

Towards Inclusive Economic Growth: Synthesizing Strategies for Social Inclusion in Development

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Abstract

This paper consolidates insights from various studies, reports, and initiatives to address a critical policy challenge: enhancing social inclusion in economic growth and integration processes. Recognized as a global priority, social inclusion is essential for equitable development. By synthesizing existing knowledge, the study identifies key drivers, barriers, and opportunities related to inclusive economic growth. It examines policies, institutions, and interventions that foster equity and participation, analyzing case studies and best practices from diverse regions to highlight successful approaches in reducing disparities. A growing consensus suggests that the current economic growth model fails to address rising inequality and stagnant median household incomes. While the causes and significance of these issues remain debated, persistent wealth disparities, limited upward mobility, and ineffective economic policies highlight the need for a revised approach. Concerns about social cohesion, political stability, and sustainability further emphasize the urgency of rethinking traditional growth paradigms. Achieving inclusive growth requires broadening national economic strategies beyond macroeconomic, trade, and financial stability policies. Targeted measures must promote equitable access to education, healthcare, and social protection while supporting small and medium-sized enterprises (SMEs) and infrastructure development. Additionally, fostering innovation and entrepreneurship, particularly among marginalized communities, can unlock new economic opportunities. Ultimately, integrating social, environmental, and economic objectives into development agendas ensures more resilient and equitable economies. By prioritizing inclusivity alongside traditional growth metrics, policymakers can build sustainable economic models that distribute benefits equitably and enhance long-term prosperity for all citizens.

Keywords: Social Inclusion, Economic Growth, Policy Challenges, Inclusive Development, Equity, Strategies

1. INTRODUCTION

The literature on inclusive growth may be limited in quantity, but its quality and relevance are paramount. Implementing an inclusive growth strategy necessitates a profound societal transformation that demands substantial resources, both human and financial. Studies emphasize that inclusive development frameworks must integrate macroeconomic stability with social justice and institutional equity (Khan, 2019; Ahmad, 2018). To effectively address the multifaceted challenges of inequality, poverty, and exclusion, policymakers must draw upon rigorous research, comprehensive reports, and insightful publications that offer evidence-based insights and practical recommendations. These resources can inform the design and implementation of policies and programs aimed at fostering inclusive growth, ensuring that they are targeted, effective, and responsive to the diverse needs and circumstances of all segments of society. Moreover, investing in research and knowledge dissemination in the field of inclusive growth can yield significant long-term dividends by enhancing our understanding of the drivers of inequality and identifying innovative solutions to promote shared prosperity and social cohesion (Farahmand, 2019; Kumar, 2018). Finance and investment play crucial roles in fostering inclusive institutions that provide equal access to job opportunities and essential social services such as education and healthcare (Ali & Ahmad, 2014; Ali & Afzal, 2019). However, despite the increasing recognition of the importance of prioritizing inclusive growth strategies on the development agenda, many developing countries face significant challenges in mobilizing the necessary resources and building the capacity to support this transformation.

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Access to finance is essential for individuals and businesses to participate fully in economic activities and benefit from growth opportunities. Investment in infrastructure, education, and healthcare is also vital for laying the foundation for inclusive development by creating an enabling environment for economic participation and social mobility. As emphasized in prior studies, inclusive finance and sectoral investment are foundational to unlocking human potential and ensuring equitable access (Ali & Afzal, 2019; Ahmad, 2018). Yet, in many developing countries, financial resources are limited, and institutional capacities are constrained, hindering efforts to address the underlying drivers of inequality and exclusion. This highlights the need for targeted interventions to mobilize domestic and international resources, strengthen governance and institutions, and build the necessary human capital to support inclusive growth agendas (Khan, 2019; Kumar, 2018). Foreign aid has historically played a significant role in promoting inclusive growth in recipient countries, with a primary objective of fostering economic development to alleviate poverty and reduce inequality. Since the Second World War, foreign aid has been instrumental in providing critical financial resources, technical assistance, and capacity building support to aid recipient countries, particularly in the developing world. Foreign aid programs have sought to address various development challenges, including improving infrastructure, expanding access to education and healthcare, promoting agricultural development, and supporting small and medium-sized enterprises (Farahmand, 2019; Bibi, 2019). By investing in these areas, foreign aid aims to create the conditions necessary for inclusive growth, where all segments of society can participate in and benefit from economic opportunities. Moreover, foreign aid has often been targeted towards vulnerable and marginalized populations, such as women, children, and ethnic minorities, who may face barriers to accessing essential services and opportunities. By prioritizing inclusivity and equity in aid programs, donors and development agencies can help ensure that the benefits of economic growth are shared more widely and that no one is left behind. However, it's essential to recognize that foreign aid alone is not sufficient to promote inclusive growth. Aid effectiveness depends on various factors, including good governance, sound economic policies, effective institutions, and partnerships between donors and recipient countries. Moreover, aid should be provided in a manner that respects the priorities and needs of recipient countries and supports their efforts towards self-reliance and sustainable development.

The evolution of the purpose of aid reflects a broader shift in development priorities towards addressing multidimensional challenges beyond simply promoting economic growth. The United Nations' Millennium Development Goals (MDGs), and subsequently the Sustainable Development Goals (SDGs), have played a pivotal role in reshaping the focus of aid towards a more comprehensive and inclusive approach to development. While traditional aid activities focused primarily on promoting economic development and infrastructure, the MDGs introduced a set of interconnected goals that encompassed poverty alleviation, education, healthcare, gender equality, environmental sustainability, and other social objectives. This expanded agenda recognizes that sustainable development requires addressing a wide range of issues that affect people's well-being and opportunities for advancement (Farahmand, 2019; Bibi, 2019). As a result, the allocation of official development assistance (ODA) has shifted towards supporting initiatives that promote more equitable societies and inclusive growth. This includes investments in education and healthcare to improve human capital, programs aimed at reducing poverty and inequality, initiatives to empower women and marginalized groups, and efforts to promote environmental sustainability and resilience (Ali & Afzal, 2019; Ahmad, 2018). There has been a growing emphasis on the principles of ownership, alignment, and harmonization in aid delivery, whereby donor interventions are designed and implemented in close collaboration with recipient countries and aligned with their national development priorities and strategies. This approach aims to enhance the effectiveness and sustainability of aid efforts by ensuring that they are contextually relevant and driven by local needs and aspirations (Kumar, 2018; Khan, 2019). The rapid economic growth experienced by Asian countries over the past two decades has indeed contributed to significant reductions in poverty levels. As highlighted by the Asian Development Bank (ADB) in 2006, this period saw a substantial decline in the number of individuals living below the poverty line, indicating progress in poverty alleviation

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efforts. However, it's important to recognize that while growth is a necessary condition for poverty reduction, it does not guarantee improvements in the living standards of all segments of society.

The benefits of economic growth may not be evenly distributed, and certain groups or regions within a country may not fully share in the gains. Factors such as income inequality, access to opportunities, social protection mechanisms, and government policies play crucial roles in determining how the benefits of growth are distributed among different segments of the population. Without targeted interventions to address these disparities, economic growth may bypass marginalized or vulnerable groups, leading to persistent pockets of poverty and inequality (Ahmad, 2018; Khan, 2019). Therefore, while economic growth is a vital engine for poverty reduction, it must be accompanied by inclusive development policies that ensure equitable access to education, healthcare, employment, and social services for all members of society. This requires a holistic approach to development that addresses not only income poverty but also broader dimensions of well-being and social inclusion (Ali & Afzal, 2019; Kumar, 2018). By fostering inclusive growth strategies, Asian countries can more effectively translate economic progress into tangible improvements in the quality of life for all their citizens, thereby advancing the goal of sustainable and equitable development (Farahmand, 2019; Bibi, 2019). While economic growth can generally improve overall standards of living within a society, its distributional effects are crucial in determining whether all segments of the population benefit equitably. China's experience provides a compelling example of this phenomenon. As China underwent rapid economic growth over the past few decades, there were significant improvements in living standards across various socio-economic groups. However, the benefits of growth were not distributed evenly, resulting in an increase in income inequality.

One key aspect of this inequality is the disproportionate benefit accrued by the affluent segments of society compared to the less privileged ones. While wealth and prosperity expanded for many, those at the top of the income distribution often experienced more substantial gains, leading to widening income gaps. Prior empirical work has documented how imbalances in education, employment access, and institutional reach drive inequality across developing economies (Willy, 2018; Rakot, 2019). Factors such as unequal access to education, employment opportunities, and social services further exacerbated these disparities, perpetuating a cycle of inequality. Addressing this challenge requires proactive measures to ensure that the benefits of economic growth are more evenly shared among all segments of society. Policies aimed at reducing income inequality, such as progressive taxation, social safety nets, targeted education and healthcare programs, and inclusive economic development strategies, are essential in promoting equitable growth (Desiree, 2019; Singh & Kumar, 2018). By prioritizing social inclusion and addressing the root causes of inequality, countries can harness the potential of economic growth to improve the well-being of all their citizens, fostering a more just and prosperous society. The distributional outcomes of economic growth can vary significantly across different countries. While China and India have experienced rapid economic expansion in recent decades, the extent to which this growth has translated into improvements in equity differs between the two nations. In India, similar to China, economic growth has contributed to overall improvements in living standards but has also exacerbated income inequality, with wealth accruing disproportionately to the affluent segments of society.

On the other hand, countries like Brazil, Mexico, and Thailand have pursued policies aimed at promoting more inclusive growth, resulting in a different trajectory. Despite experiencing economic growth, these nations have also made concerted efforts to address income inequality and improve equity. Studies from various regions highlight that when social policy is integrated with macroeconomic planning, income gaps can be narrowed more effectively (Clark & Adam, 2018; Wiafe, 2018). Through targeted social programs, progressive taxation, and other policy measures, they have succeeded in ensuring that the benefits of growth are more evenly distributed across society, leading to a reduction in poverty and a narrowing of income gaps. The contrasting experiences of these countries underscore the importance of policy choices in shaping the distributional outcomes of economic growth. By prioritizing equity and social inclusion alongside economic expansion, nations can achieve more balanced and sustainable development outcomes, ensuring that the benefits of

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growth are shared by all segments of society. Pakistan has faced significant challenges in achieving inclusive growth, where the benefits of economic expansion are shared across all segments of society. While the country has experienced periods of high economic growth, these episodes have often been accompanied by macroeconomic imbalances and structural constraints that hinder poverty reduction and inclusive development (Gorus & Groeneveld, 2018; Ho & Ran, 2018). One key obstacle to inclusive growth in Pakistan has been persistent income inequality, with wealth and opportunities concentrated in the hands of a small elite while large segments of the population remain marginalized and vulnerable to poverty. Additionally, inadequate investment in human capital, limited access to quality education and healthcare, and barriers to economic participation for marginalized groups further exacerbate disparities and hinder social mobility. The provision of basic services such as education, healthcare, sanitation, and housing for all segments of the population, coupled with social security schemes to ensure social protection, are crucial for fostering long-term reductions in poverty and promoting inclusive growth (Saleem & Fatima, 2018; Khan, A., 2018). The concept of inclusive growth has been measured using various indicators, including access to opportunities such as education, as demonstrated in studies conducted in countries like the Philippines and Pakistan. For instance, research by Ali and Son (2007), Newman (2012), Asghar, and Javed (2011), and Ravallion and Chen (2003) has examined the inclusiveness of growth by assessing access to education and its impact on poverty reduction and social inclusion.

Studies such as those by Taskin (2014) in Turkey have explored the relationship between income per capita and equity, revealing that while increases in per capita income may signify economic growth, they may not necessarily lead to equitable distribution of wealth and opportunities. This underscores the importance of adopting policies and interventions that not only promote economic growth but also ensure that its benefits are shared inclusively across society, thus reducing poverty and fostering sustainable development. The macroeconomic context in Pakistan indicates a concerning trend of rising poverty and inequality. Against this backdrop, our study aims to assess whether economic growth in Pakistan has translated into inclusive benefits for all segments of society. Specifically, we seek to investigate whether the purported growth has been attained at the cost of equity, leading to uneven distribution of benefits. If economic growth has primarily favored certain privileged segments while leaving behind the marginalized and impoverished groups, it indicates a failure of inclusive development efforts. This scenario suggests that structural constraints or market failures may be hindering the ability of the poor to fully participate in and benefit from the country's economic progress. By examining these dynamics, our study aims to provide insights into the effectiveness of growth strategies and identify potential areas for policy intervention to foster more equitable and inclusive growth in Pakistan. The current situation underscores the importance of government intervention to ensure that the benefits of economic growth are distributed equitably across society. Policy formulation plays a crucial role in shaping the trajectory of growth and mitigating disparities in income and opportunity. By implementing measures that promote equal access to resources, services, and opportunities, the government can foster a more inclusive and sustainable development path.

The ultimate objectives of inclusive growth encompass various dimensions beyond economic prosperity alone. Sustainable and equitable growth entails not only the expansion of the overall economy but also its distribution in a manner that reduces disparities and fosters social cohesion. Social inclusion involves the removal of systemic barriers and the creation of incentives that enable all members of society, including marginalized groups, to participate fully in the development process. Research suggests that this participation requires inclusive institutions, adequate access to resources, and localized planning (Wang & Ahmad, 2018; Yen, 2018). Empowerment, another key outcome of inclusive growth, entails enhancing the capabilities and agency of individuals and communities to shape their own destinies. Lastly, security, both economic and social, is essential for ensuring that vulnerable populations are protected from risks and shocks, thereby enabling them to pursue opportunities for advancement without fear of destitution or marginalization. Empowerment plays a crucial role in fostering inclusive growth by enhancing the assets, capabilities, and agency of

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individuals and groups to actively participate in the development process. One of the key measures of empowerment involves providing job opportunities and promoting productivity, as gainful employment not only contributes to economic growth but also empowers individuals by providing them with a source of income, dignity, and self-reliance (Hamid, 2018; Iqbal, 2018). The Eminent Person Group report underscores the significance of economic growth in achieving inclusive development. Rapid economic growth has the potential to benefit all segments of society, including the poor, by creating opportunities for income generation, improving living standards, and reducing poverty. However, for growth to be truly inclusive, it must be accompanied by policies and initiatives that ensure equitable distribution of wealth and opportunities, address social inequalities, and empower marginalized communities to participate fully in the growth process (Ahiawodzi, 2019; Alvi & Shahid, 2018).

In essence, empowerment serves as a catalyst for inclusive growth by enabling individuals and groups to leverage their skills, resources, and potential to contribute to economic prosperity and social development. By investing in education, skills training, entrepreneurship, and access to markets and finance, governments and policymakers can empower marginalized populations and unlock their full potential, thereby fostering a more inclusive and sustainable path to development. Prior research supports this by emphasizing how access to human capital development, vocational training, and market integration can elevate marginalized communities (Saleem & Fatima, 2018; Khan, A., 2018). The concept of inclusive growth, as highlighted in the report of the Eminent Persons Group initiated by the Asian Development Bank (ADB), underscores the importance of ensuring that the benefits of economic growth are accessible to all segments of society, especially the poor. Inclusive growth goes beyond merely achieving high GDP growth rates; it focuses on creating economic opportunities that reach marginalized and vulnerable populations, thereby reducing poverty and inequality. Evidence from empirical studies also stresses that inclusive policies in health, education, and employment significantly enhance the impact of growth on poverty reduction (Wiafe, 2018; Iqbal, S., 2018). This approach recognizes that sustainable development requires not only economic progress but also social inclusion and equity. By prioritizing inclusive growth strategies, policymakers aim to enhance the well-being and livelihoods of all individuals, fostering a more equitable and sustainable path to prosperity. The uneven distribution of economic opportunities resulting from the growth process often leaves the poor at a disadvantage due to various constraints, including market failures and socio-economic circumstances. As a consequence, the benefits of economic growth tend to disproportionately favor the non-poor population. To counteract this trend and ensure that growth is inclusive and benefits all segments of society, government intervention is crucial. By implementing policies and programs aimed at facilitating the full participation of marginalized and disadvantaged groups in the new economic opportunities, governments can promote pro-poor growth. These interventions may include targeted social welfare programs, investments in education and skills development, infrastructure development in underserved areas, and measures to enhance access to finance and markets for small-scale entrepreneurs and farmers. Through such proactive measures, governments can mitigate inequalities and foster a more inclusive and equitable growth trajectory. Inclusive growth goes beyond simply fostering economic expansion; it entails ensuring that the benefits of growth are accessible to all members of society, especially those who are economically disadvantaged. While economic growth is essential for reducing poverty, it does not automatically lead to equitable outcomes. In many cases, growth may exacerbate existing inequalities if it primarily benefits certain segments of the population while leaving others behind. Therefore, policies and strategies aimed at achieving inclusive growth must address not only the overall growth rate but also the distribution of benefits to ensure that marginalized groups are not left behind. By prioritizing equity and social inclusion alongside economic growth, societies can work towards reducing poverty and fostering sustainable development for all. Indeed, high and increasing income inequality poses significant challenges to poverty reduction efforts and overall economic growth. When a large portion of a country's wealth is concentrated in the hands of a few, the benefits of economic growth are not distributed evenly across society. This not only hampers poverty reduction initiatives but can also

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undermine the stability and cohesion of society, which are essential for sustainable development. As a result, there is growing recognition of the importance of addressing inequality as part of broader efforts to achieve inclusive growth. While there may be differing views on how to precisely define and measure inclusive growth, there is a consensus that policies and strategies aimed at promoting inclusive growth should prioritize reducing inequality and ensuring that the benefits of economic growth reach all segments of society, particularly the most vulnerable. This involves implementing targeted interventions to improve access to education, healthcare, employment opportunities, and social protection programs, among other measures. By addressing the root causes of inequality and promoting social inclusion, countries can foster more equitable and sustainable development paths.

2. LITERATURE REVIEW

McKinley's (2010) work on constructing a composite inclusive growth index represents a significant step towards measuring and evaluating inclusive growth at the country level. By identifying relevant indicators across various dimensions such as economic infrastructure, income distribution, human capabilities, and social protection, McKinley provides a comprehensive framework for assessing the inclusiveness of growth processes. The proposed diagnostic approach, which involves assigning weights to different indicators and calculating scores, offers a systematic method for countries to evaluate their progress in achieving inclusive growth objectives. Furthermore, the composite index can serve as a valuable tool for organizations like the Asian Development Bank (ADB) to tailor their support and interventions according to the specific needs and priorities of each country. By leveraging McKinley's index, ADB and other development agencies can better align their efforts with national inclusive growth agendas and contribute more effectively to sustainable and equitable development outcomes. The concept of inclusive growth can indeed be approached from both narrow and broad perspectives, each with its own implications for development priorities and strategies. In the narrow interpretation, inclusive growth primarily focuses on economic expansion, with an emphasis on improving human capabilities as a means to achieve better economic outcomes. Here, investments in education, healthcare, and other social services are seen as instrumental for driving productivity and competitiveness, thereby contributing to overall growth and prosperity. Conversely, the broad interpretation of inclusive growth, often referred to as inclusive development, takes a more holistic view that goes beyond purely economic metrics. In this approach, the emphasis is placed on non-income aspects of well-being, such as health, education, social inclusion, and environmental sustainability. Human capabilities, such as access to quality healthcare and education, are valued not only as drivers of economic growth but also as fundamental rights and ends in themselves.

Adopting a broad interpretation of inclusive growth implies prioritizing policies and interventions that address multidimensional aspects of development, aiming to improve the overall quality of life and well-being for all members of society. This approach acknowledges that sustainable and equitable development requires not only economic progress but also social justice, environmental stewardship, and inclusive governance. By focusing on human development outcomes as essential goals rather than mere means to economic ends, societies can strive towards more inclusive and resilient forms of development that benefit everyone, especially the most vulnerable and marginalized populations. The assertion made by Tirmazee and Haroon (2014) underscores a critical aspect of economic development: while growth is essential for reducing poverty and raising living standards, it does not automatically ensure that these benefits are shared equitably among all segments of society. Economic growth can indeed lead to improvements in the standard of living by creating job opportunities, increasing incomes, and enhancing access to goods and services. However, the distribution of these benefits is not guaranteed to be equal, and in many cases, growth may exacerbate existing inequalities within society. One of the primary mechanisms through which growth can contribute to inequality is by disproportionately benefiting certain groups, such as the wealthy or those with access to education and resources, while leaving others behind. This can widen the gap between the rich and the poor, leading to a more unequal distribution of wealth and opportunities. Additionally, factors such as unequal access to education, healthcare, and employment opportunities

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can further perpetuate inequality, even in the presence of overall economic growth. Therefore, while pursuing economic growth is important for poverty reduction and improving living standards, policymakers must also pay close attention to ensuring that the benefits of growth are inclusive and reach all segments of society. This may require implementing targeted policies and interventions aimed at reducing disparities in income, education, and access to essential services, thus fostering a more equitable and sustainable pattern of development.

Pakistan indeed confronts the formidable task of fostering more inclusive growth, where the benefits of economic progress are shared across all segments of society. This endeavor necessitates a multifaceted approach that prioritizes the provision of essential services and social protection mechanisms to address the diverse needs of the population. Investments in education, healthcare, sanitation, and housing are crucial pillars for laying the foundation of inclusive growth. By ensuring universal access to quality education, Pakistan can empower its citizens with the knowledge and skills needed to participate effectively in the economy, thereby reducing disparities and fostering social mobility. Similarly, investments in healthcare and sanitation infrastructure are essential for improving public health outcomes and enhancing overall well-being. Access to adequate housing is also vital for ensuring a decent standard of living and fostering social stability. In addition to these foundational services, social security schemes play a pivotal role in mitigating the risks faced by vulnerable populations, such as unemployment, illness, or old age. By establishing robust social protection mechanisms, Pakistan can provide a safety net for its citizens, safeguarding them against economic shocks and promoting resilience.

Rauniyar and Kanbur (2010) propose a framework for analyzing the role of rural infrastructure in advancing inclusive development, which entails a nuanced understanding of various concepts such as growth, pro-poor growth, and inclusive growth. In their framework, they highlight the distinction between these concepts and emphasize the importance of income inequality in assessing the inclusivity of growth.

According to their definition, inclusive growth is characterized by not only economic expansion but also a reduction in income inequality, ensuring that the benefits of growth are distributed equitably across different income groups. This means that a significant portion of the income gains should accrue to those with lower incomes, thereby narrowing the income gap between the rich and the poor. Importantly, Rauniyar and Kanbur point out that while growth can be pro-poor, meaning it leads to a reduction in poverty rates, it may not necessarily be inclusive if it is accompanied by rising income inequality. In other words, the overall welfare of the population, particularly the poorest segments, should be considered when evaluating the inclusivity of growth. The concept of development extends beyond mere economic growth to encompass broader dimensions of well-being, such as education and health. Inclusive development, therefore, focuses not only on improving overall well-being but also on ensuring that the benefits are distributed equitably across different segments of society. Infrastructure plays a crucial role in fostering inclusive growth by addressing the adequacy of essential services in rural areas. For instance, the development of rural roads connecting villages to small market towns and these towns to district capitals can significantly enhance access to economic opportunities, education, and healthcare for rural populations. Recent research in education and health underscores the importance of rural infrastructure in shaping outcomes in these areas. Accessible roads not only facilitate the movement of goods and services but also enable better access to schools and healthcare facilities, thereby improving educational attainment and health outcomes among rural communities. However, it is essential to recognize that the effectiveness of rural infrastructure in promoting inclusive development depends not only on its availability but also on its utilization. Therefore, policymakers must ensure that infrastructure projects are accompanied by measures to enhance their usage and accessibility, particularly among marginalized groups, to maximize their impact on inclusive development. By prioritizing investments in rural infrastructure and addressing barriers to utilization, countries can advance inclusive growth agendas that improve the well-being of all citizens, especially those in rural areas.

Rauniyar and Kanbur's (2009) study sheds light on the Asian Development Bank's (ADB)

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contributions to understanding and promoting inclusive growth, development, and social development. While a universally accepted definition of inclusive growth is lacking, it generally encompasses not only economic expansion but also equitable opportunities across economic, social, and institutional domains. The study emphasizes that achieving inclusive growth and development requires a multifaceted approach. This entails promoting efficient and sustainable economic growth, ensuring a level political playing field, and strengthening capabilities while providing social safety nets. By implementing these measures collectively, policymakers and development practitioners can strive towards fostering inclusive growth and development, where economic prosperity is coupled with social equity and opportunity for all members of society.

Anyanwu's (2013) study addresses the persistent challenges of poverty, inequality, and unemployment despite high economic growth in recent years. The research aims to inform the formulation of inclusive growth policies by analyzing the correlation between various factors and the poverty headcount index. The findings suggest that income inequality, limited access to primary education, reliance on mineral rents, inflation, and a larger population size tend to exacerbate poverty and hinder inclusive growth. These insights highlight the multifaceted nature of poverty as a socio-economic issue and emphasize the importance of addressing structural inequalities and promoting equitable access to opportunities for sustainable development.

Anyanwu (1997) provides a comprehensive categorization of the poor, highlighting various dimensions of poverty beyond income inadequacy. These categories encompass individuals and households facing diverse challenges, including insufficient access to basic services, political exclusion, lack of essential infrastructure, inadequate nutrition among female-headed households, unemployment or underemployment, and marginalization of ethnic minorities. By recognizing these multiple dimensions of poverty, policymakers and development practitioners can tailor interventions to address the specific needs and vulnerabilities of different groups, thereby fostering more inclusive and sustainable development strategies.

Yongfu and Quibria (2013) underscore the importance of transitioning towards growth by emphasizing the need for changes in institutions, policies, and societal values. These transformations are crucial for generating the resources required to meet essential human needs such as food, health, energy, education, and housing, as well as for effectively addressing poverty reduction. Building on the research by scholars like Ravallion and Chen (2001) and Dollar and Kraay (2002), this perspective highlights the holistic nature of development, emphasizing the interconnectedness of economic progress, social welfare, and poverty alleviation efforts. Indeed, while economic growth is essential for overall development, it does not automatically guarantee equal benefits for all segments of society. Market forces alone can lead to a situation where the most vulnerable, including the poor, are left behind, widening the gap in income and wealth. Therefore, achieving social inclusiveness is imperative for ensuring sustainable growth. This involves not only increasing the participation of the labor force in the growth process but also diversifying the sources of growth. As emphasized by scholars like Ianchovichina and Lundstrom (2009), sustained long-term growth necessitates the active inclusion of all members of society in the development trajectory. The concept of inclusive growth underscores the importance of ensuring that the benefits of economic development are shared equitably across all segments of society. This means that individuals from diverse backgrounds, including different genders, ethnicities, and religious affiliations, should have equal opportunities to participate in and reap the rewards of economic progress. From an economic standpoint, inclusive growth can bolster domestic demand by expanding the pool of consumers who have the means to purchase goods and services. Moreover, from a political perspective, fostering inclusivity can contribute to societal stability, which is crucial for sustained progress over the long term. As noted by scholars like Wilkinson and Pickett (2009), societies characterized by greater inclusiveness tend to exhibit superior economic and political performance compared to those marked by significant inequalities.

The study by Juzhong and Ifzal (2007) highlights the imperative of inclusive growth as a key developmental objective for the Asia-Pacific region. In response to growing inequalities and the

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recognition that these disparities could potentially undermine the sustainability of economic progress, inclusive growth emphasizes the importance of providing equal access to opportunities. It underscores that unequal opportunities often stem from various forms of social exclusion linked to market dynamics, institutional shortcomings, and policy failures. The proposed development strategy outlined in the study revolves around two interrelated pillars: fostering high and sustainable economic growth to generate economic opportunities, and promoting social inclusion to ensure that all individuals have equitable access to these opportunities. By addressing both dimensions simultaneously, the strategy aims to create a more inclusive and resilient path to development in the region. The significance of "inclusive growth" and "inclusiveness" has been acknowledged in various strategic documents, indicating a commitment to addressing the challenges posed by extreme poverty and rising inequalities. For instance, "inclusive social development" is identified as a strategic pillar in the Enhanced Poverty Reduction Strategy (PRS) (ADB, 2004b). Similarly, "strengthening inclusiveness" is highlighted as one of the strategic priorities in the Medium-Term Strategy II 2006–2008 (ADB, 2006c). These references underscore the recognition of inclusivity as a fundamental aspect of development planning, signaling a concerted effort to ensure that growth and progress are equitable and benefit all segments of society. More recently, a panel of eminent persons commissioned by ADB's President to provide insights on the region's future and its implications for the future role of ADB called on the institution to broaden its strategic focus from poverty reduction to inclusive growth (ADB, 2007b). This reflects a growing recognition of the importance of inclusive growth as a key driver of sustainable development and poverty alleviation in the region.

Ifzal and Son (2007) propose a new methodology for defining and measuring inclusive growth. They define growth as inclusive if it enhances the social opportunity function, which is determined by two main factors: the average opportunities available to the population and how these opportunities are distributed among the population. To operationalize this concept, they introduce the idea of the opportunity curve, which is directly linked to the social opportunity function. Additionally, to address limitations of the opportunity curve, such as partial ranking, they introduce the opportunity index, which offers a comprehensive ranking of inclusive growth.

The methodologies proposed by Ifzal and Son (2007) are put into practice through empirical applications in the Philippines using household survey data. These applications examine access to and equity of various opportunities including employment (overall and disaggregated by gender), education, health, and basic infrastructure such as electricity, clean drinking water, and sanitation. The concept of "inclusive growth" posits that economic opportunities generated by growth should be accessible to all segments of society, especially the poor, to the greatest extent possible. However, in practice, the distribution of these opportunities tends to be uneven. Inclusive growth is characterized by ensuring that economic opportunities generated by growth are accessible to all segments of society, particularly the poor, to the fullest extent possible. This concept acknowledges that the poor often face constraints and market failures that prevent them from benefiting equally from economic growth. Inclusive growth entails policies and programs implemented by the government to facilitate the full participation of the poor in new economic opportunities. It goes beyond merely generating new economic opportunities to ensuring equal access to these opportunities for all members of society, regardless of their circumstances. Ultimately, inclusive growth allows every individual to participate in and contribute to the growth process on an equal footing.

Sen's (1989) argument regarding the plurality of well-being indicators is indeed important to consider when assessing the inclusiveness of growth. Given the diverse nature of well-being dimensions, attempting to consolidate them into a single index may oversimplify the complex reality of human welfare. Instead, monitoring the inclusiveness of growth should be tailored to each specific country's context and policy objectives. This approach allows for the selection of indicators that are most relevant to the country's development priorities and enables a more nuanced understanding of the impacts of growth on different segments of society. However, it's essential to recognize that monitoring multiple indicators can pose significant challenges in terms of data collection and analysis. Therefore, countries must carefully prioritize and balance the selection of indicators based

on their available resources and measurement capabilities.

3. THEORETICAL MODEL

The objective of this paper is to investigate the inclusive growth for the period 1980-2014 using the fully modified cointegration and long-run technique. The study has investigated the impact of female labor force participation, globalization, middle school, personal remittances, primary school, secondary school education, secondary school enrollment total, and population growth and population density in Pakistan. We collected the data from 1980 to 2014. The data for all the selected variables are taken from the world development indicators, economic survey of Pakistan, freedom house, and the united nations development program. The functional form of the model becomes as

$$Y = f(\text{flfp}, \text{glb}, \text{pr}, \text{pg}, \text{pd}, \text{ms}, \text{ps}, \text{sse}, \text{sset})$$

Where ,

Y is inclusive growth proxy by Gini coefficient, flfp = female labor force participation, glb = globalization, pr = personal remittances, ps = primary school, ms = middle school, sse = secondary school education, sset = secondary school enrollment total, pg = population growth, pd = population density

$$\text{Gini} = \beta_1 + \beta_2 \text{LFLFP} + \beta_3 \text{LGLB} + \beta_4 \text{LMS} + \beta_5 \text{LPS} + \beta_6 \text{LSSE} + \beta_7 \text{LSSET} + \beta_8 \text{PG} + \beta_9 \text{PD} + \epsilon$$

Mostly time series data have a non-stationary problem and the estimated regression results of this data became spurious for policy suggestions. All co-integration methods also demand the stationarity of the variables. This study comprises the different econometric methods or used different tests to show our result is stationary or significant, the fact of time series data that contains unit root problem and regression results of this data are spurious. For the solution to the unit root problem, this study uses the Augmented Dickey-Fuller (ADF) unit root test, the calculated results of the ADF test are presented in this paper.

4. EMPIRICAL RESULTS AND DISCUSSION

The descriptive statistics reported in Table 1 provide an overview of the central tendency, dispersion, and distributional properties of the variables used to examine the determinants of inclusive growth, proxied by the Gini coefficient. The Gini coefficient has a mean of 0.346 with a relatively narrow standard deviation of 0.041, indicating moderate inequality levels across the observed sample and limited variation. Its distribution appears symmetric, as shown by a skewness of -0.15, and the kurtosis value of 1.79 suggests a distribution that is slightly flatter than the normal curve. The Jarque-Bera probability (0.34) indicates no significant deviation from normality.

Female labor force participation (Lflfp) has a mean of 2.71 with low dispersion (standard deviation = 0.31), suggesting relatively consistent female participation across the dataset. Globalization (Lglb) averages 3.63 with slight left skewness, reflecting moderately high levels across the sample, while middle school enrollment (Lms) displays more variability (mean = 4.85, std. dev. = 2.65) and a positively skewed distribution, hinting at disparities in middle school access among countries or over time.

Remittances (Lpr) have a lower average value (1.52) but show moderate variability, possibly due to significant inflows in migrant-dependent economies. Primary schooling (Lps) shows the highest mean among education indicators (mean = 5.08), reinforcing its broader accessibility compared to middle and secondary levels. The standard deviation of 2.60 suggests some countries lag in universal primary education.

Secondary education (Lsse) and secondary school enrollment total (Lsset) exhibit consistent levels (means of 13.2 and 7.33, respectively), though Lsse is less variable (std. dev. = 0.66). These education indicators are crucial for human capital formation and have been consistently linked to equitable growth outcomes (Barro & Lee, 2013). The negative skewness of Lsse suggests a concentration of values on the higher end, while Lsset is more symmetrically distributed.

Population density (Pd) has substantial variation (std. dev. = 41.93), with values ranging from 102.7 to 243.8, reflecting structural demographic differences across countries. Population growth (Pg) also

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appears relatively stable (mean = 2.51), with a low standard deviation of 0.47, suggesting similar growth rates across the dataset. The Jarque-Bera probabilities across most variables are above 0.05, implying approximate normality except in a few cases (Lms and Lps) that show mild departures from the normal distribution. In sum, the descriptive statistics in Table 1 highlight generally balanced distributions with a few variables exhibiting moderate skewness or kurtosis. Key development indicators such as education and remittances show variability that could influence income inequality trends, while globalization and female labor force participation appear more uniform. This distributional understanding is essential before proceeding to econometric modeling to ensure that variable transformations and diagnostics are appropriately applied (Gujarati & Porter, 2009).

Table 1: Descriptive Statistics

	Gini	Lflfp	Lglb	Lms	Lpr	Lps	Lsse	Lsset	Pd	Pg
Mean	0.346	2.71	3.63	4.85	1.52	5.08	13.2	7.33	168.7	2.51
Median	0.347	2.69	3.71	3.29	1.56	3.68	13.3	7.42	170.1	2.48
Max	0.405	3.21	3.91	9.01	2.29	9.12	14.0	8.15	243.8	3.37
Min	0.278	1.98	3.30	2.21	0.39	2.52	11.3	6.18	102.7	2.01
Std. Dev.	0.041	0.31	0.24	2.65	0.50	2.60	0.66	0.54	41.93	0.47
Skewness	-0.15	-0.27	-0.39	0.62	-0.48	0.61	-0.74	-0.23	0.082	0.46
Kurtosis	1.79	2.49	1.61	1.58	2.38	1.58	2.54	2.03	1.82	1.62
Jarque-Bera	2.12	0.89	3.89	5.42	1.94	5.63	3.74	1.82	2.018	4.06
Prob.	0.34	0.64	0.14	0.06	0.38	0.06	0.153	0.40	0.364	0.13
Sum	12.5	97.6	131.1	173.0	54.78	183.0	475.2	263.8	6073.2	90.4

The pairwise correlation matrix presented in Table 2 explores the linear relationships among variables relevant to inclusive growth, proxied by the Gini coefficient. The Gini coefficient exhibits a negative correlation with most explanatory variables, indicating that improvements in those areas are generally associated with lower income inequality.

Female labor force participation (LFLFP) is negatively correlated with GINI (−0.489), suggesting that greater economic inclusion of women is linked to more equitable income distribution. This is in line with previous findings that gender equality in labor markets reduces income gaps and promotes inclusive development (Kabeer & Natali, 2013).

Globalization (LGLB) also shows a strong negative correlation with the Gini coefficient (−0.559), indicating that increased global integration is associated with reduced income inequality. However, the relationship between globalization and inequality is context-specific; in this case, it may reflect the positive impact of trade, knowledge diffusion, and external investment on equality in more open economies (Bergh & Nilsson, 2014).

Middle school education (LMS), on the other hand, is positively correlated with GINI (0.249), potentially signaling that middle-level education alone, without broader access to higher education or vocational pathways, does not significantly narrow income disparities. Similarly, primary school enrollment (LPS) shows a moderate positive correlation (0.218), though this may reflect a saturation effect, where nearly universal primary education doesn't further reduce inequality unless complemented by access to higher education levels.

Secondary education (LSSE) and secondary school enrollment total (LSSET) show negative correlations with GINI (−0.534 and −0.422 respectively), reinforcing the importance of higher education in reducing inequality. These variables are also strongly positively correlated with each other and with female labor force participation, pointing to a coherent pattern where expanded educational access supports labor market inclusion and, in turn, income equality (Barro & Lee, 2013).

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Population density (PD) is negatively correlated with GINI (-0.563), implying that more densely populated areas may exhibit better service coverage, educational access, and economic opportunities that help reduce inequality. Population growth (PG), however, is positively correlated with GINI (0.544), consistent with the idea that rapidly growing populations—often in less-developed areas—can strain public services and contribute to inequality unless matched with adequate investment in health, education, and employment (Todaro & Smith, 2015).

Table 2: Pairwise Correlation Matrix

Variables	GINI	LFLFP	LGLB	LMS	LPRR	LPS	LSSE	LSSET	PD	PG
GINI	1.000									
LFLFP	-0.489	1.000								
LGLB	-0.559	0.871	1.000							
LMS	0.249	-0.692	-0.809	1.000						
LPRR	-0.182	-0.144	-0.396	0.605	1.000					
LPS	0.218	-0.690	-0.804	0.996	0.612	1.000				
LSSE	-0.534	0.749	0.811	-0.661	-0.278	-0.662	1.000			
LSSET	-0.422	0.912	0.934	-0.745	-0.313	-0.753	0.788	1.000		
PD	-0.563	0.925	0.933	-0.699	-0.185	-0.703	0.801	0.973	1.000	
PG	0.544	-0.852	-0.982	0.838	0.429	0.826	-0.823	-0.915	-0.918	1.000

Moreover, the very high correlations between some of the explanatory variables—such as LSSET and PD (0.973), or LGLB and LSSET (0.934)—indicate the potential risk of multicollinearity in regression analysis. This suggests that caution is needed when including multiple closely related variables in the same model, and diagnostic tests like Variance Inflation Factor (VIF) should be applied. Overall, Table 2 reveals that higher educational attainment, female labor force participation, and globalization are strongly linked with lower inequality, while high population growth and limited schooling access at lower levels may hinder inclusive growth.

The results from Table 3 show the stationarity properties of the variables used in the analysis of inclusive growth, using unit root tests at both level and first difference. Most of the variables are found to be non-stationary at level but become stationary after first differencing, indicating that they are integrated of order one, or $I(1)$, which is typical in macroeconomic time series data.

At level, all variables—including female labor force participation (LFLFP), globalization (LGLB), middle school education (LMS), remittances (LPRR), primary school (LPS), and others—have p-values well above 0.05 , confirming the presence of unit roots. Even the Gini coefficient (GINI), which proxies inclusive growth, has a t-statistic of -2.0511 with a p-value of 0.2628 , confirming non-stationarity. Only secondary school education (LSSE) comes close to the conventional 10% significance level ($t = -2.7810$, $p = 0.0695$), suggesting borderline stationarity, but not strong enough to reject the null hypothesis at 5% .

At first difference, however, all variables (except for PD, which has an apparent inconsistency between t-statistic and p-value that may be a reporting error) show highly significant results, with p-values typically below 0.01 . This confirms that the variables become stationary after differencing. For example, the t-statistics for LFLFP (-6.3257), LGLB (-5.5183), and LSSE (-9.2314) demonstrate robust stationarity at first difference, meaning these variables follow $I(1)$ processes.

The findings are important for model specification. Since most of the variables are $I(1)$, using techniques such as Autoregressive Distributed Lag (ARDL) or co-integration analysis is appropriate. These methods allow for the inclusion of $I(0)$ and $I(1)$ variables without the risk of spurious regression, provided that none of the series are $I(2)$ (Pesaran et al., 2001). Moreover, given the

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stationarity of variables only at first difference, it becomes essential to test for long-run equilibrium relationships—such as via bounds testing—before proceeding with long-run estimations.

This stationarity structure supports the analytical design adopted in earlier tables, justifying the use of dynamic models for exploring how education, labor force dynamics, and globalization affect inequality over time.

Table 3: Unit Root Results

Variables	At Level	
	t-Statistic	p-value
LFLFP	-1.7912	0.3728
LGLB	-1.1826	0.6794
LMS	-1.4923	0.5187
LPRR	-1.5734	0.4869
LPS	-1.4996	0.5160
LSSE	-2.7810	0.0695
LSSET	0.6418	0.8763
PG	-1.7354	0.3951
PD	-2.2807	0.7446
GINI	-2.0511	0.2628
Variables	At 1st Difference	
	t-Statistic	p-value
LFLFP	-6.3257	0.0000
LGLB	-5.5183	0.0009
LMS	-5.7943	0.0012
LPRR	-5.0564	0.0071
LPS	-5.6111	0.0008
LSSE	-9.2314	0.0000
LSSET	-4.1392	0.0000
PG	-4.7216	0.0001
PD	-0.3029	0.0006
GINI	-3.3877	0.0094

Table 4 reports the results of lag length selection using various information criteria, which is a crucial step before conducting vector autoregression (VAR) or co-integration analysis. The selection of the optimal lag length ensures model stability, avoids serial correlation, and improves the robustness of long-run and short-run estimates.

Among the tested lag lengths (0, 1, and 2), all three major criteria—Final Prediction Error (FPE), Akaike Information Criterion (AIC), and Hannan-Quinn Criterion (HQ)—consistently point to lag 2 as the optimal choice. Specifically, the model at lag 2 yields the lowest FPE ($4.11\text{e-}29$), the most negative AIC (-38.91184), and the lowest HQ (-35.70021), all of which indicate better model fit. The Log Likelihood (LogL) also increases substantially from lag 1 to lag 2, confirming model improvement. Additionally, the LR statistic for lag 2 (239.6182) is significant, validating that adding an additional lag significantly enhances explanatory power at the 5% level.

Only the Schwarz Information Criterion (SC) selects a more parsimonious model at lag 1 ($\text{SC} = -21.23178$), reflecting its well-known preference for simpler models due to a stricter penalty on additional parameters. However, when the majority of criteria agree on a lag length, as is the case here, it is standard econometric practice to adopt that lag order (Lütkepohl, 2005).

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Thus, based on Table 4, lag 2 is the most appropriate choice for subsequent multivariate analyses, including co-integration tests, impulse response functions, and error correction models, ensuring reliable estimation of dynamic relationships among the variables of interest.

Table 4: Lag Length Criterion Analysis

Lag	LogL	LR	FPE	AIC	SC	HQ
0	80.12435	NA	7.56e-15	-4.138203	-3.699112	-3.988213
1	553.8197	635.2847	2.52e-24	-26.14109	-21.23178	-24.45389
2	870.2093	239.6182*	4.11e-29*	-38.91184*	-29.52693*	-35.70021*

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Table 5 presents the results of the bound testing analysis used to determine the existence of a long-run relationship among the variables under consideration. The computed F-statistic is 7.842190, which exceeds the upper bound values at both the 5% (3.34) and 10% (3.02) significance levels. According to the bounds testing approach developed by Pesaran et al. (2001), if the F-statistic is greater than the upper bound critical value, the null hypothesis of no long-run relationship can be rejected. In this case, since 7.84 is well above the upper bounds at all reported significance levels, the results provide strong evidence in favor of co-integration among the variables. This confirms that the variables are jointly determined in the long run despite being integrated of different orders (i.e., I(0) or I(1)).

This outcome justifies the use of ARDL modeling for both long-run and short-run dynamic estimations, as seen in earlier tables. It also implies that variables such as female labor force participation, globalization, remittances, education, and demographic indicators jointly influence inclusive growth over time, as proxied by the Gini coefficient.

Table 5: Bound Testing Analysis

F-Statistic = 7.842190

Level of Significance	Lower Bound Value	Upper Bound Value
5%	2.19	3.34
10%	1.91	3.02

Table 6 provides the long-run estimation results of the ARDL model with income inequality (measured by the Gini coefficient) as the dependent variable. These results reveal how various socio-economic and demographic factors impact inequality over the long term, offering a detailed picture of inclusive growth dynamics.

Globalization (LGLB) is positively and marginally significantly associated with inequality (coefficient = 0.1927, $p = 0.0509$). This suggests that increased integration into the global economy may contribute to widening income disparities in the long run. This finding aligns with the argument that globalization, while promoting growth, may disproportionately benefit skilled labor and capital-intensive sectors in developing economies, thereby increasing inequality (Milanovic, 2016).

Middle school education (LMS) has a strong positive and statistically significant impact on the Gini coefficient (coefficient = 0.1433, $p = 0.0013$), indicating that increases in middle school education alone may not be sufficient to reduce inequality and may even coincide with higher income

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disparities. This could result from unequal access to quality education or urban-rural divides in education delivery, which exacerbate existing social inequalities (Tilak, 2007).

Similarly, remittances (LPRR) also positively influence inequality (coefficient = 0.0671, $p = 0.0078$). This suggests that remittance inflows, while improving household income, may do so unevenly, benefiting only those with access to migration opportunities. This reflects the "remittance inequality paradox," where income transfers can exacerbate regional and class disparities despite reducing poverty (Acosta et al., 2008).

Conversely, primary school enrollment (LPS) shows a strong and statistically significant negative relationship with the Gini coefficient (coefficient = -0.1516 , $p = 0.0009$). This supports the argument that broader access to foundational education fosters more equitable human capital development and income distribution (Barro & Lee, 2013).

Secondary school education (LSSE) appears to have a negative but statistically insignificant effect (coefficient = -0.0061 , $p = 0.5327$), indicating that general improvements in secondary schooling alone may not translate into significant changes in income distribution, possibly due to issues in educational quality or labor market absorption.

Interestingly, secondary school enrollment total (LSSET) has a very strong and highly significant positive effect on inequality (coefficient = 0.3124, $p < 0.0001$). While this might appear counterintuitive, it may reflect unequal access to higher levels of education or disparities in enrollment concentrated among higher-income groups. This suggests that while enrollment expands, inequality can persist or widen if disadvantaged groups are not equally represented.

Population density (PD) shows a negative and highly significant impact on inequality (coefficient = -0.0065 , $p = 0.0010$), suggesting that denser populations may facilitate better access to services, infrastructure, and employment, thereby narrowing income gaps. This is consistent with urbanization-led development models, which argue that concentrated populations often benefit from economies of scale in public service delivery (Todaro & Smith, 2015).

Female labor force participation (LFLFP), population growth (PG), and secondary education (LSSE) all show statistically insignificant coefficients, indicating that these variables may not have a robust long-run effect on income inequality in the sample context. However, their roles may still be important in the short run or through interaction effects not captured here.

In sum, Table 6 confirms that globalization, remittances, and selective educational attainment are associated with increased inequality, whereas broader access to primary education and urbanization (through population density) help reduce disparities. These findings point to the need for inclusive education reforms and geographically balanced development policies to foster equitable growth.

Table 6: Long Run Results
Dependent Variable: GINI

Variables	Coefficient	t-Statistic	p-value
LFLFP	-0.007208	-0.403102	0.6887
LGLB	0.192681	2.141227	0.0509
LMS	0.143274	3.891304	0.0013
LPRR	0.067149	3.028172	0.0078
LPS	-0.151602	-4.009515	0.0009
LSSE	-0.006118	-0.629424	0.5327
LSSET	0.312421	7.110983	0.0000
PG	-0.041226	-0.439383	0.6620
PD	-0.006471	-4.031210	0.0010

Table 7 presents the short-run dynamics of the ARDL model with the Gini coefficient as the dependent variable, providing insights into the immediate effects of explanatory variables on income

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inequality. The error correction term (ContEg-1) is negative and statistically significant (-0.7382 , $p = 0.0003$), confirming the presence of a stable long-run equilibrium relationship. The coefficient suggests that about 73.8% of any disequilibrium from the previous period is corrected in the current period, indicating relatively fast adjustment toward long-run equilibrium.

Globalization (D(LGLB)) exhibits a statistically significant and positive short-run effect on inequality (coefficient = 0.1449 , $p = 0.0479$), consistent with the long-run result in Table 6. This implies that increased global economic integration, possibly via trade or financial flows, may immediately amplify disparities, particularly if the benefits are unevenly distributed across income groups or regions (Bergh & Nilsson, 2014).

Middle school education (D(LMS)) has a strong and significant positive short-run impact (coefficient = 0.0724 , $p = 0.0031$), indicating that increases in middle-level education may coincide with a short-term rise in inequality. This could be due to lag effects in employment absorption or quality differences in education that disproportionately benefit higher-income groups in the short run (Tilak, 2007).

Remittances (D(PRR)) are also associated with a significant rise in inequality (coefficient = 0.0205 , $p = 0.0183$), suggesting that short-term remittance inflows may initially increase disparities. This reinforces the view that migration opportunities tend to favor better-off households in the short term, despite broader poverty-reduction effects over time (Acosta et al., 2008).

Primary education (D(PS)) significantly reduces inequality in the short run (coefficient = -0.0729 , $p = 0.0035$). This supports the idea that improvements in foundational education quickly translate into more equitable outcomes by enhancing access to basic skills and employment, especially among disadvantaged groups (Barro & Lee, 2013).

In contrast, several variables appear statistically insignificant in the short run, including female labor force participation (D(LFLFP)), secondary school education (D(SSE)), secondary school enrollment (D(SSET)), population growth (D(PG)), and population density (D(PD)). The lack of short-run significance for these variables suggests that their impact on inequality is more pronounced over the long term, requiring time to influence income distribution through structural or institutional changes. Overall, the short-run results in Table 7 confirm that globalization, middle school education, and remittances tend to increase inequality in the immediate term, while expansion in primary education can mitigate it. The significant and negative error correction term further validates the use of the ARDL model and suggests that the model adjusts rapidly back to equilibrium after short-term shocks.

Table 7: Short Run Results

Dependent Variable: GINI

Variables	Coefficient	t-Statistic	p-value
D(LFLFP)	0.008091	0.703512	0.4923
D(LGLB)	0.144875	2.121568	0.0479
D(LMS)	0.072410	3.472510	0.0031
D(PRR)	0.020518	2.613927	0.0183
D(PS)	-0.072874	-3.422098	0.0035
D(SSE)	0.002713	0.629640	0.5332
D(SSET)	0.170829	0.245112	0.8069
D(PG)	0.086537	1.278214	0.2110
D(PD)	0.040176	1.109637	0.2764
ContEg(-1)	-0.738209	-4.692801	0.0003

5.CONCLUSIONS

Analyzing the role of women in inclusive growth for Pakistan through a time series analysis involves decomposing inclusive growth into two main components: equity and efficiency. Equity refers to the fair distribution of economic opportunities and benefits across different segments of society, including gender equality in access to resources, employment, education, and decision-making roles. Efficiency, on the other hand, pertains to the productivity and effectiveness of economic activities, ensuring optimal utilization of resources for sustainable growth. By disaggregating inclusive growth into these components, we can assess how women's participation and empowerment contribute to both equitable distribution and efficient utilization of resources in the Pakistani economy over time. This analysis will provide insights into the progress made in promoting gender equality and women's economic empowerment, as well as identify areas for further policy intervention to enhance inclusive growth outcomes for Pakistan. Exactly, efficiency focuses on maximizing the overall productivity and effectiveness of economic activities, leading to improvements in the country's overall economic performance and well-being. On the other hand, equity emphasizes ensuring that the benefits of economic growth and development are distributed fairly and equally across different segments of the population, including women, minorities, and marginalized groups. Achieving both efficiency and equity is essential for promoting inclusive growth, as it ensures that economic progress is not only robust and sustainable but also socially just and inclusive. Performing unit root tests such as the augmented Dickey-Fuller test is a crucial step in time series analysis to assess the stationarity of variables. Significant results at the first difference suggest that the variables are stationary after differencing, which is essential for modeling and forecasting purposes. Using data from reputable sources like the Economic Survey of Pakistan, World Development Indicators, Freedom House, and the United Nations Development Program adds credibility to the analysis and enhances the reliability of the findings. Once stationarity is confirmed, further econometric techniques can be applied to estimate the relationships between variables and analyze their impact on inclusive growth in Pakistan over the specified time period. This comprehensive approach helps to understand the dynamics of economic development and the role of various factors in promoting inclusive growth. The use of the Autoregressive Distributed Lag (ARDL) model to examine cointegration between variables is appropriate for analyzing the long-run relationships among them. In this context, the positive and significant coefficient of the Gini coefficient suggests that income inequality, as measured by the Gini index, has a statistically significant impact on the variables under consideration. This finding implies that changes in income inequality have a meaningful effect on the variables related to inclusive growth in Pakistan. Further analysis may be needed to understand the direction and magnitude of this impact and its implications for policy formulation aimed at promoting more inclusive economic growth.

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