

Analysis of the Employment Supply of Young Lecturers in Makassar City

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Abstract— *The purpose of this study was to analyze the effect of education level and tenure on the supply of young lecturers' labor, either directly or indirectly through wages. This type of research is quantitative with an explanatory research design, which tries to explain the causal relationship between variables. The data analysis technique used for this research model is path analysis using SPSS software. The data analysis technique used to discuss the problems in this research is Structural Model analysis. Structural model is a model that shows the structural relationship between variables. Complex relationships can be built between one or several dependent variables with one or more independent variables. The results of this study indicate that the level of education and tenure have a positive and significant effect on wages. Meanwhile, the level of education has a positive and insignificant effect on the supply of labor. The period of service has a positive and significant effect on the supply of labor. Wages have a positive and significant effect on the supply of labor. And the level of education and years of service have a positive and significant effect on the supply of labor through wages.*

Keywords— *Offers, wages, Term of Service, Education, Young Lecturers.*

I. INTRODUCTION

Employment is a very basic aspect of human life because it includes very complex and large economic and social dimensions and has long been a topic of discussion for which solutions are constantly being sought. Complex because the problem affects and is influenced by many factors that interact with each other in a pattern that is not always understood, large because it involves millions of people and will greatly impact the development and economic welfare of a nation, especially in Indonesia. Employment problems are common and the most basic problems faced by every country, employment problems certainly cannot be separated from problems regarding the labor force and unemployment, wage levels, and labor productivity problems.

Labor is a very important factor in the production process, as a means of production, labor is more important than other means of production such as raw materials, land, water, and so on. Because it is humans who move the factors of production to produce goods. The provision of labor is also limited because not all residents are workers. Only residents who have reached a certain minimum age can only be considered as potential workers or the workforce. Even then, not all of the labor force is involved in economic activities, only those who are involved in economic activities work.

A very interesting phenomenon discussed from employment issues is the supply of labor because the supply of labor is a description of the labor market and the increase in labor that will be absorbed in the world of work. The labor

market, like any other market in the economy, is controlled by the forces of supply and demand, but the labor market differs from most other markets in that the demand for labor is derived demand, where the demand for labor is highly dependent on the demand for the output it produces. (Mankiw, 2006).

The problem of labor in Indonesia is very complex, this is influenced by several factors: First, the relatively high population growth rate has practically led to high labor growth. Second, the education level of the workforce is still lacking. Third, there is an imbalance in the distribution of population and labor between regions. Fourth, the lack of labor utilization. Fifth, the labor market has not been able to distribute labor effectively and efficiently.

One of the cities in Indonesia, namely Makassar city, has employment problems, namely where there is an offer of labor made by lecturers as we know that lecturers have three functions (tri dharma of higher education), namely as educators/teachers, researchers and community servants who are a source group. Human resources are actually very busy with their work, but in reality there are still many who offer themselves to work outside of their main duties as lecturers.

The decision to enter the job market that must be taken by young lecturers is very complex, where the decision is very dependent on the individual background, namely where the background is seen from the level of education and experience of the lecturer himself.

The level of education is a basic element of human development that is used to measure the knowledge dimension of the population. Increasing the level of education of lecturers at a university will increase the supply of labor or working hours outside of their main duties as lecturers. Lecturers who have a high level of education have the will to choose to work anywhere. In addition to education level, experience is also one of the factors that can encourage lecturers to work outside their main job as lecturers.

A person's work experience will also ripen the person concerned to face the managerial tasks that he will develop as also stated by Didin quoting the opinion of Oliva, Wiles, and Bondi which states that before someone is appointed as an education manager, the person concerned really needs to have sufficient knowledge and experience. in his field.

The level of wages has a relationship with the supply of labor. According to simanjuntak (2005). Wages are seen as a burden by the company because the higher the wage rate, the smaller the proportion of profits enjoyed by the company. Therefore, the increase in the wage rate was responded to by the company by reducing the number of workers. Meanwhile,

according to Monika (2014) for most families, education is an investment. Higher education has the hope of getting high wages as well. The higher the wage rate in the labor market, the labor force participation of both men and women will increase. This means that there is a positive relationship between the level of education and wages, as well as wages and the supply of young workers

II. LITERATURE REVIEW

a. Labor Concept

According to Simanjuntak (1998), in Maharani (2017), the workforce includes residents who are already or are working, who are looking for work and who carry out other activities such as going to school and taking care of the household. Job seekers or go to school and take care of the household even if they do not work, but they are physically able and can work at any time. Mulyadi (2003) in Maharani (2017) states that the workforce is a population of working age (aged 15-64 years) or the number of residents in a country who can produce goods and services if there is a demand for their labor and if they are willing to participate in the activity.

According to Law no. 13 of 2003 Article 1 concerning Manpower, what is called a workforce is anyone who is able to do work to produce goods and or services both to meet their own needs and for the community. So, the workforce is all people who are willing to be able to work without a certain age limit. The workforce includes those who work for themselves or family members who do not receive payment in the form of wages or those who are actually willing and able to work, in the sense that they are forced to work because there are no job opportunities.

Workers are residents of working age who are ready to do work, including those who are already working, those who are looking for work, those who are in school and those who take care of the household. The definition of labor according to Sumitro Djojohadikusumo, 1985: 70 in Zenda and Suparno 2017 are all people who are willing and able, and this group includes those who work for themselves, family members who do not receive payment and those who work to receive payments/wages. /wages.

Meanwhile, according to Payman J. Simanjuntak in Zenda and Suparno 2017 the definition of labor is the population aged between 14 to 60 years is a variable of the workforce, while people under the age of 14 are not classified as workers. The definition of labor according to Indonesian law is as follows: "Manpower is anyone who is able to do work to produce goods or services to meet their own needs or the needs of the community" (Law No. 13 of 2003).

In the labor market, companies will earn more if they can observe signals from their workers. When the company has workers with low productivity, the company will try to increase the productivity of its workers by giving high wages so that workers also try to increase their productivity. However, if the wage rate exceeds the costs incurred, the company will lower the wage rate which actually reduces the company's profit (Prasetya, 2012).

b. Employment Theory

One of the problems that usually arise in the labor force field is the imbalance between the demand for labor (demand for labor) and the supply of labor (supply of labor), at a certain wage level (kusumosuwidho, 1981).

There are several important theories in relation to employment issues. The theories include:

1. Adam Smith's classical theory

Adam Smith (1729-1790) was the main character of the economic school which became known as the classical school. In this case, Adam Smith's classical theory also sees that the effective allocation of human resources is the starter of economic growth. After the economy grows, new (physical) capital accumulation is needed to keep the economy growing. In other words, an effective allocation of human resources is a necessary condition for economic growth.

2. Malthusian theory

After Adam Smith, Thomas Robert Malthus (1766-1834) is considered a classical thinker who is very instrumental in the development of economic thought. Thomas Robert Malthus revealed that humans developed much faster than the production of agricultural products to meet human needs. Humans develop geometrically, while food production only increases arithmetically. Malthus also argued that a high population would inevitably lead to a decrease in production per head and the only way to avoid this was to control or monitor population growth. Some of the solutions offered by Malthus were to delay the age of marriage and reduce the number of children. If this is not done, the population reduction will be resolved naturally, including wars, epidemics, food shortages and so on.

3. Teori Keynes

Economic growth as a process of increasing the production of goods and services in a state of society, an economy is said John Maynard Keynes (1883-1946) argued that in reality the labor market did not work according to the classical view. Wherever the workers have a kind of labor union that will try to fight for the interests of workers from decreasing wages. Even if the wage rate is lowered but this possibility is assessed by Keynes as very small, the level of people's income will certainly fall. The decline in the income of some members of the community will lead to a decrease in people's purchasing power, which in turn will lead to a reduction in overall consumption. The reduced purchasing power of the people will push prices down. If prices fall, then the marginal value of productivity of labor curve that is used as a benchmark by employers in hiring labor will fall. If the price drop is not so large then the productivity value curve will only fall slightly. Even so, the amount of energy that increases is still smaller than the amount of energy added labor offered. It is even worse if prices fall drastically, this causes the marginal productivity value curve of labor to fall drastically and the number of workers accommodated becomes smaller and unemployment becomes wider.

c. Harrod-Domar Theory

The theory of Harrod-Domar (1946) is known as the theory of economic growth. According to this theory,

investment not only creates demand, but also increases production capacity. Enlarged production capacity requires greater demand so that production does not decline. If the increased capacity is not followed by, this theory was introduced by Irving Fisher, according to this theory inflation occurs because of the influence of the amount of money in circulation and people's expectations regarding price increases. The two Keynesian theories. In Keynes's theory, inflation occurs because there are some people who live outside the boundaries economy, so that people's demand for an item will exceed the available amount. Usually people in this group will try to obtain additional funds beyond the limit economic capacity so that all forms of desire can be fulfilled. Third Structuralist Theory, this theory emphasizes rigidity of the economic structure of developing countries, due to inflation associated with the structural factors of the economy (which according to the definitions of these factors can only change gradually and over the long term long term) then this theory can be called the "long-run" inflation theory. According to this theory, there are 2 main kinks in the economy of medium-sized countries developments that can lead to inflation, including inelasticity export receipts and inelasticity of supply or production of materials domestic food. If the demand is large, a surplus will appear and be followed by a decrease in the amount of production.

d. Interest Rate

The supply of labor is the amount of labor that can be provided by the owner of the workforce at every possible wage within a certain period of time. In classical theory, human resources (workers) are individuals who are free to make decisions to work or not. Even workers are also free to set the number of hours they want to work. This theory is based on the theory of consumers, where each individual aims to maximize satisfaction with the constraints he faces (Sholeh, 2007:66). The labor supply includes all people who have jobs in the community plus the number of people who are actively looking for work and their number should be measurable and include in economic activity (Suroto, 1992:176).

Labor supply is also defined as the supply of labor, namely the amount of labor available in the labor market. According to Simanjuntak (2005), the supply of labor is the number of businesses or work services available in the community to produce goods and services. The supply of manpower is determined by the number and quality of manpower. The number and quality of the workforce is influenced by many factors such as population, age structure, workforce or population of working age, number of people currently attending school and taking care of the household, level of income and household needs, education, training, working hours, motivation and work ethic, levels of wages and social security, working conditions and environment, managerial skills and industrial relations, as well as various government policies.

According to Tarigan (2005), if someone offers labor, then what is offered is not himself as a whole person but time. So the unit of account for labor is not actually the number of people but time. The supply of labor is the amount of labor

that can be provided by the owner of the workforce at every possible wage within a certain period of time. In classical theory, human resources (workers) are individuals who are free to make decisions to work or not. Even workers are also free to set the number of hours they want to work. This theory is based on the theory of consumers, where each individual aims to maximize satisfaction with the constraints he faces (Lidya, 2011).

The supply or supply of manpower contains an understanding of the number of people who are and are ready to work as well as an understanding of the quality of the work provided. In general, the supply of labor is influenced by several factors such as population, number of workers, number of hours worked, education, productivity and others. For the influence of population and general structure, the more people in the age group of children, the smaller the number that is classified as labor.

The facts above show that not all workers or residents of working age are ready to work, because some of them are still in school, taking care of the household and are classified as other income earners. In other words, the more people attend school and take care of the household, the smaller the supply labor. The number of those who are ready to work and those who are not willing to work is influenced by family conditions, general economic and social conditions, and the conditions of the labor market itself. The total amount of labor available depends on the population, the percentage of the population who choose to enter the labor force, and the number of hours offered by the labor force. The total amount of labor supplied depends on the market wage. Thus, it can be seen that the supply of labor is a complex phenomenon.

In other words, both the number of people who choose to enter the labor force and the number of hours offered by the labor force both depend on market wages. Long-term analysis of the labor supply introduces individuals to the time required to make more complete adjustments to changes in labor participation. Although the overall labor force participation rate shows a relatively constant trend, there has been a dramatic shift in the age and sex composition of the workforce. In particular, there has been a large increase in the labor force participation rate among married women and a decrease in the participation rate of the elderly, children and younger workers.

Manpower is the potential supply of workers which refers to a person's ability to produce goods and services. Employment statistics explain that manpower is working age, namely the age that is considered to have "sufficient" productivity. The International Labor Organization (ILO) limits the working age (15-64) years (Shryock, 1980, Stending, 1981 and Kanitkar, 1988), while the Central Bureau of Statistics (BPS) limits the working age, which is 15 years and over (based on Law No. - RI Population Law, 1993). Based on the BPS and ILO concepts, the workforce is measured based on the number of people of working age (aggregate labor supply). While the concept of individual labor supply (individual labor supply) is measured based on hours worked per unit of time, for example per day or per week (McConnell, 1986, Ehrenberg, 1988, and Bellante, 1983).

The behavior of labor supply is based on the concept of alternative costs (opportunity cost) because of the choice of a person to work or not to work. The choice of working or not is theoretically determined by the level of wages prevailing in the labor market (shadow wage), non-labor income and education and work experience of each worker (Becker, 1976; Smith, 1980; Bellante, 1983; McConnell, 1986; and Ehrenberg, 1988).

Wages or salaries have positive and/or negative effects on individual labor supply. In other words, when the wage rate increases, the hours of work offered increase, on the other hand, when the wage rate increases, the hours of work offered in the labor market decrease. This is because an increase in wages means an increase in income (labor income). With a higher economic status, a person tends to increase consumption and enjoy more leisure time, which means less working hours (income effect). On the other hand, an increase in wages also means the price of time becomes more expensive. A higher value of time encourages individuals to substitute their free time for

work more (substitution effect). An increase in the wage rate will result in an increase in working hours, if the substitution effect is greater than the income effect. Conversely, an increase in the wage rate will result in reduced working hours, if the substitution effect is smaller than the income effect. (Bellante, 1983; and McConnell, 1986).

On the other hand, an increase in non-labor income (income from non-work sources, such as house rent, deposit interest, company profits, etc.) will have a negative impact on working hours (income effect). Consumption goods that can be enjoyed by a person are proportional to the non-labor income they have and this is directly proportional to the amount of time provided for leisure time. This means that the higher non-labor income (*ceteris paribus*), will encourage someone to consume market goods (market goods), thereby reducing consumption for market activities or work (Ehrenberg, 1988). As Becker (1976) explains, an increase in non-labor income will shift budgetary constraints outward with no change in relative commodity prices. An increase in full income will increase the consumption of all normal commodities. Because households produce commodities using time inputs and market goods, an increase in non-labor income reduces the amount of time spent working in the labor market, and in turn increases the time to produce household commodities.

e. Exchange Rate

Additional working hours can not only be seen from the supply side of labor but can also be seen from the demand for labor. From the demand side, additional working hours can be influenced by education level and years of service or experience. Both of these are indicators of the quality of human resources, where theoretically the demand for an item is also determined by the taste factor (Samuelson, 1989 and 1992), while the problem of taste (taste) is directly proportional to the quality or quality of an item. On the other hand, performance has a positive effect on additional working hours, both from the supply side and from the labor demand

side. From the demand side, performance as measured by work performance will encourage the number of requests for labor. Meanwhile, from the supply side, labor performance is reflected in the ability to work, so that performance will have a positive impact on labor supply.

f. Education

In essence, education in the context of national development has a function as unifying the nation, equalizing opportunities, developing self-potential. According to Nuansa Aulia (2008) in Bonerri (2018) education is expected to strengthen the integrity of the nation within the Unitary State of the Republic of Indonesia, provide equal opportunities for every citizen to participate in development, and enable every citizen to develop their potential optimally.

According to Harris (1995) in Setyowati (2009), people who have a higher level of education may be unemployed longer while looking for work compared to people with a lower level of education. There are two reasons that justify this. First, people who are more educated can face the possibility of a wider wage offer, so the gains that might be obtained by a longer search period will be greater. Second, family income and economic status and education level enable educated people to finance basic needs during the job search.

One of the reasons a person chooses to pursue further education at a university is because he expects to get a higher wage by having a college diploma than if he only has a high school diploma. Doing education in higher education means that someone has invested in human capital and also spent some funds for college tuition until he graduates.

New thinking from Neoclassical theory after the Solow growth model (Beyond the Solow Model) which states that the importance of transformation in the development process is good by emphasizing the importance of education and skills. Education and skills will produce quality human capital. Furthermore, quality human capital investment will result in saving (savings) and technology in order to achieve high and quality economic growth (Priambodo, 2014 in Bahri (2019)).

g. Working Period or Work Experience

Understanding work experience according to Manulang is the process of forming knowledge or skills about the method of a job because of the employee's involvement in the implementation of work tasks (Manulang, 2001: 15). Meanwhile, according to Ranupandojo, work experience is a measure of the length of time or period of work that a person has taken to understand the tasks of a job and has carried it out well (Ranupandojo, 1984: 71).

In contrast to Manulang, which emphasizes work experience on the skills of an employee obtained from his involvement in work. Ranupandojo emphasizes work experience to the tenure or length of work of an employee. In line with the understanding given by Ranupandojo, Trijoko argues that work experience is knowledge or skills that have been known and mastered by a person as a result of actions or work that has been done for a certain period of time (Trijoko, 1980: 82). In the KBBI, it is stated that work experience is an activity or process that has been experienced by a person when

making a living to fulfill his life needs. (Depdikbud, 1991). The definition of work experience in the KBBI is different from that of Ranupandojo and Tjoko which emphasizes the tenure of an employee.

An experience provides lessons and references to move forward. Syaiful Bahri Djamarah cites the classic saying, 'Experience is the best teacher' which means experience is the best teacher. Experience is a teacher who never gets angry. Experience is a teacher without a soul, but is sought after by anyone (Djamarah, 2006: 61).

A person's work experience will also ripen the person concerned to face the managerial tasks that he will develop as also stated by Didin quoting the opinion of Oliva, Wiles, and Bondi which states that before someone is appointed as an education manager, the person concerned really needs to have sufficient knowledge and experience. in his field. The experience that a person goes through will help the person concerned to determine certain steps that can support work success and things that must be avoided because they will become obstacles and lead to failure (Didin, 2012: 22).

h. Wage Theory

According to Soemarso (2009: 307) in Izzah (2015) Wages are rewards for workers who do manual work and rely more on physical strength and usually the amount is determined on a daily, unit or wholesale basis. Wages are generally payments for the delivery of services carried out by implementing employees or workers Mulyadi (2008: 373) in Izzah (2015).

According to Saifuddin Bachrum (2012: 2) in Izzah (2015) Wages or salaries are the rights of workers/laborers received and expressed in the form of money as a reward from the entrepreneur or employer to the worker/labourer which is determined and paid according to an employment agreement, agreement, or regulations or laws including allowances for workers/laborers and their families for a job and or service that has been or will be performed Regency/city minimum wage is a minimum standard used by entrepreneurs or industry players to provide wages to employees, employees or workers in the business or work environment. District/city minimum wage standards will affect the number of people entering the labor market. The determination of the district/city minimum wage has the aim of making workers earn a decent income as remuneration for labor services provided to those who use them (Samulson (2001) in Bonerri, et al, (2018).

Regulation of the Minister of Manpower and Transmigration Number 7 of 2013 concerning the minimum wage states: a. The minimum wage is the lowest monthly wage consisting of basic wages including fixed allowances set by the Governor as a safety net. b. Provincial minimum wage, hereinafter abbreviated as UMP, is the minimum wage applicable to all regencies/cities in one province.

According to Mankiw (2006) in izzah (2015) when the minimum wage of the workforce is higher than the level of the balance wage, the demand for this workforce by employers will tend to fall, which means that job opportunities also decrease. On the other hand, if the minimum wage of the workforce is lower than the equilibrium wage level, the demand for labor by employers and job opportunities will

increase. Meanwhile, the amount of labor supply is the amount of labor that can be offered to employers and one of the determinants is the price of the labor, namely wages. The quantity supplied is positively related to the price.

For entrepreneurs, salaries or wages can be considered as pure costs so that they will be carefully calculated by considering the cost and business aspects and will reduce production costs as efficiently as possible. However, if salary or wages are considered as part of investment in human resources, then employers will think long-term regarding employment and industrial relations. For workers, salaries or wages are related to the wants and needs that increase with the length of work or what is often considered a period of service.

A. Relationship Between Variables

1. Relationship between education level and labor supply

The level of education is a basic element of human development that is used to measure the knowledge dimension of the population. The indicators used are the average length of schooling and literacy rates. The average length of schooling is the number of years used by the population aged 15 years and over in taking formal education, while the literacy rate is the percentage of the population aged 15 years and over who can read and write. Increasing the level of public education in an area will increase the income of the people in that area. The quality and ability of the Indonesian workforce is relatively low, to improve it, various programs and training have been carried out that are in line with the demands of development and technology development so that they can be utilized as effectively and as fully as possible (Manulang, 1995:27).

According to Simanjuntak (1998) the two forms of the labor market differ in several ways. First, educated workers generally have higher work productivity than those who are not educated. The productivity of workers is basically reflected in the level of wages and income of workers, which is directly proportional to the level of education. Second, in terms of time, the supply of educated workers must go through a process of education and training. Therefore, the elasticity of supply for educated labor is usually smaller than the elasticity of supply for uneducated labor. Third, in the process of filling vacancies, employers need more time to select educated workers than uneducated workers.

Merizal (2008) in Maghfirah (2006) the higher the education completed, the higher one's work ability or productivity at work. Improving the quality of human resources through education graduates is expected to reduce the number of unemployed by assuming the availability of jobs. This is because the higher the quality of a person, the wider the opportunity to work.

2. Relationship between education level and wage

Becker (1964) said that the productive power of labor has a positive relationship with the level of education and training. The higher the level of education and training a person has, the more productive the individual is concerned. Furthermore, this situation creates a positive relationship between the level of education and wages. This is because the higher the level of education attainment, the increase in spending power, skills,

ways of thinking and skills will increase a person's wages or income.

According to Woodhall and Psacharopoulos (1985) that education makes a major contribution to the country's economic growth, namely an increase in gross domestic product. In addition, Hicks also found that there is a positive relationship between economic growth and the level of people's income with the level of development of the quality of human labor. This means that the development of human resources in terms of emphasis on education can contribute to economic growth and improve the quality and standard of living of the people.

3. Relationship between tenure and labor supply

According to Afrida (2003), the supply or supply of labor contains an understanding of the number of people who are and are ready to work as well as an understanding of the quality of the work provided. In general, the supply of labor is influenced by several factors such as population, number of workers, number of hours worked, education, productivity and others.

The supply of labor is also affected by the length of time people work each week. The length of time people work each week is not the same. Some are working full time. However, many also work only a few hours a week of their own volition and choice or out of necessity due to limited opportunities for full employment. Therefore, it is not enough to analyze the supply of labor only by paying attention to the number of people working, but it is also necessary to pay attention to how many hours a person works in a week (Rasyid Rasdiah 2016). State expenditures, including balancing funds, as well as the amount of budget financing.

4. The Relationship of Working Period with Wages

Belzil (2000) using data from The Data Base for Market Research (The IDA Data Set, 1981) with a sample size of 2 993, found that work experience (experience) and level of education (education attainment) of the workforce had a positive and significant effect on the level of wages or salaries. income for both men and women. However, for the work experience variable, it appears that at a certain level of work experience the effect of work experience on wages (income) becomes negative. This indicates that at a certain age, the higher a person's age, the lower the level of productivity. It was also found that the marginal productivity of men is relatively higher than that of women, either through work experience or through education.

The same thing was also found by Wheeler (2001) using the data: The Counties and Metropolitan Area of The United States, 1990 with a total sample of 312 625. The results showed that the level of education and work experience had a positive and significant effect on the level of wages or income of workers. residing in the central urban areas of the United States. Also found that initially work experience had a positive effect on wage levels, but under certain conditions work experience had a negative effect (experience squared, negative) on hourly wages.

5. Wage relationship with labor supply

The definition of wages according to the Labor Law no. 13 of 2000, Chapter 1, article 1, paragraph 30: "wages are the

rights of workers/laborers received and expressed in the form of money as a reward from the entrepreneur/employer to the worker or laborer determined and paid according to a work agreement, agreement or statutory regulation. -invitation includes allowances for workers/laborers and their families for a job and/or service that has been or will be performed.

The supply of labor is the amount of labor that is able to be provided by the owner of the workforce in every possible wage within a certain time. In Neo-classical economic theory, it states that if wages increase, the supply of labor also increases. The level of wages has a relationship with the supply of labor. According to simanjuntak (2005). Wages are seen as a burden by the company because the higher the wage rate, the smaller the proportion of profits enjoyed by the company. Therefore, the increase in the wage rate was responded to by the company by reducing the number of workers.

In accordance with the research of Kurniawan (2008), that the amount of labor absorbed is influenced by the level of real wages. According to the labor demand theory, the quantity of labor demanded will decrease as a result of an increase in wages. If the wage level rises, while other inputs remain constant, it means that the price of labor is relatively more expensive than other inputs. This situation encourages employers to reduce the use of labor which is relatively expensive with other relatively cheaper inputs in order to maintain maximum profit. Theoretically there is a close relationship between the number of hours worked and wages, because an increase in the wage rate will result in the price of time so that some people tend to work more hours to get a higher wage. On the other hand, young workers with high wages tend to reduce the use of time allocation for work activities and increase their free time (Ballante and Jackson, 2010).

Meanwhile, according to Monika (2014) for most families, education is an investment because those who have a high level of education have the hope of getting a high wage as well. The higher the wage rate in the labor market, the participation of the labor force, both male and female, will increase. This means that there is a positive relationship between the level of education and wages, as well as wages and the supply of young workers.

III. METHODS

The data analysis technique used to discuss the problems in this research is Structural Model analysis. Structural model is a model that shows the structural relationship between variables. Complex relationships can be built between one or several dependent variables with one or more independent variables. There may also be a variable that has a dual role, namely as an independent variable in a relationship, but becomes a dependent variable in another relationship given the existence of a tiered causality relationship. Meanwhile, the analytical tool used in this study is SPSS 25.

The equation model of this research can be seen from the following equation:

$$Y1 = f(X1, X2) \tag{4.1}$$

$$Y2 = f(X1, X2, Y1) \tag{4.2}$$

Based on the functional relationship above then with equation (4.3) as follows:

$$\begin{aligned}
 Y_1 &= 0 + X_1 + X_2 + \mu_1 \\
 &= 0 + 1 X_1 + 2 X_2 + 1 \\
 &= 0 + 1 X_1 + 2 X_2 + 1 \\
 Y_2 &= 0 + X_1 + X_2 + \mu_2 \\
 &= 0 + 1 X_1 + 2 X_2 + 2 \\
 &= 0 + 1 X_1 + 2 X_2 + 2
 \end{aligned}$$

The effect of education level and tenure on labor supply through wages by substituting equation 4.3 to equation 4.4 can be formulated as follows:

$$\begin{aligned}
 Y_2 &= 0 + 1 X_1 + 2 X_2 + 3 Y_1 + 2 \\
 Y_2 &= 0 + 1 X_1 + 2 X_2 + 3 (0 + 1 X_1 + 2 X_2 + \mu_1) + 2 \\
 Y_2 &= 0 + 1 X_1 + 2 X_2 + \alpha_0 + 3 + 1 3 X_1 + 2 3 X_2 + 3 e_1 + 2 \\
 Y_2 &= (\beta_0 + 0 3) + (\beta_1 + 1 3) X_1 + (\beta_2 + 2 3) X_2 + (\beta_3 + \mu_2)
 \end{aligned}$$

Simplified to 4.5 as follows:

$$\begin{aligned}
 Y_0 &= 0 + 0 3 \\
 Y_1 &= 1 + 1 3 \\
 Y_2 &= 2 + 2 3
 \end{aligned}$$

Where:

X1 = Education level

X = Working period

Y1 = Wage

Y2 = Labor Supply

0; 0 and 0 = Constant

e1, e2, e3 = Error term

a. Direct Influence:

α_1 = direct effect of X1 on Y1

α_2 = direct effect of X2 on Y1

α_1 = direct effect of X1 on Y2

α_2 = direct effect of X2 on Y2

α_3 = direct effect of Y1 on Y2

b. Indirect influence

$\alpha_1 \beta_3$ = Indirect effect of X1 on Y2 through Y1

$\alpha_2 \beta_3$ = Indirect effect of X2 on Y2 through Y1

The analytical technique used in discussing the problems in this research is the Structural Model analysis technique (Structural Model). Structural Model is a statistical technique that allows testing a series of relatively complex relationships simultaneously.

TABLE 1.1. Results of Direct Variable Relationship Analysis

Variable Relationship	Coefficient	Probability	Information
$(X_1) \rightarrow (Y_1)$	2,246	0,000	Significant
$(X_2) \rightarrow (Y_1)$	1,277	0,000	Significant
$(X_1) \rightarrow (Y_2)$	0,090	0,306	Not significant
$(X_2) \rightarrow (Y_2)$	0,202	0,001	Significant
$(Y_1) \rightarrow (Y_2)$	0,222	0,000	Significant

Sumber: Data Diolah SPSS (2022)

The estimation result of the effect of education on wages is 2,246 with a probability of 0.000 at a significance level of 0.05 percent. This shows that education has an effect on wages, where every 1 percent increase in education will increase wages by 2.246 percent.

The estimation result of the effect of years of service on wages is 1.277 with a probability of 0.000 at a significance level of 0.05 percent. This shows that years of service have an

effect on wages, where every 1 percent increase in years of service will increase wages by 1.277 percent.

The estimation result of the effect of education on labor supply is 0.090 with a probability of 0.306 at a significance level of 0.05 percent. This shows that education has no effect on labor supply

The estimation result of the effect of tenure on labor supply is 0.202 with a probability of 0.001 at a significance level of 0.05 percent. This shows that years of service have an effect on the supply of labor, where every 1 percent increase in years of service will increase the supply of work by 0.202 percent.

The result of the estimation of the effect of wages on the supply of labor is 0.222 with a probability of 0.000 at a significance level of 0.05 percent. This shows that wages have an effect on the supply of labor, where every 1 percent increase in wages will increase the supply of work by 0.222 percent.

While the results of the regression of the indirect effect between variables can be seen in Table 1.2 below:

TABLE 1.2. Results of Indirect Variable Relationship Analysis

Variable relationship	Direct Effect Coefficient	Indirect Relationship Parameters	Indirect Influence Coefficient	Information
$X_1 \rightarrow Y_1 \rightarrow Y_2$	0,090	$\alpha_1 \cdot \beta_3$	0,499	Significant
$X_2 \rightarrow Y_1 \rightarrow Y_2$	0,202	$\alpha_1 \cdot \beta_3$	0,283	Significant

The results of the estimation of education on the supply of labor through wages have a positive effect and the estimation of years of service on the supply of labor through wages has a positive effect

a) Effect of Education Level on Wages

The estimation result of the effect of education on wages is 2,246 with a probability of 0.000 at a significance level of 0.05 percent. This shows that education has an effect on wages, where every 1 percent increase in education will increase wages by 2.246 percent. This finding is in accordance with the results of research by Becker (1964) which states that the productive power of workers has a positive relationship with the level of education and training. The higher the level of education and training a person has, the more productive the individual is concerned.

Furthermore, this situation creates a positive relationship between the level of education and wages. This is because the higher the level of education attainment, the increase in spending power, skills, ways of thinking and skills will increase a person's wages or income. According to Woodhall and Psacharopoulos (1985) that education makes a major contribution to the country's economic growth, namely an increase in gross domestic product. In addition, Hicks also found that there is a positive relationship between economic growth and the level of people's income with the level of development of the quality of human labor. This means that the development of human resources in terms of emphasis on education can contribute to economic growth and improve the quality and standard of living of the people.

However, the fact that occurs in the research area is that the level of education does not always affect the level of wages because sometimes lecturers accept or offer themselves to increase their working hours just looking for a lot of work experience.

b) *Effect of Working Period with Wages*

The estimation result of the effect of years of service on wages is 1.277 with a probability of 0.000 at a significance level of 0.05 percent. This shows that years of service have an effect on wages, where every 1 percent increase in years of service will increase wages by 1.277 percent. This finding is in accordance with the results of research by Belzil (2000) using data from The Data Base for Market Research (The IDA Data Set, 1981) with a sample size of 2 993, finding that work experience (experience) and level of education (education attainment) of the workforce have a positive effect. and significant to the level of wages or income for both men and women. However, for the work experience variable, it appears that at a certain level of work experience the effect of work experience on wages (income) becomes negative. This indicates that at a certain age, the higher a person's age, the lower the level of productivity. It was also found that the marginal productivity of men is relatively higher than that of women, either through work experience or through education.

The same thing was also found by Wheeler (2001) using the data: The Counties and Metropolitan Area of The United States, 1990 with a total sample of 312 625. The results showed that the level of education and work experience had a positive and significant effect on the level of wages or income of workers. residing in the central urban areas of the United States. Also found that initially work experience had a positive effect on wage levels, but under certain conditions work experience had a negative effect (experience squared, negative) on hourly wages.

c) *Effect of Education on Labor Supply*

The regression results show that the rupiah exchange rate, The estimation result of the effect of education on labor supply is 0.090 with a probability of 0.306 at a significance level of 0.05 percent. This shows that education has no effect on labor supply

In line with the research conducted by Putri and Kusreni (2017) entitled "Analysis of the Effect of Health Level, Education Level and Wages on Labor Productivity in Indonesia". This study shows that the variables of health level, education level and wages simultaneously have a positive and significant effect on labor productivity. Partially, the level of health has a positive and significant effect on labor productivity, while the level of education and wages has no significant effect on labor productivity in Indonesia.

Rasdhia Rasyid (2016) entitled "The Influence of Education, Work Experience and Non-Labor Income on the Supply of Female Labor in Makassar". The conclusion of this study is that education, work experience, and non-labor income have a positive and significant effect on the supply of female workers in Makassar City. by Yuliani (2018) that the higher the level of education, the supply of labor decreases.

This means that with a high level of education, those who need labor must limit the quantity needed because with high education the productivity is definitely better and the company will take advantage of this quality and will reduce the demand for labor which will reduce the supply of labor.

d) *Effect of Tenure on Labor Supply*

The estimation result of the effect of tenure on labor supply is 0.202 with a probability of 0.001 at a significance level of 0.05 percent. This shows that tenure has an effect on labor supply, where every 1 percent increase in tenure will increase job offers by 0.202 percent. Income Against the Supply of Women Labor in Makassar". The conclusion of this study is that education, work experience, and non-labor income have a positive and significant effect on the supply of female workers in Makassar City. According to Afrida (2003), the supply or supply of labor contains an understanding of the number of people who are and are ready to work as well as an understanding of the quality of the work provided. In general, the supply of labor is influenced by several factors such as population, number of workers, number of hours worked, education, productivity and others.

The supply of labor is also affected by the length of time people work each week. The length of time people work each week is not the same. Some are working full time. However, many also work only a few hours a week of their own volition and choice or out of necessity due to limited opportunities for full employment. Therefore, it is not enough to analyze the supply of labor only by paying attention to the number of people working, but it is also necessary to pay attention to how many hours a person works in a week (Rasyid Rasdhia 2016).

e) *Effect of Wages on Labor Supply*

The result of the estimation of the effect of wages on the supply of labor is 0.222 with a probability of 0.000 at a significance level of 0.05 percent. This shows that wages have an effect on the supply of labor, where every 1 percent increase in wages will increase the supply of work by 0.222 percent. This result means that the higher the wage offered, the supply of labor will increase or it can be interpreted that easy lecturers tend to accept more jobs if wages increase. This finding contradicts the results of Triani and Andrisani's research (2019) Wages have a negative and insignificant effect on labor supply. But together the population and wages have a significant influence on the supply of labor.

The definition of wages according to the Labor Law no. 13 of 2000, Chapter 1, article 1, paragraph 30: "wages are the rights of workers/laborers received and expressed in the form of money as a reward from the entrepreneur/employer to the worker or laborer which is determined and paid according to a work agreement, agreement or statutory regulation. -invitation includes allowances for workers/laborers and their families for a job and/or service that has been or will be performed.

The supply of labor is the amount of labor that is able to be provided by the owner of the workforce in every possible wage within a certain time. In Neo-classical economic theory, it states that if wages increase, the supply of labor also

increases. Meanwhile, according to Monika (2014) for most families, education is an investment because those who have a high level of education have the hope of getting a high wage as well. The higher the wage rate in the labor market, the labor force participation of both men and women will increase. This means that there is a positive relationship between the level of education and wages, as well as wages and the supply of young workers.

f) *Effect of Education on Labor Supply through Wages*

The results of the estimation of education on the supply of labor through wages have a positive effect. This result means that the level of education will encourage the increase in wages so that it has an impact on the supply of labor. This finding is in accordance with the results of Monika's research (2014) for most families, education is an investment because those who have a high level of education have the hope of getting a high wage as well. The higher the wage rate in the labor market, the labor force participation of both men and women will increase. This means that there is a positive relationship between the level of education and wages, as well as wages and the supply of young workers

g) *Effect of tenure on labor supply through*

Based on the results of the study indicate that the period of service has a significant positive effect on the supply of labor through wages. Result This means that the length of service will lead to an increase in wages so that it has an impact on the supply of labor. Work period is the period of time or length of time a person works in an agency, office, and so on. Length of service is also a factor related to the length of time a person works in a place. In an agency, the period of service will greatly affect the level of job supply and wages will also increase. For example, lecturers who have worked for many years will easily get offers of additional working hours because they already have a lot of experience and young lecturers will offer themselves to increase their working hours to get more experience. Rasdiah Rasyid (2016) entitled "The Influence of Education, Work Experience and Non-Labor Income on the Supply of Female Labor in Makassar". The conclusion of this study is that education, work experience, and non-labor income have a positive and significant effect on the supply of female workers in Makassar City.

V. RECOMMENDATIONS

Based on the results of the discussion and conclusions above, there are several suggestions that can be given regarding the results of this study, namely:

- 1) It is hoped that universities in Makassar City will increase the quantity and quality of their workforce, because the increasing quantity and quality of the workforce will increase the productivity of the workforce.
- 2) It is expected that young lecturers do not accept all offers of additional working hours when what is offered is not in accordance with the knowledge mastered.
- 3) It is recommended to further researchers to consider adding variables to their research model on labor supply.

IV. CONCLUSION

Based on the results of the research and discussion described in the previous chapter, the following conclusions can be drawn:

- a. Education has a significant positive effect on wages.
- b. Education has a positive and significant effect on labor supply.
- c. Education has a significant positive effect on labor supply through wages.
- d. Period of service has a significant positive effect on wages and tenure has a significant positive effect on labor supply
- e. Wages have a negative effect on labor supply.
- f. tenure has a significant positive effect on labor supply through wages.

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