# EFFORTS IN INCREASING THE ECONOMIC GROWTH IN SULAWESI

**Akhmad Firman, Halu Oleo University**
**Romatiur Karlina Simbolon, Halu Oleo University**
**Asryanti Djawa, Halu Oleo University**

## ABSTRACT

*This study aims (1) to determine simultaneously the effect of indirect expenditure, direct expenditure and human resources quality on economic growth (2) to determine partially the effect of indirect expenditure, direct expenditure and human resources quality on economic growth. It uses panel data for 8 years from 2011-2018 with cross section data of 6 provinces in Indonesia. The data source comes from Directorate General of Fiscal Balance of Indonesia Republic and Central Bureau of Statistics. The data collection method used was the documentation. The data analyses were Fixed Effect Model method and facilitated by the Eviews 0.9 software program. The test results showed following result. First, indirect expenditure, direct expenditure and human resources quality simultaneously had a positive and significant effect on economic growth. Second, indirect expenditure had a significant effect on economic growth. Third, direct expenditure has a significant effect on economic growth. Forth, the human resources quality has a significant effect on economic growth.*

**Keywords**: Indirect Expenditure, Direct Expenditure, Human Resources Quality, Economic Growth.

## INTRODUCTION

Economic growth is a measure of achievement, both regional and central. Economic growth needs to be achieved by right economic development strategy. The government has a role to increase the capacity of regional economic development based on its conditions and potential. The general regional economic development has different characteristics from one region to another and the process to accelerate the economic growth between regions is also different (Jones, 2006). The allocation of regional government expenditure in form of indirect expenditure and direct expenditure has an important role in implementation of Regional Revenue and Expenditure Budget (APBD). The allocation of direct expenditure, which is often known as development expenditure or public expenditure is the budget allocation for development of both infrastructure and human resources.

Anggraeny (2016) and Suindyah (2011) stated that local government expenditure stimulates the economy with assumption that expenditure is fully used for economic activities or which provides a boost to development of economic activity. Higher government expenditure will improve the growth of Gross Regional Domestic Product which in turn will affect to increase economic growth. The development paradigm shows that economic growth is measured by human development to see the human resources



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.

quality (HRQ). One benchmarks used by United Development Program (UNDP) is the Human Development Index (HDI) through the quality of health, education and economic levels.

The human resources quality plays an important role in economic development. This will facilitate the economic growth (Irmayanti, 2017). Publications by BPS show that HDI has increased consistently every year during the 2011-2018 period in Sulawesi. However, increasing HDI figure still does not reflect the development of HDI evenly in Sulawesi.

Sulawesi Island is one largest island in eastern Indonesia, which shows the existence of the economic growth. Adversely, Sulawesi Island contributed only 6.22 percent to GDP. It is very different from contribution made by Java Island of 58.48 percent even though the growth rate of Java Island was only 5.72 percent in 2018. This shows an imbalance between regions in Java Island and areas outside Java Island because the economy is centralized in Java Island and there is a lack of even distribution of regional development implementation. Based on data and phenomena of this research, researcher is interested to examine the effect of local government expenditures and human resources quality on economic Growth in Sulawesi". The research novelty is the examination of effect of indirect expenditure, direct expenditure and human resources quality on economic growth in Sulawesi Island. Previous researches only examine cities or district (Ilyas, 2015; Rahmawaty et al., 2012)

## LITERATURE REVIEW

### Economic Growth

Economic growth is an increase in community output (Bitros, 2020; Song et al., 2018) caused by increasing number of production factors used in community production process (Todaro, 2011). Higher production increases will increase national income and create economic growth. The measurement of economic growth is the Gross Domestic Product (GDP) for national or the GRDP (Gross Regional Domestic Product) for region (province or district/city).

The economic growth theory is based on views of several experts. Keynes's Growth Theory is based on money flow cycle hypothesis, which refers to idea that an increase in expenditure (consumption) in an economy will increase income which in turn leads to an increase in expenditure and income. Keynesian Theory stated that consumption made by one person in economy will become income for other people in same economy. Someone money expenditure will increase the income of others. The Harrod-Domar Growth Theory is an extension of Keynes' analysis which is considered incomplete because it does not address the problems to overcome the long-term economies. This theory aims to cover the weaknesses of Keynes's theory by analyzing the conditions needed for economy to grow and develop steadily. Endogenous Growth Theory (New Growth Theory) assumes that economic growth is produced by factors in production process studied as part of growth model. This new theory is determined more by system that regulates the production process than from outside the system (Todaro, 2011).



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.

## Regional Expenditure

Regulation of Minister of Home Affairs Number 21 of 2011 on Guidelines for Regional Financial Management states that regional expenditure is defined as an obligation of regional governments that is recognized as a reduction in net asset value. Regulation of Minister of Domestic Affairs Number 21 of 2011 on expenditure classification consists of indirect expenditure and direct expenditure.

Indirect Expenditures relate to implementation of programs and activities (Nguyen & Chou, 2019). Direct Expenditures are budgeted directly related to programs and activities (Wei & Wang, 2021).

## Human Resources Quality

United Nation Development Program (UNDP) defines the Human Development Index (HDI) as a comparative measure of life expectancy, expected length of schooling, average length of schooling, and standard of living for all countries around the world (Jones, 2006). The components used to make Human Development Index are below (BPS Nasional, 2017).

1. Longetivity, this component is a dimension of health index to uses the indicator of Life Expectancy at Birth (AHH).
2. Knowledge, this component is a dimension of education index using indicators of expected years of schooling and mean years of schooling.
3. Decent living, this component is a dimension of expenditure index to uses the real average per capita expenditure indicator adjusted for Purchasing Power Parity.

## Conceptual Framework

Based on this description, the theoretical framework scheme can be described in Figure 1.

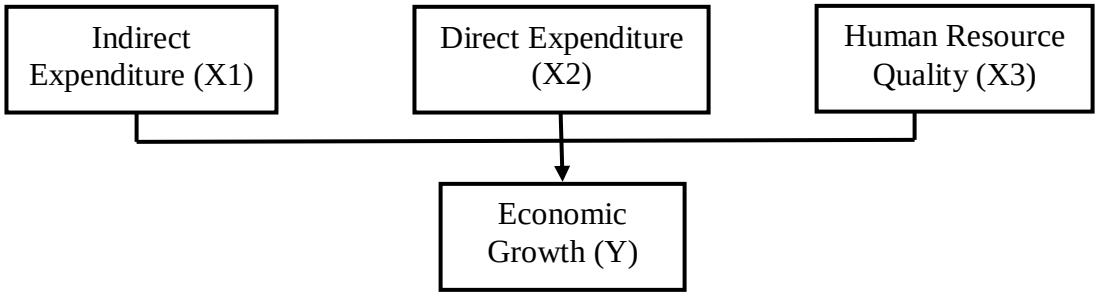


**FIGURE 1**
**CONCEPTUAL FRAMEWORK**

## Research Hypothesis

The hypotheses are used to steer the research results. These hypotheses studies are stated below.



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.

$H_1$ *Indirect expenditure, direct expenditure, and human resources quality simultaneously have a significant effect on economic growth.*

$H_2$ *Indirect expenditure directly has a significant effect on economic growth.*

$H_3$ *Direct expenditure directly has a significant effect on economic growth.*

$H_4$ *Human resources quality directly has a significant effect on economic growth.*

## RESEARCH METHOLOGY

This research object is the effect of indirect expenditure, direct expenditure and human resources quality on economic growth, both simultaneously and partially. The research subjects were 6 provinces in Sulawesi, including North Sulawesi, Central Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo, and West Sulawesi Provinces.

This research is an associative research (correlation) type with a quantitative approach (positivistic). This research design aims to determine the relationship between the independent variables and dependent variable based on phenomena and theory in order to formulate the hypotheses and statistical analysis techniques used (Iskandar, 2008). This study uses secondary data panel from time series data with 2011-2018 period and cross-section data covering 6 provinces in Sulawesi. Data sources are official website of Directorate General of Fiscal Balance (DJPK) of Finance Ministry of Indonesia Republic and National Statistics Agency (BPS).

The analytical software used is the Eviews 0.9 program. Common Effect Model (CEM) and Fixed Effect Model are used to analyze the panel data regression model. It is the simplest panel data model approach. It only combines time series and cross section data. The EViews 9 analysis shows that indirect expenditure, direct expenditure, and human resources quality are significant and the p-value was smaller than the significance level (0.05).

The Fixed Effect Model assumes that intercept of each individual is different while the slope between individuals is fixed (same). This technique uses dummy variables to capture differences in interceptions between individuals. The EViews 0.9 analysis shows that indirect expenditure, direct expenditure, and human resources quality are significant because the p-value is smaller than the significance level (0.05), so that nothing is excluded in model, so here are the results of output.

## RESULTS

The panel data regression model should uses right analysis whether the Common Effect Model or Fixed Effect Model. Chow test is used by comparing the F-statistic with F-table or seeing the Cross-Section F probability value at significance level (α) of 5%. Chow's test produce the F-statistic of 642.71 with F-table value of DF (5.39) α=5%. The F-statistic value of 2.46 > F-table or the F-Cross-Section probability value (p-value) of 0.0000 <0.05, It means the right panel data model is the Fixed Effect Model.

The Hausman test is used to determine the most appropriate of Fixed Effect Model or the Random Effect Model by comparing the Chi-Square statistical value with Chi-Square table or seeing the random Cross-Section probability (p-value) at significance level (α) of 5 %. The results show that Chi-Square statistic is 168.62 with Chi-Square



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.

table value at DF (3) α=5% is 7.81. The Chi-square statistical value> Chi-square table or the random Cross-Section probability value (p-value) 0.0000 <0.05. It means the right panel data model for this study is the Fixed Effect Model.

The panel data estimation technique for dummy variable is Least Square Dummy Variables (LSDV) to show the difference in intercept (Widarjono, 2013). The results show that regression coefficient value for indirect expenditure variable is 0.0292; it means that every 1 percent increase in amount of indirect expenditure, economic growth will increase by 0.0292 percent. The regression coefficient of direct expenditure is 0.0273; it means that for every 1 percent increase of direct expenditure, the economic growth will increase by 0.0273 percent. The regression coefficient value of human resources quality variable is 0.1097; it means that every 1 percent increase in human resources quality will increase economic growth by 0.1097 percent.

The coefficient of determination ($R^2$) test results in selected model, Fixed Effect Model, is 0.9992 and close to 1, it means that independent variables are stronger in providing the information described to predict the dependent variables. This shows that 99.92 percent of dependent variable (economic growth) can be explained by independent variables (indirect expenditure, direct expenditure, and human resources quality). The remaining 0.08 percent is explained by other variables not included in this study.

The next test step is to test the hypothesis. F-statistic test is performed to determine the simultaneous effect of independence variables on dependent variable. The panel data regression using the Fixed Effect Model method obtained the F-statistical value of 70128.50 at confidence level α=5%, k=4, n=48. The F-table was obtained with a value of DF (3; 44) =2.82. This shows that F-statistic> F-table (70128.50> 2.82) or a significance level of 0.0000<0.05. It shows that H1 is accepted, meaning that indirect expenditure, direct expenditure, and HDI simultaneously have a significant effect on economic growth in Sulawesi.

Panel data regression analysis with Fixed Effect Model method shows the following results.

a. Indirect expenditure. The result of panel data regression shows that Indirect expenditure has a t-statistic value of 3.9641 at a significance level of 0.025< 5%, k=4, n = 48, t table (0.025; 44) =2015. This shows that t-statistic> t-table (3.9641>2.015) or tsig = 0.0003<0.05. It shows that H2 is accepted, meaning that indirect expenditure has a significant effect on economic growth.
b. Direct expenditure. The results of panel data regression show that direct expenditure has a t-statistic value of 4.1391 at confidence level 0.025<5%, k=4, n=48, t-table value (0.025; 44)=2015. This shows that t-statistic <t-table (4.1391>2.015) or tsig = 0.0002<0.05. It shows that H3 is accepted, meaning that direct expenditure has a significant effect on economic growth in Sulawesi.
c. Human Resources Quality (HRQ). The results of panel data regression show that direct expenditure has a t-statistic value of 59.5763 at confidence level 0.025<5%, k=4, n=48, t-table value (0.025; 44) =2015). This shows that t-statistic>t-table (59.5763> 2.015) or tsig=0.0000<0.05. It shows that H4 accepted, meaning that human resources quality has a significant effect on economic growth in Sulawesi.

## DISCUSSION

Indirect expenditures, direct expenditures, and human development index (HDI) simultaneously have a positive and significant effect on economic growth in 6 provinces



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.

in Sulawesi. It means independent variables have an effect on dependent variable. This is consistent with theory of Harrod-Domar that higher economic growth requires capital formation that determined by higher production and higher expenditure compared to previous year.

The study result that indirect expenditure, direct expenditure, and HDI simultaneously have a significant effect on economic growth are consistent with previous research conducted of by Ilyas (2015); Rahmawaty et al. (2012) that local government expenditure (indirect and direct expenditure) has a significant effect on economic growth, while by Santi (2013) stated that HDI has a significant effect on economic growth.

This study results that indirect expenditure has a significant effect on economic growth is consistent with Haryanto (2013) this indirect expenditure can have an impact through public services provided by government employees to Public. This service should facilitate the process of economic activity to increase the economic growth in provinces in Sulawesi.

This study results that direct expenditure has a significant effect on economic growth are consistent with previous research of Rudibdo & Sasana (2017); Palaguna (2016) that right target and efficient direct expenditure can increase regional economic growth.

This study results that human resources quality has a significant effect on economic growth are consistent with previous research of Susanto (2013) and Hasiani (2015) who stated that HDI has a significant effect on economic growth. Higher HDI of an area shows an improvement in human resources quality in a better direction. The community participation should encourage economic growth. The high HDI will increase production factors to increase production output.

## CONCLUSION

Based on results of research using panel data regression model and the discussion, the conclusion of this study are as follows.

1. The Indirect Expenditures, Direct Expenditures, and Human Development Index simultaneously have a significant effect on economic growth in Sulawesi year 2011-2018
2. Indirect Expenditures have a significant effect on economic growth in Sulawesi year 2011-2018. The proportion of indirect expenditure to Local Budget of each province in Sulawesi is larger than direct expenditure, it indicates the government's concern for welfare of people in long term
3. Direct expenditure has a significant effect on economic growth in Sulawesi for 2011-2018. Direct expenditure has a large enough role to drive economic growth because the main component of direct expenditure is clearly allocated directly to development activities such as expenditure on goods and services and capital expenditure in each province in Sulawesi.
4. The human resources quality has a significant effect on economic growth in Sulawesi in 2011-2018. The human resources quality in Sulawesi has shown significant changes and improvements.

Based on above conclusions, suggestions that can be recommended by authors are as follows.

1. The regional government of each province in Sulawesi should analyze in more detail before allocating the budget.



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.

2. Local governments should allocate more expenditure for development of public service infrastructure, especially in areas with minimal infrastructure.
3. The economic growth should be improved through the human resources quality, regional government of each province. Sulawesi should focus the design on regional development, such as construction of asphalt roads

This research has several weaknesses. First, the coverage of research subjects only at district/city and provincial at regional levels. Therefore, further research is in order to be able to continue and explore a wider scope of research subjects, such as between provinces in several large islands in Indonesia. In addition, analysis tool used is EVIEWS with limitation of not being able to analyze the indicators of each variable. Therefore, future research is expected to use more comprehensive analysis tools such as PLS or AMOS.

## REFERENCES

Anggraeny, A.A. (2016). Analysis of the effect of government expenditure, number of manpower, and education level on economic growth in Surakarta city in 1991–2013. Unpublished doctoral dissertation, University of Muhammadiyah Surakarta.

Bitros, G.C. (2020). Demand adjusted capital input and potential output in the context of U.S. economic growth. *The Journal of Economic Asymmetries, 21.*

Haryanto, T.P. (2013). The effect of government expenditure on economic growth of districts/cities in central java province in 2007-2011. *Economics Development Analysis Journal,* 2 (3).

Ilyas, I. (2015). Influence of direct shopping and indirect shopping on regional gross product (GDP) and human development index (IPM) sinjai district. *Administration', 6*(1), 1-17.

Irmayanti, I. (2017). The effect of human development index on economic growth in polewali mandar regency. Unpublished doctoral dissertation, Alauddin State Islamic University Makassar.

Iskandar. (2008). *Educational and social research methodology (Quantitative and Qualitative) (H. Martinis Yamin, Ed).* Jakarta: Echoes of Persada Press.

Jones, P.W. (2006). UNDP and educational development: An institutional policy analysis. *International Journal of Educational Development, 26*(6), 605-617

Nguyen, T.A.T., & Chou, S.Y. (2019). Improved maintenance optimization of offshore wind systems considering effects of government subsidies, lost production and discounted cost model. *Energy, 187*, 115909.

Palaguna, M.A. (2016). The effect of direct and indirect shopping on economic growth of east Kalimantan province. *Mulawarman Journal of Economics, 1* (2).

Rahmawaty, S., Adi, P.H., & Nurul Anwar, S.E. (2012). Analysis of the effect of regency/city government shopping in west java on west java regency/city grdp in 2006-2010.

Rudibdo, R., & Sasana, H. (2017). The influence of direct expenditure, indirect expenditure, investment, and labor on economic growth in the semarang ex-residency area in the era of regional autonomy and fiscal decentralization. *Journal of REP (Research Economics of Development), 2*(2), 215-226.

Song, C., Liu, Q., Gu, S., & Wang, Q. (2018). The impact of China's urbanization on economic growth and pollutant emissions: An empirical study based on input-output analysis. *Journal of Cleaner Production*, *198*, 1289-1301.

Suindyah, S. (2011). The effect of investment, labor and government expenditure on economic growth in east java province. *Equity Journal, 15*(4), 447-500.

Susanto, A.B. (2013). Effect of human development index (HDI) and inflation on economic growth in lamongan regency. *Journal of Economic Education, 1* (3).

Todaro, M.P. (2011). *Pembangunan Ekonomi*. Jakarta: Erlangga

Wei, J., & Wang, C. (2021). Improving interaction mechanism of carbon reduction technology innovation between supply chain enterprises and government by means of differential game. *Journal of Cleaner Production, 296*, 126578.

Widarjono, A. (2013). *Introductory econometrics and its applications are accompanied by an Eviews guide.* Yogyakarta: Upp Stim Ykpn.



**Citation Information:** Firman, A., Simbolon, R.K., & Djawa, A. (2021). Efforts in increasing the economic growth in Sulawesi. *Academy of Strategic Management Journal, 20*(5), 1-7.