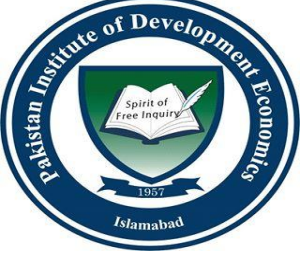


HARVESTING THE BENEFITS OF INDUSTRIALIZATION FOR INCLUSIVE GROWTH: AN EVIDENCE BASED POLICY FRAMEWORK

KHIZAR HAYAT, MPhil Public Policy (2018-2021)

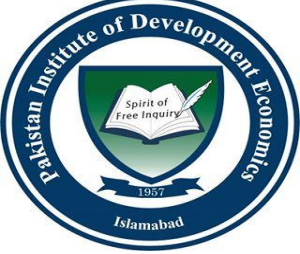
Supervised by:

Dr. Usman Qadir, Senior Research Economist



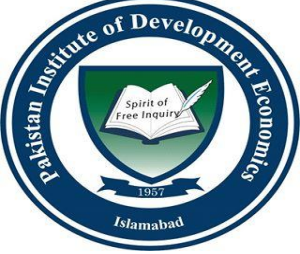
OUTLINES

- Introduction
- Background of the Study
- Problem Statement
- Research Objectives
- Research Questions
- Significance of the Research
- Theoretical Foundation and Conceptual Framework
- Literature Review
- Methodology
- Results
- Policy Recommendations
- conclusion

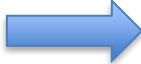


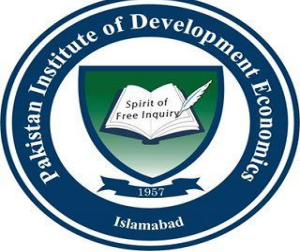
INTRODUCTION

- Manufacturing is the engine of growth for developing countries as its effects are particularly pronounced in periods of growth acceleration.
- The share of manufacturing of GDP is positively related to economic growth and this effect is more pronounced for the poorer countries (Attiah, E., 2019)
- Industrial development has had an important role in the economic growth of countries like China and Korea. Along with accelerated growth, poverty rates have declined in many countries.
- Some countries have managed to achieve growth with equity, whereas in others inequality has remained high (Kniivilä, M., 2007)



INTRODUCTION

- Major Concern with Growth:
 - ❖ Uneven Distribution of Benefits and welfare
 - ❖ Inequality and Income Disparity
 - ❖ Unsustainability and biased toward the affluent
- Pakistan's uneven economic growth therefore threatens to exacerbate regional poverty. Subsidiary economic activities (industry, finance, services) emanating from the growth hubs must be developed to provide employment and welfare more consistently across the country. 
- To abridge the income gap and overcome the disparities, major economies are opting diverse strategies to achieve high but inclusive economic growth - benefiting everyone in the society (Stieglitz, 2011)
- Inclusive growth is equal opportunity to benefits of economic growth which are shared fairly and equitably by all segments of society (Ranieri, 2013) & (Anand, Mishra, & Peiris, 2015)



INTRODUCTION



Source: Pakistan Bureau of Statistics pbs.gov.pk





BACKGROUND OF THE STUDY

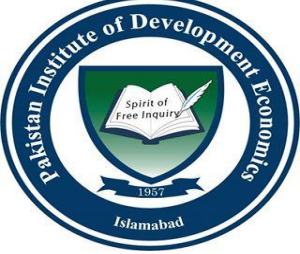
➤ Basic Indicators of Economic growth

1. High productivity or growth rate
2. Rising income level
3. Employment opportunities
4. Uplifting the social infrastructure

➤ Manufacturing sector plays very important role in achieving it, however, the benefits of growth are not shared equally. Pakistan is facing the major challenge of income inequality as the gains from growth are spread unevenly ([Chaudhuri and Ravallion, 2006](#)).

➤ Monetary measures of income inequality in Pakistan shows Gini coefficient of 0.29 respectively. However, nonmonetary indicators of wellbeing show much darker picture. The country has worst human development outcomes worldwide. ([Rama et al., 2015](#)).

➤ [Ravallion and Chen, \(2003\)](#) supported the idea of inclusive growth through which living standards are improved by increase in per capita thus calling for a stringent policy framework for industries where no-one is left behind in sharing the benefits ([Maclean, 2012](#))



PROBLEM STATEMENT

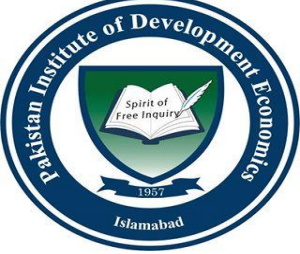
- Economy of Pakistan has experienced episodic growth trajectory and doesn't maintain a sustainable growth for long period like China and India. It is faced by challenge of **Deteriorating Income Inequality, Unemployment, Economic stagnation and instability**
- The main reason behind all the slow economic growth is assumed to be low productivity of different sectors especially unsustainable industries and non-inclusive institutions
- To address this problem, there is a dire need for policy interventions in industrial sector as highlighted by **Kaldor's law – the growth of GDP is positively correlated with growth of manufacturing, establishing participative institutions**



RESEARCH OBJECTIVES

The research objectives are as under:-

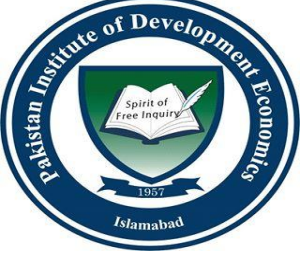
1. To study the existing contribution of industry in overall production and economic growth
2. To measure the role of industry in employment generation, poverty mitigation, savings and abridging income gap
3. Based on the measurements of above mentioned factors, this study ascertains and identifies evidence-based policy initiatives for establishing sustainable industries and to harvest its benefits for achieving inclusive growth



RESEARCH QUESTIONS

This paper seeks 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?



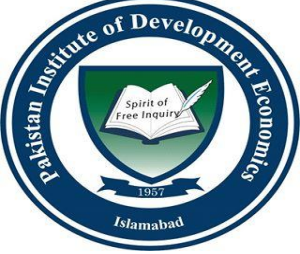
SIGNIFICANCE OF THE RESEARCH

- This study significantly focuses on the relationships of sustainable industries and economic growth in Pakistan. It also brings forth evidence-based policy interventions for sustainable industrialization to mitigate income inequality, unemployment and economic stagnation thus achieving inclusive growth



THEORITICAL FOUNDATION

- This study basis on *General Theory of Economic Development* (Jwa, 2017) which is a conglomeration of Capitalist and Socialist approaches to ensure participation of all segments of society in growth process and sharing its benefits
- The General Theory of Economic Development supports the idea of sustainable industries and its positive affects in reducing inequality and generating employment to achieve inclusive growth
- The main focus of industries is profit maximization and therefore it generates high production which creates employment, supports R&D technologies by investing capital from saving

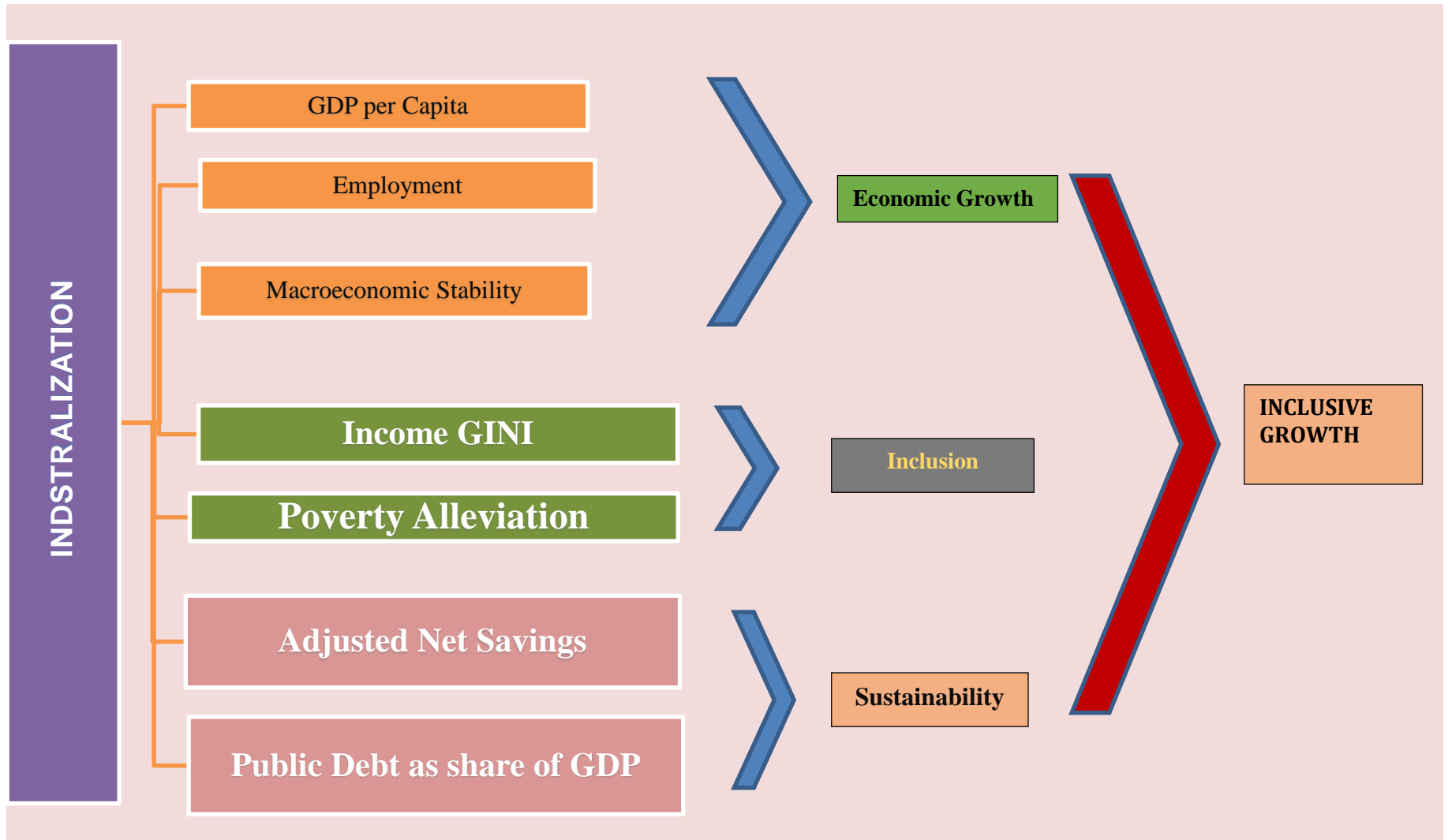


CONCEPTUAL FRAMEWORK

- Conceptual framework is based on ‘**Rational Choice Theory**’. It assumes preferable choice among the best alternatives. It presumes that aggregate social behaviour is the outcome of individual choice making (Chicago School of Economics)
- It is goal-oriented, evaluative, and consistent across time and different choice situation, therefore, applying it in this study is more appropriate.
- This main reason is its rational and cost-effective approach which help industrialists and policy makers to mitigate poverty, income inequality through establishment of industries



CONCEPTUAL FRAMEWORK





LITERATURE REVIEW

Economic Growth and Income Inequality

Global population experienced declined in overall poverty as one-third of the population of the world lived in poverty in 1981, whereas the share was 18 per cent in 2001.	(Chen and Ravallion,2004)
Initially the economic growth process is accompanied by inequality, induced by the market forces, however, it flattens out and ends in the long run.	(Kuznets, S., 1955).
It has been econometrically verified that high growth periods and greater equality are highly associated	(Berg, 1998)
Over the last two decades, many countries in Asia-Pacific regions have witnessed not merely impressive growth rate but also report massive curtailment in the incidence of poverty	(Rhee, 2012)
Despite tremendous achievement in economic growth, people in this region still deprive of the basic necessities of life; about 60% of the world malnourished and starved residents live in Asia	(Haq, 2015)
Ali 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.	(Ali,2007)



LITERATURE REVIEW

Economic Growth and Income Inequality

<p>A survey on household consumption and expenditure reveals that the growth in per-capita expenditure of the lower quantile is far below the growth of the upper quantile in Asian countries</p>	<p>(Ali, 2007).</p>
<p>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”</p>	<p>(World Bank 2006)</p>

Concept of Inclusive Growth

<p>The growing concern to control the issue of escalating inequality switch the attention of policymakers and researchers of the world toward the new model of economic development, i.e. “Inclusive Growth”.</p>	<p>(Asghar & Javed, 2011)</p>
<p>Inclusive growth is normally understood as growth that reduces income and non-income inequality.</p>	<p>(Rauniyar & Kanbur, 2010)</p>
<p>Economic growth is said to be inclusive if it leads to a reduction in poverty and inequality, provides jobs, eliminates gender inequality, responds to climatic conditions and improves the administration of a country</p>	<p>(Kireyev & Chen, 2017)</p>



LITERATURE REVIEW

Sustainable Industries

Poverty rates have reduced with accelerated growth with the impact of industrial development on growth. Some countries have managed to achieve growth with equity whereas in others inequality has remained high.	(Kniivilä, M., 2007)
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)
Dependency theory in the wave of globalization does require a detailed explanatory developmental framework that is inclusive to all homogeneities and traditional differences – inclusive industrialization.	(Sweeting, 1996)
During the twentieth century, Asia associated its capital with intensive labour industries due to lack of advanced technologies	(Sugihara, 2007)
Sustainable production are 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)



LITERATURE REVIEW

Inclusive Growth and Industrialization

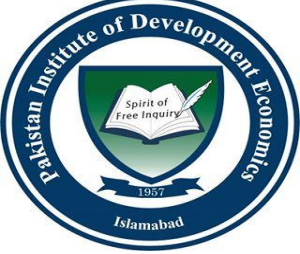
<p>The growing concern to control the issue of escalating inequality switch the attention of policymakers and researchers of the world toward the new model of economic development, i.e. “Inclusive Growth”</p>	<p>(Asghar & Javed, 2011)</p>
<p>It is the economic growth that focuses on creating opportunities and make sure that these opportunities are obtainable to all, including the vulnerable groups, to the highest possible extent</p>	<p>(Ali & Son, 2007)</p>
<p>According to economic growth is said to be inclusive if it leads to a reduction in poverty and inequality, provides jobs, eliminates gender inequality, responds to climatic conditions and improves the administration of a country.</p>	<p>(Kireyev & Chen, 2017)</p>
<p>Sustainability is an essential component of inclusive growth; any economic growth that produces disparity would not sustain for a more extended period and thus make the growth non-inclusive</p>	<p>(WB, 2009)</p>



LITERATURE REVIEW

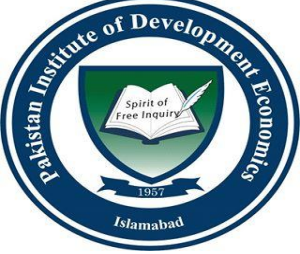
Sustainable Modern Economy and Policy Making

<p>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</p>	<p>(Rawls, 1999)</p>
<p>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</p>	<p>Skinner (2007)</p>
<p>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</p>	<p>(Streeten.P)</p>



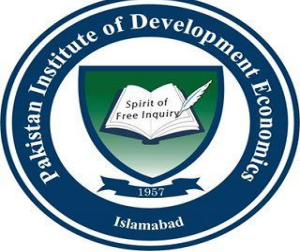
METHODOLOGY

- This study aims to gauge the level of industrial sector relationship with economic growth.
- Assumes that industries generated more employment and contribute to inclusive growth in order to mitigate poverty and abridging income gap. A modest inflation rate is also important for economic growth
- Define GDP per capita as dependent variable as it is highly correlated with other factors important for human welfare.
- The independent variables are employment, inflation rate, GINI Coefficient and Poverty rate



RESEARCH DESIGN

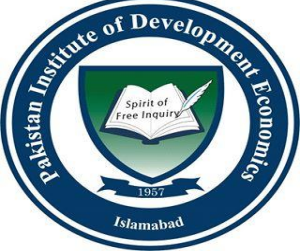
- Data for industrial sector of Pakistan has been taken for a period (1991 to 2019)
- Twenty-nine (29) observations are utilized in the time series dataset, for analysis of regression.
- It is a longitudinal data model, which are observed over a time at equal intervals and represented by T, stands for 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
- Sources of Data – World Development Index
- The results will further be elaborated to develop Evidence based Policies for attaining inclusive growth through sustainable industrialization.



STEPS TO ESTIMATION OF PANEL ARDL (PMG) MODEL

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

- Describing the Model(s)
- Descriptive Statistics
 - It summarizes the characteristics of data set and measures the central tendency and variability or spread of dataset
- Performing Unit Root Test
 - It is performed for the non-stationary and stationary variables to check the null hypothesis and the alternative hypothesis
- Optimal Lags Selection
- Estimate the Model(s)

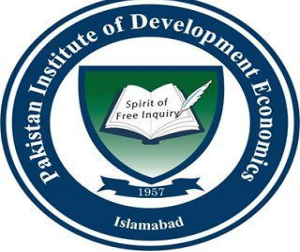


Econometric Modelling

➤ The Single Equation Model is used to empirically investigate the existing contribution of industries in economic growth. The equation is given below:

$$\bullet \ln Y_t = \alpha_0 + \alpha_1 \ln Emp_t + \alpha_2 \ln IR_t + \alpha_3 \ln GINI_t + \alpha_4 \ln PR_t + \alpha_5 \ln SR_t + \alpha_6 \ln DS_t + u_{1it} \dots \dots \dots Eq_2$$

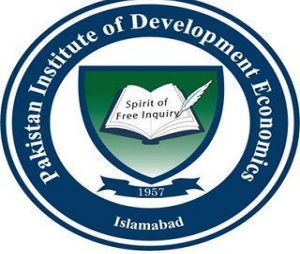
Where: $\ln Y_t$ = GDP per capita (constant 2010 US\$) , $\ln Emp_t$ = Employment in Industry, $\ln IR_t$ = Inflation Rate, $\ln GINI_t$ = GINI Index, $\ln PR_t$ = Poverty Headcount Ratio, $\ln SR_t$ = Gross Domestic Savings, $\ln DS_t$ = Debt Service, U_t = Gaussian White Noise, T refers to time period, N= variety of move-sections when information is located, t = Years (1991, 1992, 1993, 2019), $\alpha_0, \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6$ and α_7 = Partial slope coefficients.



Results

- All results of long-run coefficient estimates are given in Table which shows the existence of a long-run relationship between industries and inclusive growth. We used Schwartz criterion and impose following lag structure (1, 1, 1, 1, 1, 1, 1) for ARDL lag selection.
- 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 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





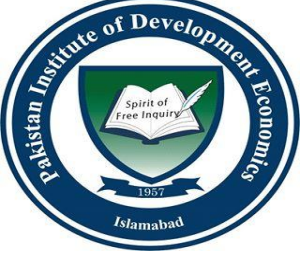
Results

- 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
- 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.



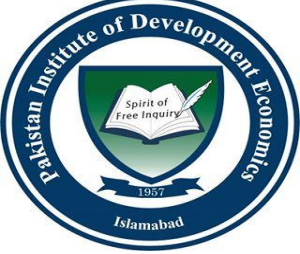
POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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.



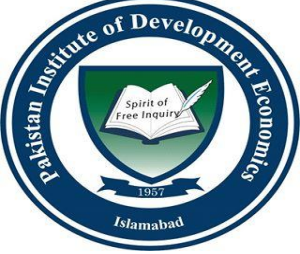
POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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



POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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.
- 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
- 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



POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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.
- 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.
- 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.

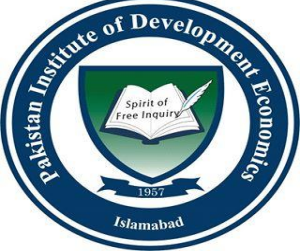


POLICY IMPLICATIONS AND RECOMMENDATIONS

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

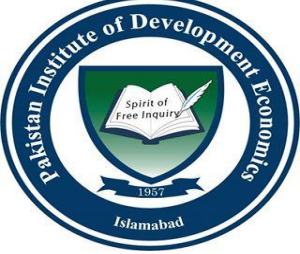
-

- Results suggest a wonderful relationship between GDP and sustainable industrialization. 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.
- This study consequences indicate that relationship 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.



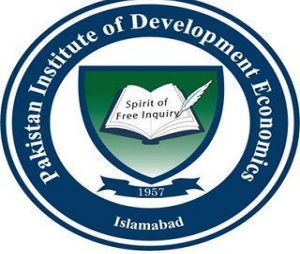
POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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 labour 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



POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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.



POLICY IMPLICATIONS AND RECOMMENDATIONS

- 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.