

## DETERMINANTS OF FEMALE WORKERS ON ECONOMIC GROWTH

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### ABSTRACT

**Introduction:** This study aims to find out what influences the Provincial Economic Growth in the Java Island if seen from female workers through the some variables, namely life expectancy of female, female's income contributions, and female as professionals.

**Methods:** In this study using secondary data for 8 years from 2011 - 2018. The data analysis method used in this study is panel data regression analysis method. There are independent variables consisting of female's life expectancy, female's income contribution, and female as professionals. While the dependent variable is economic growth.

**Results:** Based on the results of this study, it can be concluded that life expectancy has no significant effect on economic growth. The contribution of female's income has a significant effect on economic growth. Female as professionals has an insignificant effect on economic growth.

**Conclusion and suggestion:** The central or regional government, the ministry of manpower and the ministry of female's empowerment and child protection or related institution to conduct training and human resource development for female by means of development activities in creating employment expansion, improving the quality of productive workforce and increasing the welfare of the workforce.

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**INTRODUCTION**

As an archipelagic country that develops in terms of population and economic growth every year, the State of Indonesia has increased in population and economic growth. The two aspects are important indicators in analyzing economic development that occurs in a country or region. Economic growth will generate additional public income in a certain period, because of economic activity basically is a process of using production factors to produce goods and services. This process will produce a flow of remuneration for the production factors owned by the society (Hariadinata, 2019).

When it comes to human resources, based on population projection data according to provinces in Indonesia, it shows that Indonesia has a population of 237,641,326 million people to 271,066,389 million people from 2010 - 2020, the data shows an increase continues every year occurs on the island. Java, in 2010 the population was around 136,643,726 million people, in 2015 was around 145,143,589 million people and it is predicted that in 2020 will increase by around 149,366,789 million people.

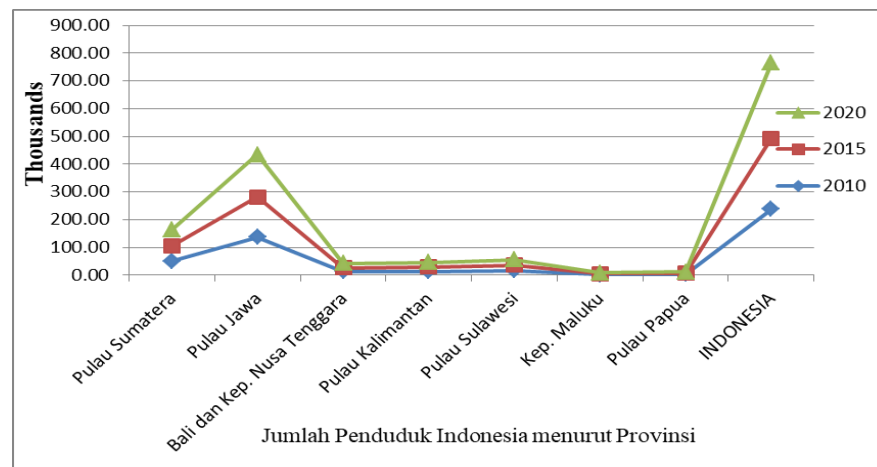


Figure 1

Total Population of Indonesia by Province, 2010-2020

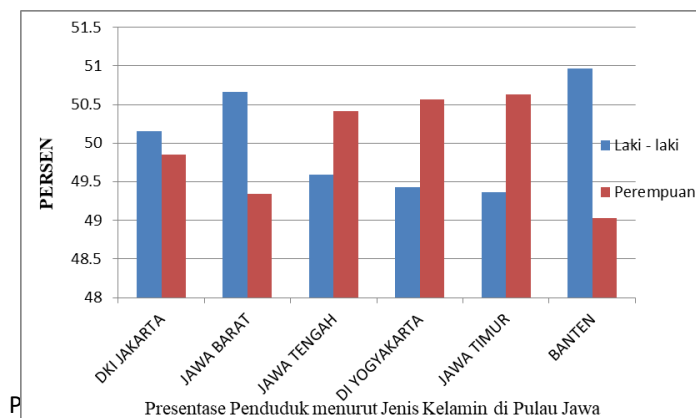
Source: Central Bureau of Statistics, 2020 (processed data)

This increase is followed by the mindset of the people who thought that working in Java would improve their lives and be able to meet economic needs. Based on the publication of the Central Bureau of Statistics (2018), by the presence of economic growth, it is hoped that people's income as the owner of the production factors will also increase. Economic growth in the Java Island Region can be seen from the growth rate of Gross Regional Domestic Product in 2011-2018 which has increased quite significantly. Due to this is also followed by the presence of female participating in work to meet their needs and also useful to increase the income of the province.

Whereas the amount of GRDP Growth Rate in Java Island in 2011-2018 has always increased quite significantly and has experienced competition for economic growth

between DKI Jakarta and East Java Provinces every year. A significant increase occurred in all Provinces in Java Island, however, DKI Jakarta Province is experienced the most high increase because of DKI Jakarta still the center of industry, especially since it was still a favorite for people to find work other than in East Java.

Based on data on the percentage of population by province and gender in Java Island, in 2018 the female population had a balanced percentage in the Provinces of Central Java, East Java and Yogyakarta Special Region meanwhile the male population with a high percentage occurs in the provinces of DKI Jakarta, West Java and Banten. This is likely the result of employment opportunities in each province and also possibly the result of unequal population growth in each province.



Source: Central Bureau of Statistics, 2018 (processed data)

Based on data on the percentage of population by province and gender in Java Island in 2018, DKI Jakarta Province, the ratio of men to female is only 0.3%, West Java Province 1.32%, there is a difference in population of Central Java Province due to the larger female population with a difference of 0.82% of the male population, D.I Yogyakarta Province also experienced an increase in the female population with a difference of 1.14%, for East Java Province was also experienced an increase in the female population compared to men with a difference of 1.26%, and the last Province Banten experienced an increase the male population by 1.94% compared to the female population.

Seeing the progress of a region or area from various sectors as well as from the level of economic growth provides several benefits or opportunities for female workers to be able showing their abilities into various types of available business fields. And it can increase the interest of female workers on actively participating in order to be able contributing output values to economic growth followed by an increase in sufficient employment opportunities to be able accommodating the abilities of female workers

Based on the Ministry of Female's Empowerment and Child Protection, the percentage of female population aged 15 years and over according to the area of residence and the work sector in 2018 showed that the majority of female work in the informal sector at 61.37 percent compared to the formal sector at 38.63 percent. When it viewed based on the place of residence, namely urban, the formal sector is larger at 53.15 percent compared to the informal sector at 46.85 percent, while in rural residence the informal sector has a large value, namely 77.61 percent compared to the formal sector, namely 22.39 percent.

If we look at the contribution of female to economic growth, it is very large in a region, because female have the same important role and skills as men. And so far their role and skills have not been used because of female are still inferior compared to men in contributing economic growth. So the participation of female in the economic sector is one indicator on increasing welfare. Of course, when talking about the economy we should talking about female too. Where female are agents of development whose roles are needed in economic development. At this time female are educated people, have the same rights as men, free to work other than as housewives and earn an independent income.

#### **LITERATURE REVIEW**

The most important factor on measuring the continuity of economic development is by looking at the achievements that development of the economic growth of a country or province from each period to the next. Economic growth is an economic problem in the long run through the process of using production factors to produce output values and measurements using GRDP (gross regional domestic product) in a region (Norlita, 2018).

Based on the publication of the Ministry of Female's Empowerment and Child Protection (2013), the life expectancy is the average life opportunity occupied by an individual or woman up to a certain age or death, because if the higher the life expectancy obtained from birth in one region, the AHH level of that region is getting better. So, if in developed countries high AHH is followed by infants and mothers health, then the opposite when developing countries have a low level of health in infants and mothers, it will have an impact on the low level of health in those developing countries.

The development of the Female's Life Expectancy during 2011-2018 continued to increase by 0.08% - 0.18% from every province in Java Island. This means that the government has seen the level of female's health as important, compared to what has been the case that female's health been neglected. In fact, if the higher the life expectancy of female is obtained, the health level of both the baby and the mother will be better.

According to Christopher et al. (2017), income is all receipts both in the form of money and goods originating from other parties as well as industrial products that are valued on the basis of a sum of money from the current assets. Income consists of wages, salaries, rent, dividends, profits and a flow that is measured in a certain period of time, for example: a week, a month, a year or a long period of time.

Female's Income Contribution is another dimension of income distribution, which is the net income or wages a woman receives directly after working in the formal sector, and at a certain period of time according to the agreement with the company for fringe benefits given to production factors with a good level of productivity.

Professional is a word that we often hear and say not only in a company but among academics as well. A professional worker is paid worker and able to carry out their duties in accordance with the instructions of their superiors. Because people who have professionalism must have three professional requirements, namely: Skills, Knowledge, and Attitude. Female as Professionals can be defined as a dimension of a woman's decision-making to work professionally with a decision-making dimension index that is capable of carrying out duties in various job positions with high professional standards.

## **RESEARCH METHODS**

This study uses quantitative research method with multiple regression analysis method as an approach used for research in emphasizing theory testing through measurement of research variables using numbers and data analysis according to statistical procedures. In this study, the data used is panel data with a time series of 2011-2018, and uses independent variables, namely Female's Life Expectancy ( $X_1$ ), Female's Income Contribution ( $X_2$ ) and Female as Professionals ( $X_3$ ).

This study uses multiple linear regression analysis and uses panel data. The analysis tool used is EVIEWS 9. To avoid errors in the interpretation of each variable used in this study. Then an explanation of each variable is made as follows:

1. Economic Growth is a change of conditions process in the economy of a developed or developing country towards a good economic condition. For this study using data on the GRDP Growth Rate at constant price by province in Java Island in 2011-2018 with units (percent) from the central bureau of statistics.
2. Female Life Expectancy is the average chance of life that a person or woman up to a certain age or death. This study obtained data on female's life expectancy according to provinces in Java Island and gender in 2011-2018 with units (years) from the central bureau of statistics.
3. Female's Income Contribution is the net income received by female after working or income received by a non-agricultural female worker with a good level of

productivity. This study obtained data on female's income contributions by provinces in Java Island in 2011-2018 with units percent) from the central bureau of statistics.

4. Female as Professionals are the decisions of a woman to work in formal sector professionally with a decision-making dimension index which is able to carry out duties in various job positions with high professional standards. This study obtained data on female as professionals according to the Province of Java Island in 2011-2018 with the unit (percent) from the central bureau of statistics.

## RESULT AND ANALYSIS

Table 1  
Panel Data Regression Model Test Results

Variable	Coefficient	Prob.
C	4,1358	-
X <sub>1</sub>	-34,2440	Not Significant
X <sub>2</sub>	26,6939	Significant
X <sub>3</sub>	-1,5864	Not Significant
R-squared	0,6601	
Adjusted R squared	0,5903	

### The Effect of Female's Life Expectancy on Economic Growth

Based on the results of the regression analysis, the variable female life expectancy on economic growth has no significant effect. This means that some of the female whose health level is high but their participation to not work is also high and vice versa, even though the level of life expectancy of female in the island of Java has a high value or increases every year. In fact, this will increase the burden on development and economic growth because it can result an increase in the total value of the dependency rate and the poverty rate.

This opinion is in accordance with the study conducted by Laisina et al. (2015) that female's life expectancy has a negative effect on the GRDP of North Sulawesi in 2002-2013. Because government spending is also cut for the allocation of health infrastructure development so that the budget for funds is cut a lot for this development, initially the GRDP budget can be invested in other things. The result also in line with Acemoglu & Johnson (2007) which stated that if an increase of 1% in life expectancy will also lead to an increase in the population of about 1.5%. However, the efforts that have been made in developing countries to combat bad health not effectively developed or resolved. Because according to them, if the health level is improved, it will not be able to overcome the poverty rate.

Contrast to the opinion of Muda et al. (2019) regarding "the effect of life expectancy on economic growth in North Sulawesi in 2003-2017", Ryan stated that the

level of health has a positive effect on economic growth in North Sulawesi because the higher the level of health will have an impact on the entire society or female worker and increasing economic growth as well as the vitality and productivity of the population in North Sulawesi. And according to Mulasari (2015) regarding "the role of female gender in economic growth in the province of Central Java in 2008-2012", showed the variable life expectancy of female is higher than the life expectancy of men and also showed its role in economic growth.

In theory Human Capital about the level of health and education according to Schultz (1961), that human capital is formed from physical capital, technology and qualitative human resources. Meanwhile human resources here consist of expertise and skills also a good level of health and already present in every population or labor which later will be able to affect productivity and can produce good output which will lead to a better economy. Also according to Solow that in this neo-classical theory, the factors of production and technological development can influence economic growth (Solow, 1956).

### **The Effect of Female's Income Contribution to Economic Growth**

Based on the results of the regression analysis, the variable female's income contribution to economic growth has a significant effect. This means that the higher the level of female's income that is generated from working or producing output for the company will also increase the wages or income an individu who will be deducted from the company and later from the increase in the amount of output will also have an impact on increasing consumption growth in society and GRDP or regional economic growth.

This is in line with study from Utami (2018) which stated that the influence or contribution of income or wages has a significant effect on the economic growth of Banten province in 2010-2016 because wages play an important role in economic growth in a region also important in achieving prosperity and the welfare of the labor. In another study that is also in line with this research, namely research from Wibowo (2013) stated that the wage level has a significant effect on the economic growth of Central Java Province, because the wage setting is aimed to boost the productivity level of workers and growth rate of production and company income. According to Tsani et al. (2013) that an increase in income can increase female's labor force participation rates and economic growth, and if there are no barriers it will also increase the participation rate of the female labor force which will increase the value of economic growth as well.

According to David Ricardo's economic theory in a book entitled "Principles of Political Economy and Taxation" in 1817, if capital increases, the key to economic growth is getting better by encouraging all production sectors so that the goal on seeking a lot of

profit can be realized, and get return as much as possible in another way, namely increasing the level of wages or income of workers. If the theory can be realized then the population and level of welfare will increase and have an impact on the level of consumption of the society and the economic growth of the region.

### **The Effect of Female as Professionals on Economic Growth**

Based on the results of the regression analysis, the variable female as professionals on economic growth has no significant effect. This means that if the professional or education level of female workers as formal workers in a region is low, it will have an impact on economic growth, because if the lower the level of knowledge or skills acquired in education, the knowledge and professional level of a worker will also be low and as a professional in the formal sectors will also be inferior compared to other workers who have a high level of professionalism.

In line with Mulasari's research (2015), it showed that at the level of education and professionalism, female have no significant effect on economic growth which also impacts on the level of professionalism of an individu with less ability or expertise to contribute output of economic growth. And according to Bastias (2010), that in the short and long term government spending on education has an insignificant effect on economic growth, it will cause government spending in the education become unfocused, though government has a goal to generate population whose the ability, insight, and skills can contribute on making professional level of the future workers get better.

Meanwhile in study from Octavianingrum (2015) stated that the level of education has a significant effect on economic growth in the Special Region of Yogyakarta because the higher the level of education taken by the residents of a region will cause the quality and level of professionalism of an individual become better and the economic growth increase.

It is also in line with the theory of Human Capital according to Schultz (1961) that one of the important factors that are useful for determining a productivity is human capital or human resources and other things such as labor, natural resources, technology to produce output and professional abilities that later will cause the economy to be better. The same thing is also explained by Solow in his theory that in the neo-classical theory, the production factors and technology developments can affect economic growth (Solow, 1956).

## **CONCLUSION**

This study focuses on finding out the factors which affect the economic growth of provinces in Java Island if seen from female workers in 2011-2018 through the variables of Female's Life Expectancy, Female's Income Contribution, Female as Professionals. Life



Expectancy Rate for Female has no significant effect on Economic Growth in Java Island. This is due to the fact that many female have high level of health but do not have the desire to work, although if seen from the AHHP data in 2011-2018, it has always been increasing, there are still several factors inhibiting the government in the distribution of health. In fact, it will increase the burden of economic growth because it can result an increase in the poverty rate which can hinder the growth rate if it is not accompanied by an increase in the income of an individu. However, if the life expectancy rate is high and the woman works, it will have a significant impact on economic growth and her own income.

The contribution of female's income has a significant effect on economic growth in Java island. This shows that the higher the level of female's income generated from working or producing output for the company will increase wages or income that is deducted from the company, and later from the increase in the amount of output from the results of female labor will have an impact on increasing the consumption and GRDP of the region because workers do not hoard or save money. Female as Professionals have insignificant effect on Economic Growth in Java Island. This shows if the professional level or education level of female workers as formal workers in a region is low will have an impact on economic growth, because the lower the level of knowledge or skills acquired in education, the knowledge and professional level of a worker will also be low and as a professional, also in formal sectors will be inferior compared to other workers who have a high level of professionalism.

Based on the results of the study, it can be suggested that the central or regional government, the ministry of manpower and the ministry of female's empowerment and child protection or related institutions should conduct training and human resource development for female. The way on improving female by developing activities in creating employment expansion, improving the quality of productive labor and increasing the welfare of the labor. To expand employment opportunities, especially for educated workers, by striving for the distribution and fostering workers to become professional, independent and productive workers. To improve the quality and productivity of the labor, it can be realized through job training in job training centers and in job training courses also special programs for certain groups of the labor such as educated, unemployed and underemployed workers. Meanwhile, the level of welfare of workers is pursued through the establishment of a regional minimum wage and a social security program for workers (Jamsostek), especially female and child workers who are forced to work.

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