2018).

The critiques cover the composition of the index, in terms of both what is included and what is omitted, how the index is constructed and measured, and the choice of indicators in relation to the mixture of stock and flow variables. In addition, issues have been raised regarding the functional form (aggregation, multiplication, arithmetic versus geometric or harmonic mean), the weights used as well as the statistical quality of the measures used and their interpretation. More specifically, it has been suggested that GNI per capita should be used instead of GDP per capita. Similarly, it has been argued that more dimensions need to be added to the index in order to reflect concerns about the impact of social institutions on human development, sustainability of the environment and the importance of local specificity in the definition of development strategies.

In response to these critiques, the HDI has been modified in several ways over time. Thus, reforms were introduced to the HDI in 2010 in the following areas: (a) some of the indicators have been re-configured; (b) the way in which the indicators are aggregated has been changed, in particular, what are currently used are the actual observed minima and geometric means of the three dimensions while GNI per capita has replaced GDP per capita; (c) additional supplementary measures have also been created; these include the Multidimensional Poverty Index (MPI), the inequality measure (HIDI), as well as regional and country-level HDI.

Beyond these changes, it is re-affirmed that the objective of the HDI is not to build an unassailable indicator of well-being, but rather to redirect attention towards people-centered development and promote debate over how the progress of society can be advanced.

4.3 HDI trends

Trends in the HDI between 1980 and 2017 for the country categories are presented in table 1. This table shows several elements of the trends. First, HDI increased between 1980 and 2017 in each of the four country classifications as well as in terms of the world average. This increasing trend confirms the claim that human development has expanded, in terms of degree and extent across the world over this period. Second, the change in the HDI between 1980 and 2017 has generally risen from the low to the very high human development categories. In particular, the average annual percentage increase in HDI, between 1980 and 2017, rose from 0.506% in the case of very high human development

classification through 0.977% for high human development and 2.126% for medium human development to the peak of 2.321% in the case of low human development category. This trend suggests the possibility of catch-up and convergence over time.

Table 1. HDI Trend between 1980 and 2017

Degree	1980	2017	Change	Average Annual Change (%)
Very High Human Development	0.753	0.894	0.141	0.506
High Human Development	0.556	0.757	0.201	0.977
Medium Human Development	0.361	0.645	0.284	2.126
Low Human Development	0.271	0.504	0.233	2.321
World Average	0.455	0.728	0.273	1.621

Source: UNDP (2018), Human Development Indices and Indicators 2018 Statistical Update

Table 2 offers the data for an opportunity to explore this point further. In this case, the focus is to relate the HDI for each of the low, medium, and high human development categories to that of the very high human development category between 1980 and 2017. As the table shows, there appears to be a convergence across the four country human development categories between 1980 and 2017. More specifically, each of the three lower level human development categories recorded an increasing share of the HDI for the very high human development category. Thus, the HDI of the low human development group of countries increased as a share of the HDI of the very high human development category from almost 36% in 1980 to over 56% in 2017. In the same way, the HDI of the medium human development category as a proportion of the HDI of the very high human development category rose from almost 48% in 1980 to just over 72% in 2017. This pattern is repeated as the HDI of the high human development group as a proportion of the HDI of very high human development increased from almost 75% in 1980 to almost 85% in 2017.

Table 2. HDI Convergence, 1980 and 2017

Ratio	1980	2017
LHD/VHHD (%)	35.99	56.38
MHD/VHHD (%)	47.94	72.15
HHD/VHHD (%)	73.84	84.68

Note: LHD - low human development, MHD - medium human development, HHD - high human development, VHHD - very high human development.

Source: Same as Table 1.

5. World Happiness Ranking

5.1 Focus, scope and indicators

The first World Happiness Report (WHR) was released in April 2012. Based on the emerging science of happiness, this and subsequent reports argue that the analysis of a set of subjective well-being measures that are collectively called "happiness" can be used as a valid, coherent and reliable means of assessing the quality of people's lives across all countries and regions of the world. In the process of answering the question whether happiness is the real purpose of economic development, the economics of happiness focuses on the proposition that the core goal of economic growth should be the maximization of the happiness and well-being of current and future human generations. This radically shifts the emphasize of economic policy from that of maximizing income growth, given that economic growth alone is only a necessary but insufficient condition for building a good society in which all the people are endowed with the capabilities and opportunity to live fulfilling lives.

Quality of life research indicates that average life evaluation provides an umbrella for the measurement of well-being. Hence, it is generally used as the primary statistic for measuring and explaining international differences and trends in subjective well-being. In addition, subjective well-being has an objective impact on a range of behavioural characteristics and life outcomes. These, in turn, lead to the existence of dynamic relationships between happiness and other important aspects of human life, with effects running in both directions. In effect, it is the mutually enhancing interaction between the subjective well-being and the objective economic variables that determines the extent to which overall net positive progress is achieved in terms of raising human well-being. In other words, a careful balance between economic

measures of societal progress with appropriate measures of well-being is necessary for ensuring that economic growth is associated with broad improvements rather than just greater economic capacity.

This broad theoretical underpinning is provided by the economics of happiness which is an approach for assessing welfare that combines techniques used by economists with those used by psychologists (Graham, 2005). This approach relies on expressed preferences, rather than the standard revealed preference theory which is standard in economics. This does not seek to replace income based-measures of welfare; instead it complements them with broader measures of welfare or well-being, which are based on survey data.

The survey data are generated by Gallup World Poll in which happiness is measured simply by asking people the following questions:

- Taking all together, how would you say things are these days; would you say that you are very happy, pretty happy or not too happy?
- How satisfied are you with your life as a whole?

These happiness questions are more evaluative. As a result, they tend to be highly correlated with questions about life satisfaction.

Based on the analysis of these data, the series of World Happiness Reports produce a unique and annual survey of the state of happiness across the world. Each of the reports combines both objective and subjective measures to rank countries and regions by happiness, a measure which is generally regarded as the ultimate outcome of a high quality of life. More specifically, the central purpose of each report is to:

- Explain the levels and changes in average national life evaluations among countries around the world,
- Examine how life evaluations are distributed among individuals within countries and geographic regions, and
- Show how six key variables contribute to explaining the full sample of national average scores over specific periods of time

The six key variables include GDP per capita, social support, healthy life expectancy, social freedom, generosity, and absence of corruption.

5.2 Critique of WHR

The WHR is based on the idea that happiness is the primary measure of progress in development. This idea has been vigorously challenged in the literature even before the WHR series was launched. Much of the critiques have appeared in the following papers: Hicks and Streeten (1979), Clark and Oswald (1994), Lukken and Tellegen (1996), Sen (2002), Kahneman (2003), Banchflower and Oswald (2004), Kroll (2013) and Stewart (2014).

The over-riding objection raised in these critiques is that a subjective measure of quality of life, such as happiness, should not displace objective measures of progress in development, given that both subjective and objective measures jointly determine quality of life. In this context, specific challenges relate to the definition and measurement of happiness. The definition, measurement and interpretation of happiness data that are generated through sample surveys would tend to differ across cultures and according to the precise translation adopted. In addition, there are adding-up and distributional challenges. The measures of happiness used in cross-country comparisons are based on the averages of answers by the sample surveyed. The questions are answered ordinally, and this raises questions regarding the appropriateness of adding up and comparing the answers.

In sharp contrast to the WHR practice, other approaches for developing indicators of development progress are typically pluralistic by directly combining subjective evaluations with objective and observable conditions. The clear evidence that subjective evaluations often diverge from objectives measures presents an important challenge for the sole reliance on the subjective measures in the WHR practice. This divergence may create significant problems for making and implementing development policy, especially when the objective and subjective measures point in different directions.

5.3 Trends in WHR

The series of World Happiness Reports has produced several broad and empirically significant findings. The relationship between happiness and income comes out very clearly. In particular:

- Wealthier people are the happiest people in society

- Those living in rich countries tend to be much happier than those living in poor countries
- Happiness rises quite steadily with income
- Happiness rises with the log of income (more specifically, a 10% rise in income is associated with a similar change in happiness at any income level).

Similarly, in terms of the zero-to-ten ladder life satisfaction scale,

- People in the poorest countries tend to place themselves somewhere around 3 to 4
- Mid-range countries fall somewhere between 5 and 6
- In developed countries, people end up somewhere between 7 and 8

The WHR 2019 compares life evaluation over the 2005/2008 to 2016/2018 period and finds that, of the 132 countries with data for the period:

- 106 had significant changes in points on the zero to ten scale
- 64 had significant increases, ranging from 0.097 to 1.39 points
- 42 had significant decreases, ranging from -0.179 to -1.944 points
- 26 countries revealed no significant trend
- These significant gains and losses are very unevenly distributed across the world.

With regard to the more recent period of 2016-2018, the key findings are as follows:

- Average life evaluation in the top 10 countries is more than twice as high as in the bottom 10 countries
- Of the 4.16 points difference, 3.06 points can be traced to differences in the six key factors

The contributions of those factors are as follows:

- GDP per capita gap: 0.99 points
- Social support gap: 0.88 points
- Life expectancy gap: 0.59 points

- Freedom gap: 0.35 points
- Corruption gap: 0.20 points
- Generosity gap: 0.06 points

In effect, income gap constitutes the largest contributing factor, responsible for one-third of the total. This may be because income is by far the most unequally distributed among countries. More specifically, GDP per capita is 22 times higher in the top 10 than in the bottom 10 countries.

6. African Experience

Trends in the economic and social progress of a large number of African countries have been shown in the context of both the human development index and world happiness ranking. This section focuses on the results that have been generated by these two evaluation mechanisms.

Hall (2013) sets the stage for the analysis and discussion in this section by addressing the relationship between the two evaluation mechanisms along several dimensions. It was noted, in particular, that both mechanisms were largely motivated by the desire to consider social progress and economic development in ways that go beyond the GDP; they place people at the centre of their metrics; and there is considerable overlap between the determinants of both mechanisms. Based on these linkages, it was concluded that:

> The two disciplines…offer alternative views of development which when taken together, could complement one another. Using the human development lens and metrics can help assess whether genuine progress has occurred if subjective well-being has increased. Using the subjective well-being lens and metrics can help assess whether progress has indeed occurred if the (partial) metrics of human development suggest it appears to have.

This conclusion may need to be further examined in the specific case of African countries. In relation to trends in the human development index, it is easy to show that for all human development groups, the index has risen continuously between 2000 and 2017. This broad trend is shown in table 3. The table also shows that sub-Saharan African countries have always had the lowest

HDIs over time. But there are other African countries in the Arab states group that have higher average HDIs than those in Sub-Saharan Africa. In addition, both sets of African countries have also experienced the general convergence trend across all HDI groups. In other words, the data does not show any case in which the average HDI for a group of countries in a particular period falls below that of an earlier period.

Table 3. Trends in HDI, 2000-2007: Groups and Regions

Human Development Groups	2000	2010	2015	2017
Very High Human Development	0.831	0.873	0.89	0.894
High Human Development	0.635	0.718	0.75	0.757
Medium Human Development	0.523	0.596	0.634	0.645
Low Human Development	0.387	0.472	0.498	0.504
Developing Countries	0.57	0.642	0.673	0.681
Arab States	0.613	0.675	0.694	0.699
Sub-Saharan Africa	0.421	0.498	0.531	0.537
World	0.642	0.698	0.722	0.728

Source: Human Development Indices and Indicators: 2018 Statistical Update.

Table 4 offers evidence for all African countries with relevant data for both 2005 and 2017. This evidence confirms the finding that the HDI scores for the African countries shown in the table increased during the period. There is, however, one significant difference. Some countries which had low HDI scores in 2005 experienced fairly rapid growth rates. For example, Zimbabwe's HDI rose by over 236% between 2005 and 2017, while that of the Democratic Republic of Congo increased by almost 105% over the same period. Other countries whose HDIs increased by 50% or more over the same period are Angola (55%), Comoros (63%), Rwanda (57%), Ethiopia (61%), Mali (53%), Guinea-Bissau (64%), Liberia (65%), Mozambique (66%), and Burundi (74%).

Table 4. HDI Trends, 2005 and 2017: African Countries

Country	2005	2017	Difference	% Difference
Tunisia	0.65	0.735	0.085	13.076
Algeria	0.651	0.754	0.103	15.821
Gabon	0.628	0.702	0.074	11.783
Egypt	0.587	0.696	0.109	18.568
Botswana	0.593	0.717	0.124	20.91
Namibia	0.577	0.647	0.07	12.131
South Africa	0.587	0.699	0.112	19.08
Cape Verde	0.519	0.654	0.135	31.791
Ghana	0.443	0.592	0.149	33.182
Congo	0.47	0.606	0.136	28.936
Kenya	0.443	0.59	0.147	33.182
Sao Tome & Principle	0.466	0.589	0.123	26.394
Angola	0.376	0.581	0.205	54.521
Cameroon	0.437	0.556	0.119	27.231
Madagascar	0.42	0.519	0.099	23.571
Tanzania, United Republic of	0.37	0.538	0.168	45.405
Senegal	0.388	0.505	0.117	30.154
Nigeria	0.402	0.532	0.13	32.338
Mauritania	0.411	0.52	0.109	26.52
Lesotho	0.404	0.52	0.116	28.712
Uganda	0.38	0.516	0.136	35.051
Togo	0.414	0.503	0.089	18.912
Comoros	0.423	0.503	0.08	18.912
Zambia	0.36	0.588	0.228	63.333
Djibouti	0.382	0.476	0.094	24.607
Rwanda	0.334	0.524	0.19	56.886
Benin	0.418	0.515	0.097	23.205
Gambia	0.362	0.46	0.098	27.071
Sudan	0.36	0.502	0.142	39.444
Côte d' Ivoire	0.383	0.492	0.109	28.459
Malawi	0.336	0.477	0.141	41.964
Zimbabwe	0.159	0.535	0.376	236.477
Ethiopia	0.287	0.463	0.176	61.324
Mali	0.279	0.427	0.148	53.046

Country	2005	2017	Difference	% Difference
Guinea Bissau	0.278	0.455	0.177	63.669
Guinea	0.323	0.459	0.136	42.105
Central African Republic	0.299	0.367	0.068	22.742
Sierra Leone	0.292	0.419	0.127	43.493
Burkina Faso	0.285	0.423	0.138	48.421
Liberia	0.264	0.435	0.171	64.772
Chad	0.299	0.404	0.105	35.117
Mozambique	0.263	0.437	0.174	66.159
Burundi	0.239	0.417	0.178	74.476
Niger	0.241	0.354	0.113	46.887
Congo, Democratic Rep.	0.223	0.457	0.234	104.932

Source: Human Development Report, 2018.

In summary, therefore, HDI trends across all regions and countries have been characterized by four key features. First, HDI has generally increased in value over time. Second, it has tended to converge across the four human development groups of very high human development, high human development, medium human development, and low human development. Third, the HDI has been the lowest in the specific case of sub-Saharan African countries. Finally, the countries which start with very low HDIs have tended to enjoy fairly rapid "catch-up" impetus.

Trends in happiness scores are generally guided by the rule of thumb which suggests that the poorest countries fall within the 3-4 range, mid-range countries fall within the 5-6 range, while developed countries tend to be in the range of 7 and above. Table 5 shows the trends in happiness scores for 2005 and 2017 in 28 African countries which place them in the poorest category. A couple of countries had scores in 2005 that were above the 3-4 range. These are Egypt (5.1), Botswana (5.1), and Malawi (5.1). The average for all 28 countries was 4.30. By 2017, the average happiness score for the group was 4.25. At the level of individual countries, happiness both increased and decreased. In percentage terms, 16 countries enjoyed increases in their happiness score between 2005 and 2017; the highest were in Benin (39.8%), Togo (35.8%), Congo Brazzaville (26.0%), Cameroon (21.3%), Burkina Faso (17.9%), Niger (13.4%) and South Africa (11.6%).

Table 5. Trends in Happiness Scores (2005 – 2017): African Countries

Country	2005	2017	Difference	Percentage
Nigeria	4.867	5.265	0.418	8.588
Cameroon	4.164	5.044	0.88	21.335
Ghana	4.906	4.996	0.09	1.834
Benin	3.493	4.883	1.39	39.794
Congo B.	3.82	4.812	0.992	25.969
South Africa	4.232	4.722	0.49	11.578
Senegal	4.593	4.681	0.088	1.916
Namibia	4.885	4.639	-0.246	-5.036
Niger	4.08	4.628	0.548	13.431
Burkina Faso	3.889	4.587	0.698	17.948
Kenya	4.199	4.509	0.31	7.383
Mauritania	4.193	4.49	0.292	6.964
Mozambique	4.693	4.466	-0.227	-4.837
Mali	4.064	4.39	0.326	8.022
Chad	4.075	4.35	0.275	6.748
Uganda	4.253	4.189	-0.064	-1.505
Egypt	5.102	4.166	-0.936	-18.346
Zambia	4.52	4.107	-0.413	-9.137
Togo	3.008	4.085	1.077	35.805
Liberia	3.961	3.975	0.014	0.353
Madagascar	4.31	3.933	-0.377	-8.747
Burundi	3.563	3.775	0.212	5.95
Zimbabwe	3.427	3.663	0.236	6.886
Botswana	5.094	3.488	-1.606	-31.527
Malawi	5.094	3.41	-0.951	-21.807
Rwanda	4.274	3.334	-0.94	-21.993
Tanzania	4.213	3.231	-0.982	-23.309
Central African Republic	4.16	3.083	-1.077	-34.934

Source: World Happiness Report 2019.

Similarly, on the negative side, 12 countries experienced declines in their happiness scores between 2005 and 2017. In percentage terms, the largest declines occurred in Central African Republic (-34.9%), Botswana (-31.5%), Tanzania (-23.3%), Rwanda (-22.0%), Malawi (-21.8%), and Egypt (-18.3%).

Viewed from another perspective, the changes in happiness scores between 2005 and 2017 can be expressed as gains and losses in points on the happiness ladder.

Table 6 shows the gainers and losers among African countries between 2005 and 2017. The top five gainers are Benin (1.390 points), Togo (1.077 points), Congo-Bra (0.992 points), Cameroon (0.880 points), and Burkina Faso (0.698 points). In the case of the losers, the top five are Botswana (-1.606 points), Central African Republic (-1.077), Tanzania (-0.982), Malawi (-0.951) and Rwanda (-0.940).

Table 6. Changes in Happiness, 2005-2017: African Gainers and Losers

Gainers		Losers	
Country	Points	Country	Points
Benin	1.39	Uganda	-0.064
Togo	1.077	Mozambique	-0.246
Congo (Bra)	0.992	Madagascar	-0.377
Cameroon	0.88	Zambia	-0.413
Burkina Faso	0.698	South Africa	-0.49
Niger	0.548	Egypt	-0.936
Nigeria	0.418	Rwanda	-0.94
Mali	0.326	Malawi	-0.951
Kenya	0.31	Tanzania	-0.982
Mauritania	0.292	Central African Republic	-1.077
Chad	0.275	Botswana	-1.606
Zimbabwe	0.236		
Burundi	0.212		
Ghana	0.09		
Senegal	0.088		
Liberia	0.014		

Source: World Happiness Report, 2019.

As has been shown so far, there can be significant divergences between HDI and happiness scores. In particular, the latter does not always increase over time like the former. This generally contradicts the conclusion of Hall (2013) to the effect that the two mechanisms are complementary in the sense of generating results that are similar.

Table 7. Divergences in HDI and Happiness Scores, 2005/2017: African Countries

	HDI		Happiness Scores	
Country	Difference	% Difference	Difference	% Difference
Namibia	0.07	12.131	-0.246	-5.036
Uganda	0.136	35.051	-0.064	-1.505
Egypt	0.109	18.568	-0.936	-18.346
Zambia	0.228	63.333	-0.413	-9.137
Madagascar	0.099	23.571	-0.377	-8.747
Botswana	0.124	20.91	-1.606	-31.527
Malawi	0.141	41.964	-0.951	-21.807
Rwanda	0.19	56.886	-0.94	-21.993
Tanzania	0.168	45.405	-0.982	-23.309
Central African Republic	0.068	22.742	-1.077	-34.934

Source of Basic Data: Human Development Report 2018, *World Happiness Report* 2019.

The results presented in table 7 show that, for the listed African countries, while the HDI metric indicates that the countries achieved significant progress in human development between 2005 and 2017, the happiness metric indicates the opposite, i.e, that the happiness score of each of the same set of countries suffered significant reductions over the same period, between 2005 and 2017.

7. Concluding Remarks

The current consensus following a vigorous debate in the literature is that quality of life has two dimensions – the subjective and the objective. In principle, the objective dimension is measured by quantifiable indicators which reflect material conditions of external environments based primarily on economic growth. In turn, the subjective dimension covers more personal and psychological perceptions regarding well-being and life satisfaction.

Earlier quality of life research focused primarily on the objective dimension for which income became the primary indicator. However, in the context of the new conceptualization of quality of life as the extent to which human needs are fulfilled in relation to personal perceptions of subjective well-being and life satisfaction, income's pride of place had to be downgraded. As Stiglitz, Sen and Fitoussi (2010) argued, it was time "for our measurement system to shift

emphasis from measuring economic production to measuring people's well-being".

Two major initiatives subsequently responded to this challenge. One of these is the Human Development Index (HDI) which was created to emphasize that, rather than economic growth alone, people and their capabilities should be the ultimate criteria for assessing the development of a country. The second initiative is the World Happiness Report (WHR) which combines both objective and subjective measures to rank countries by happiness. The WHR views happiness as the ultimate outcome of a high quality of life. Neither of these two initiatives has actually eliminated economic growth or income from the picture. Essentially, both more or less regard income as a necessary but not sufficient condition for achieving high levels of human development (in the case of HDI) or for ensuring high levels of happiness and life satisfaction (in the case of WHR).

More specifically, HDI is a composite measure of health, education and income; while WHR explains differences in happiness or life satisfaction in terms of six variables, including GDP per capita, which typically accounts for more than 30% of the total explanation. Thus, while both HDI and WHR generate economic and social performance assessments of countries and differences among them, both go beyond and are broader than corresponding evaluations based on GDP or GDP per capita alone. In other words, neither happiness rankings nor HDI rankings are fully explained by income. Similarly, while HDI and WHR overlap significantly in terms of variables used, they do not generally produce the same results.

It is clear, of course, that both HDI and WHR rankings are based on broader frameworks than that of GDP. To this extent, therefore, they constitute a more superior mechanism for illuminating policy issues which must take into account both objective and subjective measures of quality of life. In spite of this, it is clear that more research is needed in order to more fully understand why and under what circumstances HDI and WHR ranks may differ sharply, especially in the context of African countries. The effective and fruitful use of both mechanisms rest squarely on this.

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