International Journal of Accounting & Finance in Asia Pasific (IJAFAP)
Vol. 4 No. 3, 100-113, October, 2021
E-ISSN: 2655-6502/P-ISSN: 2684-9763
DOI: https://doi.org/10.32535/ijafap.v4i3.1210
https://ejournal.aibpm.org/index.php/IJAFAP

Analysis of the Effect Construction Costs, Human Development Index and Investment: Does It Have an Impact on Economic Development?

Prince Charles Heston Runtunuwu[1], Muhammad Kotib[2]
Khairun University[1,2]
Jl. Pertamina Campus II Unkhair Gambesi South Ternate City
Correspondence Email: princecharles@unkhair.ac.id
ORCID ID: https://orcid.org/0000-0002-7059-3046

ABSTRACT

The purpose of this study aims to investigate a causality relationship between Construction Cost Index (CCI) and economic growth, between investment and economic growth, and between human development index and economic growth in North Maluku Province. With the error correction model approach, this study was carried out with the Granger causality method. The findings indicate that the economic growth and the Construction Cost Index affected the value of economic growth significantly. While the value change in the Construction Cost Index is statistically insignificant to affect the value of Economic Growth implying no causality relationship between the variables of Construction Cost Index to economic growth. There is only a one-way relationship, namely economic growth affecting the Construction Cost Index . Economic growth and investment have an association to changes in the value of economic growth significantly affecting the value of Investment. Humans do not have a causality (causal) relationship affecting each other or the Human Development Index (HDI) has no chance of being a dependent variable in the quarter of 2010 to 2019.

Keywords: Construction Cost Index (CCI), Economic Development, Economic Growth, Human Development Index

INTRODUCTION

Development should be viewed as a multidimensional process that includes fundamental changes to social structures, attitudes of society, and national institutions, which are interrelated between the factors of economic development to be analyzed both nationally and regionally while pursuing the acceleration of economic growth. One indicator of development progress is economic development. This indicator measures a country's ability to increase its output at a faster rate than its population growth rate. Economic development is a process that leads to a long-term increase in the real per capita income of a country's population accompanied by an improvement in the institutional system (Arsyad, 1997; Todaro & Smith, 2003).

Economic growth is the process of increasing the production capacity of an economy in the form of an increase in national income. Economic development encourages

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economic growth and vice versa. Economic growth indicates the success of economic development. It is one of the benchmarks for the success of economic development in a region. The economy is considered to be experiencing growth if all real service response to the use of production factors in a given year is greater than the real income of the people in the previous year. One of the indicators used to measure the economic growth is the growth rate of real Gross Domestic Regional Product (GDP).

The development of private-public facilities and infrastructure supports the economic growth of a region. The success of economic development can be studied in certain areas such as countries, regions, provinces, districts/cities, sub-districts, and villages. The construction sector in the construction industry acts as a pull and push effect on the economy. In a sense, investment encourages and attracts the industry either directly or indirectly (direct and indirect backward and forward linkages). The related effects will lead to systemic effects or, in economic terms, the construction industry acts as a cause of multiplier effects and as an economic accelerator in the economic system (Wibowo, 2006).

The construction sector can also be seen as an input-output process of national economic development. Inputs of materials, labor, equipment, time, and money will be converted through the construction process into output products in the form of buildings, roads, irrigation buildings, or other infrastructure. The construction sector has backward and forward linkage with other sectors. The relevance of backward in the sense that to produce one unit of construction products requires several kinds of products from other industries, such labors, materials (steel, zinc, cement, iron, and other materials) derived from the manufacturing industry. While the output side in the form (irrigation, roads, bridges, ports) is needed by other inputs as a means of supporting a production process, this kind of process is called the input-output process.

The output of construction activities is public and private goods. Public goods are known as infrastructure. While private goods are the result of activities whose ownership is people or business entities, both government and non-government. From the financing, two possible construction activities can be held, namely financing by the State (through the government) and by the private sector. The government has a strategic role in construction and investment development. Practically this coaching role is closely related to the domain of government management in regulating, supervising, and empowering the construction sector. Therefore, the government needs to establish what is the government's business with construction and private investment (Dokakd DPR RI, 2015).

Regarding economic growth in North Maluku Province in the study of 17 economic sectors, economic growth is variable along with the scale of development priorities compared to the bottom year of 2010. In the last five years, the economic growth sector remain dominated by the construction sector with an average growth of 8.94%, the information and telecommunications sector of 7.64%, and large trade and retail sectors, car and motorcycle repairs of 7.59%.

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The construction industry itself is an activity the end result of which is buildings/construction that merges with the land where it is positioned, either used as a residence or other means of activity. The growth of the construction sector in the scope of 10 districts/cities of North Maluku region explains that the rapid growth in the construction sector in 2011 and 2012 is in Morotai Island Regency since the acceleration of development was encouraged to welcome the 2012 Sail Morotai international event with construction sector growth of 25.95% in 2011, and 33.97% in 2012. In 2019, the rapid growth of the construction sector is in Central Halmahera Regency due to the development of PT Industrial Area WIP company.

Construction Cost Index is used as a proxy to measure the level of geographical difficulty of an area, the more difficult the geographical location of an area, the higher the price level. Sula Islands Regency of North Maluku province has the highest CCI from 114.69 the lowest level in 2010 to 131.27 in 2019.

It has never dropped for 10 years from the index level of 114.69 and the highest construction index value occurred in 2013 of 146.45. The second highest CCI value is in Taliabu Island Regency which ranges from 120.19 at the lowest level in 2017 to 2019 at the level of construction CCI of 130.99. The CCI value in Taliabu Island Regency since the start of expansion in 2013 began development by recording the highest CCI value of 141.40 in 2014. The third Highest CCI is in Central Halmahera Regency which ranges from 117.08 at the lowest level in 2010 to 2019 at the CCI level of 125.66.

The value of the Construction Cost Index in Central Halmahera Regency over a period of 10 years has never dropped from the CCI value level of 117.08 and the highest CCI value occurred in 2013 of 138.85. Comprehensively, in 2016 the value of the CCI experienced a drastic increase in almost all regions of North Maluku Province, except Morotai Island Regency and South Halmahera Regency. South Halmahera Regency has the lowest construction index value and has been fairly stable throughout the last 10 years since it was expanded in 2003.

According to Mirza (2012)**,** human development is a development process enabling people to have many choices, especially income, health, and education measured in the Human Development Index (HDI). The success of human development will result in an improvement in the quality of life and welfare of the community. This also means that there is an improvement in terms of education and health to produce a workforce with competitive skills and a longer productive period.

The HDI value of North Maluku Province remains in the category of "Medium" for all district areas ranging from 55 to 69. Ternate in 2019 has entered a higher HDI level of 80.03 than previous years, while Tidore Islands in 2019 has entered a high HDI level of 70.03 than previous years.

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The acceleration and expansion of economic development requires a budget for the implementation of development. For this reason, the role of the government is targeting the policy of acceleration and economic development through investment, be it government investment or domestic private investment, or foreign investment.

Investment is the main key to achieving increased economic growth reflected in its ability to increase the rate of growth and income levels. Investment activities in an area are determined by its economic potential and its business climate. The business climate is shaped by various factors that are interrelated and beneficial for all parties, namely the surrounding community, actors (investors), and local governments. Investment is one of the components of calculating Gross Regional Domestic Product (PDRB). The development of domestic private investment and foreign investment in North Maluku Province fluctuates depending on the number of economic activity projects in demand while in government investments studied in gross fixed capital formation has increased every year. Our study focuses on analyzing the causality influence of economic development from the construction sector through data from the Construction Cost Index, human development index, investment, and economic growth in North Maluku Province.

Construction is an activity to build facilities and infrastructure. In the field of architecture or civil engineering, construction is also known as a building or unit of infrastructure in an area or some areas. In summary, construction is defined as the overall object of a building consisting of parts of the structure. For example, the construction of a building structure is the overall shape/build of the structure of the building. Other examples are highway construction, bridge construction, and ship construction. Construction can also be defined as the arrangement (model, layout) of a building (bridge, house, etc.) Although construction activities are known as one work, in reality, construction is a unit of activity consisting of several other different works (Wikipedia, 2020).

Construction Cost Index is an index number that describes the comparison of the construction level of a district/city or province to the CCI of district/city or other provinces. In accordance with its understanding, Construction Cost Index can be categorized as a spatial index, which is an index that describes price comparisons for different regions in a given period of time. In contrast to the notion of periodic or temporal indices that have been known, such as the Large Trade Price Index (IHPB) or the Consumer Price Index (CPI), describing the development of prices in a region in a certain period of time against the price of the base year period. Since 2005, Construction Cost Index is presented by taking into account the development of the price of a certain period against the price of the base period (February 2004), the price used in the calculation of CCI (2004). In contrast to the study Lestari (2018), construction institutional ownership has a negative and insignificant effect on financial performance indicator of Net Profit Margin and Return On Equity.

Construction Cost Index is calculated according to the group of building types that refer to the standard classification of Indonesian Business Fields (KBLI). As with 2010

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Construction Cost Index, the 2011 Construction Cost Index calculation also uses three groups of building types. They are 1) residential buildings and not residences, 2) building jobs for roads, bridges, and ports, and 3) other buildings.

BPS Maluku Utara (2019) mentioned that the method of calculating the Construction Cost Index is carried out through several stages. The first stage is the value calculation of the construction components of each system of a building for each district/city. The value of the component is calculated using a weighted value with the following formula:

$$NKj = \sum_{k-n}^{n} P_k \; Q_k \quad (1)$$

where,
NKj = Component Values of -j
Pk = Material Price / Wage / Rent Tools of - k
Qk = Quantity / Material Price / Wage of rent of - k
'n = Amount of Material / Wage / Rent in components of - j

The second stage is to calculate the PPP (Purchasing Power Parity) system by using the Country Product Dummy (CPD) regression method. CPD regression models are:

$$\text{'ln NK j} = \alpha_i \; C_i + \beta_j \; P_j + \varepsilon \quad (2)$$

where,
NKj = Component Value to -j
C, = Dummy Regency / City of - i
Pj = Dummy Komponen of -j in systems and buildings
a and β_j= Regression Coefficient
PPP (Purchasing Power Parity) system $_1$= exp (α)

The third stage is to calculate the PPP (Purchasing Power Parity) of the building by using the weighted geometric mean method (system weight) with the following formula:

$$PPP \text{ Building i} = \prod_{i-1}^{n} (PPP_{Sistem \quad i}) \quad ^{w21} \quad (3)$$

where,
'n = Number of systems in a building

The fourth stage is to calculate the PPP (Purchasing Power Parity) of the project by using the geometric mean method using the following formula:

$$PPP \text{ Project i} = \prod_{i-1}^{n} (PPP_{Building \quad i})^{\frac{1}{n}} \quad (4)$$

where,
'n = Number of Buildings in a project

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The last stage is to calculate the district/city Construction Cost Index using a weighted geometric mean method (APBD weight) with the following formula:

$$\text{Construction Cost Index}_{\text{Kabupaten Kota}} = \left(\prod_{i-1}^{n} \left(\text{PPP}_{\text{Proyek i}} \right) w1i^{\cdot 100} \right) \quad (5)$$

where,
'n = Number of projects in a district/city

Human Development Index (HDI) is a composite index used to measure the achievement of three fundamentals of human development, namely (1) the length of life as measured by life expectancy at birth; (2) the level of education, as measured by a combination of literacy numbers in the adult population (with a weight of two-thirds) and the average length of school (with a weight of one-third); and (3) a decent rate of living, measured by adjusted per capita expenditure (Mirza, 2012).

Badrudin (2012) mentioned that the components of HDI are longevity, knowledge, and decent living standards. Life expectancy is measured by life expectancy calculated using indirect methods (Brass method, Trussel variant) based on variables in the average child born alive and average child alive. The knowledge component is measured by literacy numbers and average numbers of school lengths calculated based on Susenas data. For the record, UNDP in its annual Human development Report (HDR) publication since 1995 uses indicators of primary, middle and high school participation in lieu of average length of school due to the difficulty of obtaining data on average school lengths globally.

Literacy indicators are obtained from variables of reading and writing ability, while the average indicator of school length is calculated using two variables simultaneously, namely the level/class that is being lived and the highest level of education completed. The standard of living component is worth measuring by adjusted indicators of average real consumption. UNDP uses adjusted real GDP indicators per capita.

The government is highly concerned about human development issues. This is characterized by the participation of HDI as one of the allocators of general allocation funds to overcome the financial gap of the region (fiscal gap). Other allocators are the area, population, gross regional domestic product and construction omnipresence index. After all, areas with low HDI can slowly catch up because they get an excessive allocation of funds. Nevertheless, they still depend heavily on the development strategy carried out by the region.

On an international scale, HDI is categorized into high category (HDI 2 80), upper-middle category (66 s HDI <80), lower-middle category (50 s HDI < 66), and low category (HDI < 50). It was also mentioned that since 1996, Indonesia's HDI has reached the upper-middle level, except from 1999 to 2002 which dropped to the lower middle level due to the economic crisis. Only in 2004 the level of HDI achievement again increased as before and until now the achievement is still stagnant at the upper middle-level level (BPS, 2012).

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According to Widodo, Waridin, and Kodoatie (2011), the purpose of human development in HDI is not the same as the purpose of human resource development in economic theory. Human resources refer to humans as one of the factors of production, namely as a labor force whose productivity must be increased. In this case, man is only a tool to obtain an increase in the output of goods and services. While humans in HDI are more interpreted as a development goal whose orientation is ultimately on improving well-being.

According to Mirza (2012), human development is a development process that has the goal that the population can have many choices, of income, health, and education measured through the Human Development Index (HDI). HDI has one indicator, namely the Life Expectancy indicator. The improved Life Expectancy indicator indicates better quality of life.

HDI measures the overall achievement of one region/country in the three basic dimensions of human development, namely the length of life, knowledge, and status of a decent standard of living. All three are measured by life expectancy, educational attainment, and per capita spending, and the three dimensions of human development, namely 1) the economic dimension (embodied by a decent life and measured by indicators of real per capita knowledge), 2) the social dimension (embodied by the level of knowledge and measured by literacy numbers and the average of length of school), 3) the dimension of health (embodied by long and healthy life with indicators of life expectancy at birth) (Muharam, 2006).

Life expectancy at birth is an estimate of the average length of life from birth that will be achieved by a group of people born in that year. This can be used as a benchmark for health indicators. The higher the life expectancy the higher degree of public health. Literacy rate is the percentage of the population aged 15 years and above who can read and write and understand a simple sentence in everyday life BPS (2012), and the Average Old School (RLS) is the length of school (year) of the population aged 15 years and above (BPS, 2012).

Azril (2000) further explained that life expectancy as the indicator of health, literacy numbers, and old school averages (RLS) describes the status of the state of society education. BPS (2012) suggested that the low literacy rate and the average length of school can be caused by the lack of educational facilities and expensive education costs associated with poverty. It is also, as stated by Runtunuwu (2020), per capita income and unemployment rate are related and affect the level of the human development index.

Purchasing Power Parity (PPP) is an indicator used to see the economic condition of the community in calculating HDI. It better reflects the ability of the community economically in meeting their consumption needs and is very much different from the GDP per capita or known as income per capita. To measure decent living standards, GDP per capita data cannot be used since it is not a sensitive measure for purchasing

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power. Therefore, the calculation using per capita consumption is then adjusted. The data sources used include the amount of distribution per capita of both food and non-food consumption. A total of 27 commodities consisting of food consumption and non-food consumption are used in the calculation of purchasing power parity (Azril, 2000).

The economic theory defines investment as government expenditure to buy capital goods and production equipment to replace and especially adding capital goods used to produce goods and services in the future. An investment is a component of GDP = C +1+ G+ (X-M).

Investment is an investment for one or more assets owned and usually long-term in the hope of making a profit in the future (Sunariyah, 2003). According to Nordhaus (2004), investments include the addition of capital stocks or goods in one country, such as building production equipment, and inventory items within one year. Investment is a step to sacrifice consumption in the future. This is in line with Semmaila and Nur (2019) concluding that financial decisions consisting of investment decisions and financing decisions can increase the profitability and value of the firm. This highlights that the main goal of the company is to maximize the welfare of company owners by increasing the value of the firm through increased profitability. Dividend policy has not been able to increase the profitability and value of the firm directly and indirectly.

Investing is an important component of GNP and has an important role in aggregate demand. First, investment spending is more volatile when compared to consumption expenditure so that fluctuations in investment can cause a recession. Second, investment is essential for economic growth as well as improvements in labor productivity. Economic growth depends heavily on labor and the amount of capital stock (Setyowati & Fatimah NH, 2007). However, Putri, Christiana, Pulungan, and Ardila (2019) suggested among five variables of capital market literacy, type of investment instrument literacy, profit level literacy, investment literacy, and financial literacy, only investment literacy has no significant effect to manage finances. Also, capital market literacy and investment literacy do not have a significant influence on the ability of students to manage assets.

These all conclude that investment is an expenditure in the form of capital goods, buildings, capital equipment, and inventory items used to increase the ability to produce goods and services or to increase work productivity. Investors can be interpreted as parties who carry out activities to invest money or capital. One of the actors/investors in investment activities is a company. A company is an organization developed by a person or group of people to produce various types of goods and services needed by the community (Sukirno, 1994).

Investment actors are government, private, and private government. Government investment is generally done not for profit, yet to meet the needs of the community (national) such as highway networks, and public parks. This investment is often called Social Overhead Cost (SOC). However, there are also mentions that the investment

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that arises is not due to additional income. Private is not interested in this type of investment because it requires large costs and does not provide direct profits, but rather gradually over a long period. Private companies are more interested in the type of investment that is promised to earn profits, which is usually driven by increased income. If income increases and consumption rises, effective demand increases. The investment generated by the increasing demand the source of which lies in the addition of income called induced investment (Gumpita, 2003).

Investment activities allow society to continuously increase economic activities and employment opportunities, income, and community prosperity. This role is derived from three important functions of investment activities in the economy. First, investment is one component of aggregate spending, as the increase in investment will increase aggregate demand and national income. Second, the increase in capital goods as a result of the investment increases production capacity in the future and this will stimulate the increase in national production and employment opportunities. Third, investment is always followed by technological developments, making an important contribution to the increase in productivity and income per capita of society (Sasana, 2008).

Investment activity is one of the determining factors in the development or economic growth of a region. In the context of a PDRB, the investment activity in question is an investment in physical form. Investment activity will be reflected through the Gross Fixed Capital Formation (PMTB) and Inventory Change (PI) components.

The PMTB component is related to the existence of fixed assets involved in the production process. Fixed assets can be classified according to the type of capital goods, i.e. in the form of buildings and other constructions, machinery and equipment, vehicle, plants and livestock, and other capital goods. PMTB, as the addition and utilization of fixed assets in a unit of production, is also an investment driver for growth and equity.

Gross Fixed Capital Formation (PMTB) and often called physical investment is one of the driving instruments of the economy. Investment has become the economic focus of the region in addition to household consumption. Investment or PMTB has an important role in Gross Regional Domestic Product (PDRB). PMTB data is also used as an indicator of ICOR (Investment Efficiency Ratio). The purpose and benefits of PMTB disaggregation are material in preparing development planning such as investment policies and determination to strengthen the industrial sector. PMTB is a reliable tool to evaluate and measure investor contributions in development achievements periodically (BPS, 2019; Iswanto, 2018).

According to Todaro (2000), development should be viewed as a multidimensional process that includes fundamental changes to social structures, attitudes of society, and national institutions, while pursuing the acceleration of economic growth, handling income inequality, and poverty alleviation. Economic growth is the process by which

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there is an increase in real gross national product or real national income. The economy is said to grow or develop when real output growth occurs, while economic development shows the structure of output and input allocation in various sectors of the economy.

Arsyad (1997) defined a country's economic growth as an increase in a country's ability to provide economic goods to its people, due to technological, institutional, and ideological adjustments needed. Economic development is the effort to improve the national standard of living usually measured by high income per capita. The purpose of economic development in addition to raising national income is also to increase productivity.

In general, economic growth is defined as an increase in the ability of an economy to produce goods and services. Economic growth indicates the extent to which economic activity will generate additional people's income at a given period. Since economic activity is a process of using factors of output production, this process in turn will produce a flow of services to the factors of production owned by society. With the economic growth, it is expected that people's income as the owners of production factors will also increase (Sukirno, 2006).

RESEARCH METHOD

This study was conducted to measure the interrelated variables between the construction, investment, human development index, and economic development. The research site was in North Maluku Province from January to November 2020.

The type of data in this study is a time series data from 2010 to 2019. While the data source was secondary data obtained from the Central Statistics Agency (BPS) of North Maluku Province including data on the Construction Cost Index, Human Development Index, and Economic Growth. While the investment data was obtained from the Investment Coordinating Board of the Republic of Indonesia (BKPM-RI). Data collection was conducted by browsing the internet site.

RESULTS AND DISCUSSION

Analysis Model

This study applied the Granger Causality method, which is to find out where on the one hand a dependent variable (non-free variable) can be affected by another variable (independent variable) and on the other hand the independent variable can occupy the dependent position of the variable.

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Error Correction Model Approach

Unit Root Test

The unit root test is a test to determine the data stationarity. Data can be said to be stationary if the ADF test statistic value is smaller Mackinnon table value. The hypotheses used are:
Ho: Data is not stationary (contains root units)
H1: Stationary data (does not contain root units)

Optimal Lag Test

As a consequence of the use of dynamic models with periodic data (time series), the effect of unit changes in explanatory variables is felt over several time periods. In other words, the change in a variable explaining the possibility can only be felt after a certain period (time-lag). This lag can occur for several main reasons (Gujarati, 2007).

VAR Stability Test

VAR is a regression equation model that uses time-series data. The problems that arise in time series data relate to the stationary of time series data and cointegration. The formation of this model is also closely related to the problem of data stationarity and cointegration between variables within. The first step in the formation of the VAR model is to perform a data stationary test. If the data is stationary at the level, a regular model (unrestricted VAR) exist. Conversely, if the data is not stationary at the level yet stationary in the data inference process, a cointegration test is conducted to examine whether the data has a long-term relationship or not (Widarjono, 2007).

Cointegration Test

The cointegration test is conducted to find out if the data has a long-term relationship (integrated). Inter-influencing relationships can also be seen from the cointegration between the variables and determine the model to be estimated, whether using regular VAR or VAR - Vector Error Correction Model (VAR-VECM). If a cointegration exixst, the model to use is the Vector Error Correction Model (VECM). This model is an induced model (restricted VAR) because of the cointegration that shows a long-term relationship between variables in the VAR system. If the data is stationary in the process of differentiation but the variable is not integrated, it is called the VAR model with data difference (Widarjono, 2007).

Granger Causality Hypothesis Test

Causality is a two-way relationship. This means that in the econometric model there are no independent variables, all variables are dependent variables. The general model of Granger causality equation are as follows:

$$Y_t = \sum_{i=1}^{n} \alpha_i Y_{i-1} + \sum_{i=1}^{n} \beta_i Y_{i-1} + e_{it} \quad (6)$$

$$Y_t = \sum_{i=1}^{n} y_i Y_{i-1} + \sum_{i=1}^{n} T_i Y_{i-1} + e_{2t} \quad (7)$$

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Error Correction Model (ECM)

The ECM model is used to look for long- and short-term balance regression equations and the consistency or absence of a model. In addition, it aims to address data problems related to fake and not stationary time series data. Analysis using the ECM method is used for data with time-series type or based on time. It is used to avoid direct regression that is common in the type of time series data. The equation in estimating the first-rate Engle-Granger ECM model is :

$$\Delta Yt = b1 \Delta Xt - \Delta (Yt - 1 - \beta o - \beta 1 Xt - 1) + et \quad (9)$$

The equation can be interpreted that if the Y value changes, the X value will also change and be influenced by the Correction Tem Error in the past period. If variable Y and variable X show results that are not stationary yet the data has a relationship in the short and long term, analysis can be done using ECM. The equation is:

$$\Delta Yt = \alpha 1 \Delta Xt + \alpha 2 \Delta (Yt - 1 - \beta o - \beta 1 Xt - 1) + e \quad (10)$$

Causality Relationships Interdependent between the Construction Cost Index and Economic Growth

Granger Causality Testing Results found that changes in the value of the Construction Cost Index statistically significantly affect the value of Economic Growth in the period of the quarter of 2010 to 2019. In the estimate of the VECM economic growth model, it was concluded that the CCI has no significant relationship in the short or long term to Economic Growth. In testing of variant, composition estimates showed that the standard errors from the movement of the CCI variant are higher than the error standard in other variables. This means that the CCI is not appropriate to predict changes in economic growth in North Maluku.

Causality Relationship of Human Development Index (HDI) and Economic Growth

The results of the Granger causality test shows that changes in the value of the Human Development Index (HDI) statistically do not significantly affect the value of Economic Growth in the period of the quarter of 2010 to 2019. As well as Economic Growth statistically does not significantly affect the Human Development Index (HDI) in the estimated VECM economic growth model, it can be concluded that the Human Development Index (HDI) has a significant relationship in the short- and long-term with Economic Growth in the period of the quarter of 2010 to 2019.

CONCLUSIONS

Our analysis concludes that Economic Growth and Construction Cost Index affect statistically. The change in the value of economic growth significantly affects the value of the Construction Tentacle Index while the change in the value of the Construction Tentacle Index is statistically insignificant in controlling the value of Economic Growth. This concludes that there is no causal relationship between the variables of

International Journal of Accounting & Finance in Asia Pasific (IJAFAP)
Vol. 4 No. 3, 100-113, October, 2021
E-ISSN: 2655-6502/P-ISSN: 2684-9763
DOI: https://doi.org/10.32535/ijafap.v4i3.1210
https://ejournal.aibpm.org/index.php/IJAFAP

Construction Cost Index to Economic Growth. There is only a one-way relationship, namely Economic Growth affecting the Construction Cost Index.

Economic Growth and Investment have a logical connection. Statistically, the change in the value of Economic Growth significantly affects the investment value at a significance level of 0.10. The change in the value of investment statically significantly affects the value of economic growth. This implies that there is an economic relationship causality relationship between investment variables to growth.

Human Development Index does not have a causality relationship (causation) to mutually controlled. This means that the Human Development Index (HDI) has no chance to become a dependent variable or variable affected in the period of the quarter of 2010 to 2019.

The high value of the Construction Cost Index in North Maluku Province has a negative impact on economic growth. It is recommended that the local government maintain the stability of the price of construction goods by suppressing inflation. To deal with the uncertainty of investment interest and dependence of development on investment in North Maluku, it is recommended that the local government aggressively promote the wealth of local natural resources. To address the high poverty rate in North Maluku province, it is recommended that local governments focus more on human development since one of the indicators to attract investors is the availability of a healthy, educated, and high-quality workforce.

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