HARVESTING THE BENEFITS OF INDUSTRIALIZATION FOR INCLUSIVE GROWTH: AN EVIDENCE BASED POLICY FRAMEWORK

by

KHIZAR HAYAT
MPHIL (PUBLIC POLICY)
Reg # [PIDE2018-FMPHILPP24]

Supervisor

Dr. Usman Qadir
Senior Research Economist

PIDE SCHOOL OF SOCIAL SCIENCES
PAKISTAN INSTITUTE OF DEVELOPMENT
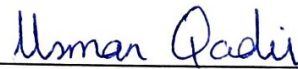**ECONOMICS, PIDE ISLAMABAD.**
Year 2021

Pakistan Institute of Development Economics, Islamabad
PIDE School of Social Sciences

<u>CERTIFICATE</u>

This is to certify that this thesis entitled: **"Harvesting the Benefits of Industrialization for Inclusive Growth: An Evidence Based Policy Framework"** submitted by **Mr. Khizar Hayat** is accepted in its present form by the School of Social Sciences, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree in Master of Philosophy in Public Policy.

Supervisor:

Dr. Usman Qadir
Senor Research Economist,
Pakistan Institute of Development Economics,
(PIDE) Islamabad.

External Examiner:

Dr. Abdul Saboor
Dean, Faculty of Social Sciences
Chairman, Department of Economics
PMAS Arid Agriculture University, Rawalpindi.

Head,
PIDE School of Social Sciences:

Dr. Hafsa Hina
Assistant Professor/HOD,
Pakistan Institute of Development Economics,
Islamabad.

Dedication

I dedicate this thesis to my beloved mothers, Monay and Bibi Jan who always teach me to respect the humanity and justice. I am also indebt to my spouse, Arwa Khizar for her continuous support.

Author's Declaration

I, **Mr. Khizar Hayat** hereby state that my MPhil Thesis titled **Harvesting the Benefits of Industrialization for Inclusive Growth: An Evidence Based Policy Framework** is my own work and has not been submitted previously by me for taking any degree from Pakistan Institute of Development Economics or anywhere else in the country/world.

Any time if my statement is found to be incorrect even after my Graduation, the university has the right to withdraw my MPhil Degree.

Date: _06- 02- 2022_

Signature of the Student

Name of the Student   KHIZAR HAYAT

ACKNOWLEDGMENTS

It's a moment of immense pleasure for me that I am going to accomplish this task. First of all, I am wholeheartedly thankful to Sir Usman Qadir. It wouldn't be possible without his support to accomplish this task in the best manner as he helped me a lot in adopting the best course of action.

Secondly, I acknowledge the support of Sidra Bibi for her guidance in devising the methodology and model for my thesis.

ABSTRACT

Industrial sector plays very positive role in generating high revenue from production, creating employment opportunities, increasing savings rates which helps in future investment and above all money flow in markets. Cumulatively, all these lead to economic growth. However, it is also accompanied by uneven distribution of income and exclusion from participating in the growth process, thus leaving some segments of society in dismay. This gives birth to the idea of inclusive growth which may include all segments of society especially in participation of growth process. The main objectives of this research is to assess the contribution of Pakistani industry in overall production and growth and its role in employment generation, poverty reduction, increasing savings, debt financing and above all abridging income gap. Based on a time series data for 29 years, this research calculates the variables for gauging the contribution of industry in Pakistani economy so that to check its inclusivity and sustainability. The findings show positive relationship between growth rates and poverty. Similarly employment is also correlated with growth process. The more an industry flourishes the more employment is generated. However, growth and income inequality has no significant correlation which means that the growth may positively or negatively contribute in the income inequality of masses. For the same reason, it is direly needed to ensure the equitable distribution of benefits – achieving inclusive growth. To address this problem, a comprehensive policy framework is required to revitalize the industrial sectors which ensures that no-one is left behind in the growth process and everyone is equally sharing the benefits either men or woman, rural or urban and small or large firms. It will maximize the output of industrial sectors and will help in achieving inclusive growth.

Keywords: Inclusive Growth, Sustainable Industrialization, Equity, Employment, GINI Coefficient, Poverty alleviation, income disparity etc

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION………………………………………………..……………...…….1

CHAPTER 2

THEORITICAL FOUNDATION AND CONCEPTUAL FRAMEWORK…………...8

CHAPTER 3

LITERATURE REVIEW………………………..……………………...…….…..18

CHAPTER 5

CHAPTER 6

LIST OF FIGURES

LIST OF TABLES

APPENDIXES

In the name of

ALLAH

The most beneficial, most merciful

And We have certainly honoured the children of Adam and carried them on the land and sea and provided for them of the good things and preferred them over much of what We have created, with [definite] preference.

(17:70)

CHAPTER 1
INTRODUCTION

In today's modern world, economic growth is considered very essential for the development of a nation and therefore almost every country tries its level best to achieve sustainable growth. In order to achieve it, different strategies are adopted through which different sectors – agriculture, manufacturing and services sectors are improved to generate revenues and employment for uplifting social life of the masses. All these sectors have their own importance, however, history witnesses that manufacturing sector or advanced industry always plays very important role in the prosperity and development/ collective well-being of masses around the globe. Through this dynamic driver, many countries achieved remarkable economic growth and prosperity. Without a developed and sustainable industrial infrastructure, economic growth remains a mere dream. Therefore, manufacturing is considered as the engine of Economic Growth because it generates revenue and create employment that results in uplifting of society. At the world level, industrial sector accounts for almost 16 to 20 percent of employed labour (Lavopa & Szirmai, 2012).

Furthermore, a number of studies found that industrial sector has spill over effects far greater that the other two sectors – Agriculture and Services. Due to this phenomenon, it is widely agreed that sustainable industrial development is very crucial for rapid and catch-up growth. (Fagerberg & Verspagen, 2002), (Kathuria & Raj, 2009) & (Szirmai, 2009). Every job created in an industry has a multiplier effect, varies in between five to twenty indirect jobs. It is explained by Induced Keynesian style multiplier effect in demand and supply which contributes to employment in manufacturing industries (Tyler, 1976). It results in high GDP rate followed by high level of income, generation

of employment, increase in saving rate, skill development and specialization of production labour which leads to structural (Kaldor, 1967). Due to this expansion of its industrial sector, China was recorded an unprecedented reduction in poverty, recorded 45 percent in 2008 vis-à-vis to 22 percent in 1987 (Conference, 1975).

The rapid economic growth of Asian Markets, lifted out millions out of poverty as the overall growth rate remained globally highest in 2018, recorded 5.4%. Last year it was 5.7% (Kühn, 2019). Besides this positive growth process, it is also accompanied by unequal distribution of benefits which led to grapple this region with significant level of income inequality. Half of the working population is poor because millions of them are employed by unstructured economy, burdened with low wages, inadequate working environment and no social security, cumulatively resulted in decent work deficits (Elder, 2018).

The industrial advancement is also accompanied by many challenges such as increasing social inequalities and environmental degradation. Asian countries are the most effected as the average growth rate of more than five percent in the last three decades, resulted in income inequality, rapid urbanization, and exploitation of natural resources thus leaving the majority in poverty. All these are the results of uneven distribution of wealth. In order to abridge the income gap and overcome the disparities among different segments of society, major economies of Asia are opting diverse strategies to achieve high but inclusive economic growth - benefiting everyone in the society (Stieglitz, 2011). It calls for a stringent policy framework of sustainable industrialization where no-one is left behind in sharing the benefits of industrial growth (Maclean, 2012).

Inclusive growth may be defined as 'the growth process where no one is left behind in the participation and sharing the benefits'. We can also say 'it includes everyone except

the free riders'. Inclusive growth is equal opportunity to benefits of economic growth which are shared fairly and equitability by all segments of society (Ranieri, 2013) & (Anand, Mishra, & Peiris, 2015). All it concerns is the changing of economic aggregates, such as GDP and GNP as well as total productivity, the factors of productivity, employment, alleviating poverty and reducing income inequality along with structural transformation for economic diversification (Growth, 2009). In nutshell, it is the conglomeration of macro and micro determinants of economic growth. Some industries oppose this notion and declared it have strategies to gain inclusive development but regularly they don't practice it.

However, the main concern with rapid growth rate is the uneven distribution of benefits and welfare across the globe resulted in inequality and created insecurity as push back consequences. It furthers social instability which hindrances industrial growth and erodes the private sector's 'license to operate' in a society. Therefore, it is held that the current economic model is unsustainable and requires change for attaining sustainability. The essential function of the government is to broaden and keep surroundings that allows enterprise investment and private entrepreneurship by way of casting off impediments and distortions created by means of marketplace disasters, institutional weaknesses, and policy shortcomings. This calls for the authorities to spend money on infrastructure and human capital, build institutional capacities, hold macroeconomic balance, undertake marketplace-friendly guidelines, protect belongings rights, and hold the rule of law.

But the question arises, what needs to be changed for achieving inclusive and sustainable growth of all?

The answer to this question leads to the concept of Inclusive Growth. In order to achieve, equitable growth for all segments of society, modern economies rely on inclusive,

sustainable, and transparent policies to achieve sustainable industrialization. It calls for a paradigm shift of our economic system toward Broad-based Prosperity for All Model through sustainable policies and practices (World Economic Forum, 2019).

1.1. Background of the Study

Economic growth is measured through some basic indicators such as high productivity, sustainable GDP growth, rising income level, creation of employment and uplifting the social infrastructure. On the other side, it is widely acceptable notion that manufacturing sector plays very important role in achieving these indicators. We may say that growth and manufacturing or industrial sector are mutually interlinked, therefore it is direly needed that the benefits of growth resulted from industries may be equally shared and no one may be left behind, neither in growth participation nor in the benefits.

However, it is not happening as it because growth is mostly accompanied by income inequality. Due to uneven distribution of wealth, a large segment of our population is living below the poverty line, results in 31.5 percent loss in human development (HDI, 2017).

Keeping in view the above discussion, we may say that industrial sector has major share in the economic growth, therefore, making it more sustainable we may achieve inclusive growth – leaving no one behind. Ravallion and Chen, (2003) opined that inclusive economic growth can only be possible if living standard of poor people is improved and their per capita income increased.

In this regard, evidence-based policy intervention are required to prioritize different industrial sectors, revolving around modern and innovative drivers of productivity, job creation and private businesses, thus calling for structural modification of industrial

sector with the primary objective is to achieve macroeconomic stability and improve human capital as a result of inclusive growth possibilities over a period of time.

1.2. Problem Statement

Since its inception, Economy of Pakistan has experienced episodic growth trajectory but doesn't maintain a sustainable growth for long period as other Asian nations did i.e., China and India. (See Appendix 1). This uneven episodic growth is leading to paramount challenges of economic stagnation, deteriorating income inequalities, unemployment, and socio economic instability. The income disparity resulted in social exclusion of large segment of society from growth process due to non-participation in the production process and having less saving to invest.

The problem of unsustainable growth is not a single dimensional issue. All the three sectors of economy have has its share in it. As the main focus of this paper is to evaluate the role of industrial sector which in itself did not show any prolong advancement. The main reason behind all the slow economic growth is assumed to be low productivity resulted from unsustainable industries and non-inclusive institutions. Pursuing sustainable industrialization has long lasting benefits in the economic growth as highlighted by Kaldor's law – developing a conceptual framework to link manufacturing industries with economic growth.

At the time of independence, Pakistan has an insufficient industrial infrastructure and congenital poor economy. In mid-60's, Pakistan was becoming a fast-growing economy as it experienced a notable move from agriculture to industrial service sector due to significant policy support from government to industries but it didn't show a notable development. Though this sector has been contributing to growth rate which is uneven and resulted in inequality. So, there is need to find out the most participative sustainable

industry where the growth is evenly divided by all the contributors and as a result inequality could be diminished. Now to address the problem of uneven and non-inclusive growth there is a dire need to envisage a policy framework for achieving sustainable and inclusive growth through industrial sectors.

1.3. Objectives of the Study

After a brief discussion of the problem, this paper envisages the following research objectives:-

(1)   To study the existing contribution of industry in overall production and economic growth

(2)   To measure the role of industry in employment generation, poverty mitigation, savings and abridging income gap

(3)   Based on the measurements of above mentioned factors, this study ascertains and identifies evidence- based policy initiatives for establishing sustainable industries and to harvest its benefits for achieving inclusive growth

1.4. Research Questions

To achieve the above-mentioned objectives, this paper will seek answers to the following questions: -

(1)   What is the existing contribution of industry in GDP per capita and economic growth?

(2)   How much is the existing industry contributing in poverty alleviation and abridging income inequality by sharing in production, employment, saving and debt payback?

(3)   Based on the empirical analysis, what type of policies initiatives are required for making the industries productive and achieving inclusive growth?

1.5. Significance of the Study

This study significantly focuses on the relationships of sustainable industries and economic growth and highlights its role in mitigation of paramount challenges of income inequality, unemployment and economic stagnation, confronted by the Pakistani economy. It brings forth arguments about the productivity advantage of industries and its potentials for social and financial inclusion of masses.

The research objectives entails the core idea that industrialization plays an important role in inclusive growth, whereas the research questions measure participation of industries in growth and development in the last three decades. Besides this, it also analyses evidence-based policy initiatives for sustainable industrialization for achieving inclusive growth.

CHAPTER 2
THEORITICAL FOUNDATION AND CONCEPTUAL FRAMEWORK

In this phase, the study defines its theoretical and conceptual foundations and brings forth the important theories incorporated in this research. Similarly, the literature review explains work of researchers and renowned professional on subject matter. Based on these details, a vivid mechanism is adopted for methodology which will be calculated on the basis of secondary data. At the end of the study, all references have been added.

2.1. Theory and Concepts

The core idea of inclusive growth is equality and equity in opportunities to participate in the growth and development Process (De Mello, 2012). It is linked with equal employment opportunities and equitable income distribution. This idea demands for inclusivity of all, reducing poverty, macroeconomic stability and socio-financial inclusion. In short, we can say that it integrates growth, income equality, accessibility, and governance. The basic concept of inclusive growth is the widespread expansion of opportunities as well benefits to all.

As already discussed, inclusive growth strongly emphasizes on the creation of employment, alleviation of poverty and reducing inequality through development and growth. There is a wide consensus that sustainable industrialization plays a key role in achievement of economic growth. Today, most of the countries are interested in inclusive growth to benefit their poor population and therefore taking policy initiatives to introduce sustainable industries. For example, a decrease has been recorded in the extreme poverty however, still many people are living below poverty line (Osmani & Naseem, 2008).

Many researchers argue that economic institutions create environment for shared growth by strengthening Private Property Rights and Economic Freedom (NORTH & Science, 1989). The idea of inclusive institutions was also supported by Acemoglu and Robinson as they proposed it as development-friendly institutions regardless of the extractive institutions which are the stumbling blocks to development and growth. (Acemoglu & Robinson, 2012). Sung Hee Jwa defines inclusive institutions democratic because it ensures Private Property Rights and economic freedom (Jwa, 2002).

Economic freedom and Private Property Rights are the fundamentals requirements of sustainable industrializations. Therefore, empirical evidences support nexus of sustainable industrialization and inclusive growth. Many growth episodes are accelerated by development of manufacturing industries. (Rodrik, 2006). It is strongly argued that manufacturing industries remained a driver of economic growth for the last seven decades. (Szirmai, Verspagen, & Dynamics, 2015). The industrial sectors have contributed to higher level productivity than other sectors as well as it absorbs a large portion of labour force. It promotes savings through capital accumulation and providing investment opportunities (Timmer, de Vries, & De Vries, 2015).

However, the existing industrial setup are contributing to the economic development and non-inclusive growth ultimately resulting in leading towards economic discrimination. Therefore, it is strictly needed to find out sustainable industrialization contribution in economic growth, development and inclusive growth and to find out policy implications for attaining sustainable industries to maintain inclusive growth and adjust inequality. For adopting this analysis, we have needed some theoretical and conceptual foundation.

2.2. Theoretical Foundation

In order to attain inclusive growth through sustainable industrialization, researchers and policy makers have brought forth different models and theories. This study also basis on one of the renowned and widely accepted theory - *General Theory of Economic Development* (Jwa, 2017).

The General Theory of Economic Development is a conglomeration of Capitalist and Socialist approaches which ensures participation of all segments of society in growth process and sharing its benefits. It excludes the free riders. As industries are profit maximizing firms through higher productivity of labour, investing capital by saving its revenue and introduce new technologies through research and technology. Therefore, the better an industry is its production technology, the more it makes growth and development and contributes to the overall growth. With this explanation The General Theory of Economic Development support and explain the sustainable industries positively affect inclusive growth and helps to reduce inequality by generating employment. And help out to make some policies for attaining the sustainable industries. The key concept of this theory is "God helps those who help themselves". It excludes the concept of free riding therefore; sustainable industries include people from all segments to participate in the production progress so that to reap the benefits equally. In short, we can say this theory is the process of progressive transformation of most of the population by means of advanced productivity also rise in income. This new general theory of economic development changed into founded at the fact-based totally attitude of monetary behaviour. The principal premise is that financial establishments and regulations should embody 'financial discrimination' if there is to be any threat of real monetary improvement. Economic discrimination right here manner 'treating variations

in another way' through selecting and supporting monetary entities and behaviour that make contributions definitely to the economic system.

Based on participation, this theory incorporates economic discrimination as the key principle of economic development and growth. Those who participate in the growth process may have the benefits. It claims that markets in the real world are different from the perfect competitive markets as defined in theories because resources and wealth belong to the successful agents, therefore, leaving other unbenefited.

The accumulation of wealth in few hands ultimately creates inequality and motivates only those who work hard. Therefore, markets play a discriminatory role in economic development. However, this development is non-linear as it cannot handle free-riding problem successfully.

To exclude the free-riding problem from development, the participation of private firms is highly encouraged as it tries to reduce the transaction cost and overcome the economic differences by safeguarding the information cost. Overall, it must work with social setup and benefit its customer thus undertaking modern joint stock corporation. It has replaced the agrarian economy and have very positive role in achievement of shared or inclusive growth. We can say that the capitalist economy has changed into Corporate Economy where joint-stock company has a unique social link with capital economies.

To attain economic growth and development and distribute its benefits evenly is a hectic job for the public policy experts as well governments. It requires prioritizing policies initiatives to attain sustainable growth. As discussed, industries play a crucial role in attainment of economic growth however, to select the most suitable industry for this purpose requires rational approach.

With the same perspective, the study will be based on **'Rational Choice Theory'** which is also termed as rational action theory. It understands and then models socio-economic behaviour. This theory assumes that everyone has his/her choice and preferred the best among different alternatives. They have easy access to information and therefore make the rational choice. The basic rudiment of rational choice theory is that aggregate social behaviour is the outcome of individual choice making.

The main purpose of formatting this study on rational choice theory is the rational and cost-effective approach of industrialists as well as policy makers which leads to sustainable industries then it leads to inclusive growth and poverty alleviation, inequality adjustment. The cost-effective means of achieving a specific goal is termed as instrumental rationality. Our goal is also analysing the industry as an instrument for inclusive growth therefore, this theory meets our requirements for subject purpose. Furthermore, this theory does not describe the process but predicts the outcome which is the main objective of this study- evaluating inclusive growth with the lens of sustainable industrialization. According to Chicago School of Economics, this theory is very helpful in modelling clear and falsifiable hypothesis. The Rational Choice Theory is goal-oriented, evaluative, and consistent across time and different choice situation, therefore, applying it in this study is more appropriate. In short, we can say that it is a best approach for utility maximization – our objective here.

2.3. Conceptual Framework

Traditionally, economic growth is often related to increased productivity and alleviation of poverty. However, income generation concept of economic growth is the main cause of inequality and social exclusion. This phenomenon may be observed from measurement of GDP growth and GDP per capita income. Even the measurement of

GDP per capita does not provide true picture of the overall economy and social conditions of a country. Therefore, major economies are also suffering from high poverty level. e.g., India.

In case of Pakistan, same phenomenon is existing to a greater extent. Agriculture sector is the major sector which is employing many populations; however, the share of these people is meagre comparatively to the landlords. On the other hand, the industries in the country are still a toddler, dependent on the government subsidies and support. Furthermore, the government expenditure on social welfare from tax revenue is promoting free riding.

Figure 2:   Government Expenditure on Social Welfare from Tax Revenue

Nexus to above discussion, there is a wide consensus that industrialization plays a major role in a national economic growth and for the same reason a country may promote sustainable industrialization.

The conceptual framework of this study is rooted in Kaldor's law which presents strong relationship between manufacturing and economic development. And this study purpose is to find out the sustainable industries contribution to inclusive growth and development

and make some policy implications for attaining the sustainable industries in Pakistan. This law also supports our research questions and objectives in the way that industries and economic development has strong relationship. Furthermore, this study stems on General Theory of Economic Development which supports exclusion of free riders.

This study is considering the revenue generation side of economy for social inclusion in inclusive growth and development regardless of the expenditure side which is mostly debated in Pakistan. Earning more revenue through industrialization is the panacea to our economic illness.

The supporters of industrialization strongly argue that manufacturing sector or industry always play a key role in productivity over other sectors. (Szirmai, 2012) This sector not only have major share in productivity but also employ a greater portion of labor force and promotes saving which helps in capital accumulation furthering investment in an economy (Timmer et al., 2015; McMillan et al., 2014; Lewis, 1954; Szirmaia and Verspagen, 2015).

To show the relationship between industrialization and inclusive growth, the conceptual framework of this study is based on three basic pillars which are (1) Economic Growth (2) Inclusion and (3) Sustainability. To measure economic growth, the main indicators evaluated in this study are GDP per Capita, Employment and Macroeconomic Stability.

The manufacturing feature of neoclassical growth theory is used to measure the boom and equilibrium of a financial system. That function is $Y = AF(ok, L)$. on this equation, Y denotes a financial system's GDP, k represents its percentage of capital, L describes the quantity of unskilled labour in an economic system and A represents a determinant degree of generation but, because of the relationship among labour and era, an financial

14

system's production feature is frequently re-written as $Y = F(\text{okay}, AL)$ (Banerjee, 2005).

On this paper, we observe the connection among economic increase, improvement systems, as measured by using each real GDP and the output gap, sustainable industries, and employment. Each the employment depth of financial increase and the persistence of employment increase is anticipated. Even though the unemployment fee is considered via many to be a lagging indicator, there's a few confrontations as to whether or not employment itself is a coincident or lagging financial indicator. (Seyfried, 2011)

On the inclusion side, it evaluates statistics of two primary signs which might be income GINI to measure the earnings inequality and Poverty charge to gauge the prevailing degree of poverty within the country and how much poverty degree has been alleviated because of the result of industrialization. Dollar and Kraay supposed empirical relationship which they observed among earnings and poverty reduction. based on statistics from 92 international locations spanning four a long time, they discovered that common incomes of the poorest fifth of society rise proportionately with average incomes. they also deduced that several determinants of increase—which include excellent rule of regulation, openness to global alternate, and advanced economic markets—advantage the poorest fifth of society as a lot as anybody else. They further observed little proof of the effects of several elements usually thought to disproportionately advantage (i.e., be "biased" for) the poorest in society. All this caused the realization declared unequivocally in their identify, i.e., that increase is ideal for the bad. (Kraay, 2001)

Likewise, for Sustainability, the look at foundation on signs which might be Adjusted internet financial savings and Public Debt to GDP. the arena bank has expected Adjusted

net (or true) saving (ANS) as a macro level index of sustainable improvement. ANS extends the traditional internet saving via adding human capital accumulation and deducting natural assets losses. The study was conducted in 36 decided on developing and advanced nations and covers the length 1971–2000. The outcomes suggest a tremendous and enormous relationship among Adjusted internet saving and aggregate welfare but susceptible in value. (Gnègnè, 2009).

The Harrod Domar Model suggests that the rate of economic growth depends on two things: Level of Savings (higher savings enable higher investment) and Capital-Output Ratio. A lower capital-output ratio means investment is more efficient and the growth rate will be higher. (Sato, 1964).

Cumulatively, all these indicators will provide a vivid picture of financial inclusion and social inclusion.

Nexus to above discussion, it may be concluded that Sustainable industrialization is the main agenda of economic growth. In theories, the general theory of economic growth is mainly related to growth and equity whereas the rational choice theory is from the public policy side through which we would bring forth the policy intervention, best rationale to the existing scenario. Major economies of the world are now focusing on two economic factors: Income Growth and Income Distribution. Cumulatively, the equity in both income growth and income distribution give birth to the concept of inclusive growth. As industry plays a key role in the economic growth of a country, this study evaluates and analyze its role in inclusive growth with special focus on Pakistan.

INDSTRALIZATION

- GDP per Capita
- Employment
- Macroeconomic Stability

→ Economic Growth

- Poverty Rate
- Income GINI

→ Inclusion

- Adjusted Net Savings
- Public Debt as share of GDP

→ Sustainability
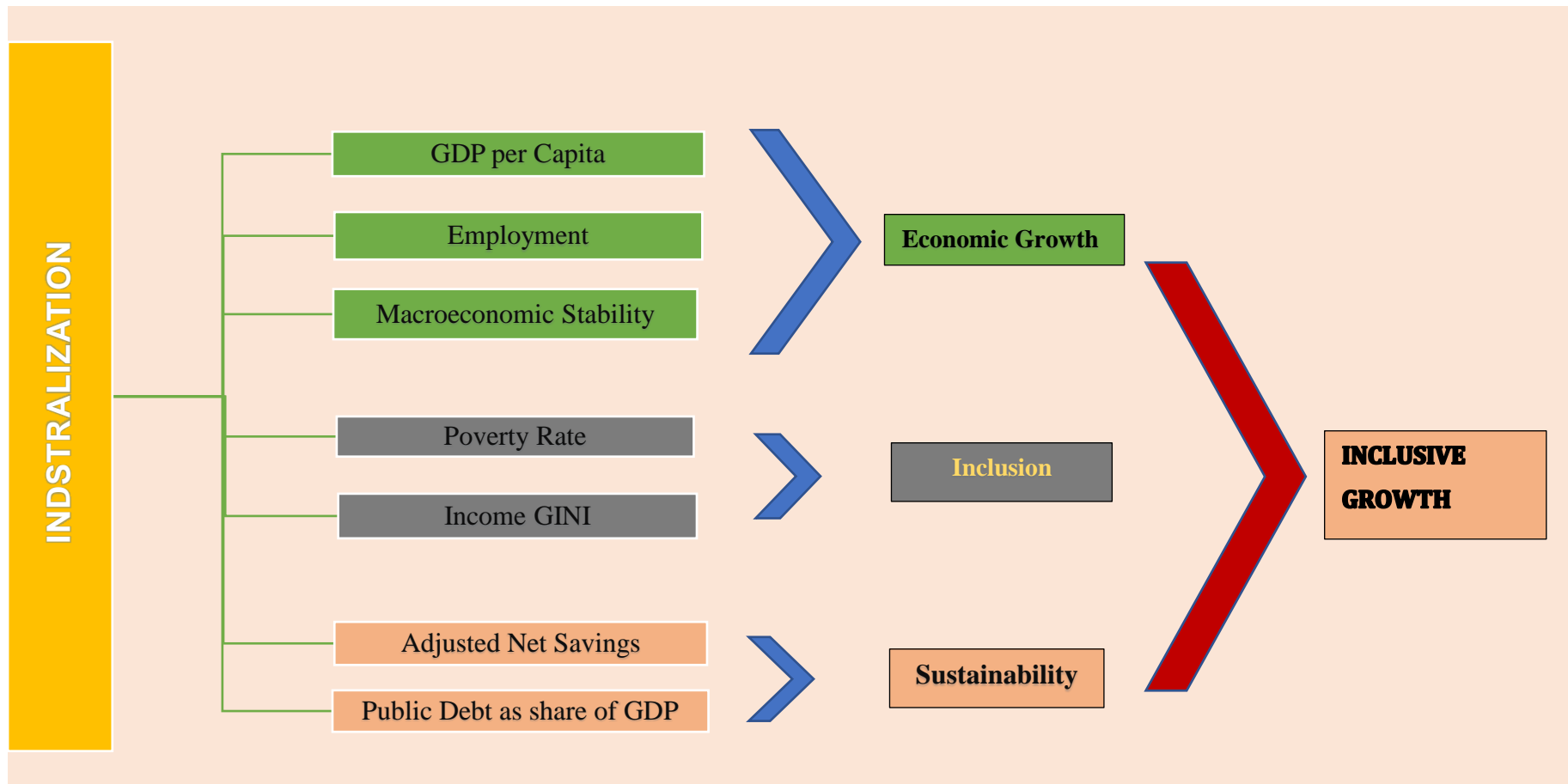
→ **INCLUSIVE GROWTH**

Source
Gemma Corrigan, Senior Project Associate, Inclusive Growth, World Economic Forum (https://www.weforum.org/agenda/2015/01/what-is-the-key-to-inclusive-growth/)

CHAPTER 3
LITERATURE REVIEW

Manufacturing sector is always a powerful actor in growth and development process as it brings monetary booms, create effective employment and brings out millions out of poverty. Through this dynamic driver, nations allocate their scarce resources for maximizing their production with utilization of sophisticated technologies. This chapter is going to discuss these phenomena supported by literature and would seek explanation to the literature gap.

As we all know, the advancements of Europe, USA, China, Japan South Korea and other nations are the outcome of industrial development, however, the present industrial setup are not accommodating the needs of growing population, thus leaving some segments of society deprived from benefits. History witnessed that only those economies can survive in such situation, which are easy to structural transformation – means able to generate new activities and upgrade high value- added production for increasing prosperity of masses. (Technical Support Team, 2013). There may be an extensive consensus that sustainable industry gives the herbal seedbed for entrepreneurship, business funding and technological upgrading. It is a key to technology development and innovation, given that manufacturing harbours most R&D investments, which show to have high-quality externalities in phrases of productivity boom and spillover effects fuelling the usual inclusive monetary boom.

Economic growth has always remained the major priority of governments across the globe. The traditional view attached to economic growth is based on income inequality. Economists argue that inequality is necessarily associated with economic growth. The famous economist Simon Kuznets was of the view that initially the economic growth process is accompanied by inequality, induced by the market forces, however, it flattens

out and ends in the long run. It has been econometrically verified that high growth periods and greater equality are highly associated (Berg, 1998).

Thomas Piketty declines this argument in his seminal work which is based on data of Europe and the US from 1870 to 2010. His empirical findings show that the rate of capital is higher than the rate of economic growth, which ultimately passes a greater share of national income to the owners, leaving other segments of society less benefited. They argue that the initial level of inequality leaves a very negative effect on long term economic growth due to the high inequality of income and wealth which narrows the base of investment in human and physical capital. Several studies found that the inequality is accentuated to the generation of socio-political instability which affects future investment (Alesina, 1994).

This inequality not only affects the national income of a country but also have detrimental effects at the transnational level. Furthermore, economic growth has also far lasting effects on the socio-economic and political stability of a country.

At the global stage, the arena community advanced a brand-new paradigm of sustainable development in its 2030 schedule to resolve the issue of inequality and alleviate poverty. It encourages expanding the extent of engagement for a universal, transformative and included time table that ensures and hurries up progress and interconnects today's economies and industries and recognizes the importance of inclusive and sustainable industrial improvement for poverty reduction (Brolan, 2013).

The differentiation of inequalities springing up from efforts as opposed to the ones arising from occasions ends in an essential distinction between "inequalities of effects" and "inequalities of opportunities" (World Bank 2006). Inequalities of possibilities are often because of differences in person occasions, whilst inequalities of results along with

incomes replicate a few aggregates of variations in efforts and in occasions. If policy interventions achieve making sure complete equality of get entry to possibilities, inequalities in outcomes would then only reflect variations in efforts, and therefore could be viewed as "right inequalities", which are inherent in any increase process (Chaudhuri and Ravallion 2007). But, if all people exert the equal level of effort while policy interventions cannot completely atone for the hazards of situations, then ensuing inequalities in results ine "horrific inequalities." Despite the fact that effort-related inequalities are "true", they are able to become worse if not nicely managed (Chaudhuri and Ravallion 2007).

Joseph Stiglitz argues that markets often fail in producing efficient outcomes which call for government intervention to ensure equal distribution of wealth because unequal societies don't function efficiently and therefore these economies are unstable and unsustainable. In nutshell, the inefficient market forces increase the inequality multi-folds, thus leaving the economic growth fruitless for the masses (Stiglitz, 2012).

Nexus to above details, it is widely agreed that industry plays a vital role in growth and development, however, there is a dire need to develop policies for sustainable industries to achieve inclusive growth.

The primary objective of this paper is to assess the role of socially inclusive industrial Sector and its contribution to the financial development of Pakistan. It additionally seeks solutions to the higher income inequality inside the country. At start, it describes social inclusiveness and its distinctive elements, then globalization, technology innovation and its joint impact on income inequality. It also searches for the conditions which are feasible for consistent technology-driven industrial development vis-à-vis to social inclusive development. In the end, it emphasizes the 'social contract' between

government and citizens which is crucial for inclusive industrialization and contributes to the uplifting of society.

3.1.   The Concept of Inclusive Growth

Inclusive growth is a widely attractive concept for the policymakers, academic researchers and developmental sectors; however, no specific definition is agreed by. As the reasons for inequality differ from country to country, therefore the definition also varies. For example, the transition of China from a planned economy to a market-based economy resulted in rapid socio-economic changes that ultimately caused uneven income distribution.

Ali (2007) highlights the problem of rising earnings and non-profits inequalities in Asia and the need for an inclusive boom that will mitigate the upward push in inequality. Earnings inequality stems in component from higher demand and therefore better wages for skilled employees, because of the rising significance of the latest technology and foreign direct funding. Similarly, non-profits inequalities have risen with the decline in the effective shipping of public offerings. Natu et al. (2008), advocates for combining financial inclusion with social security schemes if you want to sell not simply get admission to of the poor to monetary offerings but additionally their utilization. The idea is that the advertising of getting admission to financial services, inclusive of bank accounts, will no longer be effective in the absence of reliable profits streams for the bad. Such income streams are often - as within the case of India - provided through focused social security schemes. A mixed programme could inspire the terrible to keep surplus coins from social security schemes in no-frills financial institution accounts.

Amrita Sen makes inequality responsible for natural calamities such as famine etc. According to him, the unequal distribution of food resources result in the Bengal

famine because the labour and barbers didn't have enough resources to purchase food for themselves. The price rose rapidly due military hoarding and price gouging. Conclusively all this mean positive freedom to do something rather than a negative freedom. We may say that it is development viewed in terms of freedoms which individuals enjoy in doing work rather than simply focusing on metrics or GDP.

Stiglitz also defines the inequality as self-perpetuating as it is produced by the large amount of power and wealth of the political power who control the legislative and regulatory activities. They shaped the market in their own interest and making it unequal so that to create disequilibrium and seek rent seeking by creating monopolies. All these leads to unequal distribution of wealth where one is getting more at the cost of another.

Excessive and sustainable boom is the key to creating efficient and respectable employment possibilities. This have to be driven by using a dynamic private area thru marketplace competition and marketplace-primarily based incentives.

3.2. Sustainable Industrialization

The livelihoods of modern societies in early 19th centuries were constructed on the financial foundations created by means of industrial revolution. Facts show that countries which have done constant financial boom – driven by means of industrialization. These countries have also managed to reduce poverty maximum effectively. In today's world, the well-being and prosperity of masses are on the primary agenda of governments. The industry acts as a dynamic driver to attain these goals because, without advancement in the industrial sector, socio-economic development remains a mere dream. For this reason, nations always strive to harness the full potentials of industries to attain sustainable developments, mostly known as transformative

structural change. However, these changes are accompanied by increased social inequalities among countries as well as societies within a country.

In reality, there isn't a single nation that has reached a high stage of economic and social improvement without developing its industrial sector. Yet, this prosperity has not been calmly spread during the world. There remain large differences among and within areas, countries, and societies.

Primarily based on the belief that modern-day modes of industrialization are neither completely inclusive nor well sustainable, the Member States of UNIDO, at their preferred convention in Peru in December 2013, adopted the Lima statement wherein they agreed that inclusive and sustainable industrial development must become an critical a part of the arena's long-time period improvement schedule. In doing so, they have without a doubt recognized that inclusive and sustainable commercial improvement plays in removing poverty and fostering sustainable development.

Garetti and Taisch (2012) outline sustainable production as neatly "herbal resources for production, creating merchandise and answers that fulfil monetary, environmental and social targets whilst persevering with to enhance the first-class of human lifestyles." (Garetti & Taisch, 2012, p. eighty-five) In exercise, this might not be the case. as an example, some manufacturing organizations remember environmental compliance as sustainability; others look in the direction of network improvement or waste reduction. There appears to be variance in how sustainability is regarded, and a developing range of students are developing applicable answers and frameworks to healthy those perspectives.

The idea of inclusive industrialization is very important and therefore its major sectors and effects are required to be studied, therefore, case studies, reports and comparative analysis may prove helpful in addition to supportive arguments of policymakers.

3.2.1. Historical Background of Modern Industrialization

The roots of modern industrialization may be traced back to the Great Britain of the 1650s when accelerated economic growth was highlighted and industries were transformed, with no seriousness for sustainability at that time. With the passage of time, modern industrialization was adopted by all developed and developing countries and it merged in cultures of these nations.

At that time Industrialization was either capital intensive (Milkman) or labour intensive (Asia) depending on the cheaper availability of resources and modern technologies. During the twentieth century, Asia associated its capital with intensive labour industries due to lack of advanced technologies, (Sugihara, 2007). The smart enterprise idea has been adopted by means of the inclusion of technology, running techniques, and systems and those depend on the humanoid function. So, from the past two centuries, the gradual improvement in the quality of labour and more efficient use of global resources by following the measures of sustainability leads towards a New World of policies.

3.3. Inclusive Growth and Sustainable Industrialization

The concept of industrialization primarily means a production entity facilitated by technologies to bring social change. The relationship of development and industrialization now have global recognition where opportunities and constraints are interlinked (Kiely, 2005). Economists and researchers are continuously analysing the growth models of different economies and identified Asian Tigers as High performing economies. In 1996, Sweeting said that dependency theory in the wave of globalization

24

does require a detailed explanatory developmental framework that is inclusive to all homogeneities and traditional differences – inclusive industrialization.

Growing inequality has both national and international dimensions, Kunzet and Hoffman in 1957 and 1958 targeted the route of economic growth through industrialization. According to Kuznets, the inequality increase in the early phases of development or industrialization. However, it decreases with the passage of time market forces bring stability in income. To measure the gap of income, Kuznets used Kuznets ratio which is the measuring the highest income ratio (20%) to the lowest income 20%. In early phase of development there are greater investment opportunities for the investors, having money whereas the wages remain low due to migration from rural to urban areas. This wider the gap further as the poor has very less share in benefits. However, in the long run, market forces play its role and making the gap less by increasing income of the poor. It is termed as Kuznets U.

Trade policy regime in respect of inter-sectoral trade is in fact overall declining the standards of living. Global labour laws and wages concerns where living standards have become an expense and it fails to match the innovation where the excessive labour supply face abundance of work in globally competitive markets.

Noman (2015) discovers, the nation changed from being among the forerunners in growth and LIT policies to a slouch. A mix of the growth force of the prior time of accomplishment, some chance conditions with promising circumstances for what we allude to as easy growth, and expansionary fiscal policies implied that Pakistan was among the world's ten quickest developing economies during 1960–90, yet at the base and not in per capita terms. Misguided populist policies, including huge scope nationalizations, were generally turned around in a somewhat brief period, however, the

fiscal wickedness of the 1980s required starkness approaches, thusly with public investment in framework enduring the worst part and no place for the enormous expansion in consumptions on human improvement that Pakistan so gravely needs. Joined with the germination of a governmental issues administration security nexus hostile to speculation and financial advancement, which turned out to be progressively intense, these requirements were reflected in Pakistan turning into the slowest developing economy in South Asia during 1990–2010 with related innovative stagnation.

Aberdeen Group has started exploration in 2008, to gauge the sustainable initiatives encompassing the supply network of top tier organizations. Exploration results additionally propose that organizations that feature their Journal of Quality and Technology Management ecological cordiality however neglect to adequately oversee or carry out the green drives can negatively affect an organization's image picture.

Vachon and Mac (2008) have introduced country-level examination to connect supply network solidarity to sustainable development. Their outcomes demonstrate a positive connection between supply network strength and three critical elements of manageable improvement for example ecological execution, corporate natural practices and social sustainability. Jovane et al. (2008) find out that during the late nineteenth century when there was a time of industrial revolution then at that time manufacturing started to grow as a global business for the provision of the large-scale production. This is the time when manufacturing business has started to grow intensely in terms of technology, developments, construction supplies, infrastructures and conveyance.

Abbasi (2012) reasoned that green or sustainable practices are nonetheless new and juvenile within the Pakistani commercial enterprise. It was hard to come back by means

of a variety of associations with inexperienced or sustainable practices until 2000, though, as of now, because of as of past due supplied herbal laws by the Ministry of Environmental Affairs and Ministry of production government of Pakistan, each public and global corporations are constrained to tackle green/ sustainable practices. This research presumed that piece lower, manufacturing improvement, lower in the usage of wrapping material, major accomplishments in on-time conveyances, progressive primary and procedural modifications have been accounted for as tremendous additions carried out from green/sustainable practices.

3.4. Sustainable Modern Economy and Policy Making

Sustainability implies permeance while development requires change, so this consistent economic thinking implies the selection of policies that maximize objectives with subjects to constraints. The concept is known as "Our Common Future" means economists focus on sustainable economic growth policies, for the same reasons, the employee detail analysis to ensure every factor and stakeholder in modelling their policy frameworks for growth According to Theory of Justice randomness and lack of knowledge waste the natural capital resources of a country (Rawls, 1999). The structural dynamics of the post-world wars years offering a broader framework of policies, so the price level and flow of exchange rates and interest-free trade policies entirely accommodate the models of development, but this claim is unsatisfactory.

Skinner (2007) has been concluded that a set of manufacture policies is considered as manufacture strategy which is planned for the purpose of incrimination in the trade efficiency amongst the means of success to meet the production function which are determined by the teamwork strategy.

Paiva et al. (2008) has been specified that the provision of the reliable production strategy and policy is the company's oldest management accountability, from both inner and outdoor bases to take care the general business's goal line.

Miltenburg (2008) has been inferred that, building design and infrastructure is the base of any company attractiveness. Identification, capacity, technology and resource are the four building blocks of industry.

Swink et al. (2007), has been accompanied that, for the purpose of competition in the market a company needs to adopt explicit and advancing goal line in the form of 13 modest forces.

As stated by the Balakrishnan et al. (2007), small prices and high value is the mainly requirement for the purpose of global economic struggle. Because the manufacturers have a huge competition for the protection of their customers. Which results in the increasing demand for the high-quality products with lower prices which cause to improve in the product variety.

Most of these nations undertook policy efforts, mostly focused on macroeconomic stability and opening new markets. Recently, the Asian market emerged due to concerted efforts for industrialization. However, how much these successes contributed to the economic growth and social uplift of society is still an intriguing question for many?

Irrespective of the basic objective that includes equality, urbanization, a better international division of labour, poverty eradication and protection of the environment are the major targeted issues of development (Streeten.P). In 1970 General Assembly proclaimed a comprehensive program that covers a series of interrelated social and economic issues. In recent years various countries all around the world experience

development through rapid transformation in the industrial sector that substantially contribute to destroy the environment and proceed towards inequalities.

3.5. Gap in the Literature

At international level, industrialization, sustainable development and inclusive growth are the most debatable topics. Various studies had been conducted on these topics in all over the world to find different procedures and mechanisms for achieving inclusive growth through sustainable industrialization. However, this side of research related development and growth has been widely ignored by Pakistani researchers therefore, healthy material is very scare. To fill up this gap, we have conducted this study to harvest the benefits of industrialization for inclusive growth by using an evidence based policy framework.

Up to our knowledge, various studies are conducted internationally on the concept of inclusive growth; however, it mainly relates to expenditure side of growth and ignore the revenue generation.

Consequence to above, this study analyses the relationship of industrial sector and economic growth and tries to find the total contribution in overall GDP. Furthermore, it also evaluates employment ratio in industrial sectors to check its impact on reducing poverty in the country and overcome income disparity. For this reason, the main focus of this study is to analyse the revenue generation of industrial sector and its participation in economic growth and development.

CHAPTER 4
DATA AND METHODOLOGY

4.1. Introduction

Research methodology plays the role of a skeleton in a research. Through it, a researcher solves the research problems. We can say, it is a scientific way of investigation. This study is also based on its own research methodology and underlies different steps. A number of econometrics techniques are employed to testify different variable. Studying these steps and techniques will enable the readers to understand how this research is conducted to find answers to for the described research problems.

This research empirically evaluates the data. It is data-based research which collects data from different sources to come-up with the conclusions and testified the observations vis-à-vis to research objectives. A number of econometric techniques are also employed to testify the selected variables. Empirical research is very suitable when we sought proof to know about how certain variables are affecting each other. It also shows the characteristics of each variable in the model.

This study aims to gauge the level of industrial sector relationship with economic growth, therefore, seeks its contribution in the overall growth. The researcher undertook this research on the assumption that industries generated more employment and contribute to growth to mitigate poverty and abridging income gap.

For the same reason, a number of steps have been undertaken which is prescribed at the relevant sections of research methodology. At a first step, we define independent and dependent variables. GDP per capita is the dependent variable. We don't took GDP as a dependent variable because it intends to measure the output of an economy and not its welfare. It measures only value of goods and services finally produced. Therefore, we took GDP per capita which is highly correlated with other factors important for human welfare. In practice, in cross-country data GDP per capita is highly correlated with other factors which

are important for human welfare. In particular it is positively correlated with life expectancy, negatively correlated with infant mortality, and negatively correlated with inequality. Infant mortality might be considered as an indicator of happiness, in so far as parents feel grief for lost children.

The independent variables employment in industrial sector and inflation rate, GINI Coefficient and Poverty rate are the independent variables. GDP per capita shows the overall growth share of industries. For assessing social inclusion, GINI Coefficient is used for measuring the inequality among different segments whereas the poverty rate shows the number of people living below the poverty line. Similarly, for measuring the growth rate, we take inflation and employment. The employment is interlinked with inflation which prescribes the growth rate. Similarly, the more there is employment, the more people will be out of poverty and will have better income.

As it is empirical research, therefore, we collected data for these variables from widely accepted sources - World Development Index of World Bank.

Tools of descriptive statistics have been applied to it to find the wholesome effect and avoid error. In the later stage, different econometric tools were used to measure the relationship and dependency of independent and dependent variables. The whole research is designed as follows:-

4.2. Research Design

Research design is a logical structure, integrating methods and techniques for finding answers to the research problems. It defines that how a common approach be used for carrying out the subject task. The researcher employs research design to find answers to his research questions. It explains the logic behind data collection and the tools utilized in a research. In this research, data for industrial sector of Pakistan has been taken for a period (1991 to 2019) to gauge the benefits of industrialization and to

measures its yield in inclusive growth. The results will further be elaborated to develop Evidence based Policies for attaining inclusive growth through sustainable industrialization. Twenty-nine (29) observations are utilized in the time series dataset, which are sufficient for the analysis of regression. It is a longitudinal data model, which are observed over a time at equal intervals and represented by T, stands for the period of observed data. The time series data model was considered appropriate and more suitable for the study because data for variables has been collected from different sources for multiple time periods.

Before going into further details, we will examine data collection sources and ethical procedures; Secondly, we will bring forth the econometric modelling and description of the variables used in this research; and finally, we present the econometric analysis.

4.2.1. STEPS TO ESTIMATION OF PANEL ARDL (PMG) MODEL

We apply certain econometric techniques for estimation of ARDL (PMG) Model. The details are as follows: -

(1) Describing the Model(s)

(2) Descriptive Statistics

(3) Performing Unit Root Test

(4) Optimal Lags Selection

(5) Estimate the Model(s)

At the first stage, researcher specifies the model and describing it through descriptive statistics, used in the study. Secondly, he brings forth summary of statistical findings. At the final stage, the researcher applies different econometric tools to find the results.

He performs Unit Root for presenting the Table of Optimal Lag(s) selection after checking the Unit Root test.

To choose among the Pooled Mean Group (PMG) and Mean Group (MG) estimators, research performs the Hausman test. In case, the p-value of Hausman test is more than 5 percent significance level, we do not accept the null hypothesis and utilize the PMG estimator. Researcher will apply ARDL model. The time series data model be used either with random or fixed effect. The estimation technique of the panel ARDL (PMG) model for data analysis is applied, if the variables are stationary at the level I (0), and the first difference I (1).

The panel ARDL (PMG) model is used by different scholars for calculation of longitudinal data. Sulaiman and Abdul-Rahim (2020) applied panel ARDL (PMG, MG, DFE) method of estimation to find out the impact of wood fuel consumption on economic growth in 19 sub-Saharan African countries and use data from 1979 to 2017. He used Hausman h-test to find out the most efficient estimator among MG, PGM and DFE.

Akinlo & Olayiwola (2021) investigated the long run and short run association among dividend pay-out policy in addition business presentation of cited companies in Nigeria by means of data from 2001 to 2018 by put on PMG-Autoregressive Distributed Lag method.

Fei Chu and Kun Sek (2014) applied panel ARDL (PMG, MG) estimation for the purpose of investigation the relationship amongst inflation & growth, the estimation of this relation is the most valuable because of its provision of vital material for policy conclusions.

4.2.2. Framework to Select Econometric Techniques for Estimation

Statistical Model Selection on the Base of Data stationarity Unit root and Selection of Panel Framework
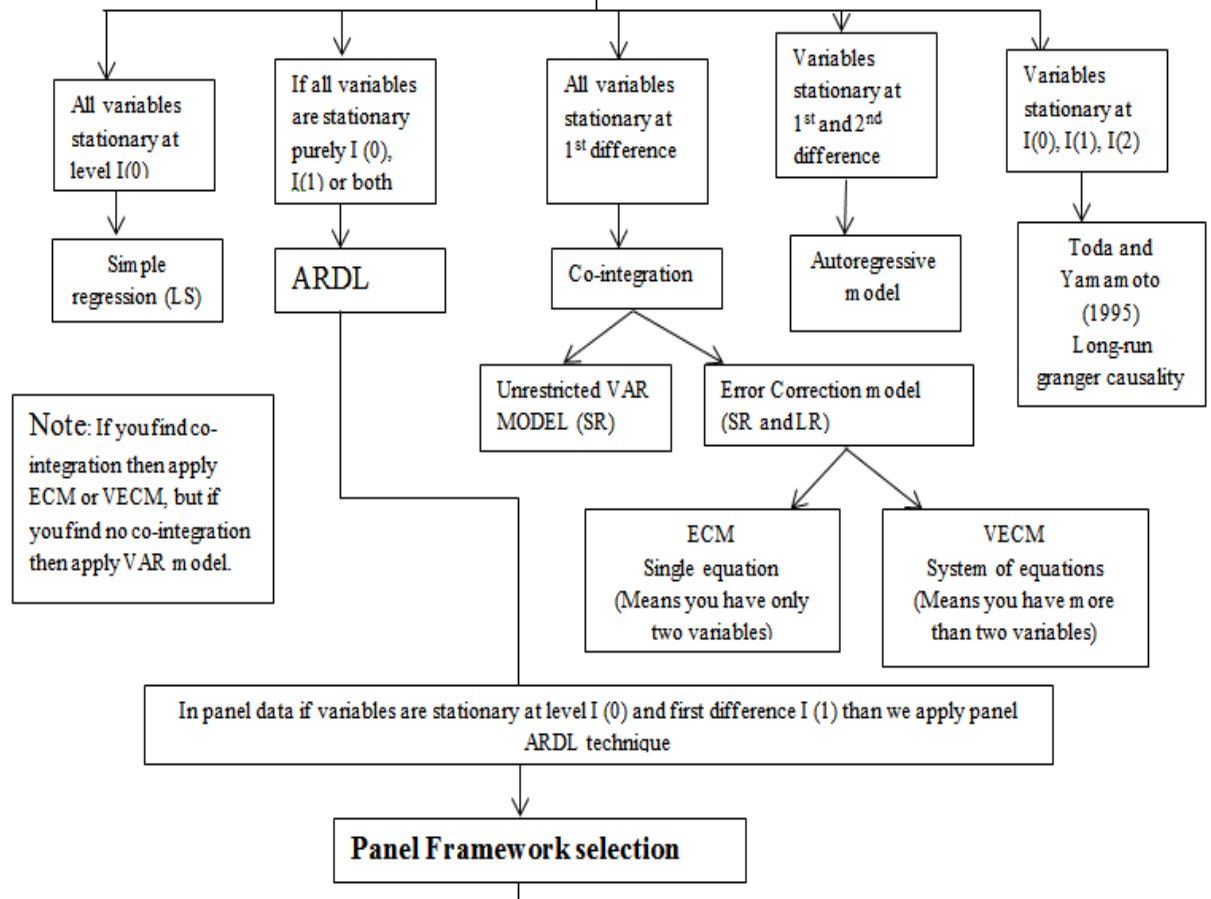
4.3. Sources of data

Time series data for all independent variables has been collected for the period 1991 to 2019 which is used statistically to explore the relationship between the specified variables – Dependent and independent variables. Annual data for Pakistan has been collected encompassing 29 observations suitable for regression analysis of time series data. The analytical information come from two secondary sources- World Development Indicators (WDI) and Pakistan Economic Survey. WDI collects data on GDP per Capita, Employment in Industry, Inflation Rate, GINI Index, Poverty and Headcount Ratio, Gross Domestic Savings and Debt Services. GDP per capita has been used as the

dependent variable (DV) for the present analysis, while all other variables are used as independent variables (IV). The independent variables are Employment in industry, Inflation rate, GINI index, Poverty and Headcount ratio, Gross Domestic Savings, and Debt Services. All the suggested independent variables are expected to have a significant relationship with GDP per capita. The overall functional shape of the model is given below:

$$Y = f \ (Emp, \ IR, \ GINI, \ PR, \ SR, \ DS) \ ....Eq.1$$

Table 01: Variable Labels, Description, Measures, and Data Sources

Variable	Description	Source
lnYt	Natural log GDP per Capita (current US$)	WDI
lnEmpt	Natural log Employment in industry (% of total employment) (modelled ILO estimate)	WDI
lnIRt	Natural log Inflation, consumer prices (annual %)	WDI
lnGINIt	Natural log GINI Index (World Bank estimate)	WDI
lnPRt	Natural log Poverty Headcount Ratio at $1.90 a day (2011 PPP) (% of population)	WDI
lnSRt	Natural log Gross Domestic Savings (% of GDP)	WDI
lnDSt	Natural log Debt Service on external debt, Total Debt Services (TDS) (Current US$)	WDI

The model for carrying this research is adopted from UNDP model of sustainable industry and its role in the inclusive growth but this study did not include some of the variables because those don't have any quantitative estimation and are of social nature such as environmental degradation and gender equality. This study mainly focuses on economic inclusivity.

4.4. Econometric Modelling

The Single Equation Methods is employed estimate a single variable (GDP) by estimating exogenous variables - employment, inflation rate, GINI Coefficient and Poverty Index. It is more suitable model for prediction in time series data collected for each variable separately. The predictors are mostly applied to form return forecast for the independent variable.

Currently, Pakistan industrial sector is a growing sector. According to State Bank of Pakistan 2021Report, Industrial Production in Pakistan increased 36.50 percent in May of 2021 over the same month in the previous year. It requires investigation of all the aspects of industrialization, its development and impacts. For same reason, this study has been organized.

There are some examples of the spatial equation which had been applied to find the relationship of an independent variable to a couple of dependent variables. Jeanty et.al (2010) used it for population migration and housing dynamics whereas Mukerji (2010) took it into consideration for explaining exogenous variables such as GDP boom across countries, the increased fee of GDP in step with the capital of a country and the United States of America's capital funding openness. For each of these 3 endogenous variables, she exacts a structural equation. These equations had extra endogenous variables. Her version turned into envisioned through a "herbal" systems generalization of the general spatial 2SLS process.

Fei Chu and Kun Sek (2014) applied panel ARDL (PMG, MG) estimation to find the relationship of inflation with growth. It is widely accepted that moderate inflation is very important for growth process and it circulates money in markets and thus making the

transactions possible. Therefore, the inflation trajectory provides very important information for policy makers.

Zarinah et al. (2013) also applied panel ARDL (PMG, MG) model to address the role of financial development in fast long run economic growth by using 38 Sub-Saharan African countries data from 1980 to 2011. In this research, the Single Equation Model is used to empirically investigate the existing contribution of industries in economic growth. The analysis of dependency of growth on industrial sector may help the policy makers in policy interventions for making industrial growth more inclusive. It basis on GDP per capita (constant 2010 US$) (Tt), where GDP (Yt) is dependent variable and independent variables such as Employment in Industry, Inflation Rate, GINI index, Poverty and Headcount Ratio, Gross Domestic Saving, and Debt Services. To measure the extent of poverty and income disparity among individuals and households within the economy, we utilize GINI index. As moderate inflation is very important for growth, therefore taking inflation as variable helps in providing crucial information for policy decisions. By analysing these variables, we will investigate the contribution of sustainable industry to economic growth. The equation is given below:

$$\mathbf{lnY}_t = \alpha_{0+} \alpha_1 lnEmp_t + \alpha_2 lnIR_t + \alpha_3 lnGINI_t + \alpha_4 lnPR_t + \alpha_5 lnSR_t +$$

$$\alpha_6 lnDS_t + +\mathbf{u}_{1it} \text{............................} Eq_2$$

Where:

$lnYt$ = GDP per capita (constant 2010 US$)

$lnEmpt$ = Employment in Industry

lnIRt = Inflation Rate

$lnGINIt$ = GINI Index

lnPRt = Poverty Headcount Ratio

lnSRt = Gross Domestic Savings

lnDSt = Debt Service

U_t = Gaussian White Noise

Which are observed overtime at the same periods. T refers to time period, N= variety of move-sections when information is located, t = Years (1991, 1992, 1993 ……., 2019), α0, α1, α2, αthree, αfour, αfive, α6 and α7 = Partial slope coefficients.

Consistent with few regularity assumptions, for both stationary and non-desk bound regressors, the parameter tests of the PMG model are reliable and asymptotically standard. Inside the determination of ag duration, both MG and PMG tests require selecting the right lag period for the man or woman state equation. The selection is made making use of the: (1) Schwarz Bayesian Criterion (SBC) and (2) Akaike statistics Criterion (AIC).

4.5. Variables Explanation exist in the Study

In this phase, we introduce the variables used in the look at. Usually, different studies applied those variables inside the literature. On this section, we can additionally discuss the factors that have an effect on financial boom, i.e., manipulate variables, consistent with preceding studies, the following variables are defined as follows:

4.5.1. GDP per capita

"GDP per capita is the Gross Domestic Product divided through midyear populace. GDP is the sum of gross cost brought by means of all residents of the country producers within the economic system plus any product taxes and minus any subsidies no longer included

in the price of the goods. It is calculated without making deductions for depreciation of fabricated belongings or for depletion and degradation of natural resources. Records for the identical variable are in steady 2010 U.S. bucks (global financial institution, 2019)."

4.5.2. Employment in industry

Employment is described as the ratio of men and women of running age who have been engaged in any activity to provide items or offer services for pay or profit, through the reference duration or now not at work due to transient absence from a job, or to the running-time association. The industry sector consists of mining and quarrying, manufacturing, production, and public utilities (energy, gasoline, and water), according to divisions 2-five (ISIC 2) or classes C-F (ISIC three) or categories B-F (ISIC 4). (World Bank, 2019).

4.5.3. Inflation Rate

Inflation is measured by means of the purchaser charge index reflects the yearly percentage trade in the cost to the average client of acquiring a basket of products and offerings that can be constant or changed at special durations, such as every year. The Laspeyres method is normally used (international bank, 2019).

4.5.4. GINI Index

Gini Index measures the volume to which the distribution of earnings (or, in a few cases, consumption expenditure) amongst people or families inside an economic system deviate from a perfectly same distribution. A Lorenz Curve plots the cumulative chances of general profits obtained in opposition to the cumulative number of recipients, beginning with the poorest man or woman or household. The Gini index measures the location between the Lorenz curve and a hypothetical line of absolute equality,

expressed as a percentage of the maximum place beneath the road. for that reason, a Gini index of zero represents best equality, at the same time as an index of a hundred implies ideal inequality (world bank, 2019).

4.5.5. Poverty Headcount Ratio

Poverty gap at $1.90 a day (2011 PPP) is the mean shortfall in income or intake from the poverty line $1.90 a day (counting the non-poor as having zero shortfall), expressed as a percent of the poverty line. This measure reflects the depth of poverty as well as its prevalence. As a result of revisions in PPP change prices, poverty charges for man or woman countries cannot be as compared with poverty quotes suggested in in advance variations (international bank, 2019).

4.5.6. Gross Domestic Savings

As per World Bank (2019), the Gross domestic savings would be calculated as GDP less final consumption expenditure (total consumption).

4.5.7. Debt Service

General Debt service is the totality of principal refunds and interest truly paid in forex, items, or services on long-time period debt, hobby paid on brief-time period debt, and payments (repurchases and charges) to the IMF. Information are in contemporary U.S. bucks (Global Financial Institution, 2019)."

4.6. Description of Variables estimated for Evidence based Policy Development

The GDP per capita in the above equation represent the overall inclusive growth, whereas employment and GINI coefficient are standing for shares of total population and the inequality. These two variables are representing the public policy indicators that

how successful is the existing policy. The more an industry is generating employment and the low the GINI coefficient, the more successful are the policies. Similarly, to measure the sustainability, the researcher takes Gross Domestic Savings and Debt Services as these two variables predict the future forecasting, thus paving the way for new policy development. Gross Domestic Savings plays an essential role in establishment of new industries because saving is the basic requirement of investment. Debt Servicing is also an essential part of sustainability because the power of a nation to return its debts provides strong basis for its sustainability.

4.7. Static versus Dynamic (Time Series Data Models)

In phrases of consistency and efficiency for time-series statistics analysis, specific frameworks are available, i.e. "Pooled-OLS, constant-effect (fe), and random-effect (re)" have a few types of limitations. Inside the case of Pooled-OLS, heterogeneity does not recollect inside the cross-sections; impose mixed intercept, and the slope of coefficients, making it a totally restrictive version.

To capture the time outcomes, the fixed effect version at the same time as keeping the assumption of the estimator's having a common slope and variance attempted to triumph over the constraint of the pooled OLS model via introducing cross-segment particular intercepts and dummy variables (Baltagi, 2008). The estimator stays less efficient due to loss in degree of freedom. Moreover, while some independent is based, the fixed-impact model produces biased parameter estimates. Despite the fact that the hassle of the degree of freedom within the fixed-impact model is overcome by way of the random-impact version by using assuming commonplace intercepts, its assumption that all fashions are time-invariant which suggests strict homogeneity is regularly invalid. (Kinoshita, 2008)"

In the literature available for comparing the panel records models, researchers used the Generalized Technique of Moments (GMM) estimation approach. Inside the case of massive pass-sections and small-time series (N>T) the consequences of GMM estimators end up misleading, in addition, "the idea of homogeneity of lagged dependent variables results in biased estimates." For the panel information version, these estimators captured the short-time period dynamics handiest and forget about the trends and stationarity variables because these models are usually limited to small-time series. (Samargandi, 2015) So, it isn't clear, whether the panel version estimates represent a protracted-time period structural equilibrium or in-depth courting (Christopoulos & Tsionas, 2004) inside the context of a massive period (Pesaran,1999). In the state of affairs of the massive time, the validity of the Sargan check of over-identity will become dubious and the quantity of gadgets required receives large. Pesaran et al. (1999) proposed that for the estimation of big cross-section and time spread over specific heterogeneous panel datasets, the panel regression, and the ECM (mistakes correction model) should be combined via applying the automobile-regressive distributive lag (ARDL) technique.

4.8. Model Selection

In this research study, the researcher utilized Mean Group (MG) and Pooled Mean Group (PMG) two different dynamic-models, to examine the benefits of industrialization for inclusive growth and help in identifying evidence-based policy initiatives for developing a comprehensive framework. MG is utilized to calculate underweight average value for the variables so that to make separate estimation for each cross-section in the panel data whereas PMG is used as intermediate estimator to show how the short-term parameters are differing within groups while imposing equality of the long-term coefficient among the groups.

As a commonplace exercise, the researcher employs those econometrics equipment because he has panels in which both T, the wide variety of time series of remark and N the variety of companies have been pretty big consisting on statistics for 29 years. He estimates N separate regressions and calculate the coefficient manner, the mean group (MG) estimator, or to pool the information and count on that the slope coefficients and errors variances are identical. In As an intermediate process, the Pooled suggest organization (PMG) estimator is used to constrain the longer-term coefficients to be identical, however allows the fast run coefficients and blunders variances to differ across organizations.

This study emphasis is only for Pakistan, the Hausman test is applied to select the appropriate model for the interpretation of results. In the study, we utilized the ARDL (PMG) model for the data analysis.

4.9. Econometric Analysis

Earlier than proceeding to technique and final analysis of information, few initial checks have been implemented on information to check its suitability and validity for

evaluation. Unit root tests will be implemented on data to check the stationarity of the variables.

4.9.1. Unit Root Test

Before applying ARDL analysis, first, the researcher checks the stationarity of variables to avoid a spurious regression problem. According to Canning and Pedroni (2008) whereas time series data normally initiate non-stationary, therefore, to avoid from spurious regression unit root is most important. "Before estimating the model, first we identified the existence or not of a unit root in the series. Numbers of tests are available for testing unit root hypothesis (Pesaran et al., 2004; Pesaran, 2007). For the same reason, researcher employed the Augmented Dickey-Fuller test statistic unit root tests.

4.9.2. Optimal Lag Length

There are many criteria available for lag selection, e.g.:

(1)   Akaike Information Criterion (AIC)

(2)   Schwarz Information Criterion (SC)

(3)   Final Prediction Error (FPE)

(4)   Sequential Modified LR Test (LR)

These tests help to determine the optimal length of the lag. The optimal lag order is then chosen (Pesaran & Pesaran, 1997) depending on the highest value of AIC or SC. Selecting the variables ' lag orders is very important because with the help of correct lag selection we can define the true dynamics of the model.

4.9.3. ARDL (PMG) Estimation

Autoregressive Distributed Lag (ARDL) model is used to analyse the contribution of industries in economic growth so far and to provide a mechanism for an evidence-based policy framework. This model was originally developed and introduced by Pesaran and Shin in 1999 and underwent several modifications which was further redefined by Smith in 2001. (Pesaran, Shin, & Smith, 2001). Also, in contrast to other tests, such as Johnsen Cointegration test by (Johnsen, 1991), and Engle and Granger test, by (Engle & Granger, 1987), this method could be used for determining relationship among variable that are either 1(0) or 1(1) or a mixed of 1(0) and 1(1) variables.

Following are the advantages of ARDL:

(1) ARDL procedure estimation is possible when independent variables are dependent. Moreover, in the ARDL model endogeneity problem is less and is free of residual correlation. (Alam & Quazi, 2003)

(2) For both endogeneity and residual correlation, ARDL model is corrected for the selection of appropriate lags. (Pesaran & shin, 1997)

(3) As compared to the single equation method one of the most important advantages of ARDL method is that in co-integration analysis, for example, had faced the problems of endogeneity whereas the ARDL method can make a distinction between dependent and independent variables. (Engle & Granger, 1987)

(4) An additional advantage of ARDL method is that "yielding consistent estimates of the long-run parameters that are asymptotically normal irrespective of whether the variables are 1(0), 1(1) or mutually integrated (Pesaran and Pesaran, 1997).

(5) One more advantage of this test over the traditional methods is the ARDL can make integration of short-run impact of concerned variables with long-run equilibrium through Error Correction Method (ECM) without the loss of information of long-run. Different optimal lags for each of the variables could also be determined by ARDL (Pesaran et al., 2007).

(6) Further, other traditional techniques are sensitive to sample size, whereas ARDL can provide robust and consistent results with even small sizes (Pesaran & Shin, 1999; Pesaran et al., 2007; Adom, Bekoe, & Akoena, 2012).

Assumptions of ARDL are the following:

(1) First, if there is any variable is stationary at second difference 1(2), then we are not able to apply ARDL.

(2) Appropriate lag selection

(3) The error should be serially exogeneous

(4) Dynamically stable model

(5) If variables are stationary at level 1(0) as well as at first difference 1(1) then i will be able to apply ARDL.

The researcher does not apply ARDL if one variable is stationary at second difference 1(2). In case of second difference timeseries ARDL approach makes no sense, because if a variable is stationary at second difference 1(2) then the computed value of F-statistics can no longer be valid. (Pesaran et al. (2001) and Narayan (2005))

ARDL may be certain for a easy model of a single equation where Yt is the established variable and is a vector of impartial variables as offered through (Pesaran & Shin, 1999; Pesaran et al., 2001).

4.10. Ethical Procedures

This study has chosen this thesis with full ethical courtesy. Through associated studies, that is all the information from the study wrote the material and analysed the data with complete confidence without additional help.

4.11. The Estimation Procedure

The study used different techniques of empirical analysis to assess the harvesting the benefits of industrialization for inclusive growth: An evidence-based policy framework. First the study presents a summary of statistics. After that, unit root tests (Augmented Dickey-Fuller test statistic) will be used for both the intercept and trend.

These tests help to determine the optimal length of the lag. The optimal lag order is then chosen depending on the highest value of AIC or SC. Selecting the variables ' lag orders is very important because with the help of correct lag selection the study define the true dynamics of the model. Before applying an ARDL test, we presented the results of the panel ARDL (PMG) for short and long-run analyses. (Pesaran & Pesaran, 1997)

CHAPTER 5
EMPIRICAL ANALYSIS

5.1. **Introduction**

In this chapter, data analysis tools are applied to selected data to generate results which are further interpreted in a comprehensive manner. At the beginning, the study presented the summary of statistics of Pakistan dataset that shows and explains the characteristics of each variable in the model; Secondly, the study performs unit root test; the next step was the selection of optimal lag length for further investigation of the study. To check the long-run and short-run relationship among variables Autoregressive Distributed Lags (PMG) Test has been applied. Afterwards the researcher applied Causality Tests to check the direction of relationship between the independent variable and dependent variables.

5.2. Summary Statistics of OECD Countries Dataset

Table 5.I presents the number of observations (N) and the summary statistics (Mean and median values, maximum and minimum values, and standard deviation values) for all variables that will be used in our empirical analysis. This data set includes 29 observations for all the variables. Some of the values were missing from variables that have been estimated through interpolation and the data for Pakistan was collected. The data consists of twenty-nine years of annual observations for the period from 1991 to 2019.

Table 02: Summary Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Obs
GDP Per Capita	836.191	748.922	1482.306	411.859	369.730	29
Employment in Industry	21.407	20.698	25.326	20.023	1.641	29
Inflation Rate	8.387	7.921	20.286	2.529	4.140	29
GINI Index	32.220	31.500	49.900	15.40	6.365	29
Poverty Headcount Ratio	20.272	15.900	58.700	0.700	17.117	29
Gross Domestic Savings	12.388	13.230	17.399	5.410	3.995	29
Debt Service	3.68E+09	3.21E+09	6.93E+09	1.96E+09	1.35E+09	29

"Source: Author's own collection"

Table 02 depicts the descriptive statistics of all concern variables of the research. The dependent variable of the research is GDP-PC (GDP per capita) which has its average value was 836.191 with a standard deviation of 369.730. The independent variable of the research is Emp measured as Employment in Industry. It had a mean value 21.407 with standard deviation 1.641. The main independent variable is inflation rate. The mean value of inflation is 8.387637 with a standard deviation of 4.140849. These variables are included as control variables in my study.

Rests of the variables indicate GINI index, Poverty headcount ratio, Gross domestic saving, and Debt services these were taken as independent variables. The average for GINI index is 32.220 with standard deviation of 6.365, the average for Poverty headcount ratio is 20.272 with the standard deviation of 17.117, the average for Gross

domestic saving is 12.388 with standard deviation of 3.995, and the average Debt services is 3.68E+09 with standard deviation of 1.35E+09.

5.3. Results of Unit Root Test

To get reliable results, the stationarity of time series data is necessary to avoid spurious regression analysis because if the data is non-stationary it is impossible to making forecasting. Table 03 shows E-views results bellow for the Augmented Dickey-Fuller test statistic unit root test on all the variables. Results are provided with intercept and trend at level and at the first difference. Inclusion of trend option means that a linear time trend is included in this model.

Table 03: Results of Augmented Dickey-Fuller test statistic, Unit Root Test at the level and First Difference

Variable	Level		1st Difference		Decision
	Statistic	Prob	Statistic	Prob	
ln GDP Per Capita	-0.392	0.897	-3.585	0.0131	I(1)
ln Employment in Industry	-1.048	0.920	-7.654	0.0000	I(1)
ln Inflation Rate	-4.448	0.009	-4.989	0.0022	I(0)
ln GINI Index	-2.615	0.276	-5.427	0.0008	I(1)
ln Poverty Headcount Ratio	-0.123	0.991	-4.598	0.0056	I(1)
ln Gross Domestic Savings	-2.264	0.438	-6.947	0.0000	I(1)
ln Debt Service	-3.665	0.042	-5.505	0.0007	I(0)

Source: Author's own collection"

Notes: *Unit Root Tests were performed with restricted intercept and trend for all variables. GDP: GDP per capita (constant 2010 US$), where GDP (Yt) is dependent variable, and employment in industry, inflation rate, GINI index, Poverty headcount ratio, Gross domestic saving, and Debt services are independent variables.*

Table 03 presented the results of unit root tests. To check the stationarity of the variables, the Augmented Dickey-Fuller test statistic test are employed. The Augmented Dickey-Fuller test statistic results indicate that the GDP per capita (constant 2010 US$), where GDP (Yt) is dependent variable, and employment in industry, GINI index, Poverty headcount ratio, and Gross domestic saving, are independent variables are non-stationary at 1st difference I(1). this situation the more suitable technique for estimation is ARDL. According to (Pesaran et al., 2001) unit root test is applied to exclude the possibility of I(2) variables.

5.4. Optimal Lag Length

For this study, the criteria suggested by Schwarz (SC) is used, because its results are more authentic, appropriate, and better for small samples, so it was more appropriate for this study. Results of LR, FPE, AIC, SC, and HQ are given in Table 04 and the Schwarz information criterion (SC) is considered for this study, among them. So according to Schwarz information criterion the optimal lag for our Autoregressive distributed lags was found to be 1 for our study. Results for the selection of optimal lag length are given below in Table 04.

Table 04: Optimal Lag Selection

Lag	Log	LR	FPE	AIC	SC	HQ
0	53.73651	NA	7.40e-11	-3.461	-3.126	-3.362
1	180.4864	178.3887*	2.65e-13	-9.221214	-6.533553*	-8.422
2	241.5732	54.29941	2.57e-13*	-10.11654*	-5.077169	-8.618067*

5.5. ARDL (PMG) Model

The results of ARDL model are shown in Table 05. As some of our variables were stationary at level 1(0) and the rest were at first difference 1(1), therefore, ARDL was the most appropriate technique to check current contribution of industrialization for inclusive growth and to expedite the future evidence-based policy framework.

5.5.1. Results of ARDL (PMG) Model

This study has been conducted in order to investigate the role of sustainable industrialization in inclusive growth of a country by introducing an evidence-based policy framework to suggest experts that how they can attain this inclusive growth in Pakistan by gaining sustainable industrialization. This study is based on The General Theory of Economic Development which is a conglomeration of Capitalist and Socialist approaches. In this case, industries can play an important role, the better an industry in its production technology, the more it makes growth and development and contributes to the overall growth. In other case, income generation concept of economic growth is the main cause of inequality and social exclusion. And this problem also needed to be taken in account and this study also suggested solution for this issue. The conceptual framework of this study is rooted in Kaldor's law which presents strong relationship between manufacturing and economic development, which emphasised that sustainable industries also play an important role in economic development.

To estimate these results panel ARDL (PMG)/(MG) approach is best suited for our study. All results of long-run coefficient estimates are given in Table 05 below which shows the existence of a long-run relationship between the benefits of sustainable industrialization and inclusive growth. We used Schwartz criterion and we impose following lag structure (1, 1, 1, 1, 1, 1, 1) for ARDL lag selection.

Table 05: Results of ARDL (PMG) Model (with control variables)

Dependent Variable: Ln GDP Per Capita				
Method: ARDL				
Sample (adjusted): 1992 2019				
Included observations: 28 after adjustments				
Dependent lags: 1 (Fixed)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.***
Ln GDP Per Capita	1.18351	0.00914	129.51210	0.00000
Ln Employment in Industry	-0.14405	0.05301	-2.71720	0.01330
Ln Inflation rate	-0.00996	0.00884	-1.12751	0.07290
Ln GINI Index	0.03600	0.01632	2.20555	0.03930
Ln Poverty Headcount Ratio	0.05146	0.00597	8.61790	0.00000
Ln Gross Domestic Saving	0.08769	0.02999	2.92369	0.00840
Ln Debt Service	-0.02223	0.02962	-0.75066	0.06160
C	-0.69014	1.03896	-0.66426	0.51410
R-squared	0.97425	**Mean dependent var**		6.65346
Adjusted R-squared	0.96524	**S.D. dependent var**		0.44413
S.E. of regression	0.08281	**Akaike info criterion**		-1.90970
Sum squared resid	0.13713	**Schwarz criterion**		-1.52907
Log likelihood	34.73579	**Hannan-Quinn criter.**		-1.79334
F-statistic	108.10290	**Durbin-Watson stat**		2.37465
Prob(F-statistic)	0.00000			
*Note: p-values and any subsequent tests do not account for model selection.				

"**Source:** Author's own collection"

Table 05 reports the ARDL (PMG) estimation results of the model. According to this model, the coefficient value of employment in industry and inflation rate are negative and significantly associated with GDP per capita. The partial slope of the coefficient for employment in industry and inflation rate suggests that 1% increase in employment in industry and inflation rate will lead to improvement in GDP per capita. Which concluded that sustainable industries make grow to economic growth of country which supports theory of economic development. The results are also compatible with several of the previous studies, such as some studies conclude that employment in industry and inflation rate can have a negative effect on GDP per capita (Braguinsky, 1996). This idea is based on the "greasing wheels hypothesis". Kaufmann et al. (2000). "In other words, corruption allows us to by-pass bureaucratic procedures by facilitating economic activities. However, according to Mauro (1995), corruption would support economic growth because it significantly reduces the time needed to process archives and circumvent bureaucratic procedures.

According to this model, the coefficient value of GINI Index, Poverty Headcount Ratio and Gross Domestic Saving are positively and significantly associated with GDP per capita. Which supports to Kaldor's law and concluded that poverty alleviation, reduction of inequality and improvement in domestic saving improved the economic growth and development and indirectly connected to sustainable industries.

The above analysis shows that the ratio of employment in industrial sector is very low whereas the poverty rate and GINI Coefficient is high. The low growth rate associated with industrial sector has less impacts on mitigating the poverty and overcoming the income disparity.

This analysis has been concluded that panel ARDL (PGM) approach is best fitted for our data and study. Results supports both the theory and conceptual portion of the study. Hence emphasized that sustainable industries can improve the economic growth and development and also play a role in controlling inequality and poverty. However existing industrial sectors in Pakistan is fragile and therefore have less contribution in the overall growth of the country. Therefore, Pakistan needs to focus on sustainable industries.

CHAPTER 6
POLICY IMPLICATIONS AND RECOMMENDATIONS

The concept of inclusive growth emerged from income inequality and disparities in sharing benefits of growth. The income disparity, less opportunities for participation lead to unemployment which ultimately results in less saving and low investment for future projects. Collectively, all these challenges pose several intrigue questions for the policy makers that how to develop sustainable policy to achieve economic growth for all.

Now evaluating the available data for finding the relationship between dependent and independent variables, we found that industries play very important role in the employment, inflation, savings and money circulation which help in growth and development of an economy. It works on both sides of the economy – Demand and Supply. On the supply side, it is producing different items to meet the demand of the public. On the demand sides, it generates high revenue and employment which enables the purchasers to purchase. However, the distribution of both sides normally remains inequitable and uneven which poses challenges for the public institutions. Keeping it in view, there is a need for equal and equitable distribution of the revenues and other benefits.

It predicts that financial boom has a growing function of market forces in figuring out returns to productive factors but there's a distinction in sharing of blessings, workers with excessive competencies and people with low skills as well as capital. All these factors generally tend to widen the income gap furthermore. The equal has been anticipated by using the excessive poverty ratio and GINI Coefficient.

From the above statistics, we examined the statistical relationships between growth, inequality, and poverty and the correlation between inequality and the growth elasticity of poverty reduction. From an extensive examination of datasets, it has been observed that

(1) The findings show that share of industry in GDP per capita is significantly correlated. The more an industry grows the more it contributes in increasing GDP per capita, ultimately leading to increase growth rate. Keeping it in view, we also found that there is a strong (negative) correlation between growth rates and rates of poverty reduction. The p- value is greater than 5% and the difference is -0.123 to -4.5298. Richard H. Adams, Jr (2003) in policy research working paper finds out that growth represents an important means for reducing poverty in the developing world. When economic growth is measured by survey mean income (consumption), there is a strong, statistical link between growth and poverty reduction. Similarly, when economic growth is measured by GDP per capita, the statistical relationship between growth and poverty reduction is still present. It means that achieving sustainable growth for a long period of time will help in reducing the poverty in the country. It emphasizes on the government intervention for sustainable industrialization so that to achieve maximum growth which may help in reducing poverty in the country.

(2) However, the absence of a correlation between growth rates and changes in inequality has been noted. It means that the growth may increase or decrease the inequality depending on the degree of its equitable distribution. If the growth is inequitable then rates of inequality will be high. As stated by the ADAMS (2004), there are evidence exists for no statistically significant relationship between inequality and economic growth. The inequality may be increased or

decrease with economic growth, depending on the social policies of government. If the government is concerned about equitable sharing, then inequality might be reduced with economic growth or otherwise.

(3) There is strong relationship between growth and employment in industries. The more an industry is flourishing, the more it is generating the employment, thus improving the purchasing power of public. Basnett and Sen (2013) identifies an extensive body of evidence which suggests that growth in manufacturing and services have a particularly positive impact on employment. In short, more industries more employment and more growth.

(4) The revenue generation from industry has positive impacts on National Savings and Debt Services. The minimum of debt services and the higher National Savings pave the way for sustainability.

(5) Industrial sector has very minimum share in the economy of Pakistan. The public policies of the country are more oriented towards extraction of raw material and at improving the agriculture sector - initial sector of economy. Now new policies have been developed for promotion of industries.

(6) The evidences from the above data analysis show that the pattern of industrial growth has no remarkable improvements and lagging behinds than other sectors. Its growth pattern is very low and therefore requires evidence-based policy developments for future.

(7) Inclusive growth may be attained by establishing large industrial setup in the countries. CPEC may play an important role in this regard. Acemoglu and Robinson (2012) find out that there is a bid reason for inclusive growth is sustainable growth of industries.

From the analysis of collected data, this paper has the following recommendations: -

This study has been conducted in order to investigate the role of sustainable industrialization in inclusive growth of a country by introducing an evidence-based policy framework to suggest experts that how they can attain this inclusive growth in Pakistan by gaining sustainable industrialization. This study has been introducing some policy implications in the framework of public policy. Public policy has a central role to play in the agenda to promote sustainable development of industries and manage environment change through provision of better infrastructure to industrial sector.

Results suggest a wonderful relationship between GDP and sustainable industrialization. Those effects assist the general idea of financial improvement in the light of these effects. This take a look at recommends the policy that, to be able to generate inclusive growth, there may be a dire need for the established order of sustainable industry.

The relevant function of the authorities is to develop and preserve an surroundings that permits commercial enterprise investment and personal entrepreneurship via putting off impediments and distortions created via market disasters, institutional weaknesses, and coverage shortcomings.

Readability and believability of public coverage are particularly big for infrastructure investments, given the lifestyles span of those investments, related externalities, and the unavoidable and personal connections to government techniques. Right here for this situation government wishes to invest for the framework of the commercial location to achieve sustainable industrialization for inclusive increase and development. Nations need to illuminate clean and complete rules for sustainable infrastructure and observe them in average guidelines for sustainable industrialization, inclusive increase and development.

This study consequences indicate that there's an immediate dating between industry and employment. This study recommends that authorities desire to obtain sustainable enterprise to acquire durable employment which ends up in inclusive growth and development and these consequences supports to conceptual framework also. Development in employment also leads to manipulate inequality and poverty. Such social and financial injustice frequently displays horrific guidelines, susceptible governance mechanisms, faulty legal/institutional arrangements, or marketplace disasters. In growing Asia, component market (land and credit) screw ups are particularly acute.

The crucial role of the government in selling social and economic justice is to address all these markets, institutional, and policy disasters. Selling equal get entry to possibilities also calls for the authorities to provide social safety nets to mitigate the results of external and transitory livelihood shocks as well as to fulfil the minimal desires of the chronically terrible. Such shocks are regularly created by using unwell fitness, macroeconomic crises, commercial restructuring, and natural disasters.

To attain sustainable infrastructure for sustainable industries government needs to maintain prevalent warp in the pricing of natural resources and infrastructure services, that is most important to better the public policy environment for sustainable infrastructure of industries.

Sustainable Industrialization needs the permanent & quick transfer of the labor from working with low productivity sectors to higher productivity sectors to deal with inequality, poverty and gain inclusive growth. It is a course of building new abilities and capacities with respect to the workforce both separately and as people cooperating. This requires the presentation and variation of innovation in business exercises regardless of whether the innovation is concocted locally or gotten to from abroad. The results are

witnessed to the fact that inclusive growth may be achieved through generation of employment.

Furthermore, the income disparity may be abridged by introducing industries to the remote and unprivileged areas of the countries. It will overcome the income gap and may uplift the masses from poverty as witnessed by the GINI coefficient and industries relationship.

Similarly, poverty may be reduced through industrialization. The more productivity a nation, the more progressive is its society. Therefore, an evidence-based policy mechanism is direly needed to get rid of poverty especially in the rural areas.

The findings show negative relationship between inflation and industry. Therefore, a sustainable industry may mitigate the negative effect of inflation on society and may bring inclusivity in social sectors. It will also a bridge the gap between poor and rich and may help in attainment of inclusive growth. The results are witnessed to the fact that inclusive growth may be achieved through generation of employment.

Nexus to above discussion, we may say that a rational policy approach is direly required for modernization of industrial sector for further accelerating the pace of trade and economic activities in the country. The first and most important is the allocation of mandate to different ministries such as Ministry of Industries, Production and special initiatives are working on function basis and is unsuitable for promoting respective industrial sectors. Similarly, the policy initiative falls under the preview of Ministry of Commerce and the revenue policies are drafted by Central Board of Revenue which again is different from the production spectrum. It also ignores the private stakeholders in policy formulation which creates a gap between producers and policy makers. Therefore, a stringent policy making structure is required to create harmony among the

producers, labours and government deparments for long term industrial growth and development to achieve inclusive growth – Kuznet's Curve.

In addition the industrial policy framework may endorse the introduction of innovative industries to replace backward industrial sector. It shall incorporate initiatives for establishing new technical institutions which may produce skilled labour.

The government is also required to introduce to adopt long term industrial development policies and may avoid the switchover to new experiences as the country witnesses in Policy of Nationalization of ZA Bhuttos and Zia's Policy of Privatization.

Deficiency of capital is one more major problem in the way of industrial development. Pakistan is fundamentally, underdeveloped and there is shortage of capital in the country. Industrial development is impossible without capital. Sufficient capital is a major condition for industrial development. Total investment and domestic saving are 13.4% and 9.5% of GDP respectively.

Rate of inflation is very high in Pakistan. The prices of imported machinery, oils, chemicals and spare-parts are rising very sharply. These factors contribute toward industrial backwardness. Very high rate of inflation is 14.1 % in Pakistan.

There is shortage of active financial institutions in Pakistan, which may provide credit services to industrialists according to their needs. Terms and conditions for the provision of credit are so tight.

There are inequalities in industrial growth in Pakistan. Manufacturing of consumer goods is preferred over capital goods. No doubt, return on consumer goods is more but capital goods are necessary for economic development.

The investment in modern industries is not only costly but also risky. The capitalists are regularly withdrawn and hesitant in investing their capital in new industrial ventures. No doubt, deficiency of capital is a problem in Pakistan but the major problem is that existing capital is not properly utilizing due to lack of consultancy firms.

Adverse balance of payment is a new cause of industrial backwardness. To make industrial development, we have to import modern machinery and advanced technology from other countries. But due to shortage of foreign exchange, we cannot import such items to make rapid economic development. Pakistan is facing the deficit of $ 8.3 billion in its balance of payment during 2010-11.

For the same reason, it is direly needed to ensure the equitable distribution of benefits of industrialization so that to address social problems such as poverty, illiteracy, and environmental protection. Cumulatively, it is called inclusive industrialization because it ensures that no-one is left behind from industrial growth and all shares the prosperity equally either men or woman, rural or urban and small or large firms. It combines unique knowledge and resources to maximize the development impact and secures the future generation by promoting a sustainable culture.

FUTURE AREAS OF RESEARCH

Some of the future areas of research are as under:-

1. Achieving maximum employment through inclusive growth

2. Innovative solutions for inclusive Growth

3. Fiscal Policy and inclusive wellbeing of masses

4. Sustainable development through small industrial units

CONCLUSION

This study has been led to research the job of sustainable industrialization in inclusive development of a nation by presenting a proof-based policy structure to recommend specialists that how might they achieve this sustainable development in Pakistan by acquiring sustainable industrialization. This examination depends on The General Theory of Economic Development is an aggregation of Capitalist and Socialist methodologies. For this situation industries can assume a significant part, the better an industry is its production innovation, the more it makes development and advancement and adds to the general development. In other case, income generation idea of economic growth is the primary driver of imbalance and social rejection. What's more, this issue likewise should have been considered and this examination additionally proposed answer for this issue. The conceptual system of this examination is established in Kaldor's law which presents solid connection among manufacturing and economic development. Which accentuated those sustainable industries additionally assume a significant part in economic development.

All the discussions and empirical analysis results supports to this study theoretical and conceptual framework, and show that sustainable industrialization is most important for inclusive growth, development, poverty alleviation and mitigation of income inequality, which has numerous benefits for the society. It not only generates employment but also bring prosperity to the country through generation of revenue for future investment and debt services. Generation of revenue helps in mitigating the poverty and uplifting the masses. However, all segments of society may have due share in income generation to overcome income disparity. This leads to the idea of inclusive growth and prosperity. Furthermore, industrialization helps in paying of public debts and facilitates the debt

64

servicing. Besides this sustainable industry is supportive in and it may be harvested for the growth and development of all segments of society – achievement of inclusive growth.

In order to do so, the incumbent government may devise a long-term policy framework for sustainable industrialization. The focus may be on the labor intensive and modern industries which might help in generating more revenue. As the existing ratio of investment is low due to low savings, therefore, government may encourage competent entrepreneurs through loans and subsidies to invest in industrial sectors. Pakistan could develop a stringent policy mechanism for achieving inclusive growth through sustainable industrialization while learning from the experiences of other nations.
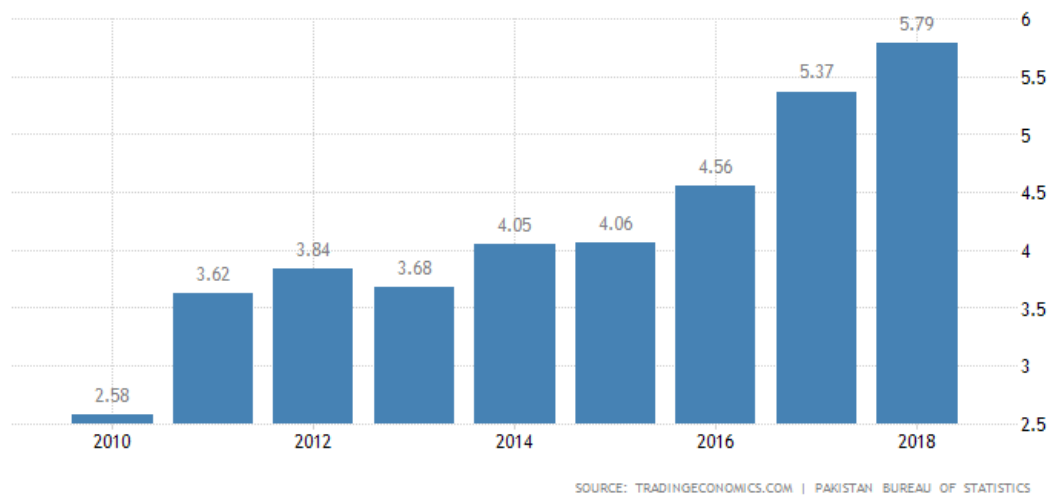
APPENDEX

SOURCE: TRADINGECONOMICS.COM | PAKISTAN BUREAU OF STATISTICS

Figure No1. Pakistan's GDP Growth rate

(Source: Pakistan Bureau of Statistics)

REFERENCES:

1. _____. 2006. "Equity and Development." In World Development Report 2006. Washington, DC.

2. Abbasi, M. (2012). Sustainable practices in Pakistani manufacturing supply chains: Motives, sharing mechanism and performance outcome. *Journal of Quality and Technology Management*, *8*(2), 51-74.

3. Acemoglu, D. and Robinson, J.A., 2012. *Why nations fail: The origins of power, prosperity, and poverty*. Crown Books.

4. Adams Jr, R. H. (2004). Economic growth, inequality and poverty: estimating the growth elasticity of poverty. *World development*, *32*(12), 1989-2014.

5. Adams Jr, R. H., & Page, J. (2003). Poverty, inequality and growth in selected Middle East and North Africa countries, 1980–2000. *World development*, *31*(12), 2027-2048.

6. Adu, G., Marbuah, G. and Mensah, J.T., 2013. Financial development and economic growth in Ghana: Does the measure of financial development matter?. *Review of Development finance*, *3*(4), pp.192-203.

7. Akinlo, O. O., & Olayiwola, J. A. (2021). Dividend policy-performance nexus: PMG-ARDL approach. *Future Business Journal*, *7*(1), 1-9.

8. Alam, M.I., Quazi, R.M. (2003). Determinant of Capital Flight: An Econometric Case Study of Bangladesh. International Review of Applied Economics, 17, 85-103.

9. Alesina, A. and Rodrik, D., 1994. Distributive politics and economic growth. *The quarterly journal of economics*, *109*(2), pp.465-490.

10. Ali, I. (2007). Inequality and the Imperative for Inclusive Growth in Asia. Asian Development Review, Vol. 24 (2), pp. 1-16.

11. Ali, I. and Son, H.H., 2007. Measuring inclusive growth. *Asian Development Review*, *24*(Colin), p.11.

12. Ali, I. and Son, H.H., 2007. *Defining and measuring inclusive growth: application to the Philippines* (No. 98). ERD working paper series.

13. Anand, R., Mishra, M.S. and Peiris, S.J., 2013. *Inclusive growth: Measurement and determinants* (No. 13-135). International Monetary Fund.

14. Anand, R., Mishra, S. and Peiris, S., 2015. Inclusive growth revisited: Measurement and evolution. *VoxEU. org. Centre for Economic Policy Research. Retrieved*, *13*.

15. Aslam, A. and Zulfiqar, K., 2016. Policy Framework for Inclusive Growth: A Case Study of Selected Asian Countries. *Policy*, *12*, pp.21-40.

16. Balakrishnan, P., & Parameswaran, M. (2007). Understanding economic growth in India: A prerequisite. *Economic and Political Weekly*, 2915-2922.

17. Baltagi, B. (2008). Econometric analysis of panel data. John Wiley & Sons.

18. Baltagi, B. H. (2008). Forecasting with panel data. Journal of forecasting, 27(2), 153-173.

19. Banerjee, A.V. and Duflo, E., 2005. Growth theory through the lens of development economics. *Handbook of economic growth*, *1*, pp.473-552.

20. Barro, R.J. and Grossman, H.I., 1971. A general disequilibrium model of income and employment. *The American Economic Review*, *61*(Colin), pp.82-93.

21. Basnett, Y., & Sen, R. (2013). What do empirical studies say about economic growth and job creation in developing countries. *Overseas Development Institute*, *1*.

22. Berg, A., Ostry, J.D. and Zettelmeyer, J., 2012. What makes growth sustained? *Journal of Development Economics*, *98*(2), pp.149-166.

23. Birdsall, N. (2007). Reflections on the macro foundations of the middle class in the developing world. *Available at SSRN 1101658*.

24. Bowlus, A. J., & Robinson, C. (2012). Human capital prices, productivity, and growth. *American Economic Review*, *102*(7), 3483-3515.

25. Brolan, C.E., Dagron, S., Forman, L., Hammonds, R., Latif, L.A. and Waris, A., 2013. Health rights in the post-2015 development agenda: including non-nationals.

26. Campos, N.F., Kinoshita, Y., (2008). Foreign Direct Investment and Structural Reforms: Evidence from Eastern Europe and Latin America. Washington, D.C.: International Monetary Fund, IMF Institute.

27. Canning, D., & Pedroni, P. (2008). Infrastructure, long-run economic growth and causality tests for cointegrated panels. *The Manchester School*, *76*(5), 504-527. doi.org/10.1111/j.1467-9957.2008.01073.x

28. Chaudhuri, S., and M. Ravallion. 2007. "Partially Awakened Giants Uncover Growth in China and India." In L. A. Winters and S. Yusuf, eds., Dancing with Giants: China, India, and the Global Economy. World Bank, Washington, DC.

29. Chenery, H.B., Syrquin, M. and Elkington, H., 1975. *Patterns of development, 1950-1970* (Vol. 75). London: Oxford University Press.

30. Christopoulos, D.K. and Tsionas, E.G., (2004). Financial Development and Economic Growth: Evidence from Panel Unit Root and Cointegration Tests. Journal of Development Economics, 73(1), 55-74.

31. Chu, J. F., & Sek, S. K. (2014, July). Investigating the relationship between inflation and growth: Evidence from panel ARDL models. In *AIP Conference Proceedings* (Vol. 1605, No. 1, pp. 943-948). American Institute of Physics.

32. Cisotta, R., 2013. What Role for the European Commission in the New Governance of the Economic and Monetary Union?.

33. De Mello, L. and Dutz, M.A., 2012. *Promoting inclusive growth: Challenges and policies*. Paris: OECD and the World Bank.

34. Dollar, D. and Kraay, A., 2001. Trade, growth, and poverty. World Bank. *Development Research Group, Macroeconomics and Growth*.

35. Edward, A.A., Private Domestic Investment, Domestic Credit To The Private Sector And Economic Performance: Nigeria In Perspective.

36. Elder, S., 2018. Asia-Pacific employment and social outlook 2018: advancing decent work for sustainable development.

37. Elkington, J. (1997). Cannibals with forks. *The triple bottom line of 21st century*, *73*.

38. Engle, R. F., & Granger, C. W. (1987). Co-integration and error correction: representation, estimation, and testing. *Econometrica: journal of the Econometric Society*, 251-276.

39. Evans, J., & Jones, P. (2008). Rethinking sustainable urban regeneration: ambiguity, creativity, and the shared territory. *Environment and Planning A*, *40*(6), 1416-1434.

40. Fagerberg, J. and Verspagen, B., 2002. Technology-gaps, innovation-diffusion and transformation: an evolutionary interpretation. *Research policy*, *31*(8-9), pp.1291-1304.

41. Ferreira, F.H. and Ravallion, M., 2008. *Global poverty and inequality: a review of the evidence*. The World Bank.

42. Fourastié, J., 1946. LE LIVRE DE COLIN CLARK:«LES CONDITIONS DU PROGRES ECONOMIQUE». *Revue d'économie politique*, *56*(2), pp.205-219.

43. Galor, O. and Zeira, J., 1993. Income distribution and macroeconomics. *The review of economic studies*, *60*(Colin), pp.35-52.

44. Garetti, M., & Taisch, M. (2012). Sustainable manufacturing: trends and research challenges. *Production planning & control*, *23*(2-3), 83-104.

45. Gnègnè, Y., 2009. Adjusted net saving and welfare change. *Ecological Economics*, *68*(4), pp.1127-1139.

46. Grüne, N., 2016. *Dorfgesellschaft–Konflikterfahrung-Partizipationskultur: Sozialer Wandel und politische Kommunikation in Landgemeinden der badischen Rheinpfalz (1720-1850)* (Vol. 53). Walter de Gruyter GmbH & Co KG.

47. Hassler, U. and Wolters, J., 2006. Autoregressive distributed lag models and cointegration. In *Modern econometric analysis* (pp. 57-72). Springer, Berlin, Heidelberg.

48. Higgins, K., & Prowse, S. (2010). *Trade, growth and poverty: making Aid for Trade work for inclusive growth and poverty reduction*. ODI.

49. Holzmann, R. and Jørgensen, S., 2001. Social Protection Sector Strategy: From Safety Net to Springboard (Washington, DC: World Bank).

50. https://www.pk.undp.org/content/dam/pakistan/docs/HDR/HDI%20Report_2017.pdf

51. https://www.weforum.org/projects/inclusive-growth-and-development dated 23 October, 2019

52. Johnson Paul,Humphires Janes & Floud Rodrick, (2014).The Cambridge Economic History of Modern Britain.Volume I.*Cambridge University Press*. URL: https://books.google.com.pk/books?id=3f6GBAAAQBAJ&dq=modern+industrialisation/+history&lr=&source=gbs_navlinks_s

53. Jovane, F., Yoshikawa, H., Alting, L., Boer, C. R., Westkamper, E., Williams, D., ... & Paci, A. M. (2008). The incoming global technological and industrial revolution towards competitive sustainable manufacturing. *CIRP annals*, *57*(2), 641-659.

54. Jwa, S.H., 2002. *The Evolution of Large Corporations in Korea: a new institutional economics perspective of the Chaebol*. Edward Elgar Publishing.

55. Jwa, S.H., 2017. *A General Theory of Economic Development: Towards A Capitalist Manifesto*. Edward Elgar Publishing.

56. Kaldor, N., 1967. Strategic factors in economic development.

57. Kanbur, R., & Rauniyar, G. (2009). Conceptualizing Inclusive Development: With Applications to Rural Infrastructure and Development Assistance, Asian Development Bank. *Manila. Philippine*.

58. Kaplinsky Raphael (1998). Globalisation, Industrialisation And Sustainable Growth: The Pursuit Of The Nth Rent. *Institute of Development Studies*. ISBN 1 85864 225 6

59. Kathuria, V. and Raj, R.S.N., 2009, October. Is manufacturing an engine of growth in India? Analyis in the post nineties. In *Paper for the UNU-WIDER/UNU-MERIT/UNIDO Workshop, Pathways to Industrialisation in the 21st Century. New Challenges and Emerging Paradigms, Maastricht* (pp. 22-23).

60. Khan, A., Khan, G., Safdar, S., Munir, S. and Andleeb, Z., 2016. Measurement and determinants of inclusive growth: a case study of Pakistan (1990-2012). *Pakistan Development Review*, *55*(4), pp.455-466.

61. Kiely Ray (1998). Industrialization and development. *UCL press*. ISBN 0-203-98223-1 Master e-book ISBN

62. Kinoshita, Y. and Campos, N.F., 2008. *Foreign direct investment and structural reforms: Evidence from Eastern Europe and Latin America* (No. 3332). International Monetary Fund.

63. Kühn, S., 2019. 1 Global employment and social trends. *World Employment and Social Outlook*, *2019*(1), pp.5-24.Kunzler and Ziltener (2013). Impacts of Colonialism - A Research Survey. *American Sociological Association*. Volume 19, Number 2, Pages 290-311, ISSN 1076-156X

64. Kuznets, S., 1955. Economic growth and income inequality. *The American Economic Review*, *45*(Colin), pp.1-28

65. Kuznets, S., 2019. *Economic growth and income inequality* (pp. 25-37). Routledge.

66. Lavopa, A. and Szirmai, A., 2012. Industrialization, employment and poverty.Lewis, W.A., 1954. Economic development with unlimited supplies of labour. *The manchester school*, *22*(2), pp.139-191.

67. Li, Y., 2015. Towards inclusive and sustainable industrial development. *Development*, *58*(4), pp.446-451.

68. Lin, J., 2010. Industrial Policy Comes out of the Cold. *Project Syndicate. www. projectsyndicate. org/commentary/lin2/English*.4.1. Economic Growth and the Environmental Crisis.

69. Maclean, R., Jagannathan, S. and Sarvi, J. eds., 2012. *Skills development for inclusive and sustainable growth in developing Asia-Pacific*. Springer

70. Milkman, R., 2014. Ruth Milkman-Capital in the Twenty-First Century by Thomas Piketty translated by Arthur Goldhammer (Cambridge, MA, Harvard University Press, 2014). *European Journal of Sociology/Archives Européennes de Sociologie*, *55*(3), pp.373-377

71.   Miltenburg, J. (2008). Setting manufacturing strategy for a factory-within-a-factory. *International Journal of Production Economics*, *113*(1), 307-323.

72.   Munir, F. and Ullah, S., 2018. Inclusive growth in Pakistan: Measurement and determinants. *The Pakistan Journal of Social Issues*, (Special Issues (June 2018), pp.150-162.

73.   Nagler Paula and Naude Wim, (2015). Industrialisation, Innovation, Inclusion. UNIDO/UNU-MERIT background papers for the UNIDO, Industrial Development Report 2016: IDR 2016 WP

74.   Narayan, P.K. (2005). The relationship between saving and investment for Japan. Japan and the World Economy, 17, 293–309.

75.   Natu, A. J., Bansal, A., Kurian, A., Khurana, G. P. S., & Bhushan, T. (2008). Linking financial inclusion with social security schemes. *Institute for Financial Management and Research Centre for Micro Finance Working Paper Series No*, *22*.

76.   Noman, A., & Stiglitz, J. E. (Eds.). (2015). *Industrial policy and economic transformation in Africa* (p. 312). New York: Columbia University Press.

77.   NORTH, D.C., 1989. and Economic Institutions. *Leading Edges in Social and Behavioral Science*, p.385.

78.   Osmani, S.R. and Naseem, S.M., 2008. The Demands of Inclusive Growth: Lessons from South Asia [with Comments]. *The Pakistan Development Review*, pp.381-402.

79.   Paiva, E. L., Roth, A. V., & Fensterseifer, J. E. (2008). Organizational knowledge and the manufacturing strategy process: a resource-based view analysis. *Journal of Operations Management*, *26*(1), 115-132.

80.   Perotti, R., 1996. Growth, income distribution, and democracy: What the data say. *Journal of Economic growth*, *1*(2), pp.149-187.

81.   Pesaran, M. H. (2004). General diagnostic tests for cross section dependence in panels general diagnostic tests for cross section dependence in panels. SSRN Electronic Journal. https ://doi.org/10.17863 /CAM.5113.

82.   Pesaran, M. H. (2007). A simple panel unit root test in the presence of cross-section dependence. Journal of Applied Econometrics, 22(2), 265–312. https ://doi.org/10.1002/jae.951.

83.   Pesaran, M. H. and Pesaran, B. (1997) Working with Microfit 4.0: Interactive Econometric Analysis, Oxford University Press, Oxford.

84.   Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous pan-els. Journal of the American Statistical Association, 94(446), 621–634.

85.   Pesaran, M.H., Shin, Y. and Smith, R.J., 2001. Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, *16*(3), pp.289-326.

86.   Piece, T.T., 2012. Macroeconomic stability, inclusive growth and employment. *ILO, UNCTAD, UNDESA, WTO*.

87.   Rafindadi, A. A., & Yosuf, Z. (2013, December). An application of panel ARDL in analysing the dynamics of financial development and economic growth in 38 Sub-Saharan African continents. In *Proceeding-Kuala Lumpur International Business, Economics and Law Conference* (pp. 118-135).

88. Ranieri, R. and Almeida Ramos, R., 2013. *Inclusive growth: building up a concept* (No. 104). Working Paper, International Policy Centre for Inclusive Growth.

89. Rauniyar, G., & Kanbur, R. (2009). Inclusive growth and inclusive development. *Occasional paper*, *8*.

90. Rodrik, D., 2006. Goodbye Washington consensus, hello Washington confusion? A review of the World Bank's economic growth in the 1990s: learning from a decade of reform. *Journal of Economic literature*, *44*(4), pp.973-987.

91. Roodman, D., (2006). How to do xtabond2: An introduction to Difference and System GMM in Stata. Center for Global Development working paper, (103).

92. Samargandi, N., Fidrmuc, J. and Ghosh, S., 2015. Is the relationship between financial development and economic growth monotonic? Evidence from a sample of middle-income countries. *World development*, *68*, pp.66-81.

93. Sato, R., 1964. The Harrod-Domar model vs the Neo-Classical growth model. *The Economic Journal*, *74*(294), pp.380-387.

94. Scott, A. and Storper, M., 2003. Regions, globalization, development. *Regional studies*, *37*(6-7), pp.579-593.

95. Sen, A., 1995. *Inequality reexamined*. Harvard University Press.

96. Seyfried, W., 2011. Examining the relationship between employment and economic growth in the ten largest states. *Southwestern Economic Review*, *32*, pp.13-24.

97. Singer, J.M. and Sen, P.K., 1986. M-methods in growth curve analysis. *Journal of statistical planning and inference*, *13*, pp.251-261.

98. Skinner, B. J., & Rovere, M. (2007). *Canada's drug price paradox 2007*. Fraser Institute.

99. Sklair Leslie (1994). Capitalism and Development. *Routledge London and Newyork.*

100. Slamon, D. J., Clark, G. M., Wong, S. G., Levin, W. J., Ullrich, A., & McGuire, W. L. (1987). Human breast cancer: correlation of relapse and survival with amplification of the HER-2/neu oncogene. science, 235(4785), 177-182.

101. Solow, R.M., 1999. Neoclassical growth theory. *Handbook of macroeconomics*, *1*, pp.637-667.

102. Solow, Robert M. (1957). "Technical change and the aggregate production function". *Review of Economics and Statistics*. **39** (3): 312–320.

103. Stiglitz, J. (2011). Rethinking Development Economics. *The World Bank Research Observer*, 26(2), pp.230-236.

104. Stiglitz, J., 2012. The Price of Inequality, Allen Lane.

105. Strebel, P., 1995. Creating industry breakpoints: Changing the rules of the game. *Long Range Planning*, *28*(2), pp.11-20.

106. Streeten Paul (2019).Industrialisation in a Unified Development Strategy. *Springer.*

107. Sugihara Kaoru, (2007). The Second Noel Butlin Lecture: Labour-Intensive industrialization in Global History. *Australian Economic History Review.* Vol. 47, No. 2

108. Sulaiman, C., & Abdul-Rahim, A. S. (2020). Can clean biomass energy use lower CO 2 emissions in African economies? Empirical evidence from dynamic long-run panel framework. *Environmental Science and Pollution Research*, *27*(30), 37699-37708.

109. Swink, M., & Song, M. (2007). Effects of marketing-manufacturing integration on new product development time and competitive advantage. *Journal of operations management*, *25*(1), 203-217.

110. Szirmai, A. and Verspagen, B., 2015. Manufacturing and economic growth in developing countries, 1950–2005. *Structural Change and Economic Dynamics*, *34*, pp.46-59.

111. Szirmai, A., 2009, October. Industrialisation as an engine of growth in developing countries. Georgia Institute of Technology. .

112. Takahashi, F., 1971. Money supply and economic growth. *Econometrica (pre-1986)*, *39*(2), p.285.

113. Timmer, M., de Vries, G.J. and De Vries, K., 2015. Patterns of structural change in developing countries. In *Routledge handbook of industry and development* (pp. 79-97). Routledge.

114. Tyler, W.G., 1976. Brazilian industrialization and industrial policies: A survey. *World Development*, *4*(10-11), pp.863-882.

115. United Nations Industrial Development Organization. General Conference, 1975. *Lima Declaration and Plan of Action on Industrial Development and Co-operation*. UNIDO.

116. Vachon, S., & Mao, Z. (2008). Linking supply chain strength to sustainable development: a country-level analysis. *Journal of Cleaner Production*, *16*(15), 1552-1560.

117. Vellala, P.S., Madala, M. and Chhattopadhyay, U., 2014. A theoretical model for inclusive economic growth in Indian Context. *International Journal of Humanities and Social Science*, *4*(13), pp.229-235.

118. World Bank, 2019, World Development Indicators (WDI). Washington, DC: The World Bank

119. World Bank, 2019, World Development Indicators (WDI). Washington, DC: The World Bank

120. World Bank. (2018). *Global Economic Prospects, January 2018: Broad-Based Upturn, but for How Long?* The World Bank.

121. Zilberman.D (). The Economics Of Sustainable Development.

122. Zilberman.D (). The Economics of Sustainable Development.