the Philippines (0.791) ranks highest followed by Singapore (0.739) and Laos (0.733) and Vietnam (0.711), while the lowest are Myanmar (0.650), Malaysia (0.682) Brunei (0.693), together with East Timor (0.693), while Indonesia is in the middle (0.697) above Thailand. (0.711) below Cambodia (0.695).

Gender issues in the Indonesian economy cannot be separated from quantity and gender inequality. Indonesia's population ranks 4th in the world with a population of 278,696 people consisting of 50.52% men and the remaining 49.48% women. So men are slightly more than women so that employment opportunities can also be greater for men. However, the most prominent issue is still experiencing discrimination which includes salaries and career opportunities, especially company executives so that they can also play a role in taking the opportunity to make and determine decisions. Judging from labor supply, gender developments can be seen that there is still a gap between men and women. It can be seen in Figure 1 that both men and women continue to increase, but the gap between the two is still increasing. This could be because women have not taken the opportunity to improve their family's economy due to discrimination in the economy such as salary discrimination and opportunities in making decisions at work, apart from that, social problems such as education can increase the gap in labor supply. However, overall, if viewed from the 2023 Indonesian Gender Inequality Index (IKG), it is 0.447, down 0.012 points compared to the previous year (Central Statistics Agency, 2024). Furthermore, BPS also stated that improvements in all dimensions are the main factor in reducing the Gender Inequality Index (IKG) in Indonesia and spatially, gender inequality has decreased significantly in most provinces in Indonesia.

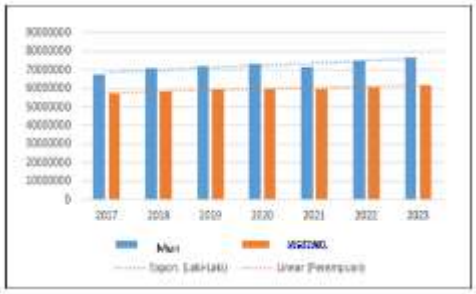


Figure 1. Development of Labor Supply by Gender, Processed

Source: Central Statistics Agency, 2023

Workers are the owners of production factors who offer services and have an important role in the continuity of the production process. For this reason, for their sacrifices, workers are entitled to receive compensation from the company in the form of income in the form of wages. Wages are an important indicator for assessing the decent living needs of employees of a company. The importance of providing wages to workers in accordance with the results of their work and the magnitude of needs is something that an entrepreneur must pay attention to. Appropriate wages can be given either according to the hours worked or the number of units of goods produced by the workforce. The Ministry of Manpower uses the Employment Development Index (IPK) to measure the success of national employment development through measurements in each province in Indonesia. The 2021 Employment Development Index (IPK) measurement results show that the National GPA achievement based on 2020 data is 61.33 or down 6.31 points compared to the previous year which reached 67.64.

The role of labor as a factor of production will influence national income. The most important factor in labor is not quantity but quality. If the quality of the workforce is better, there will be an increase in production. The workforce is heterogeneous in terms of age, gender, work ability, health, education, skills and so on, therefore workforce planning is needed to support Indonesia's national development (manpower planning). With the culture and social construction that develops in society that marginalizes women, gender equality emerges. Gender equality also includes eliminating discrimination and structural injustice, both against men and women. Gender justice is a process and fair treatment of women and men. Gender justice means there is no standardization of roles, double burdens, subordination, marginalization and violence against women and men. Various jobs in the family such as cooking, washing, taking care of children and so on, these activities are believed to be roles that must be carried out by women. However, in recent years there has been discussion about roles based on gender equality, where gender equality is a concept of social relations that does not differentiate between the roles of men and women, including participation in work. The role of gender in contributing to the formation of national income is because it is one of the production factors that will have an impact on increasing and improving the overall economy.

BPS stated that the continued maintained economic performance was also reflected in improving labor market developments. The Open Unemployment Rate (TPT) as of February 2023 has decreased again to 5.45% from the previous 5.83% in February 2023. Strong economic growth has been able to create additional jobs of 3.02 million. Sectorally, job openings occur in all sectors. Additional employment opportunities in several main sectors include Agriculture by 0.05 million people, Manufacturing by 0.16 million people, Trade by 0.44 million people, and the Tourism sector by 0.63 million people. In line with the improvement in employment opportunities, the general average wage also increased

to IDR 2.94 million from IDR 2.89 million in February 2022. The creation of greater employment opportunities is an important factor that boosts people's purchasing power and maintains the resilience of the domestic economy

The labor force is the population aged 15 years and over who are economically active, such as the working population, or who have jobs but are temporarily unemployed and unemployed. Based on this definition, in the period 2021 to. In 2023, the workforce in Indonesia will increase by 7.56 million people or around 5.39 percent. This indicates that the availability of labor supply in Indonesia is increasing. Based on their activities, the labor force includes the working population and the open unemployed. In 2023 the number of working people will reach 140 million people. This number increased by around 8.8 million people or around 6.71 percent in the period 2021 to 2021. 2023. Meanwhile, the work participation rate has increased from 2018 to 2023, which can be seen in Figure 2.

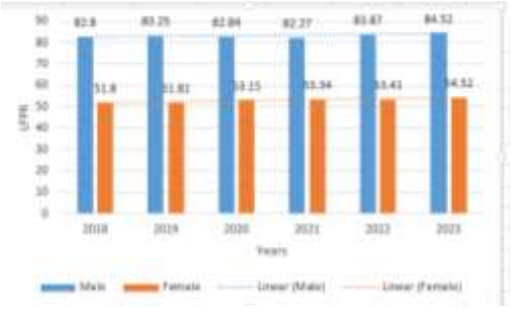


Figure 2. Development of Gender Labor Force Participation Levels.

Source: Central Statistics Agency, 2023

The unemployment includes people who are not working and are looking for work, or preparing for a new business, or feel it is impossible to get a job (desperate), or have been accepted for work but have not yet started working. In accordance with this definition, the number of open unemployed in Indonesia continues to decline by 1.24 million people from 2021 to 2023. Likewise, the Open Unemployment Rate fell by around 1.17 percent in the same period to 0.021. These workers earn income in the form of wages which can be used to provide necessary consumer goods. Wages are compensation received by workers in accordance with existing provisions and regulations. Economic activities can run smoothly because of the contribution of workers. Thus wages are directly related to production or economic growth. However, wages do not guarantee increased production. (Lupu and Mihaela Ifrim, 2023) found that GDP increases cause wages to increase at different frequencies; there is a positive correlation between GDP growth and wage growth; the effects of wage-led growth policies were weak and only on short periods. Furthermore, it also found that estimates cast a high degree of uncertainty on the effectiveness of wage increase policies promoted by some national authorities to achieve economic growth.

The increase in wages spearheaded by the government means that industry will inevitably pay higher wages. This will encourage the workforce to improve performance which in turn will have an impact in the form of increasing industrial productivity. Increasing productivity will lead to an increase in business scale which in turn will increase people's income so that the level of welfare can also increase. Apart from wages which can encourage increased productivity, per capita income is an indicator or benchmark in measuring the level of social welfare in a country. Apart from wages which can be affected by economic growth, education can also have an influence on wages because higher education will encourage an increase in the quality of workers which causes the wages received to be higher compared to workers who have a lower level of knowledge.

Education is expected to make a contribution in overcoming the gap between demand and supply of labor which is always increasing, but in reality there is educated unemployment, both men and women. This is contrary to the opinion (Card, D. 2005) which states that education plays a central role in modern labor markets. Unemployment among educated workers is greater than uneducated workers. Educated unemployment should be less common in Indonesia, but due to the limited job vacancies and the high level of expertise and skills demanded by graduate users, this also happens. Apart from that, the basic reason is that educated workers are increasingly selective in looking for and choosing jobs. In accordance with search theory, educated unemployed people will look for work for a longer time compared to those with less education because workers look for work according to their qualifications and the education they already have. It is expected that the higher the education, the longer it will take to find a job.

Labor is one of the four factors of production, together with capital, which has an influence on economic growth. Furthermore, if the expected economic growth is achieved, it will have an impact on increasing the income of production factors, because economic growth is expected to create jobs so that unemployment can be reduced. High wages will attract workers to participate in the world of work so that it will encourage the supply of labor, or an increase in workers' income will cause demand for goods to increase which will then encourage increased production using a larger workforce. Furthermore, education that develops both in quality and

quantity will encourage an increase in wages because the workforce experiences an increase in terms of knowledge and skills. Furthermore, increasing wages will encourage the workforce to work or increase working hours so that the supply of labor increases. However, increasing wages can actually have a negative influence on the number of workers for employees because it is less attractive to work even though wages are high, an event illustrated by a backward bending labor supply curve. The relationship between several variables that have been described is seen in the framework (Figure 3). In the picture you will see the difference between the supply of male labor and female labor in terms of LFPR, abortion and wages. The influence of wages on labor supply in the female group may be higher than the influence due to the influence of economic growth and education, as well as unemployment and LFPR, Figure 3.

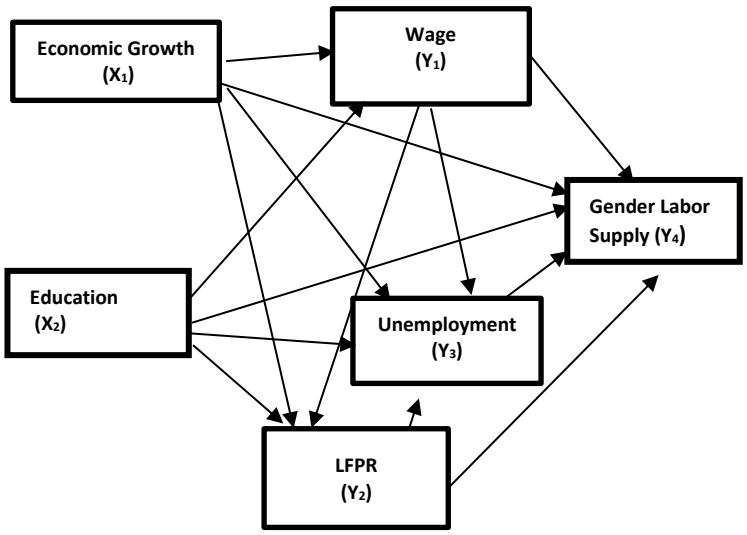


Figure 3. Framework

Based on the information and gap research that has been stated, the research objective aims to analyze and examine the relationship between economic growth and education on labor supply through wages, LFPR and unemployment in gender:

1. Examining the effect of economic growth on wages
2. Examining the effect of education on wages
3. Examining the influence of economic growth, education and wages on the level of labor force participation
4. Examining the influence of economic growth, education, wages and labor force participation rates on unemployment
5. Examine the influence of economic growth, education, wages, labor force participation rates, and unemployment on labor supply from a gender perspective.

2. LITERATURE REVIEW

2.1. Gender

The concept of gender equality refers to the full equality of men and women to enjoy the full range of political, economic, civil, social and cultural rights. This concept also refers to a situation where no individual is denied access to these rights, or these rights are deprived of them, because of their (Shintia Dian Arwida, Cs., 2016). In connection with gender equality, it gives rise to gender inequality, which is a condition of treatment or actions towards women because they have relatively low differences in conditions compared to men. Nugroho (2011) stated that gender inequality is a structure and system where men and women are victims of the system. Thus, in order to understand gender differences that cause injustice, it can be seen from its various manifestations, namely as follows: 1) Marginalization, 2). Subordination 3). Stereotypes, 4) Violence (Violence), 5). Workload. Mansour. 2013 states that gender relations are a different concept and social reality where the division of sexual labor between men and women is not based on normative understandings and biological categories.

2.2. Labor Supply

Labor supply is the amount of labor that can be provided by labor owners at each possible wage in a certain period of time. In classical theory, human resources (workers) are individuals who are free to make decisions about whether to work or not. Even workers are free to determine the number of working hours they want. This

theory is based on consumer theory, where each individual aims to maximize satisfaction with the constraints they face. According to G.S Becker (1976), individual satisfaction can be obtained through consumption or enjoying free time (leisure). The obstacles faced by individuals are income level and time. Working as a controversy over leisure causes suffering, so people only want to do it if they get compensation in the form of income, so the solution to this individual problem is the number of hours of work they want to offer at the desired wage level and price. The best combination of non-market time and market goods is the combination that lies on the highest interference curve that can be achieved under certain constraints. as in figure 3, The labor supply curve has a backward curve. At a certain wage level, the provision of individual working time will increase if wages increase (from W1 to W_2). After reaching a certain wage (W_2), an increase in wages actually reduces the time provided by individuals for work (from W_2 to W_3). This is called the Backward Bending Supply Curve. Furthermore, Layard and Walters (1978) stated that individual decisions to increase or decrease free time are influenced by wage levels and non-work income. The level of productivity always changes according to the production phase with a pattern of first increasing to a peak and then decreasing. The greater the elasticity, the greater the role of labor input in producing output, meaning the smaller the amount of labor demanded. Meanwhile, to describe patterns of disproportionate combinations of production factors (Variable proportions), isoquant curves are generally used, namely curves that describe various combinations of production factors (labor and capital) that produce the same production volume. This is intended to see the relationship between labor and capital factors which is the slope of the isoquant curve. So it is possible that wages have a positive influence on unemployment.

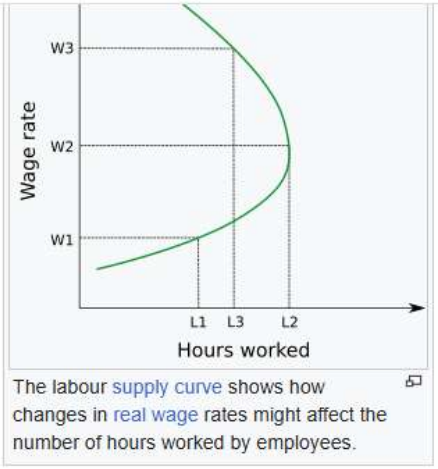


Figure 4. Effect Substitutions
Source: Wikipedia, 2024.

Figure 4 shows a tradeoff between the number of hours worked (to work) and the wage level (that is willing to be accepted). At the beginning, it shows a positive relationship between the number of hours worked and the wage level indicated at the beginning of L_1 with the wage level W1 to L_2 with the wage level W_2, called the substitution effect is greater than the income effect. However, when the number of hours worked reaches L_2, there is a negative relationship between the number of hours worked and the wage level where the number of hours worked decreases from L_2 to L_3 with the wage level increasing from W_2 to W_3. This incident illustrates that workers reduce their working hours, so that the substitution effect is smaller than the income effect.

Job offers are influenced by a person's decision whether he wants to work or not. This decision also depends on a person's behavior in using their time, whether it will be used for other activities that are more relaxed (consumptive), or a combination of both. If it is related to wage levels, a person's decision to work will also be influenced by the level of a person's income. If a worker's income is relatively high, then the worker tends to spend less time working. So there is a negative effect between the supply of labor and the income or wages they will receive, as happens during lecturers' working hours (Astuty, S., at al., 2019). So at this time, additional work will reduce the wage rate. This causes the shape of the supply curve to bend to the left, which is known as the backward bending supply curve. Next, search for theories that can be used in unemployment regarding the level of education which can be assumed that the higher the education a person has, the longer it will take to get a job. This is very closely related to the unemployment search theory. Stigler (1962) describes it as a phenomenon in the job search process expressed in an economic model by proposing a non-sequential job search model, which was further developed by McCall (1965) with the concept of a sequential job search model. So these two models describe the job search process with the main variable being the time workers spend while looking for work.

2.3. Wage

Wage levels in the history of their development are explained by theories. The theory for determining wage levels applies, classical adherents state that wages are determined by marginal productivity but Marshall and Hicks state that marginal productivity only determines the demand for labor, so not the supply of labor. However, ultimately the demand and supply of labor determines the prevailing wage level. The theory of price formation (pricing) and input utilization (employment) is called marginal productivity theory, also commonly called wage theory. Marginal

productivity is not focused solely on the demand side of the labor market. It is known that a competitive firm that buys labor in a perfectly competitive market will deploy or absorb labor to a point where the wage level is equal to the value of marginal product (VMF). So basically, the VMP curve is a company's demand curve for labor. Wage levels and input utilization (employment) are both determined by the interaction between supply and demand. Talking about the marginal productivity theory of wages is the same as talking about the demand theory of prices. Whether the Wage Equalization Process is realized or not, it is the level of satisfaction (or level of dissatisfaction) of each worker with a job, so it can be understood that there is a possibility of differences in wage levels reflecting differences in tastes or preferences for each type of work. The possibility of differences in wage levels reflecting differences in tastes or preferences for each type of work is what is often referred to as the theory of equalizing wage differences. Each job has its own supply and demand which determines the wage level and the number of workers that can be absorbed. Wages are labor costs paid by employers so that labor demand is negatively related to wage levels while labor supply is positively related. Furthermore, the positive impact of wages when viewed from the labor supply perspective is that it increases job opportunities so that the number of unemployed will decrease (Gilarso, 2002).

2.4. Education and Unemployment

Humans are creatures who are always involved in the education process, both those carried out on others and on themselves. The education process is a universal activity in human life, because wherever and whenever in the world there is education. Although education is a common phenomenon in every community life including economic activities. Schools are treated as organizations that produce output or profit by taking the concept of education production faction, so that schools can become public goods (Boissiere, 2004).

The relationship between education and productivity Frank & Bemanke (2007) argue that human capital is a combination of education, experience, training, skills, habits, health, energy and initiative that affect human productivity. Furthermore, the endogenous growth theory pioneered by Romer (1986) and Romes (1988) shows a proportional positive relationship between education and output. Furthermore, Schultz (1971) shows that human capital is one of the important factors in increasing a country's productivity. Furthermore, if output can be increased, wages can be increased by themselves because additional labor can be made and even new investments can be created. Furthermore, investment can create economic growth and expand employment opportunities, which means reducing unemployment. This is in accordance with the results of research from Adyaksa, 2020) which states that the main cause of unemployment is low levels of education

3. THE METHOD

This type of research is quantitative, taking the type of study of comparative causality that processes numerical data that can be calculated using statistical formulas. The data analysis technique used in this study is path analysis which estimates the direct and indirect influence of exogenous variables on endogenous variables although in this study we only look at and discuss the direct effect, both effects are available in the statistical program used for estimation in this study.

This study uses secondary data, namely data that is already available and collected by other parties and it was panel data. The data was taken from the Indonesia Central Statistics Agency (BPS) and the Ministry of Ministry of Manpower of the Republic of Indonesia which covers 34 provinces in Indonesia, where since the end of 2022 there have been 38 provinces, but the necessary data is not yet available. The data used which is divided into two groups, The statistical analysis technique used is path analysis using the Amos 18 statistical application program.

Based on the conceptual relationship in the framework of thinking, mathematically functional relationships can be written as

Based on the conceptual relationship in the framework of thinking, mathematically functional relationships can be written as

$$Y_1 = f(X_1, X_2)$$
$$Y_2 = f(X_1, X_2, Y_1)$$
$$Y_3 = f(X_1, X_2, Y_1, Y_2)$$
$$Y_4 = f(X_1, X_2, Y_1, Y_2, Y_3)$$

Whereas:

X_1= economic growth (increase in the number of goods and services, %)
X_2 = education (the average length of schooling of the population aged 15 years and over, year)
Y_1 = wage (The compensation received by workers is measured by the Provincial Minimum Wage, Rupiah)

Y_2 = labor participation rate (ratio of labor force to working age population,%)
Y_3 = unemployment (unemployment rate, %)
Y_4 = labor supply (number of available workers, people)

$$\ln Y_1 = \alpha_0 + \alpha_1 X_1 + \alpha_2 \ln X_2 + \mu_1 \quad \text{.....(3.4)}$$
$$\ln Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 \ln Y_1 + \mu_2 \quad \text{.....(3.5)}$$
$$\ln Y_3 = \delta_0 + \delta_1 X_1 + \delta_2 \ln X_2 + \delta_3 \ln Y_1 + \delta_4 \ln Y_2 + \mu_2 \text{ .....(3.6)}$$
$$\ln Y_4 = \phi_0 + \phi_1 X_1 + \phi_2 \ln X_2 + \phi_3 \ln Y_1 + \phi_4 \ln Y_2 + \phi_4 \ln Y_2 + \mu_4 \text{ .....(3.7)}$$

D = Dummy variable, D = 0, man (Group 1); D=1, woman (Group2)

$$Y_1 = \alpha_0 + \alpha_1 X_1 + \alpha_2 \ln X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \mu_1 \quad \text{.....(3.4)}$$
$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Y_1 \quad \text{.....(3.5)}$$
$$Y_3 = \delta_0 + \delta_1 X_1 + \delta_2 \ln X_2 + \delta_3 X_3 + \delta_4 X_4 + \delta_5 Y_1 + \delta_6 Y_2 + \delta_7 D + \delta_8 D X_1 + \delta_9 D \ln X_2 + \delta_{10} D X_3 + \delta_{11} D X_4 + \mu_3 \text{ .....(3.6)}$$

Substituting the value of dummy variable**,** D=0 in the equation (3.6), new equation is obtained

$$Y_{31} = \delta_0 + \delta_1 X_1 + \delta_2 \ln X_2 + \delta_3 X_3 + \delta_4 X_4 + \delta_5 Y_1 + \delta_6 Y_2 + \mu_4 \quad \text{……. (3.7)}$$

Regression Equation for Region 2, D=1, a new equation is also obtained

$$Y_{32} = (\delta_0 + \delta_7) + (\delta_1 + \delta_8) X_1 + (\delta_2 + \delta_9) \ln X_2 + (\delta_3 + \delta_{10}) X_3 + (\delta_3 + \delta_{11}) X_4 + \delta_5 Y_1 + \delta_6 Y_2 + \mu_5 \text{ ...(3.7)}$$

4. RESULT AND DISCUSSIONS

4.1. Model Fit Test

Chi-square statistic, as stated earlier, is the most fundamental test to measure overall fit, it is very sensitive to the size of the sample used and the relation of exogenous variables, almost the same as the model Regresi Linear Berganda. The model is considered good if the Chi-square value is small. The smaller the value, the more feasible the research, meaning that the more it describes the match between the variance of the sample taken and the research population. The results of data processing that have been carried out using the AMOS 18 program are as shown in Table 1.

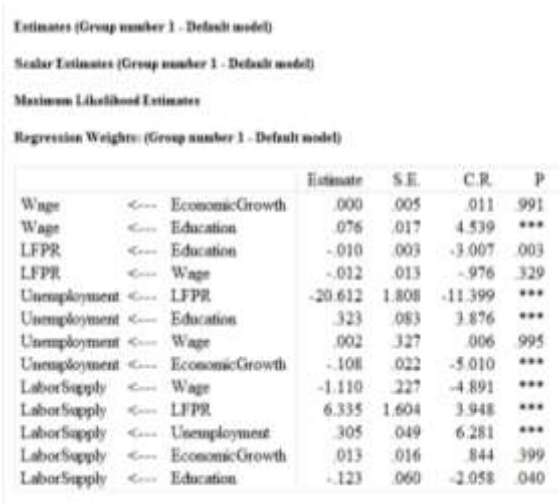
Tabel 1. Goodness of Fit Index

No.	Goodness of fit Measure	Cut-off Criteria	Estimation (cut off Value)	Fit Situation
1	Chi-Square (χ^2) Significance Probability (p)	smaller the better $\geq$ 0.05	3.972 0.410	Fit
2	RMSEA (the Root Mean Square Error of Approximation)	$\leq$ 0.05	0.000	Fit
3	NFI (Normed of Fit Index)	$\geq$ 0.95	0.991	Fit
4	IFI (Incremental Fit Indices)	$\geq$ 0.95	1.000	Fit
`5	CMIN/DF (the minimum Sample Discrepancy Function)	$\leq$ 2	0.993	Fit
6	TLI (Tuckler Lewis Index)	$\geq$ 0,95	1.000	Fit
7	CFI (Comparative Fit Index)	$\geq$ 0,95	1.000	Fit
8	Hoelter's Index	$\geq$ 200	971	Fit

Sumber: Malkanthie, 2015; Wan, 2022 and Amos Result

4.2. Research findings

As is known, this research divides the data into 2 groups, so the estimation results consist of two components. Dengan demikian hasil estimasi dengan menggunakan bantuan Program Statistik Amos dapat dilihat pada gambar 5. The estimation results for group 1, which is called male group, D=0, and group 2 is called female group, D=1. As can be seen in Figure 5, where there is no level of confidence or probability for each coefficient or path, the estimation results are also displayed as a scalar estimate for man (Group 1), which describes the level of significance of each path, Figure 5.



Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

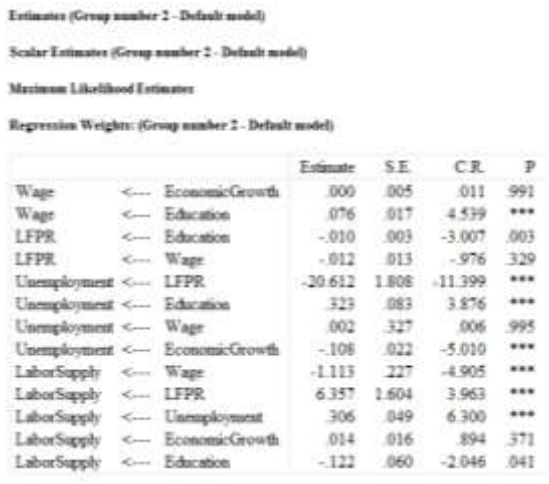
Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P
Wage	<---	EconomicGrowth	.000	.005	.011	.991
Wage	<---	Education	.076	.017	4.539	***
LFPR	<---	Education	-.010	.003	-3.007	.003
LFPR	<---	Wage	-.012	.013	-.976	.329
Unemployment	<---	LFPR	-20.612	1.808	-11.399	***
Unemployment	<---	Education	.323	.083	3.876	***
Unemployment	<---	Wage	.002	.327	.006	.995
Unemployment	<---	EconomicGrowth	-.108	.022	-5.010	***
LaborSupply	<---	Wage	-1.110	.227	-4.891	***
LaborSupply	<---	LFPR	6.335	1.604	3.948	***
LaborSupply	<---	Unemployment	.305	.049	6.281	***
LaborSupply	<---	EconomicGrowth	.013	.016	.844	.399
LaborSupply	<---	Education	-.123	.060	-2.058	.040

Figure 5. Scalar Estimates Man

Resource: Amos 18 data processing results.

Further illustrating the estimation results for D=1 which shows the estimation results for the female group. Next, in Group 2, the estimation results are presented, variable coefficients with confidence level or probability (P), Regression Weights for Region 2, can be seen in Figure 6.



Estimates (Group number 2 - Default model)

Scalar Estimates (Group number 2 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 2 - Default model)

			Estimate	S.E.	C.R.	P
Wage	<---	EconomicGrowth	.000	.005	.011	.991
Wage	<---	Education	.076	.017	4.539	***
LFPR	<---	Education	-.010	.003	-3.007	.003
LFPR	<---	Wage	-.012	.013	-.976	.329
Unemployment	<---	LFPR	-20.612	1.808	-11.399	***
Unemployment	<---	Education	.323	.083	3.876	***
Unemployment	<---	Wage	.002	.327	.006	.995
Unemployment	<---	EconomicGrowth	-.108	.022	-5.010	***
LaborSupply	<---	Wage	-1.113	.227	-4.905	***
LaborSupply	<---	LFPR	6.357	1.604	3.963	***
LaborSupply	<---	Unemployment	.306	.049	6.300	***
LaborSupply	<---	EconomicGrowth	.014	.016	.894	.371
LaborSupply	<---	Education	-.122	.060	-2.046	.041

Figure 6. Variabel Coefficients in Group 2

Resource: Amos 18 data processing results

The results of the analysis show the influence of one variable on another variable according to the research objectives so based on Figure 3 and Figure 4, a summary of the influence of independent variables on dependent variables can be represented in Table 2. The table also shows that Region 1 and Region 2 each have a coefficient and probability according to the relationship between variables.

5.RESULT AND DISCUSSIONS

Education is an effort to change attitudes and increase knowledge to become a more qualified human being so that productivity can increase. While the labor force participation rate (LFPR) describes the ratio of the workforce to the number of working age population. The effect of education on the LFPR in this study shows that increasing education causes a decrease in the labor force participation rate which is explained by an elasticity figure of -0.01, meaning that if education increases by 15 %, the labor force participation rate will decrease by 0.01%. So even though education has a negative effect on the labor force participation rate, it still provides a negative percentage to determine that LFPR is very small. This fact is supported by research conducted by (Haspa, N.H. et al.2023) which states that education has a negative influence on LFPR, although not significant. Next, if viewed from an educational perspective, it is also known from the estimation results that gender does not affect the labor supply and LFPR because both in the male and female groups, show that if education increases, the LFPR and labor supply decreases with the same level of significance.

Unemployment is a person who does not work at all, is looking for work, works less than two days a week, or someone who is trying to get a decent job. In this study, it is known that Unemployment is negatively and significantly affected by the work participation rate at the confidence level $\alpha = 0.05\%$ with an elasticity of -20.61, which means that if the LFPR increases by 1%, it will reduce the unemployment rate by 20.61%. It can be seen that this high elasticity figure is due to the change in LFPR being very small in quantity and experiencing fluctuations while the change in unemployment is so high due to adequate absorption of labor in various sectors, although it had decreased during the COVID 19 period (Secretariat of Manpower, 2023). The same thing about economic growth also has a significant negative effect on unemployment, which means that in the data period of this study, economic growth succeeded in creating job opportunities or reducing the unemployment rate. From the estimation results, an elasticity value of -0.11 was obtained, which means that if economic growth increases by 1%, unemployment can experience 0.11%. This fact is in accordance with research conducted by (Alrakhman, D. at al. 2021;

Kamilli, K. at al. 2021) which states that budgeting can be reduced due to increased economic growth.

In contrast to LFPR and economic growth, education has a positive effect on unemployment. This fact contradicts research conducted by (Yirenkyi, E.G. et al. 2023) which states that education generally reduces the duration of unemployment, which means reducing the abortion itself. The positif relationship between education and unemployment can be caused by unemployment caused by higher education or college graduates who are not directly accommodated or absorbed in the labor market. The magnitude of this elasticity is 0.32% indicating that the nature of this relationship is inelastic, meaning that the percentage change in unemployment is smaller than the percentage change in education, in other words, if education increases by 1%, it will cause unemployment to also increase by 0.32%. Furthermore, this unemployment is not significantly affected by wages at the $\alpha = 5\%$ confidence level.

Labor supply is positively and significantly affected by the LFPR and unemployment. The effect of LFPR is indicated by the elasticity of 6.34 which states that if LFPR increases by 1%, it will increase the labor force by 6.34% with a level or probability of 0000 which states that the effect is very real. Likewise, termination of employment has an elasticity level of 0.31% which shows that if unemployment increases by 1%, it will have an impact in the form of an increase in labor supply by 0.31%, indicating that the effect is also very real (prob.000). Selanjutnya diketahui bahwa peningkatan LFPR dan pengangguran tidak memberikan pengaruh kepada gender, artinya pada dua kelompok laki-laki dan perempuan menunjukkan tidak adanya perbedaan jika ditinjau pengaruh LFPR dan pengangguran terhadap supply tenaga kerja. Furthermore, economic growth has an insignificant effect on labor supply in Indonesia. This shows that the economic growth achieved so far has had less significant impact on labor absorption. This fact is in accordance with several studies, including research conducted by Kamil, et al. (2021) showing that there is a positive correlation between changes in GDP and changes in the number of persons employed. A study that is almost the same as the findings of Alrakhman et al. (2021) which shows that economic growth was proven to have a negative (decreasing) and significant effect on the unemployment rate, or economic growth has a positive relationship with unemployment in real terms.

6. CONCLUSION AND RECOMMENDATION

6.1. Conclusion

Based on the analysis and the results of the previous discussion, the following conclusions are drawn:

1. The results of the study indicate that economic growth does not affect wages, while education has a positive and significant effect on wage increases or wage increases accompanied by increases in education.
2. Education has a significant negative effect on the level of labor participation while wages do not affect the level of labor participation
3. Unemployment is negatively and significantly filled by the level of labor participation and economic growth while education has a significant positive effect on unemployment, while wages do not affect unemployment
4. Labor supply is positively and significantly affected by the level of labor participation and unemployment. While wages and education have a significant negative effect on labor supply.
5. Economic growth does not affect labor supply in Indonesia

6.2. Recommendation

The suggestions to be put forward based on the discussion and conclusions that have been stated, among others:

1. The economic growth achieved so far has had little impact on employment opportunities, so it is hoped that the government will prioritize economic growth in favor of increasing employment opportunities by achieving better quality growth by further developing MSMEs, such as the digital industry.
2. Wages or UMP are expected to provide benefits to both sides, both workers and companies. For workers, it is hoped that UMP will provide encouragement to work more productively, while for companies, the increase in UMP should not be a burden but rather a motivator for workers' work enthusiasm in increasing company productivity
3. The determination of provincial minimum wages is advised to pay attention to the company's capabilities by conducting observations or surveys in order to determine UMP

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