Study of Gender and Economic Growth in South Kalimantan

Melisa Hairina¹, Yunita Sopiana²
Universitas Lambung Mangkurat, Indonesia | melisahairina6@gmail.com¹
Universitas Lambung Mangkurat, Indonesia | yunitasopiana25@gmail.com²

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Abstract
This study aims to analyze how gender inequality affects economic growth. The components used are Life Expectancy, Mean Years of Schooling, and Labor Force Participation Rate, while Economic Growth is through the value of Gross Regional Domestic Product. The analysis technique used is panel data regression analysis using a random effect model. The results of this study are first, gender inequality seen from the component of life expectancy partially has a positive and insignificant effect on economic growth in South Kalimantan Province, the mean years of schooling and the labor force participation rate partially have a negative and significant effect on economic growth in South Kalimantan Province in 2011-2021. Second, gender inequality is seen through the components of life expectancy, the mean years of schooling and the participation rate of the workforce simultaneously influencing economic growth in South Kalimantan Province in 2011-2021.

Keywords: Gender Inequality, Growth Economic, Life Expectancy, Mean Years of Schooling, Labor Farce Participation.

Introduction
Achieving gender equality, gender justice and empowerment women is the goal of the Millennium Development Goals (MDGs). This is the same as the goal of human development in Indonesia, which is to achieve gender equality so that the level of human resources will increase without discriminating between women and men.

Gender is not the same as sex, gender refers more to the relationships that occur between women and men, and in what way these social relationships are built. Gender plays a dynamic role and changes over time.

Presidential Instruction Number 9 in 2000 issued by the Government of the Republic of Indonesia regarding Gender Mainstreaming in National Development in order to improve gender equality and gender justice in Indonesia. In the Gender Mainstreaming strategy, gender is included in the planning and evaluation of national development policies and programs. However, the fact is that gender differentiation still often occurs in all aspects despite the increase in gender equality. Women are still often differentiated in terms of equal rights, access to education, health, employment and political participation.
The Gender Development Index (GDI) is an indicator that measures the achievement of human development by considering the gender aspect, namely the inequality in achievement between women and men. The Gender Development Index is the ratio between the Human Development Index of women and men.

To determine gender inequality, the Ministry of Women's Empowerment and Child Protection explained that it looks at the gap between the values of the Gender Development Index and the Human Development Index. If the value of the Gender Development Index is higher, the lower the inequality in development between women and men. The value of the Gender Development Index has a range between 0-100.

The Gender Development Index (GDI) is influenced by several components, namely, Life Expectancy, Literacy Rate, Mean Years of Schooling, and per-capita expenditure looking through the dimensions between men and women. The changes in the Gender Development Index in the 2011-2021 period must have been influenced by the increase in these components, which means that the general quality of women in terms of health, education, and decent living during 2011-2021 continued to change.

The problems that often occur for women in South Kalimantan are gender injustice and patriarchal culture that has been strongly integrated in the tradition, about the views that develop in society about women that make women not free to move in the public sphere both in terms of education, health, and employment. The social culture that occurs in society still has a stigma that assumes that it is not important for women to achieve higher education because women only become housewives and take care of the family. As a result of this, gender inequality arises.

There are several things that can cause the gap in years of schooling between men and women, one of which is priority considerations that consider men to be equipped with higher education because men are responsible for earning a living compared to women who are still considered only as housekeepers.

Inequality in the labor force participation rate, which explains the size of the labor force participating in economic activities between women and men, limits the active role of women economically (Rahmawati & Hidayah, 2020). In South Kalimantan Province, labor force participation rate has a large gap between men and women, which is around 29% lower than the labor force participation rate of women compared to men. The occurrence of this distinction is generally because society prioritizes men in earning money so that most men who enter working age will be the main executors for activities in the economy.

The results of Klasen & Lamanna's (2008) study prove that gender inequality in employment and education can significantly reduce economic growth.

From the problems in the background, the researcher wants to discuss gender inequality through the components of life expectancy, mean years of schooling, and labor force participation rate on economic growth in South Kalimantan Province in 2011-2021. The formulation of the problem of this research is how gender inequality through the components of life expectancy, mean years of schooling and labor force participation rate partially affects economic growth in the Regency/City of South Kalimantan Province and how gender inequality seen from the components of life expectancy, mean years of schooling and labor force participation rate simultaneously affects economic growth in the Regency/City of South Kalimantan Province. The purpose of this study is to analyze gender inequality as seen from
the components of life expectancy, mean years of schooling and labor force participation rate partially and simultaneously affecting economic growth in the Regency/City of South Kalimantan Province.

**Literature Review**

**Economic Growth as a Basic Theory**

According to Sadano (2000) economic growth is a development that occurs in activities within the economy which results in goods and services produced by the community increasing and increasing the prosperity of the community. There are four factors that can affect economic growth in a country, namely: Capital accumulation, which includes both tangible investments such as land, physical equipment and human resources, population growth, technological progress and institutional resources.

According to Sari & Yunani (2020) economic growth in some cases is generally related to the welfare of its people because the depiction of the success of macroeconomic policies in a region basically always has a positive impact on regional or central government because the government has a goal for the welfare of its people.

Solow in Ripandi (2019) explains that several factors affect economic growth such as the skills and proficiency of the workforce when doing work so that productivity results will increase supported by technological advances.

Economic growth according to Putra (2018) in Yahya & Wardhana (2022) is a process of changing economic conditions that occur continuously towards better conditions over a certain period.

**Gender Theory**

Gender is not just about biological sex differences, but about equality in roles, jobs, responsibilities, and decision-making between men and women. Gender is more about the character that is built during society and the personality that is learned and the expectations that are associated with women and men.

According to Priyadi & Astuti (2003), gender injustice can occur if there is gender stereotyping, marginalization and double burden. Gender stereotypes are a form of prejudice on the determination of feminism and masculinity. Masculine is a concept that is identical only to men who have masculine traits and the concept of feminism is always attached to women, which in reality is not the case, namely everyone can have both of these characters. Marginalization is a form of discrimination against women such as in job recruitment, promotion, and performance appraisal in an organization. As well as the double burden where women will carry the burden of public and domestic burdens when women enter the public world.

**Gender Inequality in Health**

The factor of gender inequality in mortality, where the life expectancy of men is smaller than that of women, according to Gorman & Read (2007), is in three ways: biological, social structure and behavior.

An explanation based on the United National Development Program (UNDP), suggests that life expectancy is used as one of the indicators in determining the success of development
in the health sector. If there is an increase in life expectancy, it will illustrate that the socio-economic conditions of the population, health and environment have improved.

Women generally have a greater life expectancy compared to men, but if the life expectancy of women continues to increase but is not accompanied by optimizing women's participation in development, such as the lack of jobs available to women, and women's skills in doing work, it can become an obstacle in development. Women's life expectancy is getting longer but is not well optimized, so productivity in obtaining goods and services that drive the economy will decrease, which will hamper economic growth in a region (Padang et al., 2019).

**Gender Inequality in Education**

The low level of education for the female population will result in the lack of women's role in development. Improving the level of education and eliminating gender discrimination will give women the space to participate in development and participate in determining policies in the economic, social and political fields (Suryadi, 2004).

Klasen & Lamanna (2008) in their research stated that improved education will provide women with better economic activities. Economic growth has a positive influence as well as gender equality in education through increased opportunities and incentives to educate women. Women who have a high level of education will usually have fewer children.

Todaro, M.P., & Smith (2006) argued the importance of education for women. There is much to suggest that discrimination in education for women will hamper economic development and worsen social inequality. There are four reasons for narrowing gender inequality in education for women by expanding educational opportunities for women economically will provide benefits, namely: first, the rate of return, in the field of education for women is greater than the rate of return for male education in developing countries. Second, increased education for women will not only increase productivity in agriculture and factories, but will increase participation in the labor force, slow down marriage, and reduce fertility, as well as improve health and nutrition for children. Third, the improved health and nutrition of children and the training of mothers can have a multiplier effect on the level of the nation's children in future generations. Fourth, improving the status and role of women from education will break the cycle of poverty and unfulfilling education for women who have the burden of poverty in the family and scarce cultivated land covering communities in developing countries.

**Gender Inequality in Employment**

According to Khotimah (2009), the structure of the female labor force still has a low level of education. Most of the female labor force is still engaged in the informal sector, which is usually lacking in providing adequate legal and welfare guarantees.

The level of labor force participation when accompanied by quality education will help increase per capita income. Therefore, the labor force of an area that has increased will be a factor in increasing economic growth (Puspasari, 2019). Basically, women have great potential to contribute to the economy. If the participation of the female labor force is further increased, then the opportunity for women to participate in development will be very large. But the fact is that gender discrimination still exists in the labor market.

According to Pritchett (2001) in the formal sector there are two symptoms that illustrate the occurrence of gender differentiation in the labor market, namely, the lower average wage
of women compared to men and gender-segregated jobs between men and women. This reflects several trends, namely, first, more investment in human capital for men than for women. Second, the discriminatory preferences of employers regarding who to hire and who to pay more. Third, sexual harassment that occurs in the workplace causes conditions in the workplace to be unsafe and will reduce the productivity and morale of workers. Fourth, women have a greater role in running the household and raising children.

Relationship between Gender Inequality and Economic Growth

According to Seguino (2000) gender inequality will have a negative impact on economic growth, namely: first, it can reduce the average amount of human capital in society, if there is gender inequality in education. As a result of this inequality, it will inhibit the talents of girls who have great capacity and ultimately reduce the rate of return on investment in the education sector. Second, women with education will have externalities that will reduce fertility and infant mortality and promote better education for future generations. This reduction in fertility is a positive externality to reduce labor subsistence. Third, equal opportunities in education and employment for all genders can have a positive impact on the country's competitiveness in international trade. Fourth, it increases women's bargaining power in the family by providing women with better educational and employment opportunities in the formal sector.

Previous Research

According to Klasen & Lamanna (2008) with the title "The Impact of Gender Inequality in Education and Employment on Economic Growth in Developing Countries: Updates and Extensions. Resulting in gender gaps in education and employment can significantly reduce economic growth.

Research by Kim et al (2016) entitled "A Model of Gender Inequality and Economic Growth" shows that increasing gender equality can make a significant contribution to economic growth by changing women's time allocation and encouraging the accumulation of human capital. Seguino's research (2000) entitled "Gender Inequality and Economic Growth: A Cross-Country Analysis" shows that GDP growth has a positive effect on gender wage inequality in contrast to recent work which shows that income inequality can slow growth.

Aktaria & Handoko's (2012) research entitled "Gender Inequality in Economic Growth" shows a negative and significant effect of gender inequality on economic growth. According to Padang et al (2019) with the title "Analysis of the Effect of Gender Equality on Economic Growth in West Sumatra" shows that gender equality in education has a positive and significant effect on economic growth in West Sumatra Province, gender equality in health has a negative and significant effect on economic growth in West Sumatra Province.

Research Methods

This research takes the scope of 2011-2021 with the panel data regression analysis method. Annual data is the data used in this study. The data needed are economic growth data through Gross Regional Domestic Product based on constant prices of South Kalimantan province, life expectancy data for women and men, mean years of schooling data for women and men, and data on labor force participation rate for women and men. The type of research
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used in this study is quantitative research with data sources from BPS South Kalimantan Province and the Ministry of Women's Empowerment and Child Protection.

Variable Operational Definitions

Economic Growth
Economic Growth is a process of changing the economic conditions of a country continuously moving towards a better situation from time to time. This study uses GRDP data based on constant prices from 2011-2021 which are expressed in units of billions of rupiah.

Life Expectancy
Life expectancy is the average number of years a person lives at a certain age and during a certain year. Life expectancy is the mean age of the population as distinguished from gender. Ratio data used in this study is through the calculation of female Life Expectancy divided by male Life Expectancy in each district/city in South Kalimantan province.

Mean Years of Schooling
Mean years of schooling is the sum of the total formal education completed by the maximum population aged 15 years differentiated by gender. Ratio data is used in the research through the calculation of Mean Years of Schooling of women divided by Mean Years of Schooling of men in each district/city of the province in South Kalimantan.

Labor Force Participation Rate
The Labor Force Participation Rate is the percentage of the population that is part of the working age population, namely aged 15 years and over and is differentiated by gender. This study uses ratio data through the calculation of the Labor Force Participation Rate of women divided by the Labor Force Participation Rate of men in each district / city of South Kalimantan Province.

Data Collection Technique
This research uses secondary data, therefore data collection is carried out using the documentation method, which is a collection of various types of data sourced from books and journals, as well as publications of the Central Bureau of Statistics, and the Ministry of Women's Empowerment and Child Protection.

Data Analysis Technique
This study uses a panel data regression analysis method using the Random Effect Model. Panel data regression uses cross section and time series data, so the equation is as follows:

$$ Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + e_{it} $$

Description:
$ Y $  : Economic Growth
$ \beta_0 $  : Constant
β1, β2, β3 : Regression Coefficient
X1 : Life Expectancy Ratio
X2 : Mean Years of Schooling Ratio
X3 : Labor Force Participation Rate Ratio

Results and Analysis

Panel Data Regression Analysis

From the results of panel data regression testing conducted using the e-Views 10 program, the following results were obtained:

Table 1
Panel Data Regression Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-2940227</td>
<td>2445361.</td>
<td>-1.202369</td>
<td>0.2313</td>
</tr>
<tr>
<td>LN_AHH</td>
<td>5295687</td>
<td>12573112</td>
<td>0.421191</td>
<td>0.6743</td>
</tr>
<tr>
<td>LN_RLS</td>
<td>-42995633</td>
<td>11380198</td>
<td>-3.778109</td>
<td>0.0002</td>
</tr>
<tr>
<td>LN_TPAK</td>
<td>-9159026</td>
<td>3699268.</td>
<td>-2.475902</td>
<td>0.0145</td>
</tr>
</tbody>
</table>

R-squared    0.128015
Adjusted R-squared 0.109195
F-statistic  6.802151
Prob(F-statistic) 0.000260

Source: Eviews Data Processing

From the above results, the equation is as follows:

\[ PE_{it} = -2940227 + 5295687 \ln \text{AHH}_{it} - 42995633 \ln \text{RLS}_{it} - 9159026 \ln \text{TPAK}_{it} \]

Based on the regression equation above, it can be seen that the coefficient value of -2940227 is the value of economic growth when it is not influenced by other variables. The life expectancy ratio variable has a coefficient value of 5295687, which means that if the life expectancy ratio variable increases by one unit, it will increase economic growth by 5295687, assuming other variables remain (cateris paribus).

The mean years of schooling ratio variable has a coefficient value of -42995633, which means that if the average length of schooling ratio variable increases by one unit, it will reduce economic growth by -42995633, assuming other variables remain (cateris paribus). The labor force participation rate ratio variable has a coefficient value of -9159026, which means that if
the average length of schooling ratio variable increases by one unit, it will reduce economic growth by -9159026, assuming other variables remain (cateris paribus).

**Hypothesis Test**

**F-Test (Simultaneous Test)**

The results of the F-Statistic Test shown in the table show the value of the F-Statistic is 6.802151 with a probability value of 0.000260. It can be seen that the probability value of the F-Statistic of 0.000260 is smaller than the significance level $\alpha = 0.05$. This means that there is a significant influence between the independent variables, namely Life Expectancy, Average Years of Schooling and Labor Force Participation Rate simultaneously on Economic Growth in South Kalimantan Province in 2011-2021.

**T-test (Partial Regression Coefficient Testing)**

Based on the results of the T test shown in the table, it can be interpreted, namely; First, the life expectancy ratio has a probability value of 0.6743 where this value is greater than the significance level $\alpha = 0.05$ (0.6743 > 0.05). This means that Life Expectancy has no partially significant effect on Economic Growth in Kalimantan Province in 2011-2021. Second, the average years of schooling ratio has a probability of 0.0002 which is lower than the significance level $\alpha = 0.05$ (0.0002 < 0.05). This means that the Average Years of Schooling variable has a partially significant effect on Economic Growth in South Kalimantan Province in 2011-2021. Third, the labor force participation rate ratio has a probability of 0.0145 which is lower than the significance value $\alpha = 0.05$ (0.0145 < 0.05). This means that the Labor Force Participation Rate has a partially significant effect on Economic Growth in South Kalimantan Province in 2011-2021.

**Determinant Coefficient Test (R-Square)**

The results of the R-Square Test in the table prove that the Adjusted R-Square value is 0.128015. From these results it can be concluded that the independent variables, namely the Life Expectancy Ratio, the Average Years of Schooling Ratio and the Labor Force Participation Rate Ratio can explain changes in the dependent variable, namely Economic Growth in South Kalimantan Province in 2011-2021 by 12% while the rest is explained by other variables outside of this study.

**Discussion of Analysis Results**

**Relationship between Life Expectancy Ratio and Economic Growth**

Based on the results of hypothesis testing and data analysis carried out, it can be seen that the variable life expectancy ratio of women has a positive influence, which means that if the ratio of life expectancy of women increases, it will increase economic growth. The life expectancy ratio variable has a positive influence because life expectancy not only describes health but also describes performance, where at this time there are still many people who have a long life or are elderly but are still productive and hold high positions in an agency so that from this economic growth can increase.

In research by Muda et al (2019) shows that the level of health has a positive effect on the economy in a region, health plays an important role in the quality of human resources which
will have a significant impact on productivity, efficiency and human initiative. The t-statistical probability obtained a result of 0.6743, meaning that the Life Expectancy ratio has no significant effect. This is due to several causes put forward by Handayani et al (2016) which states that the lack of budget provision for health and not running according to a program that is carried out will hinder the level of human resources to increase. Therefore, inhibiting the health sector and having a very minimal influence can result in the female life expectancy ratio having no significant effect on economic growth.

Relationship between the Mean Years of Schooling Ratio and Economic Growth

Based on the results of the tests carried out, it shows that the variable ratio of the average length of schooling of women has a negative and significant effect, which means that if there is an increase in the ratio of the average length of schooling of women, it will reduce economic growth.

The negative influence of gender inequality in education can be caused by the fact that there are still quite a number of socio-cultural factors in society that create a stigma that it is not important for women to achieve higher education because women only become housewives and take care of the family. In fact, a better education will lead to a better quality of life. In almost all developing countries, the rate of return to education for women is higher than for men (Todaro, M.P., & Smith, 2006).

This research is in line with research by Aliyah (2023) which states that the ratio of mean years of schooling has a negative effect on economic growth in Central Java. This is because in Central Java Province there is still an inequality in the ratio of education between men and women seen from the mean years of schooling.

Relationship between Labor Force Participation Rate Ratio and Economic Growth

The results of the research conducted show that the ratio of the female labor force participation rate has a negative and significant effect where if there is an increase in the ratio of the female labor force participation rate, it will reduce economic growth.

The lack of opportunities and participation for women in the labor market will lead to inefficiency. In an economy where women have limited access to the labor market or certain occupations, it will lead to a limited pool of talent that could have been utilized, which means that there will be less talent pooled in the labor market, and women who have the potential and qualifications but due to gender discrimination, they will be replaced by men who have less potential and no qualifications. This results in a reduction in the average capacity of the workforce because the full potential of the workforce cannot be utilized. The less efficient allocation of resources will negatively affect economic growth.

The results obtained from this study are also supported by the research of Klasen & Lamanna (2008) which states that gender inequality in labor force participation will have a negative impact on economic growth, this is because there is still low employment for women, from this it will have a significant impact on economic growth.

Closing

Research Implications
From the research that has been done, it shows that there is an effect of gender inequality on economic growth, which implies the importance of equality for women in order to realize the development of the country, because gender inequality in aggregate will cause a country's economy to experience losses.

**Research Limitations**

The author realizes that there are still things that are lacking and limited in compiling this research both in the search or processing of the data under study. The limitations are first, the lack of available data makes it difficult for researchers to conduct research. Second, this study only uses three variables, and there are still other variables that are not used in this study such as per capita expenditure.

**Conclusion**

From the results of the analysis, the researchers concluded that first, the Life Expectancy Ratio variable partially had a positive effect and no significant effect on economic growth, the Mean Years of Schooling ratio variable partially had a negative effect and there was a significant effect on economic growth, and the Labor Force Participation Rate ratio variable partially had a negative effect and there was a significant effect on economic growth in South Kalimantan Province in 2011-2021. Second, the Life Expectancy Ratio, the Mean Years of Schooling ratio, the Labor Force Participation Rate ratio simultaneously have a significant effect on economic growth in South Kalimantan Province in 2011-2021.

**Suggestions**

From the results in the discussion that has been carried out, suggestions can be given, namely first, to several people who read this research, that efforts can be made so that gender inequality does not occur, namely by eliminating gender stigmas that judge women as not important to obtain higher education compared to men and stigmas that can limit women's space because women have a major contribution in advancing the economy. Second, the government is expected to be able to improve the health sector by maximizing the availability of proper health facilities in each region, offering easy access for men or women, and distributing briefings to the public about the importance of health to the community as a whole. Third, this research certainly has limitations, so for future researchers to be able to complete the limitations in this study. Especially for the gender inequality variable in the average years of schooling component and the labor force participation rate, the next researcher should be able to further examine these findings because the results obtained in this study differ from the tendency of previous research.

**References**


