Does Human Capital And Wage Improvements Affect The Quality Of Human Development In Indonesia

Abdul Rahman[1] , Nursini[2] , Abd. Rahman Razak[2] , Anas Iswanto Anwar[2] , Andi Sudirman[1] , Nurbayani[3]

[1]*Alauddin State Islamic University of Makassar, Indonesia*
[2]*Hasanuddin University, Indonesia*
[3]*Fajar University, Makassar Indonesia*
Email: abdul.rahman1582@uin-alauddin.ac.id

Abstract

The quality of human development in the territory of Indonesia is experiencing a slowdown, from the comparative position of each province there are not many shifts and the condition of human development is still uneven. If these conditions are observed, the government's role is urgently needed through human capital investment and wage policies. This research is directed to determine the influence of human capital (expenditure on education and health functions) and minimum wages on the quality of human development. The data used is panel data from 33 Provinces in Indonesia in the period 2010 – 2020. The analytical model used is the Structural Equation Model (SEM) with the help of Rstudio Software. The findings of this study indicate that human capital has different effects on the quality of human development, either directly or through labor absorption. Directly, education expenditure has a positive and significant effect, on the contrary, health expenditure has a negative and insignificant effect. Meanwhile indirectly, education expenditure has a negative and significant effect and health expenditure is not significant. The minimum wage has a positive and significant effect both directly and indirectly. Then it was found that there were differences in the quality of human development between the western and eastern regions of Indonesia, either directly or through employment, with the estimation of the western regions of Indonesia being larger.

Keywords: Quality of Human Development, Labor Absorption, Education Expenditure, Health Expenditure and Minimum Wage.

Introduction

When viewed from the distribution of human development at the level of the territory of Indonesia, there are still gaps in the achievement of the quality of human development between regions in Indonesia. The quality of human development between Western and Eastern region of Indonesia where the Western has a higher quality of development than the Eastern. The Western Region which includes Sumatra, Java and Bali has an HDI that continues to increase between 73.74 to 74.83, in contrast to the Eastern Region which includes Nusa Tenggara, Kalimantan, Sulawesi, Maluku and Papua, although it also increases every year but the value is still much lower. Departing from this phenomenon, government intervention is needed through investment in human capital and wages.

Human capital has long been recognized by economists [1] [2] [3] [4] [5] [6]. [1] asserts that investment in people such as spending on education and health is the main cause of the increase in real income per worker. In line with [2], investment in human capital increases individual productivity and income. The basic idea is that a highly educated and healthier workforce is expected to be relatively more productive. In the long term, in order to increase human development, it is necessary to channel capital expenditures to the education and health sectors [7] In line with [8] [9] [10] government spending on the social sector affects the success of human development.

Empirically, the Western and Eastern Regions of Indonesia have different budget allocations for education and health. For example, 2019 shows that the Sumatra, Java and Bali regions have the largest proportions of 28.68 percent and 30.28 percent, respectively, which have an impact on the high quality of human development, but this is not

followed in the Nusa Tenggara region, which has a high spending allocation. Large but low HDI, on the other hand, Kalimantan has the second smallest expenditure allocation after Maluku and Papua but still has a high HDI. This condition also occurred in the previous year. This indicates that there is an inconsistency in the pattern of movement of human capital data with improving the quality of human development. Theoretically different from [2], the expenditure used to improve the quality of the population will give better results. That is, government spending can be used as an instrument in an effort to improve the quality of life of the community. As previous studies, both education and health spending have been shown to provide reinforcement built by [2] [9] [10] [11] [12] [13].

Another policy that is usually carried out by the government to increase labor absorption is that the government is expected to correct market failures so that they can be more efficient and equitable, as a means of distribution of income or wealth. In this case, the government makes a policy related to setting minimum wages which is an important measure of a country's social and economic policies [14]. In line with Bentham in [15], the government has a responsibility and becomes a mechanism to help improve the welfare of its citizens through various policies both in the economic and social fields. It is hoped that this

will avoid competitive pressures and employers will not force the workforce, improve labor and industry efficiency, reduce strikes and increase consumer purchasing power [16]. Thus, it can increase the number of goods produced, consumed and increase employment opportunities [17].

In line with that, it is different from the labor theory which explains that the amount of labor demanded is inversely proportional to wages, while companies that want maximum profit can choose the amount of labor that makes the marginal value added of labor multiplied by the selling price of goods produced per unit equal to wages. Furthermore, the company will adjust the amount of labor used with changes in labor costs [18].

The minimum wage, which has increased significantly every year with different magnitudes, as happened in Maluku and Papua, has the largest minimum wage compared to other regions in 2019 of 2,994.45 thousand rupiah. However, high wages do not have an impact on the high quality of human development in the region. On the other hand, Java and Bali have the lowest minimum wages but the quality of human development is in the high category
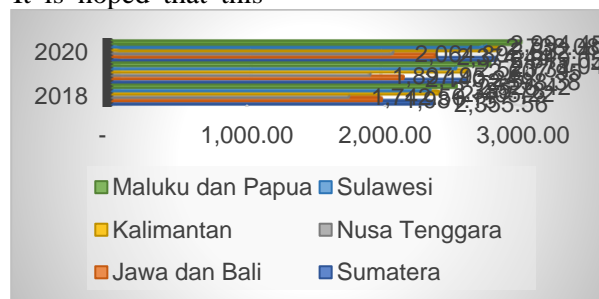
Source: Central Bureau of Statistics Data Processed, 2021
Figure 1.1 Minimum Wage Development in Indonesia, 2018 – 2020 (Thousands/Rp)

In connection with this phenomenon, both theoretically and empirically it is interesting to study further, in an effort to determine the direction of public policy in order to improve the quality of human development [11] [19] [20] [21] [22] [23] especially human capital (particularly for education and health spending). Therefore, human development becomes very important, considering humans as agents of change in the development process of a country. As well as, Government policies related to the determination of minimum wages are also important, as an effort to increase the distribution of people's income. However, when referring to previous empirical studies, HDI

as a measurement of the quality of human development adopted by a country and a region, has led to a distorted perspective that is unable to present a comprehensive view of the dimensions of human development [24]. Although the HDI has changed from time to time, with changes in technical calculations and indicators/dimensions [25] one of them is the issue of environmental sustainability. This study develops a measurement of the quality of human development that is integrated with economic, social, and environmental [27] [28]

Literature Review

The Human Development Quality Paradigm and Its Measurement

The HDI has been widely adopted, has also been the subject of much criticism and modification. HDI leads to a distorted perspective that is unable to present a comprehensive view of the dimensions of human development [24]. Similar to [29] the HDI reflects the average, ignoring the population group that has not benefited from the HDI achievement. There are other issues of criticism and debate, such as the need for combined and qualitative educational measures, adequate income logarithms and normalization processes, as well as the need to consider additional dimensions of human development such as gender and income inequality, safety and homicide, democracy, environmental variables, living conditions of refugees, and discrimination [27].

In line with these criticisms, there are several studies that have developed new indices as modifications in the measurement of HDI [30].

In general, HDI already has a comprehensive approach to analyze the condition of everyone in society, but there are some problems, both substantial and technical, as described [25] [26] [27]. Although the HDI has changed from time to time, with changes in technical calculations and indicators/dimensions [25], one of them is the issue of environmental sustainability.

Several studies have tried to integrate environmental dimensions in HDI [25]. Thus, to realize the vision of the 2030 agenda, a consistent measurement methodology is needed on how a sustainable human development paradigm, namely the Advanced Human Development Index (AHDI), combines social and economic dimensions with environmental dimensions [28]. The AHDI has been designed, which ensures the unity and conformity of all included comprehensive dimensional indices. Calculations confirm the accuracy and simplicity of measurements. The proposed methodology and AHDI, as a simple and balanced index based on results-oriented major news indexes, provide a big picture, which is transparent, acceptable and can be used by experts, politicians and the global community to assess the level of development achieved and to make strategic decisions for the future.

Human Capital Theory

The new economic growth theory has corrected the weakness of the classical theory which emphasized the importance of education and innovation (elements of human capital) in long-term economic growth [1] [2], explained that human capital is just like physical capital and one can invest in it through education, health and training which in turn will increase output and contribute to economic growth. Thus, human capital can be considered as one of the most important factors in economic growth [31]. Human capital formation is the process of obtaining and increasing the number of people who have the skills, education and experience that are decisive for the economic and political development of a country [32]. Human capital formation is closely related to investment in people.

However, there is debate about the channels that human capital uses to drive economic growth. On the one hand, human capital is defined as an independent factor of production, which increases productivity for a given level of technology [31]. On the other hand, human capital is seen as an input in the innovation process and therefore as a complement to technology [32]. Therefore, higher levels of human capital lead to the generation or diffusion of new technologies or more efficient adoption of certain technologies, thereby shifting the defined limits of production possibilities outward.

[34] Revealed that the output growth rate depends on the accumulation of human capital and innovation. The stock of human capital through education level affects labor productivity. This finding is supported by [35] who studied the impact of human capital on growth across multiple channels. This study found that an increase in human capital directly affects economic growth by increasing the productivity of labor in production. Then, human resources through increasing labor productivity is an important input for research & development that accelerates technological change.

Human capital is a productive investment that includes knowledge, skills, abilities, ideas, health and location resulting from spending on education, on-the-job training programs, and health care [36]. Human development efforts are related to the term human resource investment. [2] further explains that humans are not only a resource but also an investment that generates returns and its expenditure is intended to increase the quality and quantity of human beings. Value added in humans is created when education and skills are useful. Human capital is measured by education and training. Ultimately, this health and education will contribute directly to well-being. Investment in human capital in a broad sense is expenditure in the fields of health, education, and social services in general.

Besides education, health is also recognized as another fundamental element of human capital [1] [37] [38]. Increased productivity of the workforce, where health can affect economic growth. Using the health variable as a capital good in his model [39] argues that people are born with an initial health endowment that declines over time but can grow with investment in health. Grossman points out that improving health capital reduces time lost to illness and thus, health enables more effective performance that increases productivity.

Points out that the productivity of a workforce depends on investments in human capital as well as on the physical and mental abilities of the workforce [40]. Workers who are physically and mentally healthier are more energetic and strong. They are more productive and earn higher wages. They are also less likely to be absent from work because of illness (or illness in their family). Illness and disability reduce hourly wages substantially, with particularly strong effects in developing countries, where a higher proportion of the workforce is engaged in manual labor than in industrialized countries. [41] the relationship between productivity and health.

While increases in health spending improve the quality of life of individuals, they also provide social services that benefit the entire community. The increase in production that occurs due to higher consumption by healthy individuals contributes to both individuals and society. Reduction of social production by unhealthy individuals also means reduction of national income at the macro level and downsizing of the economy. Therefore, Expenditures spent on health are important among public expenditures. Any increase in resources allocated to healthcare will ensure individuals live longer, increase their productivity and keep them productive in their working lives longer. These individuals will contribute to increased economic growth. As a result, it can be argued that an economy with a possible budget expansion will allocate more health resources.

Minimum Wage Theory

The minimum wage policy is still a matter of debate, some agree and some disagree with this policy [42]. Those who agree with this policy argue that the government's policy regarding the determination of the minimum wage is one way to increase the income of workers in order to fulfill a decent standard of living. As the income of workers increases, the level of consumption of workers also increases. Increased consumption levels encourage the emergence of new types of businesses that have the potential to add new jobs [43].

On the other hand, those who do not agree with this policy argue that the fixing of wages above the market equilibrium point encourages the emergence of young people who want to find work, but it is not comparable to the company's ability to employ them. This causes labor not to be absorbed optimally, in other words it causes increased unemployment [44].

Wages are remuneration received by households for the delivery and utilization of production factors for the production process. Wages given can be in the form of money, goods, or services as well as public facilities. Wage theory is inseparable from the wage fund theory developed by John Stuart Mill (1806 – 1873). According to Mill, that high or low wages depend on the availability of the amount of capital used to pay wages. The large supply of labor will cause the wage level to be low, as well as when the company's profits decrease, the wage level will also decrease. Mill also believes that the government has no role in the affairs of economic activity, further explaining that if a wage fund is available in the community for payment of wages, which by the time the investment has been implemented, the amount of the fund is fixed so the wage level does not change much from the allocation.

According to efficiency wage theory, firms will operate more efficiently if wages are above equilibrium, so it will be more profitable if firms keep wages high even though there is a surplus of labor. According to efficiency wage theory paying high wages may benefit the company because it can increase the efficiency of workers. The reason the company wants to provide high wages, is a decision that is not commonly heard because wages are a large part of the company's costs. But what we usually hear are companies that maximize profits by reducing costs, including wages as efficiently as possible. The efficiency wage theory explains that paying high wages can be profitable because it can increase the efficiency of the company's work [45]. explain that there are several types of efficiency wage theories, to explain why companies are willing to pay higher wages to workers, including: Workers' Health, Worker Turnover , Worker Hard Work and Worker Quality. In line with [46] the compensation given to workers can be used to improve nutrition so that they can work optimally to achieve their production targets while the wages received by workers have not had an effect on production value, because they are still related to market

demand. [47] with the Gift-Exchange Model Theory, because higher wages are a reward for workers, and workers will return these gifts with higher productivity. The same thing with the Fair Wage-effort Model theory by [48], if workers are paid low wages, or unfairly, workers will retaliate with low productivity. Then [49] asserted, the compensation factor for labor is an input or determinant of the value of production. The same thing The theory of ethical wages developed by the Utopians, people who crave an ideal society, wages are given ethically, so that the wages received must be able to encourage workers to live decently. In addition, this theory also encourages companies to provide benefits to their workers.
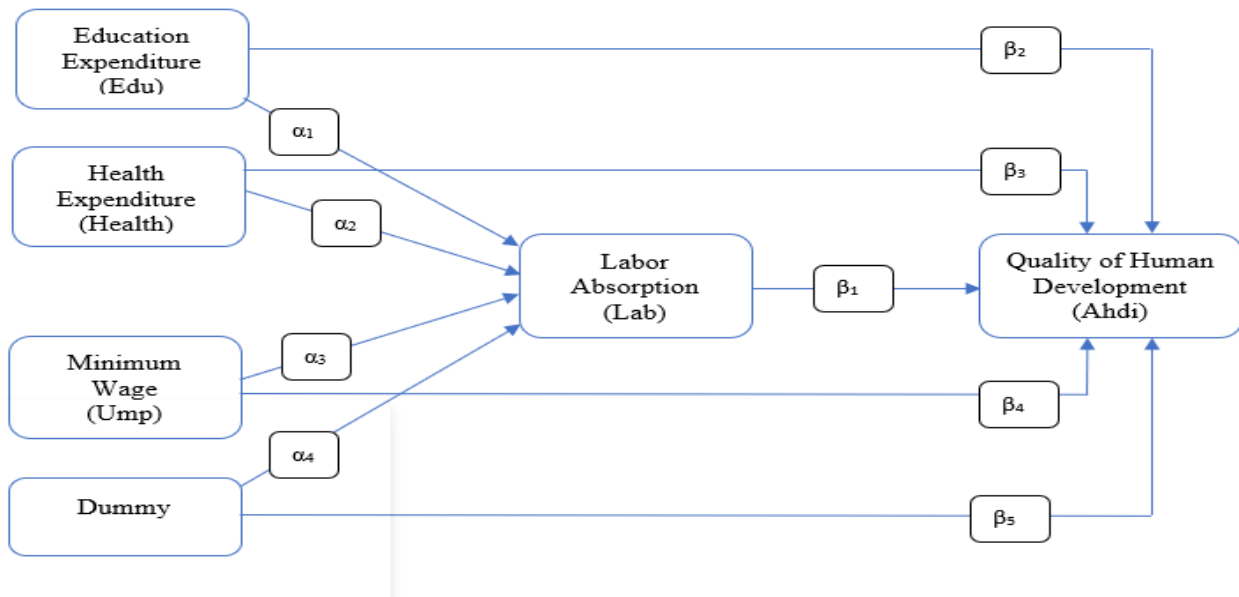
Conceptual Framework and Hypotheses

Figure 1. Conceptual Framework

Hypothesis 1: Education Expenditure affects the quality of human development either directly or through Labor Absorption.

Hypothesis 2: Health Expenditure affects the quality of human development both directly and Labor Absorption.

Hypothesis 3: The minimum wage affects the quality of human development either directly or through Labor Absorption.

Hypothesis 4: There is a difference in the quality of human development between Western and Eastern Region of Indonesia either directly or through Labor Absorption.

Hypothesis 5: Labor Absoprtion has a direct positive effect on the quality of human development

Methods

This study was designed with an explanatory approach to find out and analyze whether the increase in human capital (education function expenditure and health function expenditure) and wages affect the quality of human development either directly or through labor absorption by using the Structural Equation Model (SEM) with the help of Rstudio Software. The data coverage is 33 provinces in Indonesia for the period 2010 – 2020. The secondary data used is sourced from the Directorate General of Fiscal Balance of the Republic of Indonesia, the Central Statistics Agency, the National Development Planning Agency and the Directorate General of Pollution and Environmental Damage Control at the Ministry of Environment.

Thus, variables can be defined as follows; (1) Education expenditure is defined as the realization of provincial and district/municipal expenditures for the education function, measured in units of rupiah; (2) Health expenditure is defined as the realization of provincial and district/city expenditures for health functions, measured in units of rupiah; (3) The provincial minimum wage refers to the Regulation of the Minister of Manpower of the Republic of Indonesia Number 15 of 2018, namely the lowest monthly wage consisting of basic wages including fixed allowances set by the governor as a safety net,

measured in units of rupiah; (4) Dummy of Western or Eastern Region of Indonesia is a regional dummy, where 1 is for Western and 0 is for Eastern; (5) Labor absorption is defined as the number of working population, measured in units of soul' (6)Quality of human development is defined as sustainable human development, balanced development paradigm integrated with three dimensions: economic, social and environmental proxied by the Advanced Human Development Index (AHDI) developed (Karnitis et al., 2021) .

Ahdi can be calculated by the following formula:

$$Ahdi = \sqrt[4]{Life\ index\ x\ Education\ index\ x\ Income\ index\ x\ Enviromental\ index} \quad (1)$$

Model Specification

The influence between the variables of this study is shown in Figure 1, this is intended to answer the formulation of research problems that were developed based on concepts, theories and previous empirical studies. Thus, referring to Figure 1, a structural equation can be developed, namely:

$$Lab_{it} = f(Edu_{it}, Healt_{it}, Ump_{it}, Dummy_{it}) \quad (2)$$

$$Ahdi_{it} = f(Lab_{it}, Edu_{it}, Healt_{it}, Ump_{it}, Dummy_{it}) \quad (3)$$

Then proceed with determining the form of a nonlinear function and then transforming it into a linear form which is used to explain the analytical framework described in the form of a linear equation as follows

$$lnLab_{it} = \alpha_0 + \alpha_1 lnEdu_{it} + \alpha_2 lnHealt_{it} + \alpha_3 lnUmp_{it} + \alpha_4 Dummy_{it} + \varepsilon t_1 \quad (4)$$

$$Ahdi_{it} = _0 + _1 lnLab_{it} + _2 lnEdu_{it} + _3 lnHealt_{it} + _4 lnUmp_{it} + _5 Dummy_{it} + t_2 \quad (5)$$

Where:

Ahdi   = Human Development Quality

Lab   = Labor Absorption

Edu   = Education Expenditure

Health = Health Expenditure

Ump   = Provincial minimum wage

Dummy = Dummy for Western Region or Eastern of Indonesia is a regional dummy, where 1 is for Western and 0 is for Eastern.

ε = error term

i   = cross section (Province)

t   = time series

Before testing the hypothesis, it begins with an Evaluation of the Goodness Of Fit model whether it is acceptable or not as required by the structural Equation model (SEM). the method used is Chi-Square, RMSEA, GFI, AGFI, RMR, SRMR, NFI (TLI) and CFI

Results and Discussion

Model Fit Test

Assessing the Goodness of Fit Index from Square Multiple Correlations (R^2)

Evaluation of goodness of fit is done by looking at the size of R^2 can be presented in Table 1 as follows:

Table 1. Square Multiple Correlations

Variable	R Square
Labor Absorption (Lab)	0.951
Quality of Human Development (Ahdi)	0.284

The R square value of labor absorption (Lab_{it}) is 0.951 which means the regression model has a good goodness-fit where the labor absorption variable can be explained by the variables of education expenditure, health expenditure, provincial minimum wage, Western or Eastern dummy, of 95.1 percent and 4.9 percent is explained by other variables not examined in this model. The R square value of the quality of human development ($Ahdi_{it}$) is 0.284, which means the regression model has a good goodness-fit where the variable quality of human development can be explained by the variables of labor absorption, education expenditure, health expenditure, provincial minimum wage, and the Western or Eastern dummy of 28.4 percent and 71.6 percent are explained by other variables not examined in this model.

Full Model Test Results

In table 2, testing of the suitability of the model is carried out through a study of various goodness of fit criteria. Table 2 shows the goodness of fit index value parameter, all indicators are said that the overall analysis model is fit and there is a match between the model and the data.

Table 2. Goodness of fit Model

Model Test User Model	Cut – Off Value	RStudio output
Chi Square (λ2)	Expected small 3,841	0.000
RMSEA	< 0.08	0.000
GFI	0.9	1,000
AGFI	0.9	1,000
RMR	<0.08	0.000
SRMR	<0.08	0.000
CFI	0.95	1,000
TLI	0.95	1,000

Hypothesis Test

In accordance with the hypothesis proposed in this study, to determine the effect of exogenous variables on endogenous variables, namely the influence of education expenditure, health expenditure, provincial minimum wage, western or eastern dummy on the quality of human development either directly or through labor absorption. This can be described in detail based on the estimated coefficient values listed in Figure 2 and Table 3. Testing the direct influence between variables, it was found that education expenditure and the provincial minimum wage had a positive and significant effect on the quality of human development with an estimated value of 0.045 with a significance of 0.000. education expenditure was obtained at 0.013 with a significance of 0.086 for the provincial minimum wage. There are also significant differences in the quality of human development between the western and eastern regions of Indonesia. However, it is different with health expenditure which has a negative and insignificant effect with an estimate value of -0.007 with a significance of 0.421. Meanwhile, labor absorption has a negative and significant effect, the estimate is -0.040 with a significance of 0.000.
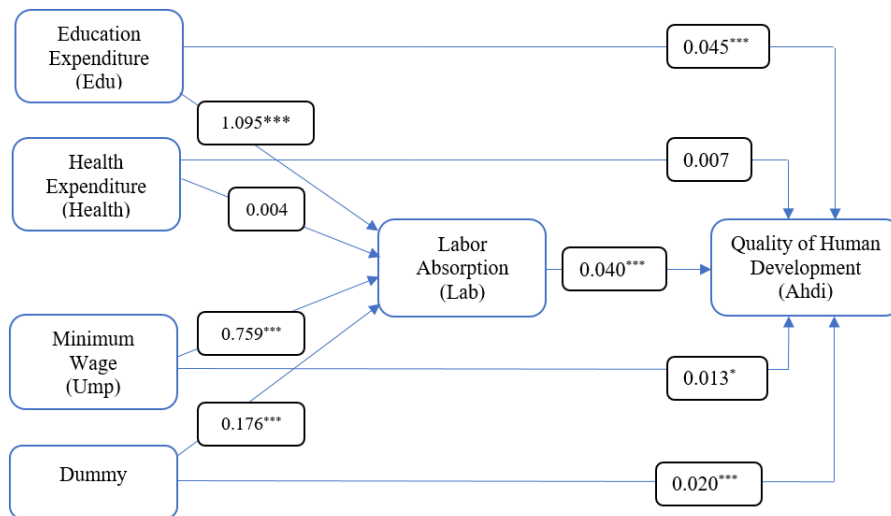

Figure 2. Estimated Result of Direct Effect

Table 3. Coefficient Estimation Results of Direct and Indirect Effects on the Quality of Human Development

Effect of Intervariable / Research Hypothesis	Estimation Coefficient Notation for Variable Effect	
	Direct	**Indirect**
Hypothesis 1		
Edit → Ahdit	-0.045***	
Through Labit		-0.044***
Hypothesis 2		
Healthit → Ahdit	0.007	
Through Labit		0.000
Hypothesis 3		

Umpit → Ahdit	0.013*	
Through Labit		0.031***
Hypothesis 4		
Dummyit → Ahdit	0.020***	
Through Labit		-0.007***
Hypothesis 4		
Labit → Ahdit	-0.040***	

Source: Rstudio output processed by the author

Description: ***) Significant at 1% level; **) Significant at 5% level; *) Significant at 10% level

Indirect effect through labor absorption, education expenditure was found to have a negative and significant effect with an estimated value of -0.044 with a significance of 0.000. Meanwhile, health expenditure is not significant to the quality of human development. In contrast to the provincial minimum wage that has a positive and significant effect, the estimated value is 0.031 with a significance of 0.000. The same thing found differences in the quality of human development between western and eastern regions through the labor absorption.

The Influence of Education Expenditure on the Quality of Human Development, Either Directly or Through Labor Absorption

The results of this study found that there was a direct positive and significant effect on education expenditure on the quality of human development. Empirically, this finding is supported by the realization of education expenditure that was allocated to the total education expenditure of 33 (Provincial, Regency/City governments) except for North Kalimantan amounting to 2,326,927,147.35 million or 28.04 percent of the total expenditure of Rp.8,298,846,551.65 million, during In the last 10 years (2011 – 2020), this shows that the government is committed to allocating 20 percent of the State Revenue and Expenditure Budget. These funds are allocated to finance educational programs/activities, such as educational facilities, purchase of textbooks for schools, educational aids, Early Childhood Education, scholarships for outstanding children. This is in line with the findings of [50] which suggests that government spending in education is one of the different indicators of the quality of human development. [51] also explained the same thing that investment in human development through education is the best plan to face development challenges in the future, especially reducing poverty. The same thing was found BY [52] who found that public spending on education had a positive and

significant effect on human development in 28 European Union countries.

[53] Suggest that the government needs to intervene in education spending to encourage human capital . This is also supported by the theory of Musgrave and Rostow which explains that economic development is a proportion of state spending. The state will determine sector priorities in government spending policies. This will show the direction of development of a country. [10] stated the same thing, that education increases people's ability to contribute more to the development process and increase productivity levels. Education ensures that people live longer and healthier lives, are knowledgeable and improve the quality of the environment.

This finding is in line with the theory proposed by [54] explains that spending in the social sector including education will increase the ability of citizens, and will encourage human development. Bhatia and Dash (2011) also support this finding that education spending is an essential component in enhancing human development. This is in line with [10] finding that the sectoral expenditures studied, including education spending, encourage human development.

The results of this study indicate that education expenditure affects the quality of human development through labor absorption. Where education expenditure has a positive and significant effect on labor absorption, then followed by a negative and significant effect on labor absorption on the quality of human development. The increase in education expenditure has an impact on increasing labor absorption, but has a negative effect on the quality of human development. the advantages of a skilled and educated workforce for efficiency and economic growth. More than that, human resources are one of the factors of production in addition to natural resources, capital and entrepreneurship to produce output. The education level of the workforce is a determining factor in a region's ability to compete and make efficient technological advances. Quality human resources

will have a greater opportunity to enter the labor market, which in turn will have an impact on increasing employment.

The same thing is explained by Psacharopoulus in [36] proving that education does have a positive influence on the promotion of economic growth. Improving health, education and nutrition is not only capable of increasing capabilities, but is also an important means of increasing human capital in the future. An increase in education in general can also increase productivity and the ability to earn higher (economic) incomes both now and in the future.

This finding is also different [55] education spending will encourage an increase in labor absorption, having an impact on increasing people's income. This influence is closer to the quality of human development. On the other hand, this study is in line with [56] labor absorption has a negative and significant effect on people's welfare, the same thing found by [57] labor absorption has a positive and insignificant effect on social welfare.

The Effect of Health Expenditure on the Quality of Human Development, Either Directly or Through Labor Absorption

The research findings indicate that health expenditure has a negative and insignificant effect on the quality of human development. This is due to the fact that most of the budget still relies on curative spending rather than preventive. There are 3 priority programs of local governments in Indonesia, namely: increasing the number and quality of health service facilities and infrastructure, waiving the cost of health services and improving maternal and child health. The health budget from the regional government budget is used, among others, for assistance for health contributions for the poor, new developments, improvement and maintenance of health infrastructure facilities (such as hospitals, health centers), regional health insurance. In addition, the health budget is also allocated to the Special Allocation Fund of Physical in the Health Sector with outputs including procurement of pharmaceutical vehicles, ambulance vehicles, construction of office buildings, procurement of health infrastructure, construction of mobile health centers, wastewater treatment, procurement of medical equipment, procurement of medicines, motorcycles, the construction of the Family Planning Extension Center and so on.

This finding is supported by [21] who find that government spending is inefficient and has a negative impact on the human development index. Likewise, the findings of [58] in Pakistan explain that the impact of government spending on the health sector is not significant. This finding is supported by [59] explaining that health spending was found to have an insignificant relationship with HDI in a positive direction. Through these findings, we argue that inefficient public health provision played an important role in producing these outcomes. empirically shows that the 17 provinces with low HDI levels in Indonesia tend to spend higher on public health expenditures than provinces with higher HDI levels. It is also evident that these 17 provinces have high infant mortality rates and are categorized as provinces with low health status despite having public health expenditures.

In line with the findings of [60] they found that 20 provinces were inefficient in increasing HDI including health spending. Thus, it is hoped that all provinces, especially those that have not been efficient, can improve their performance in the use of government expenditure budgets that have been used to increase the HDI value and the government can make decisions or policies regarding the problem of achieving the HDI value. [50] explaining the same case in Africa, spending on social services tends to support the elite rather than the poor, less than 40% of budgeted social spending is for social services that benefit the poor directly. However, findings from other studies show a negative relationship between public spending and health and education outcomes caused by differences in spending effectiveness, one of which is high levels of corruption [21] [61]. The same research was conducted [62] that health spending has a negative and insignificant effect on the results of the millennium development goals (MDGs).

While different findings [12] [9] suggested that a higher health budget for health care has a positive and significant effect on increasing the human development index.

The indirect effect of health expenditure on the quality of human development through labor absorption is negative and insignificant. This shows that health expenditure does not significantly affect the quality of human development through labor absorption. Although, health is one of the basic human needs, so it needs excellent health services and improved nutrition to support the improvement of the quality of human resources. The effect of improving health can encourage labor participation to find suitable and decent work. However, the fact that the absorbed

workforce in Indonesia still relies on the primary sector with low productivity, so that the quality of life cannot be maximized because the wages they receive are relatively low. In line with [63], community welfare will be achieved if the workforce gets wages that can be used to meet their life needs, both economic needs and non-economic needs and not just being able to meet decent needs.

The Influence of The Provincial Minimum Wage on The Quality of Human Development, Both Directly and through Labor Absorption

The provincial minimum wage has a positive and significant effect on improving the quality of human development. This effect requires that an increase in wages will directly improve the quality of human development. This minimum wage is part of efforts to increase income distribution, encourage purchasing power, and expand job opportunities. In addition, being able to meet the minimum standard of living of the community, both in the education and health sectors. If the provincial minimum wage level meets human needs, then the community will also be able to obtain education so that it will create an education literate population and reduce dropout rates and access to health care.

This finding is also supported by several empirical studies which explain that minimum wages will increase the welfare of individuals who have low incomes, improve a better diet and access needed health services and reduce workers' income inequality [43]. In addition to income, the minimum wage also has an impact on life expectancy, especially on health performance [64].

This finding also shows that indirectly, the provincial minimum wage has a positive and significant effect on the quality of human development through employment. Where the minimum wage has a negative and significant effect on employment and employment has a negative and significant effect on the quality of human development. when the minimum wage is imposed, the wages of workers will increase so that producers will reduce the use of the labor substitution effect used to increase the use of machines [65]. This indicates that when wages increase, the supply of labor will increase but the demand for labor decreases, causing unemployment. In line with the findings of [66], it is explained that the minimum wage can reduce employment in the long term.

Likewise, the findings from [67] explain that the minimum wage policy is a government instrument in an effort to improve employee welfare, not always in line with the main goal of creating national welfare. The minimum wage is an obstacle for companies to be able to absorb all available labor in the market. In other words, it creates price rigidity in the labor market so that the price of labor is above the equilibrium price. This creates conditions where supply exceeds demand for labor, resulting in unemployment. In addition, it also creates conditions for a decrease in labor absorption due to the disproportion between the growth of the workforce (that is, the number of the workforce that continues to grow) with the capacity of the business world which absorbs labor slowly.

Although wages have a negative effect on employment, on the other hand, an increase in wages can increase workers' income. Because it can improve the welfare of low-income individuals such as better diet and access to health care and reduce income inequality through high incomes [43]. The implication is the determination of wages that are able to absorb labor-intensive workers. The government also encourages the absorbed workforce to be able to improve their quality of life, especially the necessities of life and the wages received are above the Non-Taxable Income.

Differences in the Quality of Human Development Between Western And Eastern Regions of Indonesia, Either Directly or Through Labor Absorption

The research findings indicate that there are differences in the quality of human development between the characteristics of the Western and the Eastern Region of Indonesia. In general, western region experienced faster economic development compared to eastern. This gap occurs due to basic service factors, in the form of fulfilling access to education, health, housing, drinking water, sanitation, which are crucial and directly affect the quality of human development.

Based on the HDI measurement developed by United Nations Development Programme and Central Bureau of Statistics, it shows that there are 2 out of 16 provinces in eastern region or around 15.38 percent which have an HDI below the national average HDI (69.48) while in western region 9 out of 17 provinces or 45 percent have an HDI below the national HDI. Then through the tests carried out by adding the environmental dimension as part of developing the HDI measurement, the same results were also found, where Aceh, West Sumatra, Riau Islands, Yogyakarta, Bali, represented the western region as having high development quality. In contrast to

the eastern region, only East Kalimantan and North Sulawesi are represented. On average, western region has a human development quality of 67.61, which is still below the western region of 68.29.

This finding also shows that there are differences in the quality of human development between western and eastern region through labor absorption, where the effect of labor absorption in western is greater than in eastern. Taking into account the effect of absorption of labor as a whole can reduce the quality of human development. Descriptively also illustrates that the absorption of labor in Eastern Indonesia is not followed by an increase in the quality of human development, on the contrary, in western region, low labor absorption has a high quality of development. This is indicated because of the different factors of different labor productivity factors. Indonesia is still experiencing problems related to regional economic disparities, including in terms of labor productivity [68]. In line with [69] explained that regional disparities in labor productivity will be an obstacle to increasing national income because it can trigger income distribution disparities. So this is the effect of labor absorption in western is greater than in eastern. The implication is that the government is expected to be able to solve the problem of inequality in labor productivity in western and eastern where intervention should be more directed at areas with lower levels of labor productivity.

Conclusion

The findings of this study indicate that human capital has different effects on the quality of human development, either directly or through labor absorption. Directly education expenditure has a positive and significant effect, while indirectly it has a negative effect. The government continues to increase the allocation of the function of education expenditure both at the state budget and local budget levels, with this increase in spending it will open access to education for all people so that the public school participation rate increases, ultimately having an impact on improving the quality of education which creates quality, innovative and empowered Indonesian human resources. competitiveness in facing the 2030 agenda and Indonesia's vision and mission in 2045; Health expenditure has a negative and insignificant effect directly or indirectly. This expenditure allocation should be directed towards preventive activities rather than curative expenditure allocations and is expected to remain in line with Law No. 36 of 2009. The provincial

minimum wage has a positive and significant impact both directly and indirectly. Although wages show a negative effect on labor absorption, especially workers who have low productivity. There are differences in the quality of human development between the western and eastern regions of Indonesia, either directly or through labor absorption, with the estimation of the western regions of Indonesia being greater than the eastern.

References

[1] Schultz, T. W. (1961). American Economic Association Investment in Human Capital. The American Economic Review, 51(1), 1–17.

[2] Becker, Gary S, Murphy, K. M., & Tamura, R. (1990). Human Capital , Fertility , and Economic Growth. Journal of Political Economy, 98(5), 12–37.

[3] Uzawa, H. (1965). Optimum Technical Change In An Aggregative Model Of Economic Growth. International Economic Review, 6(1), 18–31. https://doi.org/10.2307/2525621.

[4] Rosen, S. (1976). A Theory of Life Earnings. Journal of Political Economy, 84(4), S45–S49

[5] Becker, Gary S, Murphy, K. M., & Tamura, R. (1990). Human Capital , Fertility , and Economic Growth. Journal of Political Economy, 98(5), 12–37.

[6] Todaro, M., and Smith, S. (2015). Economic Development (12th edition). Pearson.

[7] Stephen, O. dan, & Oluranti, I. (2011). Government Expenditure on Human Capital Development: Implications for Economic Growth in Nigeria. Journal of Sustainable Development, 4(3), 72–80. https://doi.org/10.5539/jsd.v4n3p72.

[8] Anand, S., & Ravallion, M. (1993). Human Development in Poor Countries: On the Role of Private Incomes and Public Services. Journal of Economic Perspectives, 7(1), 133–150. https://doi.org/10.1257/jep.7.1.133.

[9] Das, R. C., Mandal, C., & Patra, A. K. (2019). Linkage between social sector's spending and HDI: study on individual as well as panel data of Indian states. Review of Social Economy, 79(2), 357–379. https://doi.org/10.1080/00346764.2019.1671605.

[10] Edeme., E. a. (2017). Distributional impact of public expenditure on human development in Nigeria. International Journal of Social Economics, 44(2), 1–13. https://doi.org/https://doi.org/10.1108/IJSE-05-2016-0152.

[11] Baldacci, E., Clements, B., Gupta, S., & Cui, Q. (2008). Social Spending, Human Capital, and Growth in Developing Countries. World Development, 36(8), 1317–1341. https://doi.org/10.1016/j.worlddev.2007.08.003.

[12] Razmi, M. J., Abbasian, E and Mohammadi, S. (2012). Investigating the Effect of Government Health Expenditure on HDI in Iran. Journal of Knowledge Management, Economics and Information Technology, 2(5), 126–139.

[13] Iheoma, C. G. (2012). Social Spending and Human Development in Selected West African Countries. SSRN Electronic Journal, 42139. https://doi.org/10.2139/ssrn.2129219.

[14] Macerinskaite, R., Kedaitis, V., and Balezentis, T. (2016). The linkages between minimum wage and macroeconomic indicators in the European Union. Management Theory and Studies for Rural Business and Infrastructure Development, 38(1), 36–47. https://doi.org/10.15544/mts.2016.4.

[15] Pressman, S. (2002). Lima Puluh Pemikir Ekonomi Dunia. PT. Raja Grafindo Persada.

[16] Sunarsih, Saleh, M., Huda, S., & Subagiarta, IW (2019). The effect of minimum wage on employment, economic growth and social welfare in the ex-residency of East Java-Indonesia. International Journal of Scientific and Technology Research , 8 (6), 82–89.

[17] Douglas, P. H. (1934). The Theory of Wages. Macmillan.

[18] Bellante. D. and Jackson. M. (1990). Labor Economics.

[19] Bidani, B., & Ravallion, M. (1997). Decomposing social indicators using distributional data. Journal of Econometrics, 77, 125–139. https://doi.org/10.1016/S0304-4076(95)01809-3.

[20] Ehrlich, I. (2007). The Mystery of Human Capital as Engine of Growth or Why the US Became the Economic Superpower in the 20th Century. NBER Working Paper 12868, Cambridge. NBER, 1–43.

[21] Gupta, S., V. & T. E. R. (2002). The Effectiveness of Government Spending on Education and Health Care in Developing and transition Economies. European Journal of Political EconomyEconomy, 18, 717–713.

[22] Gupta, Sanjeev, Verhoeven, M., & Tiongson, E. R. (2003). Public spending on health care and the poor. Health Economics, 12(8), 685–696. https://doi.org/10.1002/hec.759.

[23] Ranis, G., Stewart, F., & Samman, E. (2006). Human Development: Beyond the Human Development Index. Journal of Human Development, 7(3), 323–358. https://doi.org/10.1080/14649880600815917.

[24] Sagar, A. D., & Najam, A. (1998). The human development index: A critical review. Ecological Economics, 25(3), 249–264. https://doi.org/10.1016/S0921-8009(97)00168-7.

[25] Morse, S. (2003). Greening the United Nation's human development index? Sustainable Development, 11(4), 183–198. https://doi.org/10.1002/sd.219.

[26] Dervis, K., & Klugman, J. (2011). Measuring human progress: The contribution of the Human Development Index and related indices. Revue d'Economie Politique, 121(1), 73–92. https://doi.org/10.3917/redp.211.0073.

[27] Herrero, C., Martínez, R., & Villar, A. (2010). Multidimensional social evaluation: An application to the measurement of human development. Review of Income and Wealth, 56(3), 483–497. https://doi.org/10.1111/j.1475-4991.2009.00375.x.

[28] Karnitis, E., Bicevskis, J., & Karnitis, G. (2021). Measuring the Implementation of the Agenda 2030 Vision in Its Comprehensive Sense: Methodology and Tool. Energies, 14(4), 856. https://doi.org/10.3390/en14040856.

[29] Bilbao-Ubillos, J. (2013a). Another Approach to Measuring Human Development: The Composite Dynamic Human Development Index. Social Indicators Research, 111(2), 473–484. https://doi.org/10.1007/s11205-012-0015-y.

[30] Alkire, S., & Foster, J. E. (2010). Designing the Inequality-Adjusted Human Development Index. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.1815248.

[31] Lucas, R. E. (1988). On the mechanics of economic development. Journal of Monetary Economics, 22(1), 3–42. https://doi.org/10.1016/0304-3932(88)90168-7.

[32] Jhingan, M. . (2016). Ekonomi Pembangunan dan Perencanaan. PT Raja Grafindo Persada.

[33] Nelson, Ricard R; Phelps, E. S. (1966). Investment in Humans, Technological Diffusion, and Economic Growth. Studies in Macroeconomic Theory, 56(1), 69–75. http://www.jstor.org/stable/1821269.

[34] Blundell, R., Dearden, L., Meghir, C., & Sianesi, B. (1999). Human Capital Investment: The Returns from Education and Training to the Individual, the Firm and the Economy. Fiscal Studies, 20(1), 1–23. https://doi.org/10.1111/j.1475-5890.1999.tb00001.x.

[35] Cinnirella, F., & Streb, J. (2017). The role of human capital and innovation in economic development: evidence from post-Malthusian Prussia. Journal of Economic Growth, 22(2), 193–227. https://doi.org/10.1007/s10887-017-9141-3.

[36] Todaro, MP (2000). Economic Development in the Third World . Erlangga.

[37] Bloom, D., Canning, D., & Sevilla, J. (2001). The Effect of Health on Economic Growth. NBER Working Paper Series, 32, 1–13.

[38] Barro, R. J. (2001). Human Capital and Growth. American Economic Review, 91(2), 12–17. https://doi.org/http://dx.doi.org/10.1257/aer.91.2.12.

[39] Grossman, M. (1972). On the concept Health capital and the Demand for Health. Journal of Political Economy, 80(2), 223–255.

[40] Jack, W. (1999). Principles of Health Economics for Developing Countries. World Bank Institute Development Studies.

[41] Strauss, J., Thomas, D., Literature, E., & Jun, N. (1998). Health, Nutrition, and Economic Development. Journal of Economic Literature , 36 (2), 766–817.

[42] Rutkowski, J. (2003). The Minimum Wage : Curse or Cure? The World Bank, 1–15.

[43] Aaronson, D., Agarwal, S., & French, E. (2012). The spending and debt response to minimum wage hikes. American Economic Review, 102(7), 3111–3139. https://doi.org/10.1257/aer.102.7.3111.

[44] Brown, Charles. (1999). Chapter 32 Minimum wages, employment, and the distribution of income. Handbook of Labor Economics, 3 PART(2), 2101–2163. https://doi.org/10.1016/S1573-4463(99)30018-3.

[45] Mankiw Gregory, N., Romer, D., & Weil, D. N. (1992). A contribution to the empirics of economic growth. Quarterly Journal of Economics, 107(2), 407–437. https://doi.org/10.2307/2118477.

[46] Blackwell, A. (2008). Efficiency Wage Theory. In Labour Economics The Economics of Earnings.

[47] Campbell, Carl; and Kamlani, K. (1997). The Reasons for Wage Rigidity: Evidence from a Survey of Firms. Quarterly Journal of Economics, 112(3), 759–789. www.jstor.org/stable/2951255.

[48] Agell, J. and Lundborg, P. (1995). Theories of pay and unemployment: survey evidence from Swedish manufacturing firms. Scandinavian Journal of Economics, 97(2), 295–307. https://doi.org/https://doi.org/10.2307/3440530.

[49] Helmers, G. A. (2004). Labor Costs and Production Efficiency. DigitalCommons@University of Nebraska – Lincoln.

[50] Arimah, B. (2004). Poverty reduction and human development in Africa. Journal of Human Development, 5(3), 399–415. https://www.tandfonline.com/doi/abs/10.1080/1464988042000277260

[51] Asaju, K. (2012). Human Capital Development and Poverty Alleviation in Nigeria: A Symbiotic Overview. Online Submission.

[52] Linhartova, V. (2021). Analyzing the role of public expenditures in human development: Panel data analysis of EU-28 countries. Montenegrin Journal of Economics, 17(1), 85–96. https://doi.org/10.14254/1800-5845/2021.17-1.6.

[53] Dissou, Y., Didic, S., & Yakautsava, T. (2016). Government spending on education, human capital accumulation, and growth. Economic Modelling, 58, 9–21.

https://doi.org/10.1016/j.econmod.2016.04.01
5.

[54] Nussbaum, M. C. (2000). Women and human development: The capabilities approach. Cambridge University Press.

[55] Faramarzi, A., Avazalipour, M. S., Khaleghi, F., & Hakimipour, N. (2014). Long Run Impact of Government Expenditure and Tax on Liquidity and Employment in Iran ' s Economy. International Journal of Research and Reviews in Applied Sciences, 18(1), 65–72.

[56] Soeherman, Achmad Daengs Gatot; Mursinto, Djoko; and Ratnawati, T. (2014). The Influential of Private Investment, Public Investment on Economic Growth and Labor Absorption and Public Welfare of District/City in East Java Province. GSTF Journal on Business Review (GBR), 3(4), 45–62. https://doi.org/10.5176/2010-4804_3.4.342

[57] Sulistiawati, R. (2012). The Effect of Investment on Economic Growth and Employment Absorption and Community Welfare in Provinces in Indonesia. Untan Journal of Economics, Business and Entrepreneurship , 3 (1), 29–50. https://doi.org/10.26418/jebik.v3i1.9888.

[58] Nabeela Asghar. (2012). The impact of government spending on poverty reduction: Evidence from Pakistan 1972 to 2008. African Journal Of Business Management, 6(3). https://doi.org/10.5897/ajbm11.922.

[59] Maharda, J. B., & Aulia, B. Z. (2020). Government Expenditure and Human Development in Indonesia. Jambura Equilibrium Journal, 2(2), 81–94. https://doi.org/10.37479/jej.v2i2.6901.

[60] Kurniawan, I., Murtala, M., & Juanda, R. (2021). Government Expenditure Efficiency on Regional Human Development Index in Indonesia. Unimal Journal of Regional Economics , 3 (3), 15–22. https://doi.org/10.29103/jeru.v3i3.3858.

[61] Pritchett, L. (1996). Mind Your P's and Q'S: The Cost of Public Investment is Not the Value of Public Capital. World Bank Policy Research Working Paper.

[62] Mohanty, R., & Bhanumurthy, N. (2018). Assessing Public Expenditure Efficiency at Indian States. National Institute of Public Fianance and Policy Working Papers, 225(219).

[63] Sulistyowati, N. (2014). The Effect of Educational, Health, Infrastructure Expenses on the Workforce Employment and Poverty. Business & Bureaucracy Journal , 20 (3). https://doi.org/10.20476/jbb.v20i3.3208.

[64] Bullinger, L. R. (2017). The effect of minimum wages on adolescent fertility: A nationwide analysis. American Journal of Public Health, 107(3), 447–452. https://doi.org/10.2105/AJPH.2016.303604.

[65] Kaitz, Hyman, B. (1970). Analyzing the Length of Spells of Unemployment.". Monthly Labor Revie, 93(11), 11–20. www.jstor.org/stable/41837841.

[66] Meer, J., & West, J. (2016). Effects of the minimum wage on employment dynamics. Journal of Human Resources, 51(2), 500–522. https://doi.org/10.3368/jhr.51.2.0414-6298R1.

[67] Wihastuti, L., & Rahmatullah, H. (2018). Provincial Minimum Wage (UMP) and Labor Absorption in Java. Journal of Gama Societa , 1 (1), 96–102.

[68] Yuniasih, AF, Firdaus, M., & Fahmi, I. (2013). Disparity, Convergence, and Determinants of Regional Labor Productivity in Indonesia. Indonesian Journal of Economics and Development , 14 (1), 63–81. https://doi.org/10.21002/jepi.v14i1.447.

[69] Rahmah, Aliya, & Noorasiah. (2012). Globalisation and Labour Productivity in the Malaysian Manufacturing Sector. Review of Economics & Finance, 9(4), 3235–3242