

Assessing the impact of gender-oriented development on economic performance in Central Kalimantan

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Abstract. *Gender-oriented development influences economic performance through human capital quality and resource allocation efficiency. This study examines the roles of female human development, gender equality, gender inequality, and female labor force participation in shaping economic growth in Central Kalimantan. The findings show that female human development significantly promotes growth, while gender inequality has a significant negative effect. In contrast, gender equality and female labor force participation are not significant, indicating that improvements in equality and participation have not translated into productive outcomes. These results highlight that enhancing women's human capital and reducing inequality are more critical than expanding participation alone.*

Keywords: *gender-oriented development, economic growth, gender inequality, human capital*

I. INTRODUCTION

Economic growth remains a central objective of regional development, reflecting not only the expansion of output but also the capacity of an economy to improve welfare in a more inclusive manner. Contemporary development paradigms increasingly emphasize that growth should be accompanied by equity, particularly in addressing structural disparities such as gender inequality. Gender-oriented development has therefore emerged as a critical dimension in shaping sustainable and inclusive economic performance. Inequality in access to education, health services, and economic opportunities constrains the optimal utilization of human capital, ultimately limiting productivity and long-term growth potential.

The theoretical foundation linking gender and economic growth is strongly rooted in human capital theory and endogenous growth models. Human capital theory posits that investments in education and health enhance labor productivity and economic output (Becker, 1964; Schultz, 1961). Endogenous growth theory further emphasizes that knowledge

accumulation and human capital development serve as key drivers of sustained economic growth (Romer, 1990). Within this framework, gender disparities represent a distortion in human capital accumulation, as unequal access for women reduces the aggregate quality of the workforce. Inefficient allocation of talent due to gender inequality has been shown to generate significant economic losses (Hsieh et al., 2019), reinforcing the argument that gender equality is not merely a social objective but also an economic necessity.

Gender inequality affects economic performance through multiple transmission channels. Limited access to education for women reduces skill formation and labor productivity. Barriers in labor market participation constrain the effective labor supply and limit diversification of economic activities. Disparities in decision-making power and resource control further weaken the efficiency of household and institutional economic choices. Empirical evidence consistently demonstrates that gender inequality negatively affects economic growth. Klasen and Lamanna (2009) find that gender gaps in education and employment significantly reduce growth rates across countries. Similarly, Seguino (2010) argues that gender inequality limits aggregate demand and productivity, particularly in developing economies. Recent studies also highlight that reducing gender inequality can enhance economic resilience and support long-term development (World Bank, 2012; Klasen, 2022).

Despite strong theoretical and empirical support, the relationship between gender-oriented development and economic growth remains complex and context-dependent. Some studies suggest that improvements in gender equality indicators do not always translate directly into higher economic growth. Duflo (2012) emphasizes that while economic development can reduce gender inequality, the reverse relationship is not always automatic. Cuberes and Teignier (2016) further show that the economic costs of gender gaps depend on structural factors such as labor market conditions and sectoral composition. In many developing regions, increases in female labor force participation are often concentrated in low-productivity sectors, limiting their contribution to economic growth. These findings indicate that the impact of gender-oriented development is influenced by the quality of participation, institutional context, and economic structure.

Measurement of gender-oriented development has evolved to capture multidimensional aspects of inequality and human development. The Female Human Development Index (FHDI) reflects the quality of women's human capital in terms of health, education, and living standards. The Gender Development Index (GDI) measures disparities between men and women in human development achievements. The Gender Inequality Index (GII) captures inequalities in reproductive health, empowerment, and labor market participation. Female Labor Force Participation Rate (FLFPR) indicates the extent of women's involvement in economic activities. These indicators provide a comprehensive framework to analyze how gender-related dimensions influence economic performance. However, existing studies often examine these indicators separately, leading to fragmented insights into their combined effects.

Empirical literature reveals mixed findings regarding the impact of gender-oriented indicators on economic growth. Female human development is generally associated with positive growth outcomes, as improvements in education and health enhance productivity (Klasen, 2018). Gender inequality is consistently found to have a negative effect due to inefficiencies in resource allocation (Hakura et al., 2016). In contrast, the effects of gender equality and female labor force participation are less consistent. Some studies report positive effects, while others find insignificant or even negative relationships, depending on regional characteristics and labor market structures (Cuberes & Teignier, 2016). These inconsistencies highlight the need for context-specific analysis, particularly at the subnational level where economic structures and social conditions vary significantly.

Regional analysis is especially important in developing countries such as Indonesia, where disparities across provinces and districts remain substantial. Central Kalimantan presents a relevant case due to its unique economic structure, characterized by a reliance on

natural resources, emerging service sectors, and significant rural populations. Economic growth in the region has shown a recovery trend following the COVID-19 pandemic, yet gender disparities persist across multiple dimensions. Female human development indicators remain lower than those of males, despite gradual improvements. Female labor force participation is relatively low compared to male participation, indicating underutilization of potential labor resources. Gender inequality indicators also show considerable variation across districts, suggesting uneven development outcomes.

The persistence of these disparities indicates that gender-oriented development has not been fully integrated into regional economic processes. Women play a significant role in informal sectors and micro, small, and medium enterprises (MSMEs), yet their contribution is often constrained by limited access to capital, technology, and formal employment opportunities. This situation reflects a structural gap between gender equality achievements in social indicators and their realization in economic productivity. Failure to address this gap may limit the effectiveness of development policies and hinder inclusive growth.

Existing studies on gender and economic growth in Indonesia predominantly focus on national-level analysis or specific indicators in isolation. Limited research integrates multiple gender development indicators simultaneously within a panel data framework at the district level. This gap restricts a comprehensive understanding of how different dimensions of gender-oriented development interact to influence economic growth. Moreover, the post-pandemic recovery period introduces new dynamics, as economic restructuring and labor market adjustments may alter the role of gender in development processes. The lack of empirical evidence capturing these dynamics represents a significant research gap.

This study addresses these limitations by examining the simultaneous effects of female human development, gender equality, gender inequality, and female labor force participation on economic growth at the district level in Central Kalimantan. By employing panel data from 14 districts over the period 2020–2024, the study captures both cross-sectional and temporal variations, providing a more robust analysis of gender-development dynamics. The integration of multiple indicators allows for a more comprehensive assessment of gender-oriented development, while the focus on a subnational context offers nuanced insights relevant for regional policy formulation.

The novelty of this study lies in its multidimensional and integrated approach to gender-oriented development within a regional panel data framework. Unlike previous studies that examine individual indicators, this research simultaneously analyzes four key dimensions, enabling the identification of asymmetric effects across different aspects of gender development. The study also contributes by providing empirical evidence from a post-pandemic recovery context, which remains underexplored in the literature. This approach enhances the understanding of how structural inequalities and human capital development interact in shaping economic performance.

The urgency of this research is underscored by the increasing emphasis on inclusive and sustainable development within global and national policy agendas. Achieving gender equality is a core objective of the Sustainable Development Goals (SDGs), particularly Goal 5, which highlights the importance of empowering women and reducing inequalities. At the regional level, integrating gender perspectives into economic development strategies is essential to ensure that growth benefits all segments of society. Failure to address gender disparities may lead to persistent inefficiencies, reduced competitiveness, and slower economic progress.

Findings from this study are expected to provide important policy implications. Strengthening female human capital through improved access to education and health services can enhance productivity and growth. Reducing gender inequality requires targeted interventions that address structural barriers in labor markets and institutional frameworks. Increasing female labor force participation should be accompanied by efforts to improve job quality and productivity. Integrating gender considerations into regional development planning can support more inclusive and sustainable economic outcomes.

Overall, this study contributes to the literature by providing a comprehensive and context-specific analysis of the relationship between gender-oriented development and economic growth. The findings are expected to enrich theoretical discussions and offer practical insights for policymakers seeking to promote inclusive regional development.

II. LITERATURE REVIEW

2.1 Human Development and Gender. Human development is conceptualized as a process of expanding individuals' capabilities and choices in key dimensions such as health, education, and living standards (United Nations Development Programme [UNDP], 2020). This perspective positions humans as the ultimate goal of development rather than merely inputs in economic production. The Human Development Index (HDI) has been widely adopted to measure these dimensions, capturing longevity, knowledge, and standard of living. Within a gender perspective, the Female Human Development Index (FHDI) reflects the quality of women's human capital and their access to essential development outcomes.

The theoretical linkage between human development and economic growth is grounded in human capital theory and endogenous growth models. Human capital theory emphasizes that investments in education and health enhance individual productivity and contribute to economic output (Becker, 1964; Schultz, 1961). Endogenous growth theory further highlights that knowledge accumulation and human capital development are central drivers of long-term economic growth (Romer, 1990; Lucas, 1988). Gender disparities in human development represent a distortion in the accumulation of human capital, leading to suboptimal economic performance (Klasen, 2002; Klasen, 2018).

Empirical studies consistently demonstrate the positive contribution of female human development to economic growth. Improvements in women's education and health have been shown to increase labor productivity, reduce fertility rates, and enhance intergenerational human capital formation (Dollar & Gatti, 1999; Knowles et al., 2002). Higher female human development also contributes to more efficient allocation of resources within households and economies (Sen, 1999; Duflo, 2012). However, the impact of human development on growth may vary depending on the extent to which these improvements are integrated into productive economic activities (Kabeer & Natali, 2013).

The Gender Development Index (GDI) complements the HDI by measuring disparities between men and women in human development achievements. A higher GDI reflects greater equality in access to education, health, and income. Gender equality is often associated with improved economic outcomes due to broader participation and more efficient use of human resources (World Bank, 2012; Elborgh-Woytek et al., 2013). Nonetheless, empirical evidence suggests that improvements in gender equality indicators do not always translate directly into economic growth, particularly when structural barriers in labor markets persist (Duflo, 2012; Klasen, 2022). This indicates that equality in outcomes must be accompanied by effective economic participation to generate growth effects.

2.2 Gender Inequality. Gender inequality remains a critical issue in global development and is explicitly addressed in the Sustainable Development Goals (SDGs), particularly Goal 5, which aims to achieve gender equality and empower all women and girls. The Gender Inequality Index (GII) is widely used to measure disparities across three dimensions: reproductive health, empowerment, and labor market participation (UNDP, 2020). High levels of gender inequality indicate significant constraints in access to opportunities and resources, leading to inefficiencies in economic systems.

Theoretical perspectives suggest that gender inequality reduces economic efficiency by limiting the optimal allocation of talent and resources (Becker, 1993; Hsieh et al., 2019). When women face barriers in education, employment, and decision-making, economies fail to fully utilize available human capital, resulting in lower productivity and growth. Gender inequality

also affects macroeconomic stability through its impact on labor markets, savings behavior, and investment decisions (Seguino, 2010; Braunstein et al., 2013).

Empirical studies provide strong evidence of the negative relationship between gender inequality and economic growth. Klasen and Lamanna (2009) find that gender gaps in education and employment significantly reduce growth rates across countries. Similarly, Hakura et al. (2016) demonstrate that gender inequality constrains economic performance by limiting labor force participation and reducing productivity. Cuberes and Teignier (2016) estimate substantial income losses due to gender gaps in labor markets, particularly in developing economies. These findings highlight that reducing gender inequality is not only a social imperative but also an economic necessity.

Despite this consensus, the magnitude of the impact varies across contexts. Regional economic structures, institutional quality, and cultural factors influence how gender inequality affects growth (Kabeer, 2016; Jayachandran, 2015). In some cases, reductions in gender inequality may not immediately translate into economic gains due to lag effects or structural rigidities in labor markets. This suggests the importance of context-specific analysis to better understand the dynamics of gender inequality and economic performance.

2.3 Female Labor Force Participation. Female Labor Force Participation Rate (FLFPR) reflects the extent to which women are engaged in economic activities. Increasing female participation in the labor market is often viewed as a key driver of economic growth, as it expands the labor supply and enhances productive capacity (Goldin, 1995; Verick, 2018). Human capital theory suggests that higher participation rates, combined with improved education and skills, lead to greater productivity and economic output (Becker, 1964).

However, the relationship between female labor force participation and economic growth is not always linear. Goldin (1995) proposes a U-shaped relationship, where female participation initially declines during early stages of development and increases as economies become more advanced. This pattern reflects structural changes in the economy, including shifts from agriculture to industry and services. Recent studies confirm that the impact of female participation on growth depends on the quality of employment and sectoral composition (Cuberes & Teignier, 2016; Klasen, 2018).

In many developing regions, increases in female labor force participation are concentrated in informal and low-productivity sectors, limiting their contribution to economic growth (ILO, 2019; Kabeer, 2012). Poor working conditions, limited access to capital, and gender discrimination further constrain the productivity of female labor. Consequently, higher participation rates do not automatically translate into higher economic growth unless accompanied by improvements in job quality and productivity (Elborgh-Woytek et al., 2013).

Empirical findings on the relationship between FLFPR and economic growth remain mixed. Some studies find a positive and significant effect, particularly in economies with higher levels of human capital and institutional support (Bloom et al., 2009). Others report insignificant or even negative effects, depending on the structural characteristics of the economy (Verick, 2018). These mixed results underscore the importance of considering the qualitative aspects of labor participation rather than focusing solely on quantitative measures.

2.4 Economic Growth. Economic growth is defined as the increase in the production capacity of an economy, typically measured by changes in real Gross Domestic Product (GDP). Traditional growth theories, such as the Solow model, emphasize the roles of capital accumulation, labor, and technological progress (Solow, 1956). Modern growth theories expand this perspective by incorporating human capital, institutions, and structural factors as key determinants of growth (Romer, 1990; Weil, 2013).

From a regional perspective, economic growth is influenced by local characteristics, including resource endowments, economic structure, infrastructure, and institutional quality (Todaro & Smith, 2015). The concept of inclusive growth highlights that economic expansion

should be accompanied by equitable distribution of benefits, including gender equality (World Bank, 2012). Gender-oriented development thus becomes an integral component of modern growth strategies, as it promotes both efficiency and equity.

Empirical literature suggests that incorporating gender perspectives into economic development can enhance growth outcomes. Gender equality contributes to more efficient labor markets, higher productivity, and greater innovation (Hsieh et al., 2019). At the same time, persistent gender disparities can create structural inefficiencies that hinder economic progress (Klasen, 2022). These findings reinforce the importance of integrating gender considerations into economic analysis and policy formulation.

2.5 Linkages Among Variables and Empirical Evidence. The relationship between gender-oriented development and economic growth is multidimensional and interdependent. Female human development enhances productivity and contributes positively to economic growth through improved human capital (Knowles et al., 2002; Klasen, 2018). Gender equality, as measured by GDI, can promote growth by expanding opportunities and reducing disparities, although its impact depends on effective economic integration (Duflo, 2012; Klasen, 2022). Gender inequality, captured by GII, is expected to have a negative effect due to inefficiencies in resource allocation and limited utilization of human capital (Klasen & Lamanna, 2009; Hakura et al., 2016). Female labor force participation contributes to growth by increasing labor supply, but its impact varies depending on job quality and economic structure (Goldin, 1995; Verick, 2018).

Empirical studies reveal diverse and sometimes contradictory findings. While gender inequality is consistently associated with negative growth effects, the impacts of gender equality and female labor participation are more heterogeneous (Cuberes & Teignier, 2016; Kabeer, 2016). Some studies also identify non-linear relationships, suggesting that the effects of gender variables may change across different stages of economic development (Goldin, 1995; Jayachandran, 2015).

These variations indicate that the relationship between gender-oriented development and economic growth is highly context-specific. Factors such as economic structure, labor market conditions, institutional quality, and cultural norms play crucial roles in shaping outcomes. Consequently, integrated and context-sensitive approaches are necessary to better understand the dynamics of gender and economic growth.

2.6 Conceptual Framework. This study adopts a multidimensional framework to analyze the impact of gender-oriented development on regional economic growth. Gender-oriented development is operationalized through four key indicators: Female Human Development Index (FHDl), Gender Development Index (GDI), Gender Inequality Index (GII), and Female Labor Force Participation Rate (FLFPR). These variables represent different dimensions of gender development, including human capital quality, equality of outcomes, structural inequality, and economic participation.

FHDl captures the quality of women's human capital, which is expected to enhance productivity and economic performance. GDI reflects the level of gender equality in development achievements, which can facilitate more efficient utilization of human resources. GII represents structural inequalities that may hinder economic efficiency and growth. FLFPR indicates the extent of women's participation in economic activities, influencing the overall production capacity of the economy.

This framework emphasizes that improving women's human capital, reducing gender inequality, and enhancing economic participation are key drivers of inclusive and sustainable economic growth. The integration of these dimensions provides a comprehensive understanding of how gender-oriented development influences regional economic performance.

III. METHODS

This study employs a quantitative explanatory approach to examine the causal relationship between gender-oriented development indicators and economic growth. The analysis utilizes secondary data obtained from the Central Kalimantan Provincial Statistics Office, covering 14 regencies/cities over the period 2020–2024, resulting in a balanced panel dataset of 70 observations. The dependent variable is regional economic growth, while the independent variables include the Female Human Development Index (FHDI), Gender Development Index (GDI), Gender Inequality Index (GII), and Female Labor Force Participation Rate (FLFPR).

To estimate the relationship among variables, this study applies a panel data regression model specified as follows:

$$PE_{it} = \beta_0 + \beta_1 FHDI_{it} + \beta_2 GDI_{it} + \beta_3 GII_{it} + \beta_4 FLFPR_{it} + \varepsilon_{it}$$

where PE_{it} represents economic growth in region i at time t , β_0 is the intercept, $\beta_1 - \beta_4$ are the slope coefficients, and ε_{it} denotes the error term.

Panel estimation considers three alternative specifications: the Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM). Model selection is conducted sequentially using the Chow test (CEM vs. FEM), the Hausman test (FEM vs. REM), and the Lagrange Multiplier test (CEM vs. REM) to determine the most appropriate estimator.

To ensure model robustness, several diagnostic tests are performed, including normality, multicollinearity, heteroskedasticity, and autocorrelation tests (Durbin–Watson). Hypothesis testing is conducted using the t-test to assess the partial effects of each independent variable and the F-test to evaluate their joint significance. The explanatory power of the model is measured using the coefficient of determination (R^2). All estimations and statistical analyses are performed using EViews software.

IV. RESULTS AND DISCUSSION

Panel model selection was conducted to determine the most appropriate estimation approach. The Chow test indicates a probability value of 0.0415 (< 0.05), suggesting that the Fixed Effects Model (FEM) is preferred over the Common Effects Model. This result is further supported by the Hausman test, confirming the suitability of FEM over the Random Effects Model. These findings imply the presence of unobserved heterogeneity across districts/cities, justifying the use of a fixed-effects specification.

The estimation results based on the Fixed Effects Model are presented as follows:

$$PE = -19.504 + 2.273(FHDI) - 1.288(GDI) - 41.229(GII) - 0.031(FLFPR)$$

The coefficient of determination (R^2) is 0.3901, indicating that approximately 39.01% of the variation in economic growth can be explained by the model. The F-test yields a probability value of 0.033 (< 0.05), demonstrating that all independent variables jointly have a statistically significant effect on economic growth.

Individually, the Female Human Development Index (FHDI) shows a positive and statistically significant coefficient ($\beta = 2.2727$; $p < 0.05$), indicating a positive association with economic growth. The Gender Development Index (GDI) exhibits a negative but statistically insignificant coefficient ($\beta = -1.2878$; $p > 0.05$). The Gender Inequality Index (GII) has a negative and statistically significant effect ($\beta = -41.2288$; $p < 0.05$). Meanwhile, the Female Labor Force Participation Rate (FLFPR) shows a negative and statistically insignificant coefficient ($\beta = -0.0307$; $p > 0.05$).

Table 1. Fixed Effects Model Estimation Results

Variables	Coefficient	t-Statistic	Probability	Interpretation
Female Human Development Index	2.2727	2.1178	0.0390	Positive, Significant
Gender Development Index	-1.2878	-0.6002	0.5501	Not Significant
Gender Inequality Index	-41.2288	-2.2484	0.0288	Negative, Significant
Female Labor Force Participation	-0.0307	-0.2979	0.7670	Not Significant

Model Summary:

R-squared = 0.3901

Prob (F-statistic) = 0.0330

Significance level (α) = 0.05

Discussion. The findings of this study highlight the multidimensional nature of gender-oriented development and its varying impact on regional economic growth. The significant positive effect of the Female Human Development Index (FHDI) confirms the central role of human capital in driving economic performance. This result is consistent with human capital theory, which emphasizes that improvements in education, health, and living standards enhance labor productivity and economic output (Becker, 1964; Schultz, 1961). From an endogenous growth perspective, investments in human capital generate long-term growth through knowledge accumulation and productivity gains (Romer, 1990; Lucas, 1988).

Empirical evidence strongly supports this relationship. Studies by Dollar and Gatti (1999) and Knowles et al. (2002) demonstrate that improvements in women's education significantly contribute to economic growth by increasing labor productivity and fostering human capital formation. Similarly, Klasen (2018) highlights that gender gaps in human development reduce aggregate economic performance. The positive and significant effect of FHDI in this study suggests that enhancing women's access to education, health services, and decent living standards directly strengthens regional productivity. In the context of Central Kalimantan, this finding indicates that policies aimed at improving women's human capital are likely to yield substantial economic benefits.

The Gender Inequality Index (GII) shows a negative and significant effect on economic growth, reinforcing the argument that gender disparities create structural inefficiencies. This finding aligns with theoretical perspectives that emphasize the misallocation of resources when women face barriers in accessing education, employment, and decision-making roles (Hsieh et al., 2019). Gender inequality limits the optimal use of available human capital, thereby reducing overall productivity and economic performance.

This result is also consistent with a wide range of empirical studies. Klasen and Lamanna (2009) find that gender inequality in education and employment significantly reduces growth rates across countries. Hakura et al. (2016) further demonstrate that gender gaps constrain economic performance by limiting labor force participation and reducing efficiency. Cuberes and Teignier (2016) estimate that eliminating gender gaps in labor markets could substantially increase income levels, particularly in developing economies. The significant negative effect of GII in this study indicates that reducing gender inequality is crucial for improving economic outcomes in Central Kalimantan. Persistent disparities in access to resources and opportunities likely hinder the region's ability to fully utilize its human capital.

In contrast, the Gender Development Index (GDI) does not show a statistically significant effect on economic growth. This finding suggests that improvements in gender equality in terms of human development outcomes do not automatically translate into economic gains. Such a result supports the argument proposed by Duflo (2012), who emphasizes that while development can reduce gender inequality, the reverse relationship is not always immediate or direct. Equality in education and health outcomes must be accompanied by meaningful participation in economic activities to generate measurable growth effects.

Similar findings are reported in previous studies. Klasen (2022) notes that gender equality indicators may have a limited impact on growth when structural constraints in labor markets persist. Elborgh-Woytek et al. (2013) also highlight that the economic benefits of gender equality depend on the extent to which women are integrated into productive sectors. In the case of Central Kalimantan, the insignificance of GDI may reflect a gap between equality in social indicators and actual economic participation. Women may achieve comparable outcomes in education and health but still face barriers in accessing formal employment or high-productivity sectors.

The Female Labor Force Participation Rate (FLFPR) is also found to be statistically insignificant, indicating that increased participation alone does not necessarily lead to higher economic growth. This finding aligns with the notion that the quality of employment plays a more important role than the quantity of labor participation. Human capital theory suggests that productivity depends not only on labor supply but also on skills, job quality, and working conditions (Becker, 1964). When women are concentrated in informal or low-productivity sectors, their contribution to economic growth may be limited.

This result is consistent with the U-shaped hypothesis proposed by Goldin (1995), which suggests that the relationship between female labor force participation and economic development varies across stages of development. In early stages, participation may be associated with low-productivity activities, while in more advanced stages, it shifts toward higher-productivity sectors. Empirical studies by Verick (2018) and Kabeer (2012) also show that female labor participation does not always have a significant impact on growth, particularly in developing regions with structural constraints. In Central Kalimantan, the insignificance of FLFPR may reflect the dominance of informal employment and limited access to high-value economic opportunities for women.

Taken together, these findings reveal that not all dimensions of gender-oriented development contribute equally to economic growth. The quality of human capital and the reduction of inequality emerge as the most critical factors, while equality indicators and participation rates alone are insufficient to drive growth without structural transformation. This highlights the importance of distinguishing between access, participation, and productivity in analyzing gender and economic performance.

The results also underscore the context-specific nature of gender-development dynamics. Regional characteristics, including economic structure, labor market conditions, and institutional frameworks, play a crucial role in shaping outcomes. Central Kalimantan's reliance on resource-based sectors and the prevalence of informal employment may limit the economic impact of gender equality and participation improvements. Therefore, policies should not only focus on increasing participation but also on enhancing the quality and productivity of women's employment.

Overall, this study contributes to the literature by providing empirical evidence that gender-oriented development affects economic growth through asymmetric channels. Strengthening women's human capital and reducing gender inequality appear to be more effective strategies for promoting economic growth than solely improving equality indicators or participation rates. These findings reinforce the need for integrated policy approaches that address both social and economic dimensions of gender development.

V. CONCLUSION

This study examines the impact of gender-oriented development on economic growth in Central Kalimantan using panel data from 14 districts over the 2020–2024 period. The findings indicate that gender-related variables play a significant role in explaining regional economic performance. Female Human Development Index (FHDI) has a positive and significant effect, highlighting the importance of improving women's education, health, and living standards in enhancing productivity. Gender Inequality Index (GII) shows a negative and significant effect,

confirming that structural disparities hinder efficient resource utilization and economic growth. In contrast, the Gender Development Index (GDI) and the Female Labor Force Participation Rate (FLFPR) are not statistically significant, suggesting that improvements in equality indicators and participation have not yet translated into productive economic outcomes. Collectively, the results underscore that strengthening women's human capital and reducing gender inequality are more critical than expanding participation alone. These findings imply that policy strategies should focus on enhancing the quality of women's economic engagement, integrating gender equality into productive sectors, and promoting inclusive, productivity-driven development, while future research should incorporate additional variables and broader analytical approaches to better capture the complexity of regional economic dynamics.

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