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Inclusive Growth versus Pro-Poor Growth and Measurement Framework: A Comparative Analysis of Four Measurement Strategies Applied to Selected Countries

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1. INCLUSIVE GROWTH: AN OVERVIEW

Worldwide, it has been thought a long that increasing the rate of economic growth is a prudent path to contain all of the economic and social problems in developing and developed economies, due to positive spillovers of growth among households, institutions, and businesses climate. Yet, economic growth is not always effective in enhancing social aspects equally between all, as well as altering standards of living of the population within a specific society.

A good argument would be based on whether economic growth is not used effectively, or there must be a better strategy to stop misusing it at the expense of the poor or marginalized groups. Consequently, many researchers beyond economic growth emphasize that growth alone is insufficient to ensure that its benefits reach everybody in the society and it even disables to combat macroeconomic problems. Rather, a successful strategy of economic growth must have its core measures to promote rapid and sustained economic growth.

Growth has occurred alongside persisting relative poverty and/or inequality as well as widening the gap between rich and poor. In spite of high levels of economic growth, the world economies is still suffering from high levels of unemployment, lacking jobs, an increase in the relative poverty rate, and high levels of wealth and income inequality which have ironically grown.

The central awareness from the past decades after several development studies, researches, and applied strategies is that inclusive economic growth is the conventional wisdom, as well as the most successful path to redeem people from the curse of poverty (Rodrik, 2007). Inclusive Economic growth sustains a flourishing future for people. The renewed focus on "helping the poor" as a prudent goal of development has led world economies to endeavor for sustainable planning, thereby boosting growth and minimize the poverty rate through the running of specific social, structural, and economic policies.

Inclusive economic growth is connected to income poverty reduction; it is essential for countries to combat poverty. While the income of the poor people increases in parallel with economic growth, then we consider this increase as the "income effect" of growth. However, what does matter is whether this income effect literally diminishes the poverty rate of the poor or not. Growth can only be considered inclusive when it lessens the poverty rate of the poor (Udoh & Ayara, 2017).

A long time ago, the attention in the literature about poverty was on how the spells of economic growth lead to reduce poverty, as per capita income increase, it would in the end increase the income of the poor people. This increase is from rich population to poorer ones; it is called as the "trickle-down effect" of growth, where the growth benefits are captured initially by rich people; then once the richer part of the population spend their gain, the growth subsequently reaches the poor. As time passed, the literature on poverty reduction has been lifted towards a new concept and new idea which is "pro-poor growth" and shifted focus away of the "trickle-down" concept of growth (Udoh & Ayara, 2017).

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Pro-poor growth is a concept that claims national policies to promote economic growth for the benefit and sake of poor people. The concept of inclusive growth is stemmed from the belief that economic growth should be increasingly "pro-poor." There is a growing concern on the concept of growth to be inclusive or a growth pattern that includes all income strata.

The increasing rates of inequality, unemployment, and poverty worldwide call for an inclusive approach to economic growth, where the social benefits of the latter have priority in the economic benefits distribution criteria among households and individuals. Inclusive economic growth has fast gained traction in the economic development process (Lee, 2018). The contemporary emphasis on inclusive growth among economists and scholars is based on the realization that economic growth is not enough to meet equitable development needs of all populations and it does not address economic problems.

Measuring Inclusive growth is challenging and hard to apply, this is due to the absence of consensus among scholars for a clear definition of the concept. Four methodologies are available in the literature, while Ali and Son approach is widely used by studies. Unlike economic growth, inclusive growth measurement requires measures of the participation of the population in the economic growth process and benefits.

This paper presents conceptual background of the concept of inclusive economic growth and the various framework available in previous studies of how to measure this type of growth. The aim of this paper is to shed light on the multidimensional definitions of inclusive growth concept. Moreover, this paper reveals the different ways to measure inclusive growth and state the merits and the drawbacks of each of them. To the best of our knowledge, this paper is the only one that sorts four different available methodologies used to measure inclusive growth in one paper and attempts to compare between them. The remaining sections will be distributed as follows: section two states the conceptual literature which will cover the different concepts available in the literature that define inclusive growth in various ways. The third section shows four of the different methodologies to measure inclusive growth. Section four covers the previous studies of measuring inclusive growth, and finally section five reveals the concluding remarks of the subject matter in addition to recommendations.

2. CONCEPTUAL LITERATURE ON INCLUSIVE GROWTH

The current section will produce an argument about a body of researches in regards to the inclusive growth concept as well as will display their merits and demerits. Additionally, it will give ideas about which measuring approach is likely to work by comparison and evaluation of previous studies. The purpose of this part is to track what theories have reached out on the subject matter through history, illustrate how the subject has been studied previously, outline gaps, highlight flaws, sort similar approaches, and analyze the different ones critically.

Inclusive growth is a nascent concept that has been arguably discussed by many economists, academics, and international institutions, (Ngepah, 2017). Various studies and approaches on the concept and measuring of inclusive growth were launched, some of the studies considered that inclusive growth could be dubbed as pro-poor growth, shared growth, and broad-based growth.

Once economists and policymakers knew the importance of sustained economic growth, inclusive economic growth emerged as a new concept for the execution of sustainable economic growth (Ghandour, 2020). It became a buzzword in structural economic policy among developed and developing countries, international institutions such as The World Bank, NGOs (Non-governmental organizations), and the Organization for Economic Co-operation and Development (OECD). Despite the urgent attention drawn for inclusive growth, there exists no precise definition of this concept (GSDRC, 2015). Notwithstanding, many scholars emphasize that inclusive growth is economic growth that is distributed evenly and ensures equal social and economic opportunities for all.

The term "inclusive" has first appeared in a study by Kakwani and Pernia (Kakwani & Pernia, 2000). With increasing attention and concern given to pro-poor growth (discussed below) in development discourse, some

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scholars in their definitions claimed that the concept of inclusive growth is interchangeable with the idea of pro-poor growth (Ranieri & Ramos, 2013).

The absolute definition of pro-poor growth requires that economic growth might be considered as pro-poor only if the average incomes of poor people increase and as a result income poverty fall (Jmurova, 2017). However, the relative definition of pro-poor growth states that economic growth is pro-poor only if the income of the poor increases at a higher rate than the non-poor, therefore calling for inequality that favors poor people. In other words, this definition means that poverty would fall more than it would if all incomes are increasing at an equal rate (Kakawani, Khandker, & son, 2004).

Although the two terms (inclusive and pro-poor growth) are seemingly distinct, there was a great emphasis from Nanak Kakwani and Ernesto Pernia in their essay "what is pro-poor growth," where they used the term "inclusive growth" as a definition of the "pro-poorness" of growth (Kakwani & Pernia, 2000). Thus, to puzzle out this confusing debate, it is worth elucidating various concepts concerning the extent to which inclusive growth is near or far from pro-poor growth. Additionally, highlights what other approaches have argued regarding different contents from another term such as broad-based growth or pro-poor growth.

Much has been written about inclusive growth, for instance, Habito (2009) defines it as GDP growth that leads to significant poverty reduction which matches with the pro-poor growth absolute definition (Habito, 2009). Likewise, (Rauniyar & Kanbur, 2010) also claimed that, if inclusiveness is known as being captured and initiated by poverty, then inclusive growth is synonymous with pro-poor growth (Ranieri & Ramos, 2013).

With respect to the World Bank, inclusive growth called for growth to be broad-based among all and rapidly-paced, as well as inclusive over a large part of a nation's labor force (Ngepah, 2017). This approach shows that inclusive growth implies a direct link between the micro and macro determinants of economic growth. The micro path shows the structural change and its contribution to economic competition and diversification, while the macro one refers to changes in aggregate factor inputs as total factor productivity as well as variations in economic aggregates like GDP or GNP (Lundstrom & Ianchovichina, 2009).

The World Bank definition is consistent with the descriptions of other approaches such as "Commission on Growth and Development," in which they consider inclusiveness as a concept embracing equity, social safety nets as well as equality of opportunity to all populations. The World Bank concept of inclusive growth is also congruent with the previous absolute definition of pro-poor growth.

The same conclusion as before has been reached by (Lundstrom & Ianchovichina, 2009) where they focused on the pace and pattern of growth. They consider them related to each other and must be addressed together. In their opinion, inclusive growth embraces long-term sustainability and structural transformation as well is required to be broad-based and inclusive for a large part of the country's labor force. In other words, they argue that inclusive growth should consider both the rapid pace of growth and the pattern of distribution of that growth. Therefore, based on their primary attention to poverty reduction, their conceptualization corroborates also the absolute definition of pro-poor growth.

The Asian Development Bank approach (ADB) is more overarching, besides broad-based participation, inclusive growth includes ethnicity, gender, and race. The ADB defines inclusive growth as a concept accompanied by equal opportunities. Additionally, this notion goes far to include environmentally sustainable growth as one of the inclusive growth determinants. The limitation of this approach is that it does not assess in which way everyone could participate in that growth. In contrast to the WB, according to the ADB; inclusive growth is congruent with the relative definition of pro-poor growth (discussed above).

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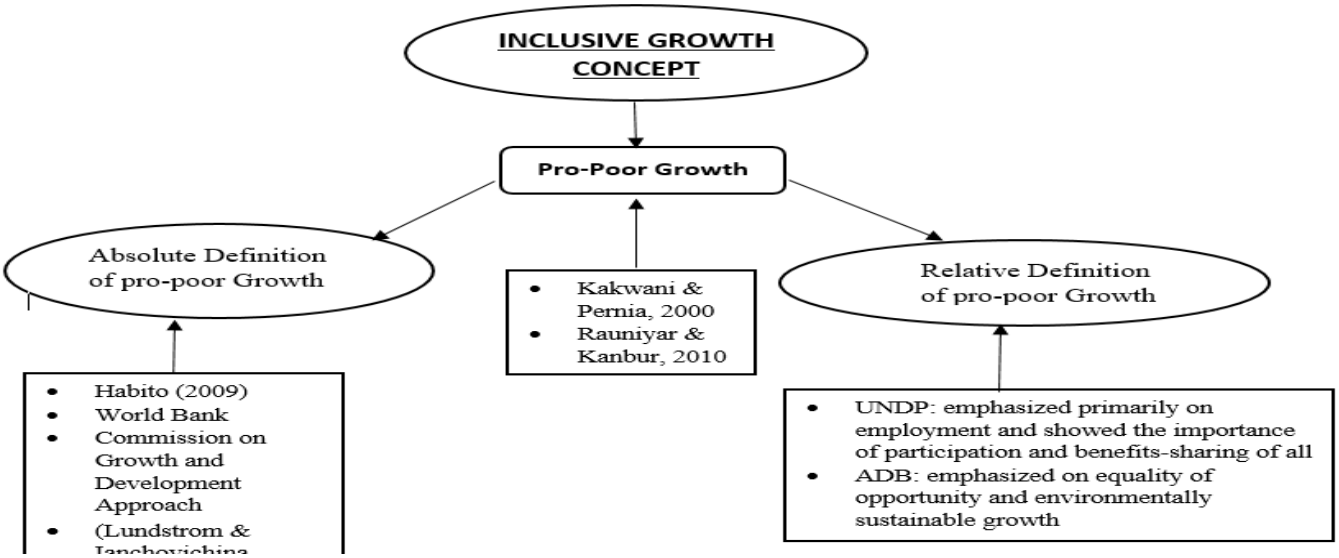
The UNDP approach captured by Sperling and Kjoller-Hansen; they emphasized primarily on employment and showed the importance of participation and benefits-sharing of all. This concept matches the facet of relative pro-poor. UNDP gave more weight to the poor; therefore, it suggests that growth is inclusive only if it exists in sectors such as agriculture, where the poor are working. Additionally, if it occurs in regions where the poor people mostly live, such as rural areas, and lastly when results in lessening prices of the basic commodities that the poor consume the most, such as clothing, fuel, food, and public transport (Ngepah, 2017) see (Fig. 1) below.

Fig. (1): Inclusive Growth Approaches that matches Pro-Poor Growth



Source: Authors Illustrations

Along the lines of the inclusive growth definitions, in contrary to the above, Klasen (2010) shows a difference between inclusive and pro-poor growth, based on which group is the recipients of the growth benefits (Klasen, 2010). He argued that pro-poor growth focuses only on people who are under the poverty line, yet inclusive growth is broader and encompasses all of the society stripes, such as the poor, the near-poor, the middle-income groups, and also the rich.

Other scholars such as Hulya Dagdeviren, Rolph van der Hoeven, and John weeks had the same perspective, however, Ali & son chose another perspective to conceptualize inclusive growth and focused on the distributional concern of growth. The former scholars highlight the role of income distribution reducing poverty, if redistribution was to favor the poor, the critical policy issues are required to know the distribution from whom, to whom, and by what techniques (Dagdeviren, Hoeven, & weeks, 2000). The latter proposed that growth is inclusive if there will be an increase in the social opportunity function, this social opportunity rely on the average opportunities that are existed to the population as well as how these opportunities are shared and distributed between individuals (ALI & son, 2007).

In that sense also, OECD states that inclusive growth has three broad interrelated pillars. These pillars are:
Multidimensional Pillar: Suggests going beyond GDP measure of growth, and also beyond GDP per capita as a measure of associated welfare. The approach regarded inclusive growth as a concept that embraces other essential aspects of people's wellbeing that allow their participation in the economy and society through satisfaction and social relations.

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Distribution Pillar: Goes beyond of per capita income to ensure the equitable distribution of multidimensionality wellbeing.

Policy Impact Pillar: OECD highlighted structural factors of change such as fiscal policies as well as the role of the private and public sectors. It showed the impact of policy analysis with which it relates to the growth and distribution of multidimensional well-being. (Ngepah, 2017).

Another approach from The African Development Bank (AFDB) came to light after the recognition that despite rapid economic growth in Africa, the region has become rapidly unequal; it ranked six of the most unequal ten countries in the world. AFDB believed that sustained poverty reduction in Africa needs sustainable economic growth. In their opinion, inclusive growth is a result of broad-based economic growth which reaches a large number of people, countries, or regions, as well as ensures equitable access to social and economic opportunities under the call of equal justice and a fair environment. This definition corroborates the World Bank definition; however, it shows the drawbacks of pro-poor growth and suggests inclusive growth instead that targets all segments of the society.

According to this approach, inclusive growth rests on four pillars; which are spatial, political, economic, and social. As a consequence, AFDB proposed an inclusive growth index that embraces economic diversification, governance, gender, infrastructure, as well as gives a considerable emphasis on inequality in economic growth by using inequality-adjusted GDP per capita to capture the pillars above (Ngepah, 2017).

White (2012) claimed that inclusive growth was used has various meanings which are: low-income inequality, reducing North-South income gap, reducing inequality of opportunities, granting greater space for governance, ensuring access to education, health, and judicial system, and internalizing the externalities of growth (Ranieri & Ramos, 2013).

Ramos, Ranieri, and Lammens (2013) suggest that benefit-sharing which represents poverty and inequality used as main determinants of inclusive and pro-poor growth in addition to employment to population ratio which is taken as a proxy for participation (Ramos, Ranieri, & Lammens, 2013).

As it is evident from the different definitions above, two approaches have stated that inclusive growth is pro-poor Growth, four have consensus and detect that inclusive growth is consistent with the absolute definition of pro-poor growth, while only two others have claimed that inclusive growth matches the relative definition of pro-poor growth instead of absolute definition. Likewise, seven approaches have rested on different aspects and perspectives other than pro-poor growth to define inclusive growth.

Among the pro-poor growth, few focused on one part which is the distribution schema. The others made a distinction between inclusive growth and pro-poor growth based on which group is the recipients of the growth benefits, and others refer it to ethnicity, gender, and race in addition to broad-based participation. As a result, given various definitions and concepts of inclusive growth, a unified notion of this term until now is elusive and vague, due to many points of view and various approaches from different perspectives on the subject see (Fig.2) below.

Fig.2: Inclusive Growth Approaches that matches different concepts rather than pro-poor growth

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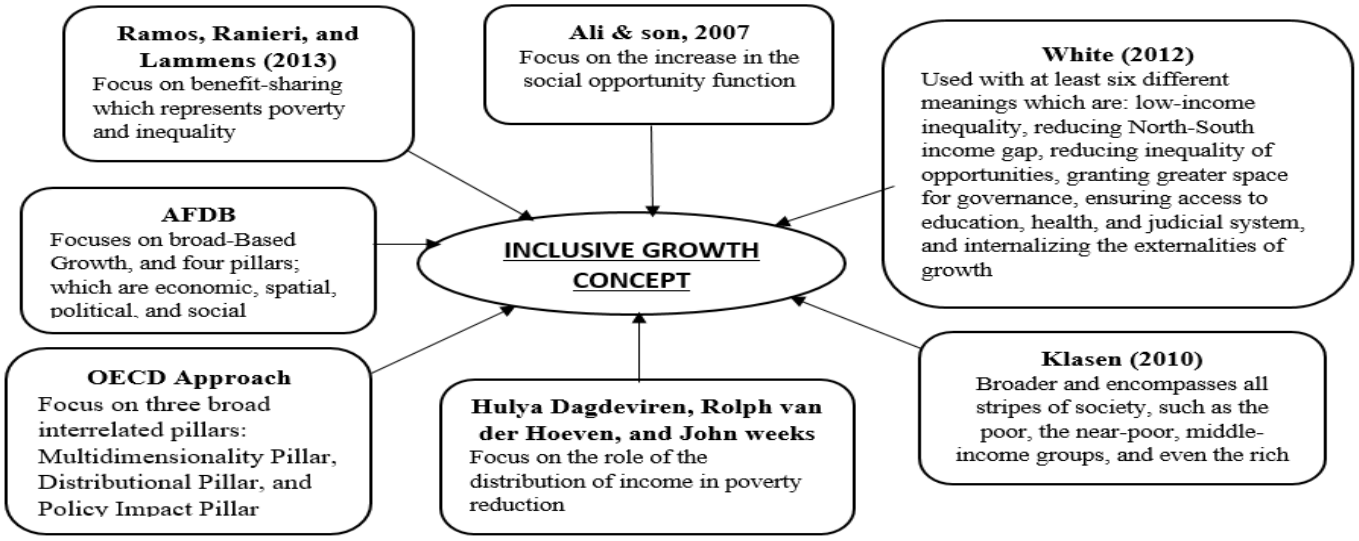

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Nonetheless, if we attempt to sort the many insights and reach one overall definition of inclusive growth; it will be as a growth that is not only focused on a rapid pace of growth which is essential for poverty reduction, but also on the distribution pattern of that growth (growth and equity) which is sustainable and equitable in the long run. Inclusive growth surges significant benefits to all groups, ensures access to education and health, reduces income and gender inequality, reduces the gap between rich and poor, grants greater space for governance, ensures rapid and sustained poverty reduction, and finally sustains equitable growth and shores up the poor and marginalized groups. It is a shared and broad-based growth that provides equal access to social and economic opportunities, especially for the poor. Inclusive growth can be considered as the pathway to sustainable development across the world see (Fig.3).

Fig.3: Inclusive Growth Concept Diagram

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Source: Author's Illustrations

3. MEASUREMRNT ISSUES: COMPUTING A FORMULA AND COMPOSITE INDEX

In the absence of a specific and definite definition of inclusive growth concept, attempts to find a unified technique or consensus in regards to which indicators could be more efficient to measure inclusiveness went in vain. In that sense, consistent with the various definitions of inclusive growth mentioned previously, this section will provide different approaches and methodologies applied to measure inclusiveness, stemmed from their recognition of what truly inclusive growth means. Pragmatic analysis of the growth inclusiveness is still rare, so it needs to be given more weight and attention from practitioners. Even so, there have been different few attempts from economists with which some have followed same thoughts concerning inclusive growth concept. They started to operationalize their definition, and find new ways of measuring inclusive growth accordingly (Ranieri & Ramos, 2013).

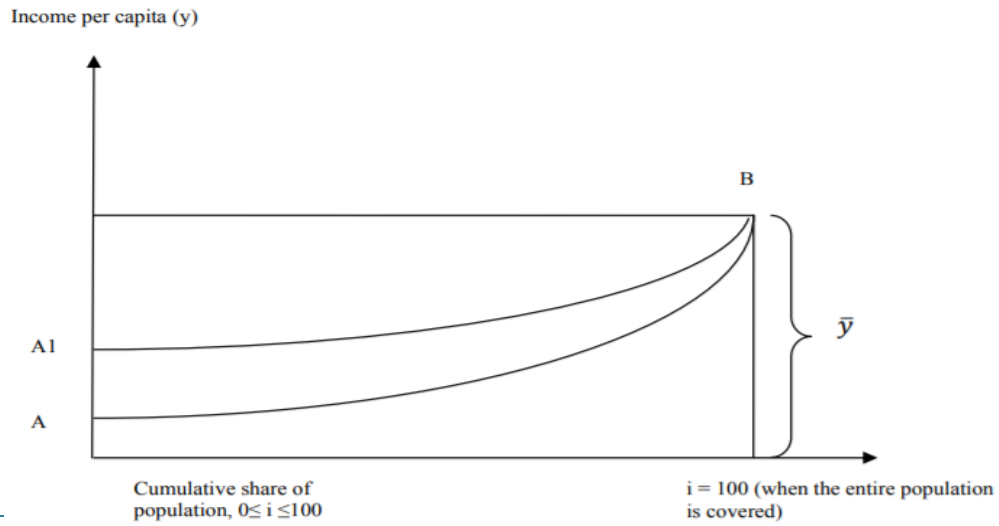
3.1. Ali & Son Approach

According to Ali & Son (2007), their methodology of inclusive growth measurement is in line with their previously mentioned definition which is the absolute definition of pro-poor growth. Inclusive growth could be measured by utilizing the approach of social opportunity function. They proposed a methodology of a new approach to measuring inclusive growth by increasing the social opportunity function, which inclusive growth rely on two processes: the average opportunities that are existing to the population and how these opportunities are being distributed or shared among all groups. In their opinion, this social opportunity function gives more weight to opportunities available to the poor.

They proposed that the poorer the person is, the higher the weight will be given. Ali & Son emphasized in the argument that if the opportunity of income is transferred from a poor person to more affluent persons, then social opportunity function must decrease; as a result, making growth less inclusive and vice versa. In other words, growth is inclusive if it increases the social opportunity function as well as when these opportunities are distributed equally among all populations. Additionally, it is a relevant issue in the inclusive growth assessment to know how the opportunities change over time. The degree of inclusiveness also depends on how much the curve could goes upward, and in which side of the income distribution of the population the shift takes place. By such techniques, one might monitor the inclusiveness of growth over time for any particular country.

The figure below depicts two social mobility curves AB and A1B; including distribution of income, since a higher curve implies greater social mobility, growth is inclusive if the social mobility curve moves upward at all points.

Fig.4: social mobility curves



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Source: IMF, 2013

As a result, the previous measure of Ali & Son, Anand et al. (2013), and many other scholars who have adopted the same way of measuring inclusiveness namely: Kakwani (1980), Dollar and Kraay (2002), Domonkos (2013), Anand et al. (2014), OECD, and Aoyagi &Ganelli (2015), have integrated both growth and equity into one measure of inclusive growth (Aoyagi & Ganelli, 2015).

3.2 Asian Development Bank (ADB)

A different approach to measuring inclusive growth has been adopted by the Asian Development Bank (ADB) and revisited in 2014 (ADB, 2011). ADB has launched in 2020 long-term strategic agenda and has considered inclusive economic growth as one of the strategic goals. ADB has presented a report in 2011 including a framework of inclusive growth indicators; however, the report had not mentioned the methodology that they adopted to measure inclusiveness of growth. ADB had proposed a group of 35 indicators of inclusive growth stemmed mainly from the United Nations' framework of the 60 indicators of the millennium development goals. The indicators are in Figure 5 below.

ADB considers the 35 indicators (See fig.5) a measure of inclusive growth that helps to gauge the economic and social health of the entire economy. Thus, these 35 indicators are an indication of the extent to which the economic growth is moving toward inclusiveness. However, the limitation of their study is that it does not show the weight that must be given or how these indicators must be utilized to measure inclusive growth.

Fig.5: ADB Inclusive Growth Measuring Indicators

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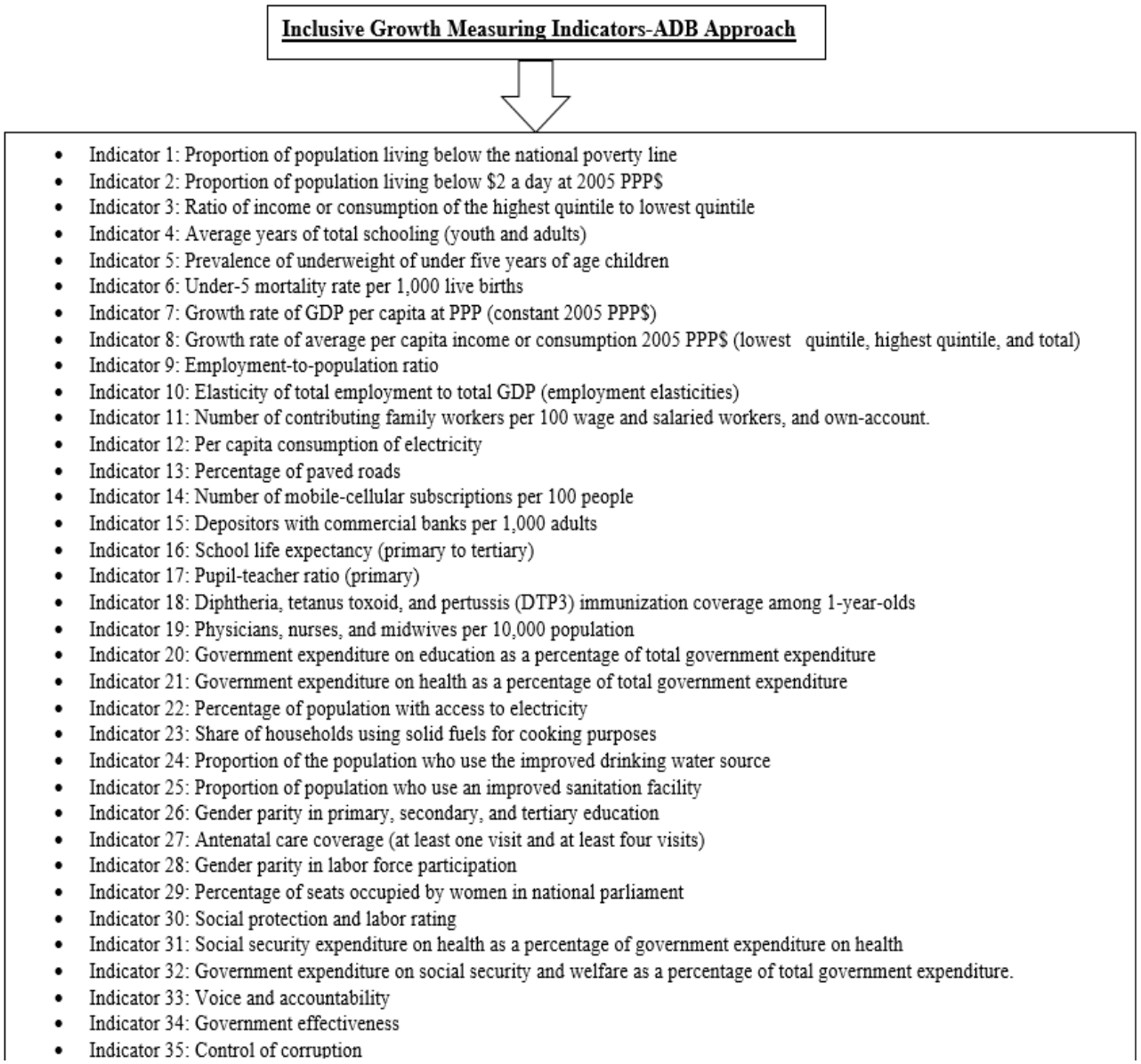

Source: Author's Illustrations

3.3 Jarrar&Hedrick-Wong Approach

MasterCard has adopted another way of measurement (Jarrar&Hedrick-Wong, 2015). They proposed 24 indicators and 10 sub-indicators that are effective in inclusive growth measurement. Accordingly, their assessment is structured into two components namely; the "Present Conditions" (PC) and the "Enabling Conditions" (EC). For more details on the indicators (see Figure 6).

Jarrar&Hedrick-Wong (2015) based their inclusive growth assessment on a benchmark set by the taking the average score of 10 developed economies, these economies represent the best practice in inclusive growth (Jarrar & Hedrick-Wong, 2015). Consequently, they compare the countries of MENA by measuring the distance to best practice. In other words, the distance to best practice provides a measure of how the countries under examination are performing against the ten developed economies or how far the growth of these countries is from inclusiveness. Additionally, Jarrar& Hedrick-Wong in their study of inclusive growth, provide a measure of how and whether the

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examined countries are closing the gap with the developed economies, by measuring the changes in the "distance to best practice" over time. According to their study, the scores of the indicators are measured in absolute values (from 0 to 100). To ensure that all indicators can be aggregated into a common score, the authors suggested ways to deal with three different cases which are:

Maximum Country Divisor: Indicator raw values are transferred into a range of 1-100, by using the value of the country with the highest value as the divisor. Indicators used under this criterion are real per capita gdp growth and real gdp growth.

As it is capped at 100: Indicator raw values that are already presented in their percentages are utilized as such, however, in cases where the values exceed 100 is capped at 100 since it is the maximum value. Some of the indicators or sub-indicators that lied under this approach are; ease of doing business, control of corruption, manufacturing export as a % of the total, starting a business, and so forth.

Inversion Capped at 100: Indicator raw values that are already available in percentages but "negative indicators," should be inverted before use. Indicators used under this criterion are; youth unemployment, informal economy, and oil rent as % of GDP.

Fig.6: Inclusive Growth Measuring Indicators Jarrar&Hedrick-Wong Approach Approach

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Inclusive Growth Measuring Indicators-Matercard Approach

The Present Conditions component captures the current state of inclusive growth; it is composed of two clusters which both include five indicators are as follows:
Cluster (i): Economic growth and opportunities; consists of 3 indicators which are:
Indicator (1): Real GDP Growth
Indicator (2): Real Per Capita GDP Growth
Indicator (3): Oil rent as % of GDP (negative indicator)
Cluster (ii): Equality of outcomes; consists of 2 indicators which are:
Indicator (4): Wealthy Household As % Of Marginalized Households
Indicator (5): Middle-class households as a % of total).
Similarly, the Enabling Conditions component represents the forward momentum of inclusive growth; it embraces 4 clusters including 19 indicators and ten sub-indicators which are the following:
Cluster (iii): Employment and Productivity; consists of 4 indicators which are:
Indicator (6): employment as % of the working population
Indicator (7): real growth in GDP per person employed
Indicator (8): manufactured exports as % of total exports
Indicator (9): tourism contribution as % of GDP has two sub-indicators which are:
Tourism Direct Contribution to GDP
Tourism Direct Contribution to Employment
Cluster (iv): Access to Economic Opportunities; consists of 8 indicators which are as follows:
Indicator (10): education index
Indicator (11): health index
Indicator (12): access to electricity
Indicator (13): improvement in the potable water source
Indicator (14): improvement in sanitation facilities
Indicator (15): mobile phone subscription rate
Indicator (16): financial inclusion
Indicator (17): gender equality has five sub-indicators which are:
Gender Parity in Secondary School
Gender Parity in Tertiary Education
Gender Parity in Labor Force Participation Rate
Women in Parliament
Gender Parity in Account at a Financial Institution
Cluster (v): Youth; consists of 3 indicators which are:
Indicator (18): informal economy as % of total (negative indicator)
Indicator (19): youth unemployment (negative indicator)
Indicator (20): SMEs has three sub-indicators which are:
Starting a Business
Getting Credit
Enforcing Contracts
Cluster (vi): Governance; consists of 4 indicators which are as follows:
Indicator (21): voice and accountability
Indicator (22): government effectiveness
Indicator (23): control of corruption Indicator
Indicator (24): ease of doing business

Source: Author's Illustrations

3.4 World Economic Forum Approach

The last approach of measuring inclusive growth has been adopted by the "World Economic Forum" (WEF) in their inclusive growth report in (2015-2017-2018).WEF measured inclusive growth in 2017 as well as tracked a 5-year percentage change of this growth of the most recent years available (WEF, 2017). This report proposed a multidimensional index which is the inclusive growth index (IDI); it is based on a dashboard of 12 key national performance indicators in three areas of growth and development, inclusion, and intergenerational equity and sustainability. These areas and their indicators are listed below as follows (Ghandour, 2020).

3.4.1 Growth and Development: Consists of 4 indicators which are as follows:

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- GDP
- Employment
- Labor Productivity
- Healthy Life Expectancy

GDP per capita and labor productivity reflect wages which in turn indicate the state of household income. Likewise, employment is regarded as a proxy for the breadth of economic opportunity as well as family security. The last indicator is a measure of the quality of life.

3.4.2 Inclusion: Consists of 4 indicators which are as follows:

- Wealth Gini
- Median Household Income
- Poverty Rate
- Income Gini

Median Household Income is regarded as a single best proxy for the breadth of living standards progress. The poverty rate indicator indicates the situation of the bottom line of the income scale and shows the extent to which progress occurs at that line. Income and wealth Gini, indicate the standard international measure of inequality and measure of wealth concentration respectively.

3.4.3 Intergenerational Equity and Sustainability: Consists of 4 indicators which are as follows:

- Adjusted Net Savings, excluding carbon damage (% of GNI)
- Public Debt (as a share of GDP)
- Age Dependency Ratio
- Carbon Intensity of GDP

Adjusted net saving is the measure of the real rate of savings in an economy. Public indebtedness as a share of GDP measures the borrowing by current generations on the expense of future ones. The third indicator (dependency ratio) is considered as an indicator of future pressure on a country's finances. The last indicator shows the carbon intensity of economic output that reflects an indication of the country's relative performance with respect to climate change (see Fig. 7).

Fig.7: The three Areas of inclusive growth measurement and their twelve indicators

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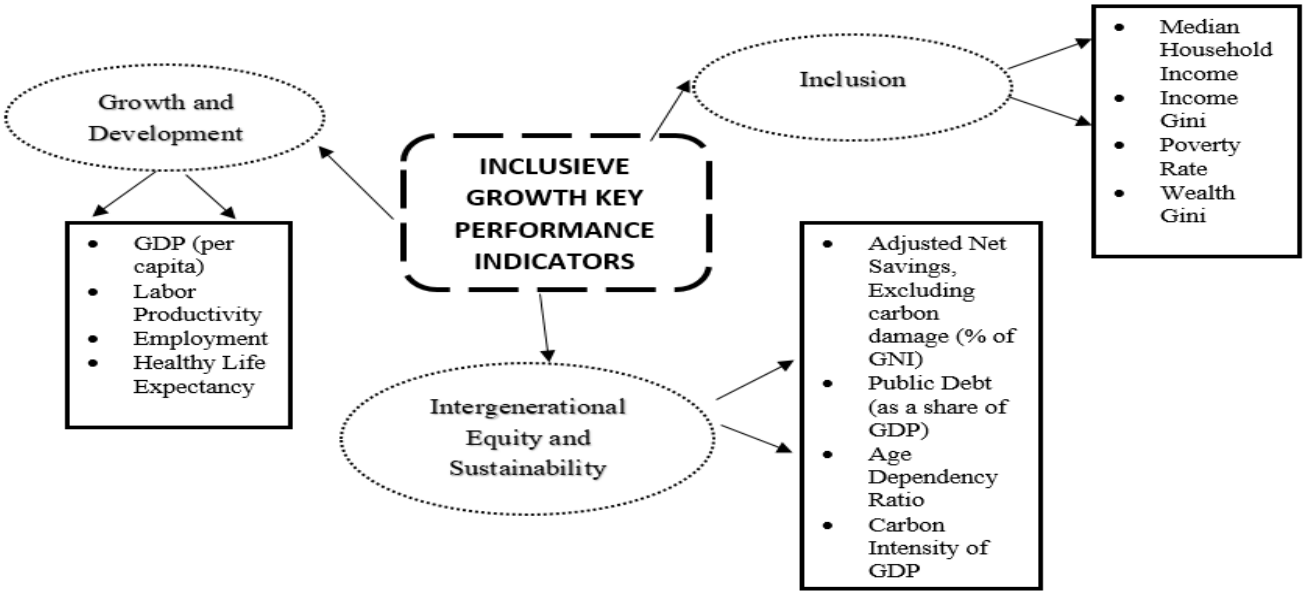

Source: Authors Illustrations

WEF in their inclusive growth reports in 2015, 2017, and 2018 assigned an equal weight for the pillars or areas (growth, inclusion, and intergenerational equity), as well as for their 12 indicators. IDI index is calculated by taking the average of the three pillars above. Similarly, each area is calculated by taking the average of the indicators which lie therein. This report used quantitative data, for these data to make the aggregation of the scores of the different indicators possible, these indicators are converted on a scale from 1-7, where one is the worst and seven is the best. To ease the operation of transformation, the WEF proposed linear minimum-maximum transformation formulas, For a category i composed of k indicators, there is:

$$\boldsymbol{category_i = \frac{\sum_{k=1}^{k} indicator_k}{k}}$$

The equation is:

(6* (country score-sample minimum)/ (sample maximum- sample minimum))+ 1

For those indicators that a higher score shows a worse outcome, the transformation formula takes the following:

(-6* (country score-sample minimum)/ (sample maximum- sample minimum))+7

Therefore it still ensures the scale of 1 to 7 that correspond to the worst and the best possible outcomes respectively (Ghandour, 2020).

4. COMPARATIVE ANALYSIS OF THE MEASUREMENT FRAMEWORK

When assessing the relevance and reliability of the four previously mentioned approaches of measuring inclusive growth, one finds out that they are distinct in some ways and consistent in other ways. According to **Ali & son**, their measuring approach is based on the social welfare function idea; it mainly evaluates the distribution of opportunities in society and how these opportunities are distributed among the population instead of focusing on economic growth. One cannot consider this measure as an accurate measure of inclusive growth; it is merely revealed one part from the many dynamic analysis of inclusive growth. In other words, we cannot perhaps assert that growth is inclusive once the graph depicts equitable access to specific social opportunities. Thereby, their study ignores other significant factors or indicators in measuring inclusive growth, for example; government effectiveness, labor productivity, public debt, dependency ratio, the role of institutions, and many others that their presence plays a critical task or somehow contributes to inclusive growth analysis criteria. Additionally, their approach shows the difficulty in gathering the data needed for measuring inclusive growth. As a result, the main shortcoming of their

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approach is that it focuses solely on the distribution of opportunities and it does not explicitly capture the progress of economic growth.

Concerning **Asian Development Bank**, the ADB approach was limited, since it does not show the way and the procedure that inclusive growth should be measured as well as does not reveal the weight that must be given to each indicator. Notwithstanding, it proposed 35 significant indicators of inclusive growth. These indicators seem feasible to measure growth inclusiveness since they cover all aspects of inclusive and sustained economic growth from social, economic, environmental, political, and private sector perspectives. As a result, their approach was more reasonable and accurate than the former.

It was evident that the third approach which has been adopted by **MasterCard (Hedrick-Wong &Jarrah)** is much better than the previous two, due to the overarching dimension in the inclusive growth area behind the 29 indicators and sub-indicators being utilized in measuring inclusive growth. Furthermore, what gives the MasterCard approach greater attention than the other two aforementioned approaches is the weight given to the clusters and the indicators therein that ADB and Ali & Son are missing out on. However, the only limitation accompanied by this approach is the absence of clarification of how the weights are distributed among clusters and indicators.

In the same context, the most recent and more relevant approach in measuring inclusive growth was the fourth by **World economic forum**. WEF proposes 12 indicators embraced under three essential areas of inclusive growth that cover all aspects of inclusive growth. WEF 2015, 2017, and 2018 reports enrich the previous approaches by suggesting new efficient indicators, and monitoring if IDI scores improve over the past years. In addition to linear min-max transformation formulas that differentiate negative indicators from the positive ones. These reports also compare GDP with IDI ranks for countries. Therefore, they aim to reveal the importance of using other measuring indicators by showing the drawbacks of using GDP as a unique measure of economic growth. As a result, the last approach was the more efficient and practical approach in comparison with the previous three mentioned earlier. This approach could be used to be replicated in different countries with different periods.

The last three approaches are congruent to some extent, they include many similar indicators, such as; GDP per capita, access to social opportunities, income inequality, and employment. The first approach of Ali &son also matches the other three by the access to social opportunities as an indicator to measure inclusive growth (see table 1).

5. PREVIOUS STUDIES OF MEASURING INCLUSIVE GROWTH

The various approaches to measuring inclusive growth are listed above. Now, it is worth mentioning the empirical results of inclusive growth measurement applied to some developed and developing countries by different authors who have adopted the approaches above.

Ali & Son (2007) applied a measure of growth inclusiveness to the Philippines; the survey was applied between two periods 1998 and 2004. The study revealed detailed information on access to health and education of family members. The upward slope shows inequity among population groups in the Philippines. The results also showed that the average opportunities have expanded from 1998 to 2004, yet such change is quite small over six years in access to education in both levels (primary and secondary).

The same procedure was adopted for access to health services as well as equity in the Philippines. The proportion of sick people who sought treatment declined throughout 1998-2004, as observed by the downward shift of the opportunity curve. Additionally, the change at the bottom end of the income distribution is far higher than that of the top. All in all, the result shows that growth in the Philippines was not inclusive over the period under examination.

The same measuring approach as before has been adopted by (Annand et al., 2013). This study covered 143 countries during 1980-2010. The results show that few of the countries under examination achieved inclusive growth such as China. The result indicated an upwards shift in the indifference curves for selected emerging countries (i.e., Brazil, Malaysia, Mexico, Thailand, India, and China). Rapid growth in China has benefited everyone, but the gain has been much greater for the rich, given the steepness of the indifference curve. Likewise, India has witnessed the same story as China, where high growth has benefited everyone, but equity has gone down. On contrary, the remaining emerging economies mentioned above, have witnessed an increase in inclusiveness, where this inclusive growth has come from both growth and improvement in equity.

Another study to measure inclusive growth in some individual Asian countries was performed by (Aoyagi & Ganelli, 2015), who have also adopted the same measure of Ali & son. They track inclusive growth from 1994 to

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2009. The results of the selected Asian countries showed that growth over the given period was inclusive in most cases, according to the definition of inclusive growth which is consistent with the absolute definition of the pro-poor growth. Economic growth is regarded as inclusive since the indifference curves shifted upwards at all points.

On contrary, the results show two cases of Thailand and the Philippines, where economic growth has been shared more equitably amongst the population since the figures reveal a less marked increase in steepness in their indifference curve as we move upwards to the top end. Additionally, the results indicate that incomes at the very top increased much more than at other levels except for Fiji and, to a lesser extent, the Philippines.

Khan and others have adopted the ADB approach in measuring inclusive growth; they used the ADB methodology to measure inclusive growth in Pakistan during the period from (1990-2012) (Khan, Khan, Safdar, Munir, & Andleeb, 2016). Although ADB in their methodology does not mention the weight that must be given to each indicator, Khan, et al. assign different weights to the four pillars of inclusive growth, their components indicators, and their sub-components indicators, based on the importance of each indicator. They calculated what so-called Inclusive Growth Index; the overall goal of inclusive growth index is set as 100. Therefore, the closer to 100 the result is, the higher is the degree of inclusiveness of economic growth.

Concerning the MasterCard measuring approach (2015) mentioned earlier, the study assesses inclusive growth in 34 countries in the MEA region (Middle Eastern states), 12 countries of the MENA, and 22 countries in Sub - Saharan Africa in 2010 and 2014.

In the World Economic Forum approach, the WEF inclusive growth report 2017-2018 has investigated 103 countries that are separated into two economies; the advanced and the developing economies, due to differences in defining poverty between them.

Another study in 2020 that applied the WEF approach by the Author has been applied to the ESCWA region that encompasses 18 Arab countries for the period from 2000 to 2016. The results revealed that the GCC countries have the leading position in achieving inclusive growth over the other Arab countries in the region where UAE ranked first followed by Qatar and Kuwait for most of the years.

Table 1 below shows the differences between the various techniques mentioned above to measure inclusive growth in addition to their merits and drawbacks and their specifications to ease and clarify the main objective of this paper.

Table 1: Comparing and Contrasting Inclusive Growth Measurement

Measuring Method	**Technique used**	**Indicators**	**Weight**	**Available Studies**	**Drawbacks/Advantages/ Ease of Measurement**
ALI&SON	In 2007 they propose that measuring inclusive growth would be in terms of increasing the social opportunity function, which inclusive growth depends on two factors: the average opportunities available to the population and how these opportunities are being distributed or shared among the population.	No Indicators available. They relate their methodology to the shift of the social mobility curve.	None	Ali & Son (2007) Annand et al., (2013) Aoyagi & Ganelli, (2015) Kakwani (1980), Dollar and Kraay (2002), Domonkos (2013), OECD (2015)	This study ignores other significant factors or indicators in measuring inclusive growth. This approach shows a difficulty in gathering the data needed for measuring inclusive growth. The main shortcoming of this approach is that it focuses solely on the distribution of opportunities and it does not explicitly capture the progress of economic growth. Technically difficult to apply
Asian Development	ADB has presented a report in 2011 including a	A set of 35 indicators to	None	Khan, khan, safdar,	The limitation of their study is that it does not show the weight

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Bank	framework of inclusive growth measurement indicators.	measure inclusive growth stemmed mainly from the United Nations' framework of the 60 indicators of the millennium development goals.		Munir,& Andleeb (2016) ADB(2014)	that must be given or how these indicators must be utilized to measure inclusive growth. Straightforward
Jarrar&Hedrick -Wong	Jarrar&Hedrick-Wong (2015) based their inclusive growth assessment on a benchmark set by the average score of 10 developed economies that represent the best practice in inclusive growth. They used an index called Inclusive Growth Index (IGI)	They have adopted another way of measurement. They proposed 24 indicators and 10 sub-indicators which are effective in inclusive growth measurement.	The authors assign different weights to the scores, 25% to the present conditions component (PC) and 75% to the enabling conditions component (EC);	MasterCard measuring approach (2015) covers 12 countries of the MENA and 22 countries in the Sub - Saharan Africa in 2010 and 2014.	This study shows a clear indication of how inclusive growth is measured as well as reflects why such indicators are significant in their measurement process. This approach also show the weight that must be given to each indicator Straightforward
World Economic Forum	This report proposed a multidimensional index which is inclusive development index (IDI)	Based on a dashboard of 12 indicators in three areas	Same weights are given to all of the 12 indicators	WEF Reports (2015,2016, 2018) Ghandour, Malak (2020)	This approach is the most efficient compared to others. This approach could be used to be replicated to different countries with different time periods. Straightforward

Source: Author's Illustrations

6. CONCLUSION

Economic growth is regarded as a crucial factor of any country's capabilities to foster its citizens' life, but policymakers must understand that this type of growth by itself is unable to improve peoples' standards of living, combat poverty, or ensure wellbeing for all population strata. Much attention should be oriented toward the diameter of distribution of the economic benefits and the capacity and quality of that growth, as well as whether it is sustainable or not. Thereby, inclusive economic growth is the pathway toward sustainable development.

Inclusive growth encompasses even growth, shared growth, and pro-poor growth. Inclusive economic growth lessens the rising rate of poverty in a certain country and allows the development process to be shared equally among all the people of the country (Ghandour, 2020). Sustained and rapid poverty reduction is one of inclusive growth agenda that permits people to benefit and contribute to the social, economic, and structural growth of the country. This kind of growth ensures that every single person in an economy is a recipient and partner in the economic growth process. Inclusive growth plays a key role in creating economic opportunities and ensuring equal access to them.

Inclusive economic growth requires multipronged endeavors and continuous effort. The paths through inclusive economic growth start basically from the awareness of the importance of the concept. Add to this, the realization that economic development must be distributed evenly to all sectors of the society, and this, in turn, builds momentum for bottom-up prosperity that is fair for all.

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Despite the great attention and the remaining calls on the importance of applying inclusive growth to the global economy, the concept is still ambiguous with no unified or universal agreement definition and measuring strategy among academics and researchers. Economic growth measurement and definition are widely known and common among many practitioners but the descriptions of what would alter it inclusive and how to measure inclusive growth remain controversial and disputable.

Various measuring techniques to measure inclusive growth are available, where some of them lack clear and credible methodology and others could not be applied to some countries especially the Arab countries due to lack of data. World Economic Forum (WEF) methodology approach is the most recent and appropriate that could be applied to different developed and developing countries.

Four of the available approaches of how to measure inclusive growth have been mentioned throughout this paper in addition to different concepts of it. Additionally, this paper has illustrated several empirical studies for measuring inclusive growth applied to some developed and developing countries. There appears no unanimous regarding a unified measure of growth inclusiveness due to the existence of various concepts. However, many scholars and studies have followed Ali&Son methodology despite its difficulty to apply and pursue to several countries. The central gap in the inclusive growth literature is the lack of methodologies to measure inclusiveness of the growth, therefore more attention from economists and practitioners is highly recommended in that direction. The concept of inclusive growth is increasingly advised to being embraced all over the world to achieve sustainable development.

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