

Analysis of the Effect of Gender Inequality on Economic Growth in Bali Province

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ABSTRACT: Economic growth is a process of changes in economic conditions that occur in a country on an ongoing basis to get to a better condition in a certain period of time. One of the supporting factors for economic growth is the achievement of an increase in the quality of human resources. Improving the quality of human resources is not only carried out in general but more specifically leads to human development based on gender. Empowerment of women and men has the same interests, especially in economic matters which are essential for economic development, economic growth and poverty reduction. Therefore, it needs the support of many parties in order to make gender equality a supporting factor for economic growth. The gender-related growth index is the Gender Development Index. The purpose of this study was to determine the effect of life expectancy, average length of schooling, and the level of labor force participation partially and simultaneously on economic growth in Bali Province. This research was conducted using a quantitative approach and in the form of secondary data. The research data collection was carried out by observation. Analysis of the effect of gender inequality on economic growth using panel data regression analysis techniques with a total of 63 observations. The results showed that the variable life expectancy, average length of schooling and TPAK simultaneously had a significant effect on economic growth in Bali Province. The results of the t-test research show that the variable life expectancy and average length of schooling partially have a positive and significant effect on economic growth in Bali Province, while the TPAK variable has a positive but insignificant effect on economic growth in Bali Province.

Keywords: Gender Development Index, Gender Equality, Economic Growth.

I. INTRODUCTION

Economic growth is a process of changes in economic conditions that occur in a country on an ongoing basis to get to a better condition in a certain period of time. According to Sukirno (2011) economic growth is defined as the development of activities in the economy that causes goods and services produced in society to increase and the welfare of society to increase. South Sumatra Province BPS (2015) explains that there are several things that can affect economic growth, one of these factors is the quality of human resources. The allocation of effective human resources is a starting factor to support economic growth. With the growth of the economy, the accumulation of (physical) capital is just beginning to be needed to keep the economy growing. In other words, an effective allocation of human resources is a necessary condition for economic growth (Lonni et al, 2009).

In improving the quality of human resources, this can not only be done in general terms but can be done to be more specific, namely to consider improving human quality in terms of gender. The term gender has been used widely by the community both in writing and in forums. Even though the term is not always used correctly, it sometimes even creates an unclear definition of gender itself. The concept of gender does not refer to a specific gender. In contrast to gender, gender is the social relationship between men and women and how this social relationship is constructed. Gender roles are dynamic and change over time. (Ministry of Women's Empowerment and Child Protection, 2011).

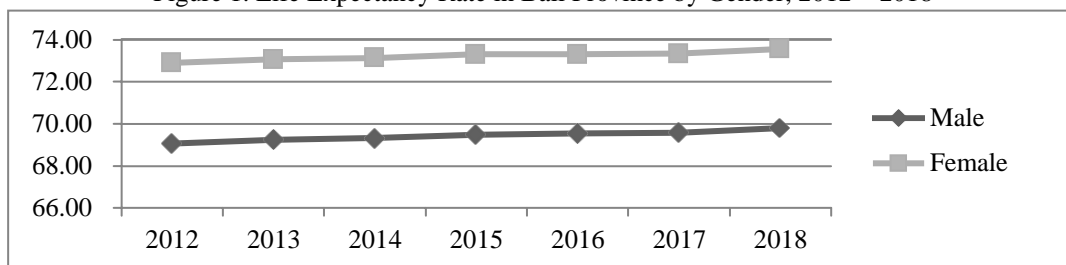
The Ministry of Women's Empowerment and Child Protection explains that gender roles are behaviors that are learned in a society / community where activities, duties or responsibilities deserve to be accepted by both men and women. Gender roles can change, and are influenced by age, class, race, ethnicity, religion and geographic, economic and political environment. Both women and men have a dual role in society. Women often have a role in regulating reproduction, production and society. Men were more focused on production and societal politics. Reproductive functions, both natural (giving birth, breastfeeding) and non-natural (educating

and caring for children) can be categorized as activities to take care of the household or in BPS terms as not the workforce. Meanwhile, the production function is related to the economic function, namely the higher the level of education of women allows them to indirectly and directly become actors of development according to their interests and abilities as production factors (Endang, 2007). It is in this production function that there are many gender inequalities that can indicate stunted economic growth due to the inadequate factors of human resource production based on gender.

Gender equality is not only a problem for women but also a development issue. The Ministry of Women's Empowerment and Child Protection defines gender equality as the achievement of the results of non-discrimination based on sex on the basis of opportunity, allocation of resources / benefits and access to services, meaning that male and female residents can enjoy the results of development equally. This means gender equality is not only in improving the quality of women but also improving the quality of gender, namely men and women so that they can enjoy the results of development together.

The gender-related growth index is the Gender Development Index (IPG). The Ministry of Women's Empowerment and Child Protection explained that to find out gender inequality, the gap in the IPG and HDI values can be used, if the IPG value is the same as the HDI value, there is no gender imbalance. To see in more detail the state of the IPG in Bali Province, it can be seen from each of the indicators that affect the IPG. In looking at gender inequalities that can affect economic growth, it can be seen based on three categories, namely health, education and employment. To see the problem of gender equality in health, it can be seen in Figure 1.

Figure 1. Life Expectancy Rate in Bali Province by Gender, 2012 – 2018



Secondary Data, 2020

From Figure 1, it can be seen that there is an increase in the Life Expectancy Rate (AHH) every year in Bali Province, although this increase is not a large increase, but this still means that there is an increase in the quality of the Life Expectancy Rate each year even though it is not significant. In the table it can also be seen that the AHH of women is higher than that of men. This means that the chances of life expectancy for women are much higher than that of men. This also means the fact that there are indications that the male population has not achieved equality of benefits and access to health services in enjoying the benefits of development. Where this proves that the problem of gender inequality is not only in the female population but also in men. To see the problem of gender equality in education can be seen from the condition of the Old School Expectations and the Average Length of School in Bali Province in Table 1.1.

Table 1 Expectations of School Years (HLS) and Average Years of Schooling (RLS) in Bali Province by Gender, 2012-2018 (Years)

Period	HLS		RLS	
	Male	Female	Male	Female
2012	12,42	12,08	8,99	7,12
2013	12,56	12,21	9,00	7,17
2014	12,82	12,46	9,02	7,22
2015	13,31	12,59	9,18	7,33
2016	13,32	12,77	9,20	7,53
2017	13,33	13,13	9,35	7,75
2018	13,34	13,21	9,50	7,82

Secondary Data, 2020

In Table 1.1, it can be seen that the opportunity to obtain equal education between men and women has not been fully fulfilled. This is because the education indicators of Expectations for Old Schools (HLS) and Average Years of Schooling (RLS) show a gender gap in education each year. The development of HLS and

RLS during the 2012-2018 period continued to increase every year. However, the HLS and RLS of women were still lower than the HLS and RLS of men.

Table 2. Labor Force Participation Rate (TPAK) in Bali Province by Gender, 2012-2018 (Percent)

Period	TPAKMale	TPAKFemale
2012	83,57	69,61
2013	83,35	66,52
2014	82,55	67,26
2015	83,77	67,24
2016	83,90	70,56
2017	82,76	67,70
2018	82,94	70,14

Secondary Data, 202

Table 2 will show how the situation of gender equality problems in employment in Bali Province, through the TPAK data based on gender, it can be seen that in employment the problem of gender equality occurs in the female population. The LFP for men and women has both increased and decreased every year. However, the level of women's participation in the labor market is still below that of men as a whole. This indicates that the opportunity or participation of women to enjoy the results of development related to labor has not been maximally achieved. This problem is in line with the tendency of lower female education, which causes women's labor force participation to be unable to enter the existing job qualifications. By looking at the problem of the state of gender inequality in Bali Province, the writer specializes in research to analyze the influence of the gender inequality variable on health, namely life expectancy, the gender inequality variable from education, namely the average length of schooling, and the gender inequality variable from employment, namely the level of labor force participation. partially and simultaneously on economic growth in Bali Province.

II. CONCEPTUAL MODEL AND HYPOTHESIS

Life expectancy has become a viable proxy in determining health conditions for economic growth. Barro and Lee (1996) use life expectancy as a variable in determining the rate of economic growth. The ratio of life expectancy for women and men is a variable that represents gender inequality in health. The educational variable that has been used so far is the school participation rate. According to Pritchett (2000), school enrollment rates are not too good a variable for school accumulation. Barro and Lee (1996) also stated that this variable is unable to explain human capital that affects a person's decisions regarding fertility, health and so on. Therefore, in this study the variable average length of schooling is used for the education sector. Klasen and Lamanna (2008) state that female labor is not a variable that is able to represent employment. This is because there is a causality between female workers and economic growth. High economic growth is likely to attract women into the workforce and vice versa. The rate of labor force participation and share of women in the labor force are used as proxies for employment. So that in the research that will be carried out, the variable used is the ratio of the participation rate of the workforce of women and men as a variable for gender inequality in terms of employment.

Research from NurWitaRiztisyani (2009) on the Analysis of the Effect of Gender Disparities in the Education and Employment Sector on the Economic Growth of Provinces in Indonesia. The results obtained in this study are the variable level of education has a positive and significant effect on the economic growth of 30 provinces in Indonesia. The education level growth variable has a positive and significant correlation to the economic growth of 30 provinces in Indonesia. Gender disparities in education have an impact on the economic growth of provinces in Indonesia. This is evidenced by the variable ratio of male and female education and the growth of the ratio of male and female education to a positive correlation with economic growth. Gender disparities in employment also have an impact on provincial economic growth in Indonesia. This is evidenced by the growth of male and female labor variables which have a positive and significant correlation to economic growth.

Research from Rahmi Fuji AstutiHarahab (2014) on the Analysis of the Effect of Gender Inequality on Economic Growth in Central Java Province. In his research, the authors used the human development index variable, gender development index, gender inequality index, economic growth, the ratio of life expectancy for men and women, the ratio of the average length of schooling for boys and girls, the ratio of male labor force participation rates. and women. The analytical tools used in this research are descriptive statistics and panel data regression. The results obtained in this study are that gender inequality that occurs is not in accordance with the theory stated that a small gender imbalance will increase economic growth in an area, but the situation that

occurs is that gender inequality cannot always increase economic growth alone, there is also regions with large gender inequalities but also large economic growth, all of which can be seen from the level of education, health, employment between men and women.

Risky Puspita Sari, et al (2019) regarding the Analysis of the Effect of Gender Inequality on Gross Regional Domestic Product (GRDP) in 2011-2017 (Case Study of 6 Cities in Central Java Province). In his research, the writer used the variable ratio of the average length of schooling, the ratio of life expectancy, the ratio of labor force participation rate, and economic growth. The results obtained are based on the author's discussion, namely the variable gender inequality in education has a positive and significant effect on economic growth, the variable gender inequality in health has a positive and significant effect on economic growth, and the variable gender inequality in employment is not significant to economic growth, this is because during this period During 2011-2017, the female labor force participation rate was still far below the male labor force participation rate.

Then the hypothesis formulation from the research can be proposed as follows:

1. Life expectancy rates for women and men have a positive effect on economic growth.
2. The average length of schooling for girls and boys has a positive effect on economic growth.
3. The level of female and male labor force participation has a positive effect on economic growth.
4. Life expectancy, average length of schooling, and the participation rate of the male and female labor force together have an effect on economic growth in Bali Province.

III. RESEARCH METHODS

In this study using a quantitative approach. The location of this research is in Bali Province by considering data from BPS. The objects in this study include the life expectancy of men and women; the average length of schooling for boys and girls; male and female labor force participation rates; and economic growth in Bali Province. Analysis of the effect of gender inequality on economic growth using panel data regression method. Panel data is a data set containing individual sample data (districts / cities) over a certain time period. Panel data is a combination of time series data and cross section data (Widarjono, 2013). The symbol used is T for the observation period, while N is the observed cross-section unit. In this panel data study, the authors collected data from 7 time series data based on the research year, namely 2012-2018 and 9 cross section data based on the number of districts / cities in Bali Province. So that the number of observations studied is $N \times T$, namely $7 \times 9 = 63$ observations that will be processed using eviews-9.

There are several methods commonly used to estimate the regression model with panel data, namely the Common Effect Model, Fixed Effect Model and Random Effect Model. Of the three models, only one calculation model is most appropriate, for that it is necessary to select the panel data model through three panel data estimation tests, namely the Chow test, Hausman test, and LM test. Before testing the hypothesis, first a classic assumption test is carried out with the aim that the regression estimation carried out is feasible to be used to analyze something. According to Basuki (2015) Autocorrelation test only occurs in time series data. Testing a utocorrelation on data that is not time series (cross section or panel) will be pointless or meaningless. Therefore, the classical assumption test in this study includes the normality test, multicollinearity test, and heteroscedasticity test. Hypothesis testing was carried out by two tests in accordance with the formulation of the hypothesis carried out, namely the simultaneous regression coefficient significance test (F test) and partially (t test).

The F test is carried out to determine whether all independent variables together (simultaneously) can affect the dependent variable. Meanwhile, the t test was conducted to determine the effect of each independent variable on the dependent variable partially. The t test is carried out by comparing the calculated t value with the t table value (Nata Wirawan, 2017).

IV. RESULTS AND DISCUSSION

From the results of the determination of the three panel data estimation models, only one model can be used, based on the test results that have been done, the panel data model approach to be used in this study is the fixed effect model approach. After testing the classical assumptions on the results of data processing based on the fixed effect model, classical assumption problems were not found.

Table 3. Results of multiple linear regression analysis

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	5.339266	1.215849	4.391390	0.0001
X1	0.113558	0.021890	5.187599	0.0000
X2	0.139526	0.026899	5.186961	0.0000
X3	0.013510	0.014687	0.919834	0.3620
Effects Specification				

Cross-sectionfixed(dummyvariables)			
R-squared	0.594482	Meandependentvar	6.179683
Adjusted R-squared	0.507017	S.D.dependentvar	0.558919
S.E. of regression	0.392432	Akaikeinfocriterion	1.136737
Sumsquaredresid	7.854153	Schwarzcriterion	1.544953
Loglikelihood	-23.80722	Hannan-Quinnriter.	1.297291
F-statistic	6.796823	Durbin-Watsonstat	1.656990
Prob(F-statistic)	0.000001		

Secondary Data, 2020

Based on the results of panel data calculations in Table 4.9, the following equation is obtained: $Y = 5.339 + 0.113X_1 + 0.139X_2 + 0.013X_3$

The meaning of these numbers is as follows: (which is defined as the coefficient value of the independent variable which has a significant effect, namely the significance value of less than 0.05)

1) A constant of 5.339, which states that if all the independent variables, namely life expectancy, average length of schooling and the level of labor force participation of men and women in Bali Province are 0, then the amount of economic growth in Bali Province is 5.339%.

2) The regression coefficient value of the life expectancy variable (X_1) is 0.113, stating that when there is an increase in the variable life expectancy rate for men and women in Bali Province by 1%, there will be an increase in economic growth in Bali Province by 0.113%, with the assumption of other independent variables remains (*ceteris paribus*).

3) The regression coefficient value of the average length of schooling variable (X_2) is 0.139, stating that when there is an increase in the variable average length of school for boys and girls in Bali Province by 1%, there will be an increase in economic growth in Bali Province by 1%. 0.139%, assuming the other independent variables remain (*ceteris paribus*).

4) The regression coefficient value of the labor force participation rate variable (X_3) is 0.013, stating that when there is an increase in the variable rate of female and male labor force participation in Bali Province by 1%, there will be an increase in economic growth in Bali Province by 0.013%, assuming the other independent variables remain (*ceteris paribus*).

In the regression significance test simultaneously, the F_{count} value is greater than F_{table} , namely, F_{table} is 3.153 while F_{count} is 6.796 with a probability of $0.000 < 0.05$, it can be concluded that H_0 is rejected and H_1 is accepted. This means that the gender inequality variable simultaneously has a significant effect on economic growth in Bali Province. This indicates that an increase in the average length of schooling, life expectancy and labor force participation rates for male and female populations is followed by changes in economic growth. This also means that increased gender development outcomes are classified into three areas, namely health, education and employment, which will provide an increase in economic growth in Bali Province. The results of this study are in line with and are evident from the results of previous studies and the theoretical basis of this study.

In testing the effect of life expectancy on economic growth in the Province of Bali, the results obtained were $\alpha 0.05$, t_{table} was 1.670, while t_{count} was 5.187 thus $t_{count} > t_{table}$ with a probability of $0.000 < 0.05$, it could be concluded that H_0 was rejected and H_1 was accepted. This means that the variable life expectancy has a positive and significant effect on economic growth. This means that when there is an increase in the life expectancy of men and women in Bali Province or when the achievement of the variable life expectancy between the female population and the male population in Bali Province has increased, this will result in an increase in economic growth in the Province of Bali. This shows that gender inequality in health in the Province of Bali has an inherent contribution in the framework of economic growth in the Province of Bali. This is in line with the theory put forward by Gorman and Read (2007) which explains the causes of gender disparities in mortality. Where the life expectancy of women is higher than men. The causes of this gap can be classified into three categories, namely, biological, social structure and behavior. The results of research that have been conducted by several previous researchers indicate that gender inequality in health has a positive and significant effect on economic growth. Similar research results were also obtained in research conducted by Rahmi Fuji AstutiHarahap (2014) and UlungPurba (2016) which stated that gender inequality in health has a positive effect on economic growth in this case, namely gross regional domestic product.

In testing the effect of the average length of schooling on economic growth in Bali Province, the results obtained were $\alpha 0.05$, t_{table} 1.670, while t_{count} was 5.186, thus $t_{count} > t_{table}$ with a probability of $0.000 < 0.05$, it could be concluded that H_0 was rejected and H_1 was accepted. This means that the variable average length of schooling for male and female residents has a positive and significant effect on economic growth in Bali Province. This means that when there is an increase in the variable average length of schooling for men and women in Bali Province or when the variable achievement of the average length of schooling between the

female population and the male population in Bali Province has increased, this will result in an increase in economic growth in Bali. Bali province. The results of this study are supported by research conducted by UlungPurba (2016) which shows that the gender inequality variable in education / average school length ratio (RRLS) has a positive and significant effect on economic growth in Lampung Province. The results of this study are in line with the theory put forward by Todaro and Smith (2006) that education is essential for achieving a satisfying and rewarding life. Education plays a major role in shaping the ability of a developing country to absorb modern technology and to develop capacities for sustainable growth and development. On gender issues, Todaro and Smith (2006) reveal why women's education is important. There is considerable empirical evidence that states that educational discrimination against women hinders economic development as well as exacerbates social inequality.

In testing the effect of the level of labor force participation on economic growth in Bali Province, the results obtained with alpha 0.05, t table of 1.670, while tcount < ttable with a probability of 0.362 > 0.05, it can be concluded that H0 is accepted and H1 is rejected. This means that the variable rate of labor force participation for male and female residents has no effect on economic growth in Bali Province. This happens because based on data from the Bali Province Central Bureau of Statistics during 2012 to 2018 in the regencies / cities of Bali Province, it shows that the participation rate of the female workforce is far below that of men, which ranges from 55 to 85 percent. Meanwhile, male labor force participation ranges from 79 to 92 percent. In addition, if we look at the general picture of the TPAK ratio in Bali Province, in fact, the regions that have a higher level of attainment for female labor productivity in Bali have relatively low levels of economic growth in Bali Province. For example, as happened in Karangasem Regency, its economic growth is the lowest in Bali Province, but from the TPAK ratio data, the achievement of gender employment development in Karangasem Regency is good compared to other districts / cities that have economic growth above Karangasem Regency because the TPAK ratio value is close to 100. This is an indication that many women's jobs are in the informal sector and are not taken into account in increasing economic growth. This is evidenced by the 2012-2018 BPS data from Bali Province regarding the involvement of women as professionals in Karangasem Regency at only 32 to 41 percent. This makes the variable rate of labor force participation insignificant for economic growth in Bali Province. Khotimah (2009) states that the structure of the female workforce has low levels of education. Thus, most women still work in the informal sector or jobs that do not require sophisticated or specific quality knowledge and skills. This can be an indication that the achievement of gender development in manpower is not taken into account in achieving economic growth. The results of this study are similar to research by Risky Puspita Sari, NurSarfiyah, and Lucia Rita (2019) which state that gender inequality in employment, namely the ratio variable of the labor force participation rate, does not have a significant effect on GRDP.

V. CONCLUSION

Based on the research results that have been obtained through statistical testing and the discussion that has been described, it can be concluded as follows: Life expectancy has a positive and significant effect on economic growth in Bali Province. This means that an increase in the value of gender development in life expectancy will lead to increased economic growth. The average length of schooling has a positive and significant effect on economic growth in Bali Province. This means that an increase in the value of gender development in the average length of schooling will cause economic growth to increase. The labor force participation rate has a positive and insignificant effect on economic growth in Bali Province. This means that an increase in the value of gender development, the level of labor force participation, will cause economic growth to increase but not significantly. This is because the structure of the female workforce in Bali Province has a low level of education. Thus, most women still work in the informal sector or jobs that do not require sophisticated or specific quality knowledge and skills. As well as simultaneously life expectancy, average length of schooling, and labor force participation rates together have a significant effect on economic growth in Bali Province.

REFERENCES

- [1] Sukirno, Sadano. 2011. *Makro Ekonomi Teori Pengantar Edisi Ketiga*. Jakarta: PTRaja Grafindo Persada
- [2] Lonni, Kaswani, T., & Uppun P. 2009. *Pengaruh Kualitas Sumber Daya Manusia Terhadap Pertumbuhan Ekonomi di Kabupaten Mamasa*. Working Paper
- [3] Badan Pusat Statistik Provinsi Sumatera Selatan. 2015. *Pertumbuhan Ekonomi Sumatera Selatan*: BPS
- [4] Barro, Robert J. Dan Jong Wha Lee. 1996. *International Measures of Schooling Years and Schooling Quality*. "American Economic Review", Vol. 86.
- [5] Kementerian Pemberdayaan Perempuan dan Perlindungan Anak. 2011. *Pembangunan Manusia Berbasis Gender 2011*. Jakarta: Kementerian Pemberdayaan Perempuan dan Perlindungan Anak
- [6] Klasen, Stephandan Fransesca Lamanna. 2008. *The Impact of Gender Inequality in Education*

- and Employment on Economic Growth in Developing Countries: Updates and Extensions. "Feminist Economics", Vol. 15.*
- [7] Pritchett, Lant. 2000. *Where Has All The Education Gone?. "Working Paper No.1581, Policy Research Department". World Bank and Kennedy School of Government.*
- [8] Sari, Puspita Risky, dkk. 2019. Analisis Pengaruh Ketimpangan Gender Terhadap Produk Domestik Bruto (PDRB) Tahun 2011-2017 (Studi Kasus 6 Kota di Provinsi Jawa Tengah). *DINAMIC : Directory Journal of Economic. Vol 1*
- [9] Harahap, Rahmi FA. 2014. *Analisis Pengaruh Ketimpangan Gender Terhadap Pertumbuhan Ekonomi Di Provinsi Jawa Tengah.* (Skripsi). UNDIP. Semarang
- [10] Gorman, Bridget K dan Jenan Ghazal Read. 2007. *Why Man Die Younger Than Woman.* Article Medscape.com
- [11] Todaro, Michael P dan Stephen C. Smith. 2006. *Pembangunan Ekonomi.* Edisi kesembilan. Jakarta: Erlangga
- [12] Khotimah, Khusnul. 2009. *Diskriminasi Gender Terhadap Perempuan Dalam Sektor Pekerjaan. "Jurnal Study Gender dan Anak", Vol. 4.*
- [13] Badan Pusat Statistik Provinsi Bali. 2020. *Angka Harapan Hidup, Rata-Rata Lama Sekolah, Tingkat Partisipasi Angkatan Kerja Menurut Jenis Kelamin, Indeks Pembangunan Gender, Indeks Pembangunan Manusia, dan Pertumbuhan Ekonomi.* Bali: Badan Pusat Statistika
- [14] Wirawan, Nata. 2017. *Cara Mudah Memahami Statistika Ekonomi dan Bisnis (Buku 2: Statistika Inferensia) Edisi Keempat.* Denpasar: Keraras Emas
- [15] Widarjono, Agus. 2013. *Ekonometrika: Pengantar dan Aplikasinya.* UPP STIMY KPN. Yogyakarta.
- [16] Basuki, AT dan Prawoto. 2017. *Analisis Regresi Dalam Penelitian Ekonomi dan Bisnis : Dilengkapi Aplikasi SPSS & E-VIEWS.* PTR Rajagrafindo Persada: Depok
- [17] Mustar Edia stuti, Endang. 2007. *Sumber Daya Manusia Perempuan Indonesia.* Yogyakarta: *Jurnal Populasi* volume 18 nomor 2.
- [18] Purba, Ulung. 2016. *Analisis Pengaruh Ketimpangan Gender Terhadap Pertumbuhan Ekonomi di Provinsi Lampung.* Skripsi. Diakses pada: unila.ac.id