

Original Research Article **GENDER RESPONSIVE: INEQUALITY DEVELOPMENT IN ISLANDS BALI, INDONESIA**

ABSTRACT

Aims: Sustainable development goals do not focus on the economy alone, but also on gender equality. Since Indonesia implemented regional autonomy (1999), it is hoped that the development goals will be realized. However, the facts show that income and gender inequality still exists. The Province of Bali is also faced with this problem. Therefore, this study aims to determine trends and analyze the effect of development inequality as measured by Gini Ratio, Gross Regional Domestic Product at constant prices (GRDP-cp), on gender inequality as measured by the human development index (HDI) and development index gender (IPG).

Study design: This Study used a quantitative descriptive method.

Place and Duration of Study: Regional Province of Bali as the location of the study. The Province of Bali is one of 33 Provinces in Indonesia. The Province of Bali consists of small islands namely Bali Island, Nusa Penida Island and several others having an area of 5,632.82 square kilometers. Administratively, Bali Island consists of eight regencies, one city area.

Methodology: This study aims to determine the trend of the gini ratio, GRDP-cp, human development index (HDI) and gender development index (GDI) and also analyze the relationships that influence each of these variables. The approach used in this research is quantitative with secondary data in the form of panel data obtained from the Indonesian Central Bureau of Statistics (BPS) for period (2010 - 2017) are used in the analysis. This data is sourced from the annual reports of the Central Statistics Agency (BPS) of the regencies / cities and the Province of Bali. Several statistical models are applied in accordance with the objectives of the study, consisting of graphs, linear and nonlinear trend models and multiple linear regression estimation models. The method used to analyze gender responses: development inequality in Bali is panel data regression. **Results:** Gini ratio (GR) has a positive and significant effect at a significance level of 5 percent, towards the gender development index (GDI), GRDP-cp has a positive and significant effect at the 5 percent significance level, towards the growth of the gender development index (GDI), The human development index (HDI) has a positive and significant effect at the 5 percent significance level, on the gender development index (GDI). **Conclusion:** Human development that leads to gender equality at the Regency/Municipality level in the Province of Bali continues to progress until the end of 2017, and if the conditions of the regional economy are able to be maximally improved then the success of sustainable human development is not impossible to achieve and, However, until now the facts show that the results of development achieved at the Regency/Municipality level in Bali Province still have income and gender inequalities, although it has been attempted to be minimized by various policies carried out by the government. Some areas of development in this area that still need to be completed are income and gender inequalities in the fields of economics, and education.

Keywords: Sustainable development, Gender Response, HDI, GDI, inclusive growth

1. INTRODUCTION

Sustainable development goals do not focus on the economy alone, but also on gender equality. Even recently, gender equality is a very important indicator in creating inclusive and sustainable growth (Murthi et al., 2022). Since Indonesia implemented regional autonomy (1999), it is hoped that the development goals will be realized. However, the facts show that income and gender inequality still exists. The Province of Bali is also faced with this problem. Therefore, this study aims to determine trends and analyze the effect of development inequality as measured by Gini Ratio, Gross Regional Domestic Product at constant prices (GRDP-cp), on gender inequality as measured by the human development index (HDI) and development index gender (IPG). The research problem proposed, is; 1) what is the trend of the Gini Ratio, GDP-GDP, HDI and GPA? 2) What is the influence of the Gini Ratio, GDP of the HDI and 3) What is the influence of the Gini Ratio, GRDP-cp and HDI on GPA?

BPS-Bali Province (2017) revealed that human development in the regency / city of Bali Province has progressed, however; population income inequality widened, gender inequality narrowed and economic growth slowed until 2017. More and more empirical evidence shows that income or gender inequality can hamper economic growth. Using the latest dynamic panel regression and time series data, Dalia Hakura. at al. (1966); Chandra (2015) found that income and gender inequality together were negatively related to GDP per Capita growth. In Relationship testing at various stages of development in various countries, they found that this effect applies especially in low-income countries such as in the Sub-Saharan Africa region.

1.1 Literature review

This research focuses on issues related to income and gender inequality in development in the Bali-Indonesia Province.

1) Income Inequality and Economic Growth

The concept of economic development from conventional theory focuses more on the problem of economic growth. The economic growth model emphasizes increasing gross national product (GNP) rather than improving human quality. The focus on income inequality and economic growth began in the 1950s when Simon Kuznets presented his idea to the American Economic Association about the inverse U relationship between GNP per Capita and inequality in income distribution. Based on data on income distribution available at that time, Kuznets suggested that when per Capita income rose in lower developing countries, income inequality also rose, reached a maximum, and then declined when the income level rose further. Kuznets developed this theory by studying data estimating income distribution in several rich countries and some poor countries and by studying distribution trends in several European countries over time. His findings were later described as "U-reverse hypothesis." Following this breakthrough theory, many developing countries tolerate an increase in income inequality on the grounds that income will be more equitable with further developments, as Kuznets observed (Heyse, 2011).

Although there are many empirical works, there is no consensus about the relationship between income inequality and growth. The initial consensus was that inequality could be a growth or growth inhibitor depending on various factors (Barro, 2000). Forbes(2000) found that "a 10-point increase in a country's Gini coefficient correlates with an annual average increase of 1.3 percent of growth over the next five years." He interpreted this as indicating a "short-run relationship between inequality and growth in a country," and that it did not "directly contradict the previously reported negative long-run relationship across countries." A prominent case study that shows the possible relationship between income inequality and economic growth is in South Korea and the Philippines. As Roland (1996) discussed South Korea and the Philippines looked similar in the early 1960s as indicated by many macroeconomic factors, including GDP per Capita, population, urbanization, and primary and secondary school enrollment. However, they differ in their income distribution. In 1965, the South Korean Gini Ratio was 34.3 while the Philippine Gini coefficient was 51.3. Over the next thirty years, South Korea averaged 6 percent per year while the Philippines stagnated at 2 percent. South Korea's output level has increased fivefold while the level of Philippine output has almost doubled (Aghion et al, 1999).

In Indonesia, Aguslim(2016) research result revealed that: 1) before decentralization, economic growth had a negative effect on the Gini index. Every one percent increase in GDP will reduce the Gini index by 0.0265 percent; 2) After decentralization, economic growth has a positive effect on the Gini index. Every one percent increase in GDP, the Gini index increases 0.1199 percent. This means that the higher the economic growth the higher the income inequality since decentralization is implemented. Indrawati, S. M. (2018) states the level of inequality (gini ratio) has decreased as of March 2018 to 0.389 from 0.393 in March 2017.

2) Gender Inequality, Income and Human Development

Human development has a broader scope, more than just economic growth. Since the 1990s the United Nation Development Program (UNDP) has clearly emphasized the main message contained in every report on human development both at the global, national and regional levels, namely: human-centered development by placing humans as the ultimate goal of development, and not as a tool for development. The full development of human beings does not only cover aspects of economic welfare, but also physical biological aspects, aspects of intellectuality, and so on. Gender is a difference in behavior between men and women not determined by biological differences, but by the socio-cultural, political and economic environment. Gender inequality persists in all aspects of life in Indonesia, there is a gap between achieving development benefits for women and men related to basic human needs for work, education and health. This despite the fact that there has been considerable progress in gender equality today. The nature and level of discrimination varies in various districts / provinces.

2. METHODOLOGY

Regional Province of Bali as the location of the study. The Province of Bali is one of 33 Provinces in Indonesia. The Province of Bali consists of small islands namely Bali Island, Nusa Penida Island and several others having an area of 5,632.82 square kilometers. Administratively, Bali Island consists of eight regencies, one city area.

The approach used in this research is quantitative with secondary data in the form of panel data obtained from the Indonesian Central Bureau of Statistics (BPS) for period (2010 - 2017) are used in the analysis. This data is sourced from the annual reports of the Central Statistics Agency (BPS) of the regencies / cities and the Province of Bali. Several statistical models are applied in accordance with the objectives of the study, consisting of graphs, linear and nonlinear trend models and multiple linear regression estimation models. The method used to analyze gender responses: development inequality in Bali is panel data regression.

3. RESULTS AND DISCUSSION

1) Review of Regency/Municipality Economic Development in Bali Province

a) Regency/Municipality economic growth

The Province of Bali consists of eight regencies, namely: Badung (Bd), Tabanan (Tb), Gianyar (Gn), Jembrana (Ja), Buleleng (Bu), Klungkung (Kk), Bangli (Bi) and Karangasem (Ka) and one city namely Denpasar City (Dp). Bali experienced economic growth (PE) in 2017 of 5.59 percent, and was the lowest growth ever achieved since the last three years. Economic growth according to Regency/Municipality in the Province of Bali during the period (2011 - 2017) is presented in Figure 1.

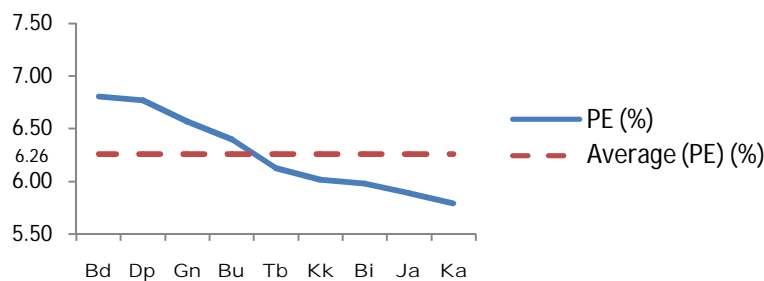


Figure 1. Regency/Municipality Economic Growth (EG) Distribution

The average data on regency/municipality economic growth in Figure 1 shows four regency/municipality achieving economic growth above the average economic growth, namely Badung, Denpasar, Gianyar and Buleleng, while the other five districts are below the average economic growth rate which is 6.26 percent in the period (2011 - 2017). The economy of Bali during this period was dominated by the tourism sector (business providing accommodation and food for drinking), with the highest contribution of 23.33 percent in 2017. Until 2017, the tourism sector was centralized in the regions; Denpasar, Badung and Gianyar, and this region has the highest GRDP that comes from the tourism sector.

In Figure 2, the average data on regency/municipality economic growth is displayed, and analyzed using nonlinear equations (power) according to the distribution of data. The estimation results of nonlinear equations show that the trend of regency/municipality economic growth until 2017, on average has a declining pattern. Several factors are expected to be the cause of the downward trend in the regency/municipality economic growth. The factors referred to, namely; the openness of Bali's economy affected by uncertainty in the global economy, besides the impact of natural disasters namely

the eruption of Mount Agung. The impact of this eruption resulted in the closure of Ngurah Rai international airport, which caused a decline in tourist arrivals to Bali.

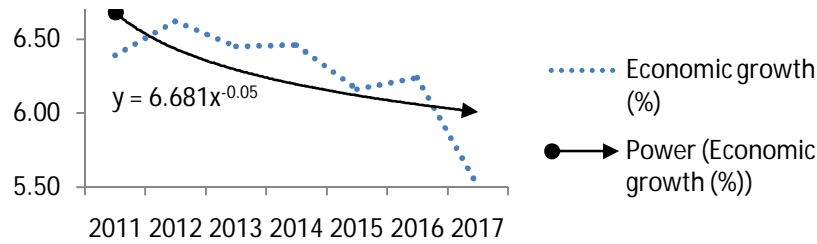


Figure 2. Regency/Municipality Economic Growth Trend

b) Regency / Municipality Regional Gross Regional Domestic Product-on the basis of constant prices (GRDP-cp) Economic growth can be theoretically measured by GRDP-cp Regency/Municipality area. Average GRDP-cp regencies / cities in Bali Province during the period (2010 – 2017) shows fluctuations every year. When the average distribution of Regency/Municipality GRDP-cp data are shown in Figure 3, seems like; Badung (Bd), Denpasar (Dp), Buleleng (Bu) and Gianyar (Gn) are above the average of IDR 13.18 trillion / year, while other districts are below the average.

The average distribution of GRDP-cp data that appears in each Regency/Municipality in Figure 3, if examined more closely, is able to illustrate that the progress of economic development in all regions turns out to be inequality. During the period (2010 - 2017) Badung (Bd) is the region that has the highest GRDP-cp average, while Bangli (Bi) occupies the lowest position.

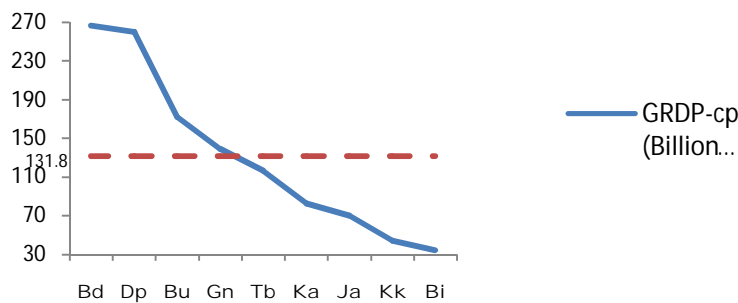


Figure 3. GRDP-cp Distribution at Regency/Municipality Level

The average Regency/Municipality GRDP-cp data for the period (2010 - 2017) is then analyzed using linear equations in accordance with the data distribution pattern shown in Figure 4. The estimation of the results equation is shown in Figure 4, and illustrates that the average GRDP-cp trend shows a positive direction. The meaning of the results of this estimation is in the regency / city average GRDP-cp during the period (2010 - 2017), each year experiencing an increase. This indicates that economic development in the area of Bali during this period has progressed, but is accompanied by income inequality between regions.

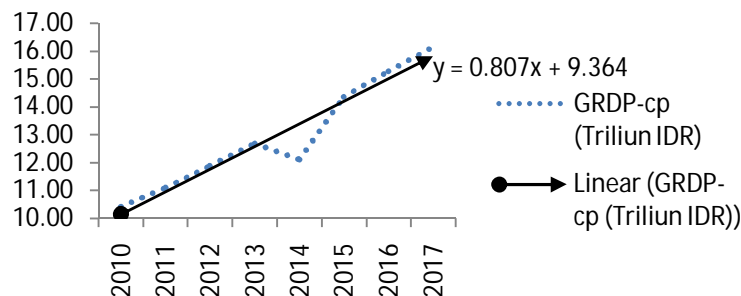


Figure 4. Average Trends of Regency/Municipality GRDP-cp in the Province of Bali

c) Regency/Municipality per Capita GRDP

Theoretically, economic growth indicators are also measured using per Capita GRDP. The average data per Capita GRDP of Regency/Municipality in the Province of Bali during the period (2010 - 2017) is shown in Figure 5, with an average total of IDR. 33.75 million / year. Furthermore, the distribution of data on average per Capita GRDP of Regency/Municipality shows, regions: Badung (Bd), Denpasar (Dp) and Gianyar (Gn) are above the average, while other districts are below the average. This information indicates that the regency/municipality average per Capita income is dominated by Badung,

Denpasar and Gianyar. As is known to the three regions, this is the central area of the economic activity of the tourism sector in Bali Province, which has been known to many countries in the world.

Rapid tourism development in the three world tourist destinations, is estimated as the average cause of unequal per Capita GRDP between districts / cities. This is proven by the distribution of the average per Capita GRDP during the period (2010 - 2017), where Badung (Bd) occupies the highest position among other Regency/Municipality and the Bangli (Bi) region is the lowest.

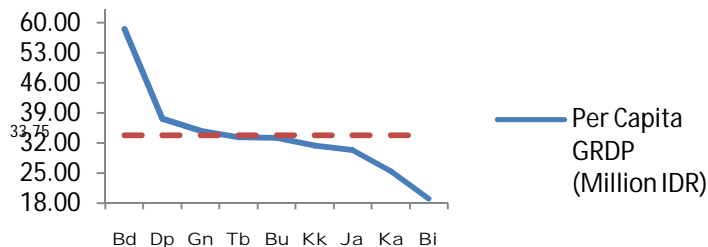


Figure 5. Average Regency/Municipality Per Capita GRDP Distribution

To find out trends in Regency/Municipality per Capita GRDP during the period (2010 - 2017), this data is estimated using linear equations according to the data distribution pattern presented in Figure 6.

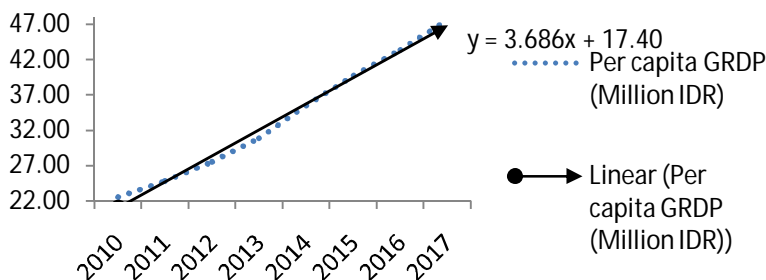


Figure 6. Average Trends in Regency/Municipality Per Capita GRDP in Bali Province

The estimation equation for the results of data analysis is shown in Figure 6, where the trend of average Regency/Municipality per Capita GRDP shows a positive direction. This means that the average per Capita GRDP in each region has increased every year. Thus, economic development in each Regency/Municipality has shown progress and improved economic prosperity until 2017.

d) Regency/Municipality gini ratio

The emergence of inequality in the results of development is one of the important problems for developing countries, and is no exception the small island of Bali, which is one of the provincial regions of Indonesia. Income inequality is theoretically explained using the Gini Ratio coefficient, where this coefficient ranges from 0 to 1. To find out the condition of inequality of Regency/Municipality in Bali Province, here the average Regency/Municipality gini ratio data is used during the period (2010 - 2017) as presented in Figure 7.

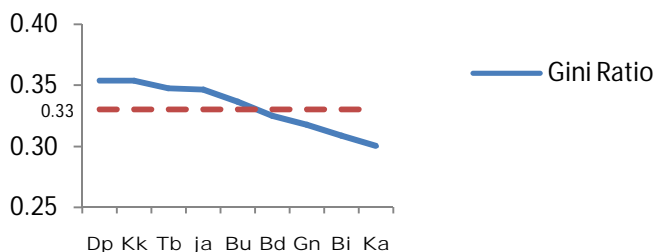


Figure 7. Regency/Municipality Gini Ratio Distribution

The distribution of the average regency / city gini ratio during the period (2010 - 2017) is presented in Figure 7, with a total average of 0.33. Statistical data show areas with high and above Regency/Municipality inequality include; Denpasar (Dp), Klungkung (Kk), Tabanan (Tb), Jembrana (Ja) and Buleleng (Bu), while other districts have low inequality and are below

average. If explored further, it is known, the highest inequality occurs in Denpasar and Karangasem with the lowest inequality.

Denpasar City is the capital of Bali Province. Denpasar has; High GRDP-cp, high economic inequality, migration and the highest percentage of unemployment in Bali, and also experienced the highest income inequality. High inequality in the city of Denpasar is a phenomenon that is not much different from the hypothesis of Simon Kuznets (In: Ahluwalia, M. S. 1976), which states that; inequality tends to widen in the initial stages of development, with this trend reversing at a later stage.

The average data gini ratio of the Regency/Municipality during the period (2010-2017) in Figure 8. is estimated using the Polynomial equation which is adjusted for the distribution of data. The results of the equation estimation show the trend direction of the average Gini Ratio which shows that growth has slowed from 2015 to 2017. This indicates that the results of development have been more evenly distributed among districts / cities. The results of this estimate are reversed with Chisom Stephannie Adinde (2017) stating that in Nigeria, economic growth has increased and the level of income inequality has also deteriorated.

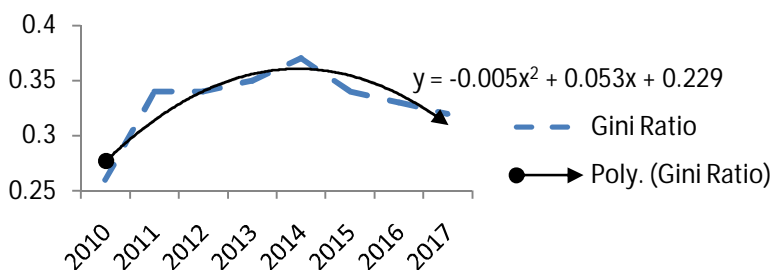


Figure 8. Regency/Municipality Gini Ratio Distribution

2) Review of Regency/Municipality Human and Gender Development

a) Regency/Municipality Human Development Index (HDI)

Economic growth is the first indicator used to measure development outcomes. In some cases the indicators of economic growth explain the prosperity of society, because the GRDP if shared does not directly reflect the level of prosperity of the community. Moving on from understanding and increasing needs, human development indicators are created which are expected to directly show the results of human development. The success of human development is measured using the human development index (HDI).

The success of human development in Regency/Municipality can be seen through the development of the average HDI during the period 2010-2017 in Figure 9. The average HDI of Regency/Municipality during the period (2010-2017), shows that; Denpasar (Dp), Badung (Bd), Gianyar (Gn) and Tabanan (Tb) have HDI that is high and above the HDI of the total Regency/Municipality average, then other districts are below the average HDI of 71.24. By looking at the Regency/Municipality HDI average data, it is known that Denpasar and Badung dominate HDI in Bali Province. When viewed per Regency/Municipality the highest HDI appears to be Denpasar (Dp) and the lowest is reached Karangasem (Ka). The HDI described above uses indicators; health, education, and purchasing power. By using these three approaches, it is natural for Denpasar and Badung to dominate HDI in Bali Province. Because the three indicators are sufficient for the needs of the community in the area.

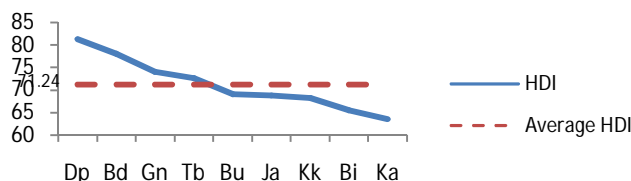


Figure 9. Distribution of HDI Regency/Municipality in Bali Province

Furthermore, the average Regency/Municipality HDI data over the period (2010-2017) was analyzed using linear equations, which were adjusted for the distribution of Regency/Municipality HDIs shown in Figure 10.

The estimation results of linear equations are listed in Figure 10 and it can be seen that the trend direction of the Regency/Municipality HDI average is positive. The results of this estimation mean that the development of human

development in the Regency/Municipality shows human development progress every year, over a period of time (2010 - 2017).

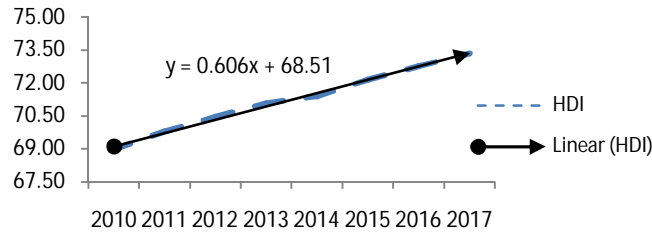


Figure 10. Average Trend of Regency/Municipality HDI in Bali Province

The development of the average HDI appears to be in line with the development of the Gini ratio of districts / cities. These results reveal that the more inequality in income, the more advanced human development in the Regency/Municipality. Thus, the development carried out by the Regency/Municipality government has succeeded in increasing human development inclusive.

b) Regency / city Gender Development Index (GDI)

Human development besides being measured by using HDI, can also be measured using the gender development index (GDI). In the use of GDI, the success of human development is not only seen through progress in the success of development but at the same time gender inequality is also a concern. Thus, the use of GDI is more detecting the gap between men and women in human development. To detect gender inequality in Regency/Municipality human development during the period (2015 - 2017), the average GDI is also used. When the Regency/Municipality GDI is averaged, it can be seen that the achievement of human development in the city district is included in the high category, reaching 91.75. The average GDI in several regions such as: Denpasar (Dp), Tabanan (Tb) and Badung (Bd) reached above the average GDI of all districts / cities, then some other regions were below the average. It is also known through the distribution of Regency/Municipality GDI, the Denpasar (Dp) GDI shows the highest, while the lowest is reached by Karangasem (Ka). In general, it can then be stated, even though Regency/Municipality GDI is classified as high, but this gender inequality still exists.

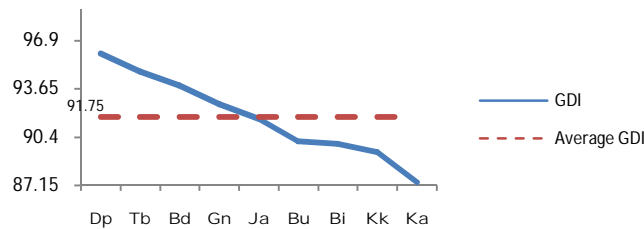


Figure 11. Average Distribution of Regency/Municipality GPA in Bali Province

The average regency / city GDI data, then estimated using linear equations, according to the distribution of the average GDI data. The estimation results with the logarithm equation are shown in Figure 12, where on average the regency / city GDI shows the direction of development which increases with the pattern slightly slowing in the last five years (2013 - 2017). Overall, the development of Regency/Municipality GDI reflects human development progressing when viewed from the side of gender equality.

Various efforts have been made by the government to address the issue of gender inequality, in the development of the Regency/Municipality until the end of 2017. However, until now gender inequality in various fields of development still exists, such as in the fields of economics, education and politics.

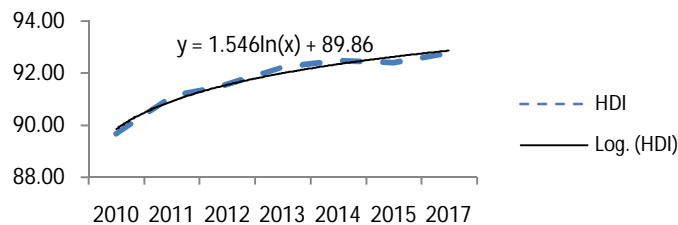


Figure 12. Average Trend of Regency/Municipality GPA

3) Gender Inequality in Some Regency/Municipality Development Areas

In the economic field prominent gender inequality is related to; women's per Capita expenditure, contribution to women's income, women's business opportunities and then employment opportunities.

a) Women's per Capita expenditure

The fact indicates that women's per Capita expenditure compared to men as shown in Figure 13 shows that there are significant gaps in all districts / cities. The highest percentage of per Capita women's expenditure was in Jembrana (Ja), which reached 56 percent, then the lowest was Karangasem (Ka) which was 38 percent. Overall, Regency/Municipality women's per Capita expenditure shows 40 percent upwards, only Karangasem (Ka) is below 40 percent. According to Anderson (2016) women's income is increasingly important for family economic stability. In the United States, a married mother provides a minimum of 40 percent of family income.

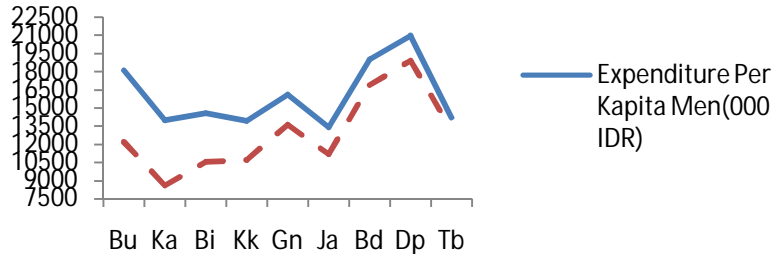


Figure 13. Regency/Municipality Women's Per Capita Expenditure

An increase in per Capita expenditure is an indication of an increase in family or community income. The fact shows that women's per Capita expenditure is still lower than that of men, this has an impact on family expenditure which is also low. According to Heidi Hartmann. At el, (2014) wage inequality contributes to lower family income and increased poverty among families with working women.

b) Regency / city women's income contribution

The role of men is obliged to make a living and work, a culture that continues to exist in people's lives. Although women who meet economic needs by working are increasing, their proportion is still smaller than men. This is because the division of women's roles is more for managing households, besides most women work in sectors with low wages. In fact, Sonali Jain and Chandra (2015) state that women are more likely to work in the informal sector with lower incomes, which widens the gender income gap and exacerbates income inequality. Similarly in Bali, according to BI (2018) the dominant type of work is a group of people who work in informal activities, with low wages. This condition is thought to be the cause, why the contribution of women's income is low.

The fact that the contribution of women's income in the Regency/Municipality is low is evidenced through the data presented in Figure 14 where the Klungkung (Kk) area shows the highest at 46.20 percent, then the lowest is Badung (Bd) at 35.93 percent. This information indicates that Badung Regency (Bd) with the highest per Capita income turns out to be the lowest contribution of women's income. This is probably caused, among others, by the high cost of living in Badung (Bd), considering that this area is a world tourist destination that is visited by many foreign and domestic tourists.

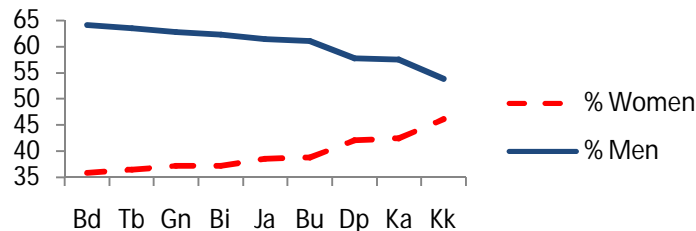


Figure 14. Female Income Gap Per Regency/Municipality in 2017

c) Job opportunities and women's business fields

Labor force participation rates, women (LFPR-W) (percent of the female population aged 15+) between Regency/Municipality appear to vary, such as the average data shown in Figure 15. Badung (Bd) appears to have the lowest LFPR-W of 61, 63 percent while Bangli (Bi) reached the highest at 80.37 percent. However, better participation of women is constrained by a lack of skills, education and training in addition to socio-cultural norms. In addition, women also bear the double burden of unpaid domestic work and paid workload. Sen (2001), and Agarwal (2002), argue that

through employment and other income generating activities, the economic position of women increases and their status strengthens in the household.

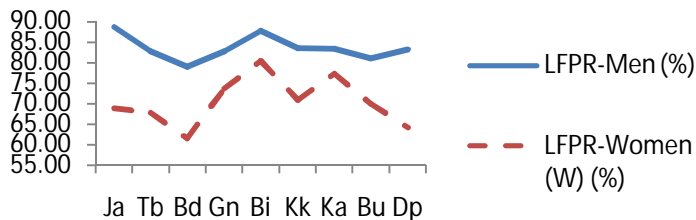


Figure15. Distribution of Regency/Municipality LFPR-W in 2017

LFPR-W in Bangli (Ba) and Karangasem (Ka) as seen in Figure 15, is the highest among other districts / cities. This is in accordance with the opinion of Sher Verick (2014), Newsletter-Indonesia-Investment.Com (2018) which states that in developing countries including Indonesia, LFPR-W usually reflects poverty, then women earn less than men and are more likely to be involved in unprotected work, such as domestic work. The increase in the female labor force participation rate according to Julismin Harahap (2014) was partly due to the increase in poverty and unemployment. This condition is caused by family economic pressure which requires women to seek productive work with very low rewards.

In relation to unemployment, Minister of Manpower (Indonesia), M Hanif Dhakiri said the unemployment rate at the national level was 5.1 percent and even tended to decline. Likewise in Bali in particular, this area has the smallest unemployment rate of 0.85 percent. (Tribun Bali. Com, Denpasar, 2018). However, if we look at the 2017 Regency/Municipality statistical data in Figure 16, it appears that the female open unemployment rate (OUR-F) varies greatly. Denpasar (Dp) as the center of economic activity in the tourism sector displays the highest OUR-F at 1.64 percent, while the lowest is Bangli (Bi) reaching 0.25 percent. In general, all regencies / cities the percentage of unemployment is still below the national level (Indonesia), then: Denpasar (Dp), Buleleng (Bu), Tabanan (Tb) and Badung (Bd) are still above Bali Province; the rest are Klungkung (Kk), Gianyar (Gn), Bangli (Bi) and Jembrana (Ja) under the Province of Bali. Especially for Badung (Bd) the fact shows that the open unemployment rate of women is actually higher than that of men.

The conditions in Bali described above do not seem to be very different from the findings of Phelokazi Mbude (2018) who stated that South African women are more vulnerable to unemployment than men and still do not receive the same wages as men, even women experience higher unemployment rates than men throughout the period (2008 - 2018).

Furthermore, according to the Minister of Manpower, Bali is able to reduce unemployment, because in this area it is supported by a stable business climate and a good workforce and in this area the priority is to develop the sector; Services, Agriculture, Creative Industries based on Balinese culture. Plus, now the service sector is a key role in the development of the world economy.

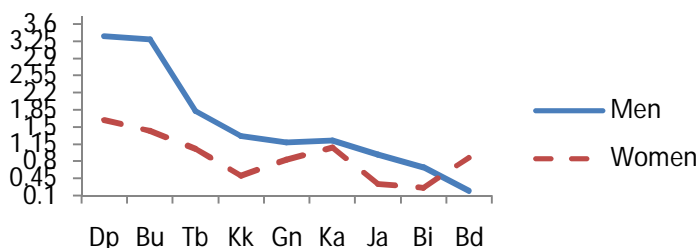


Figure 16. Distribution of Unemployment Rate Up to Regency/Municipality

d) Regency/Municipality women's main business field

The economic structure of Bali in 2017 is still dominated by two main business fields, namely: (1) provision of food and drink accommodation (23 percent share), (2) agriculture, forestry and fisheries (14 percent share) (BI-Bank Indonesia, 2018). Using the data in Figure 17 indicated, in 2017 the population of women working in the agricultural sector was greater than men in Karangasem (Ka), which reached 50.09 percent. In Denpasar (Dp) the population of women who worked in the agricultural sector showed the lowest at 16.63 percent. The condition of Denpasar which is exposed is quite reasonable, because in this area there are many agricultural lands that are shifting functions from paddy fields to other uses. As is known, the city of Denpasar is the capital of Bali Province, besides being the center of the largest economic activity in Bali, especially those related to the tourism sector. Therefore, changes in the economic structure of Denpasar City are quite significant, namely switching from agriculture to the tourism sector.

When seen in the tourism sector, the lowest number of women working in the sector is in Denpasar (Dp), which is 40.22 percent, and the highest is in Klungkung, reaching 60.15 percent. The fact in Figure 17 also reveals that in the central regions of tourism economic activities in Bali, namely Denpasar (Dp), Badung (Bd) and Gianyar (GN), the average percentage of female workers is smaller than men. Conversely, in regions with less tourism activities, the average percentage of female workers is greater than that of men.

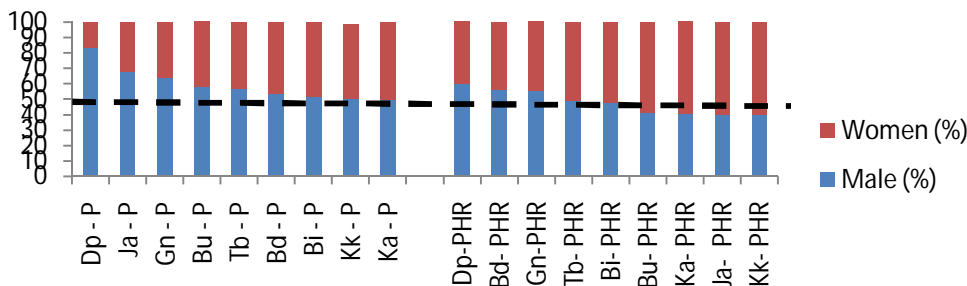


Figure 17. Main Women's Workers in Agriculture (P) and Tourism (PHR) Regency / City in 2017

Taking into account the percentage of female residents who work quite high in the agricultural and tourism sectors, this gives a signal that women have begun to become active in a career in the world of work. It's just that women's involvement in the two sectors is categorized as a business field that provides low wages. By Catur Widi Asmoro as the National Chair person of PEMBARU Indonesia (2018), in 2017 the average wage in Indonesia is IDR 2.7 million per month, with male workers paying IDR 2.95 million per month and IDR 2.27 million per month for women. Data from BPS - Indonesia mentions farm wages of IDR 50,400 per day or around IDR 1.5 million per month (Tribun-Bali.Com -Denpasar 2018). Based on CNN data, in 2018 the minimum wage in Vietnam ranged from USD121-176, while in Indonesia it was in the range of USD109-274. ASEAN countries with the highest minimum wages are Thailand with a range of USD293-313 (Tribun-Manado. Co.id. 2018).

In the field of education, education is an aspect that can be used to see gender equality. The same opportunities between women and men to obtain education have not been fully fulfilled. In the case of gender inequality found in the world of Indonesian education this reflects the mandate of the Nurture theory. This gender theory was triggered for the first time by John B. Watson in 1925 (catilla. Wordpress.com) (free Wikipedia-encyclopedia. 2017). According to this theory the differences in women and men are the result of socio-cultural construction resulting in different roles and tasks. This difference makes women left behind and neglected.

e) Average length of education for Regency/Municipality women

In Bali based on the distribution of the average length of education for Regency/Municipality women, it is known that in all Regency/Municipality women are lower than men. When viewed by Regency/Municipality, the disclosing facts of Denpasar (Dp) occupied the longest of 11, 6 years, followed by the second place Badung (Bd) with 10.82 percent, then in the last or lowest position was Karangasem (Ka) for 6.55 year (See Figure 18). Denpasar and Badung occupy the longest position in the average length of education for women due to many factors, including: High Gross Regional Domestic Income (GRDP), highest Regional Original Income, and even the most complete education facilities, etc. compared to other districts. Thus it is clear that to improve women's education is needed in addition to family economic factors as well as cultural factors of the community. Arjani (2006) states that patriarchal culture tends to be one of the factors causing less favorable treatment for women, such as discriminatory treatment.

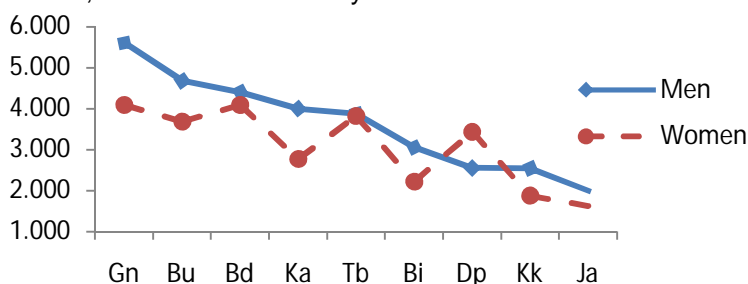


Figure 18. Distribution of Regency/Municipality Women Civil Servants

In the field of government and politics, the role of women still needs serious attention. It cannot be denied that the role of women in this field is still very lacking, in addition to household and work activities. Women as leaders are still very rare

This means, if the gini ratio increases, the HDI also increases. The results of the analysis can be interpreted as follows; with income inequality getting higher in a Regency/Municipality in the Province of Bali, then the development trend humans in the area will continue to progress in the future.

- b) Gross regional domestic product at constant prices (GRDP-cp) has a positive and significant effect at the 5 percent significance level, on the growth of the human development index (HDI).

This means that if gross regional domestic products at constant prices (GRDP-cp) increase, the HDI also increases. This is interpreted as follows; with gross regional domestic product on the basis of constant prices (GRDP-cp) which is increasing in a Regency/Municipality in the Province of Bali, then there is a tendency for human development in the area to continue to progress in the future.

2) Effect of Gini Ratio, GRDP-cp and HDI on Regency/Municipality GDI

Multiple linear regression models: $GDI = \beta_0 + \beta_1 GR + \beta_2 GRDP + \beta_3 HDI$ (Where: GDI = Gender Development Index, GR = Gini Ratio, GRDP-cp= Gross Regional Domestic Product at the Constant Price in billion IDR / year).

The results of multiple linear regression analysis are arranged, as follows:

$$GDI = 48,567 + 11,181 GR + 0,000 GRDP + 0,577 HDI$$

(t = 3,036)	(t = -0,330)	(t = 10,761)
(r = 0,446)	(r = 0,660)	(r = 0,887)
(F = 111,950)		
(R = 0,992)	(R ² = 0,851)	
(t ₆₀ : α 5percent = 1,670)		

The estimation results of the regression coefficients above indicate that:

- 1) Gini ratio (GR) has a positive and significant effect at a significance level of 5 percent, towards the gender development index (GDI).

This means, if the gini ratio increases, the GDI also increases. The results of the analysis can be interpreted as follows; with income inequality getting higher in the regencies / cities in Bali Province, the trend of gender development in the area will be more equal.

- 2) GRDP-cp has a positive and significant effect at the 5 percent significance level, towards the growth of the gender development index (GDI).

This means, if GRDP - is experiencing a slowing down every year, then GDI will not experience changes in the future.

This is interpreted as follows; to be able to achieve success in human development with better gender equality, then in the future a high growth in GRDP-cp is needed in each Regency/Municipality in the Province of Bali.

- 3) The human development index (HDI) has a positive and significant effect at the 5 percent significance level, on the gender development index (GDI).

This means that if HDI increases, the GDI also increases. The results of the analysis can be interpreted as follows; with increasingly advanced human development in the Regency/Municipality in Bali Province, then gender equality will improve in the future.

The findings of the above research do not seem to be very different from the findings of **Martín and Garvi (2009)**, which states that there is a significant relationship between gender inequality and economic growth, where GDP growth seems to stimulate an increase in HDI and GDI and even able reduce the gap between these variables.

We show the relevance of the introduced framework by providing two empirical analyses, one for Italy and the other for Brazil. These analyses show the distributional impact of the recent growth experienced by Brazil and the recent crisis suffered by Italy from both the income inequality and opportunity inequality perspectives (**Peragine, Palmisano, and Brunori, 2014**).

4. CONCLUSION

Based on the results of the above discussion some conclusions can be drawn, as follows.

- 1) Human development that leads to gender equality at the Regency/Municipality level in the Province of Bali continues to progress until the end of 2017, and if the conditions of the regional economy are able to be maximally improved then the success of sustainable human development is not impossible to achieve.
- 2) However, until now the facts show that the results of development achieved at the Regency/Municipality level in Bali Province still have income and gender inequalities, although it has been attempted to be minimized by various policies carried out by the government. Some areas of development in this area that still need to be completed are income and gender inequalities in the fields of economics, and education.

5. RECOMMENDATION

In finding a solution to inequality in income and gender, it is necessary to have a breakthrough to spur development through the acceleration of development that starts from the village, especially those related to public infrastructure. This needs to be done considering that it is still visible, both at the village, Regency/Municipality level in Bali Province, the condition of the infrastructure is not evenly distributed. Likewise, economic development, especially in relation to the livelihoods of the population, needs to be developed more evenly, such as; sustainable development of tourism that utilizes human and natural resources (i.e. labor, agricultural products and local handicraft industries). In the field of culture, efforts need to be made to make people aware, that improving gender education is very important to improve the quality of themselves in mastering Science and Technology in facing future global competition.

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