Economic Growth, Wages and Education Levels on Labor Absorption in Districts/Cities in South Sulawesi Province

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ARTICLE INFO

Keywords: Economic Growth, Workforce Assimilation, Salary, Level of Education

ABSTRACT

An analysis of the impact of economic growth, wages, and education levels on workforce absorption in the regencies and cities of South Sulawesi. The objective of this study is to examine the impact of economic growth, wages, and education level on workforce absorption in regions with low unemployment rates. Additionally, it aims to investigate the influence of economic growth, wages, and education level on employment absorption in regions with high unemployment rates. Furthermore, the study will analyze the sectoral elasticity of the workforce in both low and high unemployment regional groups. This study employs a Panel Regression of Random Effect Model with a Generalized Least Square (GLS) Approach and Elasticity using a five-year panel data from 24 regencies and cities in South Sulawesi. The findings indicate that in the regional group with low unemployment, wages have a positive and significant impact on workforce absorption, while the level of education has a negative and significant impact. In the regional group with high unemployment, both economic growth and educational level have a positive and significant impact on workforce absorption. Additionally, the agricultural sector exhibits the highest workforce elasticity in the regional group with low unemployment, while the trade sector shows high elasticity in the regional group with high unemployment.
INTRODUCTION

Economic development refers to a sequence of governmental initiatives and strategies aimed at attaining favorable outcomes that significantly influence the well-being of society. The objective of economic development is to enhance the quality of life for individuals, create more job possibilities as the workforce grows, and ensure equitable income distribution across all regions (Siburian, 2013). Economic development can be defined as the systematic increase in both total income and per capita income, considering population growth, and accompanied by significant transformations in a country’s economic structure. Economic development and economic growth are interdependent. Economic development fosters economic growth, while economic growth in turn aids the process of economic development. Keynes, in his research of economic growth and development, demonstrated the significant influence of spending on products and services produced by economic sectors in shaping economic activities. Keynes posited that the magnitude of effective demand is the primary factor in determining the degree of economic activity inside a nation. The degree of production achieved by the economic sector is directly proportional to the effective demand in the economy. Therefore, this scenario leads to a rise in the degree of economic activity, use of labor, and production components. Harrod-Domar theory seeks to elucidate the prerequisites for an economy to attain robust and consistent growth, namely growth that consistently generates the utilization of capital equipment and is universally applicable within the economy. According to this theory, capital formation is regarded as an investment that enhances an economy’s capacity to produce commodities and also boosts society’s effective demand, hence increasing national revenue.

David Ricardo proposed the labor theory of value as an explanation for wages. David Ricardo posited that workers' salaries are contingent upon their subsistence requirements, which refer to the basic necessities essential for their survival. These minimum needs, in turn, are influenced by the prevailing environmental conditions and societal norms. According to this hypothesis proposed by David Ricardo, an increase in the overall standard of life leads to a corresponding increase in the minimum wage that can be offered to workers. According to Adam Smith's idea, an increase in the average salary level leads to a fall in the demand for workers and results in unemployment. In contrast, a decline in the average wage level will be accompanied by a rise in job prospects. Similarly, according to the theory of labor demand, an increase in pay will lead to a decrease in the quantity of work demanded. This criterion is implemented to ensure the highest possible level of profitability is maintained. By implementing levy collection and accommodating a greater number of ships in the parking area, the Pangkep City administration will experience a corresponding increase in revenue from the port levy reception post. The legislation on Regional governments establishes regional taxes and levies as alternative sources of revenue that can be generated within each region, so ensuring financial balance between the center and the regions. Human capital plays a crucial role in facilitating technological advancements and development.
Meanwhile, technology, combined with investments in physical capital and population, contributes to the expansion of production. In the field of economic growth theory, specifically the endogenous growth theory, external factors play a crucial role in determining the rate of economic growth. One such component is human capital. In addition, human capital refers to the abilities or skills possessed by an individual, which demonstrate their level of quality. A person's marketability in the labor market can be determined by the caliber of their human capital. Higher quality human resources lead to increased demand for that workforce due to their superior productivity. Enhancing the quality of the workforce can be achieved by aligning the education system with the specific needs of the labor market. In his thesis, Theodore W. Schultz asserts that both knowledge and skills can be considered as kinds of capital that can be utilized as investments. Education is a reflection of the intellectual capacity (quality) or the formal educational achievements of a nation's people. From the explanation this article made problem formulation.

1. What is the impact of economic growth, wages, and education levels on labor absorption in regional groupings with low unemployment?
2. What is the impact of Economic Growth, Wages, and Education Levels on Labor Absorption in regional groups with high unemployment rates?
3) What is the labor absorption elasticity in different geographical groupings with low and high unemployment rates?

Objectives of the research the research purpose is to quantify and ascertain, based on the described formulation. What is the impact of economic growth, wages, and education levels on labor absorption in regional groupings with low unemployment? What is the impact of economic growth, wages, and education levels on labor absorption in regional groupings with high unemployment? What is the difference in the ability of different sectors to absorb labor in regions with low and high unemployment rates? Advantages of conducting research the number 4 the advantages of research can be categorized into two distinct types: theoretical benefits and practical benefits. The following is an elucidation of these two advantages as follows:

1. This is to provide information and consideration to the South Sulawesi Provincial Government for the purpose of creating policy plans related to future employment.
2. Expand the existing knowledge base in the discipline of Economics, with a particular focus on Labor Absorption.
3. As a source of information for conducting study on the subject of labor economics.

LITERATURE REVIEW

Work according to Law of the Republic of Indonesia Number 13 of 2013 concerning Employment, employment refers to all aspects related to labor, including activities that occur before, during, and after the period of
employment. Labor refers to those who possess the capacity to engage in productive activities aimed at generating commodities and services, with the purpose of satisfying both their personal requirements and the collective needs of society. A worker, often known as a laborer, is a someone who engages in employment and earns remuneration or other types of recompense. According to the Central Statistics Agency, labor (manpower) refers to the total population of individuals who are of working age (15 years and older) and have the ability to create commodities and services. Hasibuan (1994) defines labor as those who are employed or actively seeking employment, possess the necessary skills and qualifications, and meet the workforce demands of a nation. In addition, according to Mulyadi (2003), manpower refers to the segment of a country's population that falls within the working age range of 15 to 64 years. This includes individuals who are capable of producing goods and services provided there is a demand for their labor and they are ready to engage in such activities.

Job possibilities or employment initiatives aimed at promoting economic growth, particularly through the absorption of workers, should be focused on industrial expansion, particularly in labor-intensive sectors. Investment in labor-intensive areas can lead to employment growth, even with minimal money. Labor or workforce comprises those who are employed, actively seeking employment, engaged in educational pursuits, or fulfilling domestic responsibilities. The latter three categories, comprising individuals actively seeking employment, attending educational institutions, and managing domestic responsibilities despite their lack of employment, are deemed physically adequate and available for work at any given moment. Moreover, the workforce is additionally categorized into two distinct subsectors, specifically the employed and the jobless. Workers refer to individuals who are employed, encompassing both those who are currently working and those who are temporarily jobless despite having employment. Unemployed refers to individuals who are without a job, encompassing both those who are not now employed and actively seeking employment. The citation for this work is Bellante and Jackson (1990). The theory of economic growth developed by Walt Rostow. Rostow proposed his thesis on the sequential phases that a nation undergoes in terms of economic development. According to Rostow, this hypothesis represents the forefront of the Linear Stage of Growth hypothesis. During the period from 1950 to 1960, Rostow's theory exerted a significant influence on the perspectives and understandings of economists regarding the necessary development strategies. Rostow's idea is founded on the developmental experiences of industrialized nations, particularly in Europe. Rostow observed the development process in European countries from the Middle Ages to the modern era and then categorized the existing development patterns into stages of economic development that these countries went through. Rostow categorized the progression of a nation's economy into five distinct stages: (1) conventional economic stage; (2) precondition stage for takeoff; (3) take-off stage; (4) stage towards maturity; (5) high mass
consumption stage. The subsequent section delineates each phase, specifically as outlined by Kuncoro (2010):

Stage (I), Conventional Economy, the economy in traditional communities typically operates on a subsistence basis. The utilization of technology in production systems remains very restricted. The agricultural sector is crucial in this type of economy. Due to the limited utilization of technology in the production process, the majority of items manufactured consist of agricultural commodities and other unprocessed materials. The social structure in this culture is characterized by a clear hierarchy, where the power over available resources is heavily affected by familial and blood ties.

Stage (II), Preconditions for Takeoff According to Rostow, growth at this stage represents a period of transition from an agrarian civilization to an industrial one. The industrial sector is gradually emerging alongside the agricultural sector, which continues to hold a significant position in the economy. At this point, it is necessary to make preparations for the subsequent stage, specifically the take-off stage. During this phase, the economy enters a period of vigorous activity, characterized by the rise of new industries, advancements in technology, and the construction of formal financial institutions that have a significant impact. As a catalyst for public funding and the promotion of investment, particularly in the manufacturing sector. This level represents a significant achievement in the initiation of industrialization. For industrialization to be sustained, certain conditions must be fulfilled. Firstly, there needs to be a significant boost in investment in the infrastructure sector, particularly in transportation. Secondly, there should be a technological revolution in agriculture to cater to the needs of a growing urban population. Lastly, there should be an expansion in imports, including capital imports, which can be financed by the efficient production and marketing of natural resources for export.

Stage (III), Departure The take-off stage is a crucial phase that shapes the entire process of human development. The experience of European countries indicates that this stage typically lasts for around two decades. During this period, there will be a significant revolution in the industry that is directly linked to the revolution in industrial practices. Take-off is defined as the occurrence of three interconnected conditions. Firstly, there is an increase in the rate of productive investment from national income. Secondly, there is the development of multiple manufacturing sectors that experience high growth rates. Lastly, there is the rapid emergence of a political, social, and institutional framework that fosters a desire for expansion in the modern sector. The external impact of this framework serves as a driving force for economic growth.

Stage (IV), Achieving Maturity, this level is characterized by the efficient utilization of contemporary technologies on current resources. This stage is characterized by autonomous production over an extended period of time. During this stage, there is a notable development of various significant industries. During the stage of technological maturity in a country, three significant transformations take place. Firstly, there is a shift in the workforce from being uneducated to becoming educated. Secondly, the character of
entrepreneurs changes from being hardworking and rough to being efficient managers who are smooth and polite. Lastly, society becomes weary of industrialization and desires additional changes.

Stage (V), Intense Mass Consumption The stage of high mass consumption represents the ultimate phase in the growth and development model put forward by Rostow. This phase is marked by a significant movement of people from metropolitan areas to the periphery of the city, due to the growth and expansion of the city center as the primary hub of employment. The utilization of either private or public modes of transportation, such as railroads, is highly essential. During this phase, there is a shift in focus from the supply side approach to the demand side approach in the adopted production system. Simultaneously, there has been a transition in economic activity, initially emphasizing production, but increasingly leaning towards consumption. There is a growing belief that well-being is not solely an individual issue that can be resolved by excessive individual consumption of goods. Moreover, they perceive well-being in a comprehensive manner, encompassing the well-being of society as a whole, including its population. An illustrative instance is the United States, which became the first nation to enter the era of widespread mass consumerism, specifically around 1920.

Subsequently, Western European countries underwent a similar transformation. Japan is the Asian country that has achieved this status. The Harrod-Domar Growth Theory is a concept in economics that is denoted as 2.2.2. The growth theory was proposed by Evesy D. Domar and Roy F. Harrod. Harrod proposed his idea in 1939 in the Economic Journal, whilst Domar presented his hypothesis in 1947 in the American Economic Review. The Harrod-Domar theory, named after the two economists who separately created it, posits a similar essence in both theories. John Maynard Keynes initially proposed the idea, which was subsequently elaborated and advanced by Harrod-Domar in relation to national economic activity and labor. He argued that John Maynard Keynes' analysis was deemed inadequate as it failed to tackle long-term economic issues. The Harrod-Domar theory originated by elucidating the prerequisites for the economy to experience consistent and sustained growth. The underlying assumptions of this theory are as follows: (a) the economy is operating at maximum employment and all available capital goods are being utilized; (b) the economy is divided into two sectors, namely the household sector and the corporate sector, with no presence of government or foreign trade; (c) the level of public savings is directly proportional to the national income; and (d) there is a propensity to save. (Arsyad, 2004). This growth model demonstrates a positive correlation between the growth rate and income.

The income ratio and growth rate are directly proportional, meaning that when the income ratio increases, the growth rate also increases, and vice versa. Schumpeter's Growth Theory, often known as the theory of economic development, is a concept developed by economist Joseph Schumpeter. It focuses on the role of innovation and entrepreneurship in driving economic growth. Josep Schumpeter (1883-1950) is credited with developing the concept
of economic growth by integrating classical analysis with contemporary ideas in his theory. The primary distinguishing feature of Schumpeter's theory, in contrast to other classical theories, is its inherent optimism regarding the sustained expansion of the economy over an extended period of time. Schumpeter posited that over time, individuals' quality of life may be further enhanced in alignment with the technological advancements attained by the nation. One more distinction between Schumpeter's theory and classical theory is the absence of focus on factors such as population increase and finite natural resources.

METHODOLOGY

Types of research

In accordance with the research objectives to be achieved, this research uses an explanatory panel, which is research that aims to explain the position of the variables studied as well as the relationship and influence between other variables (Sugiyono, 2014). Based on the research model developed, it is hoped that it can further explain the causal relationships between the variables analyzed, and at the same time can create research implications that are useful for the development of science and as a method and technique for solving problems in the field.

Analysis Method

The method used in the research is panel data regression analysis, where the panel data analysis is a combination of time series and cross sections. Panel data is data obtained from survey results from several places at the same time. In this research, panel data analysis is used because the results obtained are better and also displays results from each region not just overall. The panel data analysis equation used is

\[
Y_i = \beta_0 + \beta_1 X_i + \epsilon_i ; i = 1.2, \ldots, n
\]

where \(n\) is the number of arithmetical series data (cross sections). Whereas

The time series equation can be written as:

\[
Y_t = \beta_0 + \beta_1 X_t + \epsilon_t ; t = 1.2, \ldots, n
\]

Where \(n\) is the number of time series data. Panel data is combined data between time series and cross sections so that the equation model for the two groups is as follows:

\[
Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{it} + \epsilon_{it}
\]

Where: \(Y\) : Labor absorption 
(\(\beta_0\) : constant 
(\(\beta_1\) : economic growth regression coefficient 
(\(\beta_2\) : wage regression coefficient 
(\(\beta_3\) : Education level regression coefficient
Data analysis using panel data regression has several advantages, namely panel data is a combination of two data, namely time series and cross section, so it is able to provide more data, resulting in a greater degree of freedom. Combining time series data information and cross section data can overcome problems that arise when the problem of removing variables (committed variables). (Widarjono, 2013). Several other advantages obtained from using the panel data method according to Shochrul R. Ajija (2011), namely: Panel data takes into account individual heterogeneity explicitly by allowing individual-specific variables. This ability to control individual heterogeneity then makes panel data usable to test and build more complex behavioral models. Panel data is based on repeated cross section observations (time series), so the panel data method is suitable for use as a dynamic study of adjustment. The high number of observations has implications for more informative data, more varied collinearity between variables which decreases and increases degrees of freedom (degree of freedom = df) so that more efficient estimation results can be obtained. Panel data is used to study complex behavioral models. Data panels can minimize bias that may be introduced by aggregating individual data.

RESEARCH RESULT AND DISCUSSION
This section will address the following topics in relation to the research objectives outlined in the previous section: (1) the impact of economic growth, wages, and education levels on labor absorption in regional groups with low unemployment rates in districts/cities in South Sulawesi Province, (2) the impact of economic growth, wages, and education levels on labor absorption in regional groups with high unemployment rates in districts/cities in South Sulawesi Province, and (3) the elasticity of labor absorption in economic sectors in regional groups with low unemployment rates and high unemployment rates in districts/cities in South Sulawesi Province. The impact of economic growth, wages, and education levels on the employment rate in regions with low unemployment. 5.5.1.1 The Impact of Economic Growth on Employment The analysis of economic growth on labor absorption in the low unemployment areas of South Sulawesi Province from 2016 to 2020 indicates that economic growth has a favorable but not substantial impact on changes in labor absorption. Employment. These results contradict the current notion that suggests a strong correlation between economic growth and workforce absorption. In Pressman’s (2000) explanation, Kuznet states that economic growth is influenced by the combined impact of elevated productivity and a substantial population. Productivity growth is the more significant aspect
among these two since, as Adam Smith highlighted, it is responsible for driving economic expansion. When examining the average economic contribution of the regional group, it is evident that the agricultural sector makes the highest contribution to the GDP. The regions in this group rely heavily on the agriculture industry as the primary pillar of their economy. Despite the sluggish growth and low productivity of this industry, it has the capacity to accommodate a bigger workforce compared to other sectors, as depicted in Figure 5.16. Figure 5.1 displays the average contribution of the Economic Sector to the Gross Regional Domestic Product (GRDP) and the average working population in the group of areas with low unemployment from 2016 to 2020.

Figure 5.1 displays the average contribution of the Economic Sector to the Gross Regional Domestic Product (GRDP) and the average working population in the group of areas with low unemployment from 2016 to 2020.

Source: BPS Statistics data, processed

Tambunan (2001) asserts that sustained economic development is contingent upon the rise in per capita income, which in turn leads to a transformative shift in the economic framework. This shift entails a transition from a traditional agricultural-based economy to a modern economy characterized by the dominance of non-primary sectors, particularly the processing industry with escalating returns to scale, as well as trade and services as the primary catalysts for economic expansion. Pressman (2002) states that economic growth can be achieved through mechanization and the division of labor, which in turn leads to increased worker productivity. The Output-Employment Macro Model is an employment economic model that examines the connection between capital accumulation, industrial output growth, and job creation.

The agricultural sector remains the dominant force in the economic structure of this geographical group, serving as the primary catalyst for economic growth. In sectors where the mechanization and division of labor are not well-established, worker productivity is generally low. Additionally, traditional technology is still being used and there is a lack of innovation. One reason why economic expansion does not significantly affect labor absorption can be summarized as follows. The workforce absorption in this regional group is not significantly affected by economic growth. This is attributed to multiple factors, specifically: Firstly, sub optimal economic growth has adversely affected the productivity of the agricultural industry, which serves as the primary employment sector. Consequently, this has resulted in a comparatively slower improvement in the well-being of workers in this sector, in contrast to
workers in other sectors. Furthermore, there is currently a little connection between the agricultural sector and other sectors, including the agro industry. The robust interconnections between these sectors will inherently enhance the regional economy. The interconnection between the agricultural and agro-industry sectors and other sectors results in a heightened movement of raw materials between these sectors, leading to a consequent rise in labor utilization.

Furthermore, development endeavors continue to be predominantly focused in specific regions, particularly metropolitan areas, leading to a significant expertise in utilizing non-labor resources. Therefore, it is inevitable that human resources of comparatively worse quality will be defeated in the competition. In the absence of effective government involvement, the presence of untapped human resources leads to unemployment. Furthermore, there is a lack of substantial investment in the agricultural sector, despite its potential to support a significant labor force. Furthermore, the pace of infrastructure development is relatively sluggish, which consequently hampers investment in promising economic areas. The findings of this research diverge with those of Ferdinan (2011), who asserted that economic growth, as measured by gross regional domestic product (GRDP), exerts a substantial influence on both high and low labor absorption in West Sumatra Province. I Gusti and Suardika (2015) also discovered the same phenomenon, affirming that economic expansion has a notable impact on the employment rate in Bali Province.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions drawn were based on the findings and discussions presented in the preceding chapter.1. Within the group of areas with low unemployment, the primary factors that affect the absorption of labor are wages. Wages have a significant influence on consumption and purchasing power, which in turn affect the demand for goods and services in society. This increased demand leads to higher production and utilization of production factors, such as specialized labor in labor-intensive industrial areas. Furthermore, workers in the agricultural sector continue to dominate the low education levels, resulting in a lack of implementation of technology transfer in this sector. The conditions in this sector underwent a deceleration. Within the cluster of regions experiencing high unemployment rates, the primary determinants are economic expansion, resulting from a surge in the production of products and services in response to heightened demand. This, in turn, leads to growth in other sectors, including commerce, construction, and finance. Furthermore, the education level is crucial in this context due to the increased demand for highly skilled professionals within this demographic. Among the regional group with low unemployment, the agricultural sector has the highest degree of responsiveness in terms of its ability to absorb labor, placing it in the elastic category. Other areas that fall under the elastic group include the processing industry, trade, construction, transportation, and communications. Meanwhile, the mining, energy, gas, water, and services sectors are experiencing elastic conditions. In the low unemployment regional group, the trade sector has the highest level of labor absorption elasticity among all sectors. Other industries classified as elastic include construction, finance,
services, processing industry, transport and communications, as well as power, gas, water, and mining. Meanwhile, the agriculture sector is experiencing a state of low elasticity.

ADVANCED RESEARCH

In writing this article the researcher realizes that there are still many shortcomings in terms of language, writing, and form of presentation considering the limited knowledge and abilities of the researchers themselves. Therefore, for the perfection of the article, the researcher expects constructive criticism and suggestions from various parties.

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