Analysis of Determinants of Economic Growth

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ABSTRACT
This study aims to examine the effect of locally-generated revenue, HDI and inflation on economic growth in the city of Semarang and also to test whether locally-generated revenue and HDI mediate the effect of inflation on economic growth in the city of Semarang. The data used in this research is secondary data. The variable of this research consists of inflation as the independent variable, economic growth as the dependent variable and locally-generated revenue, HDI as a mediating variable. The analytical method uses the path analysis method. The results of the analysis show that inflation has a negative effect on locally-generated revenue, HDI and economic growth. Locally-generated revenue and HDI have a positive influence on economic growth. Locally-generated revenue and HDI are mediating variables proven to be able to mediate the effect of inflation on economic growth in the city of Semarang.

Keywords: Inflation, Economic, Revenue, HDI

INTRODUCTION
Controlling the inflation rate or maintaining price stability is one of the main macroeconomic problems, in addition to several other important macroeconomic issues such as achieving high levels of economic growth. Economic stability is reflected in price stability, in the sense that there are no large price fluctuations that could harm society, both consumers and producers, which would damage the foundations of the economy. Suryana (2005) in Ningsih & Andiny (2018) says, economic growth is defined as an increase in GDP or GRDP regardless of whether the increase is greater or smaller than population growth and regardless of whether there is a change in economic structure. Based on previous research, it turns out that there are many factors that affect economic growth, including inflation, namely previous research from Salim & Purnamasari (2021); Ariffin (2016).

Historically, Indonesia's inflation was higher than other developing countries, such as Thailand, Malaysia, and so on. A low and stable inflation rate will be a driving force for economic growth. Controlled inflation will increase entrepreneurs’ profits, increased profits will encourage investment in the future and will ultimately accelerate the creation of economic growth. On the other hand, a high inflation rate will have a negative impact on the economy which in turn can disrupt social and political stability. Negative impacts on the economy include reduced investor interest, no economic growth, worsening income distribution and lowering people's purchasing power. Therefore, efforts should be made not to let economic diseases become an obstacle to the development of the wheel of development. Previous research results from Salim & Purnamasari (2021), explains that inflation has a positive effect on economic growth. However, the results of the previous research were in contrast to the results of previous studies from Putri (2015); Ronaldo (2019) explains that inflation actually has no effect on economic growth.

This research was conducted to overcome the research gap above, namely the results of previous research from Salim & Purnamasari (2021) explained that inflation affects economic growth. However, the results of this previous study were contrary to the results previous research of Putri (2015); Ronaldo (2019) explains that inflation actually has no effect on economic growth. Then, for this study, the researchers conducted research on the public or government sector in the city of Semarang. The results of research on the effect of inflation on economic growth are still contradictory and much debated.

The difference between this study and previous
research (Gap analysis) is that previous studies did not use the contingency approach, while in this study, researchers instead used the opinion of Govindarajan (1986) which researchers had to do, namely the contingency approach, which researchers had never done. Previously, Govindarajan (1986) states that to overcome the inconsistencies in the results of the research above, a contingency approach is needed. The contingency approach has the advantage of trying to apply various management approaches to real life or certain conditions and situations. Different conditions and certain situations require a certain approach. This is what distinguishes research that uses a contingency approach and research that does not use a contingency approach. Basically, the contingency approach predicts the relationship between inflation and economic growth variables depending on environmental conditions or situational factors. Through the contingency approach, other variables can be included in the research. Another variable that is thought to influence the relationship between inflation and economic growth to overcome the research gap is to include the PAD and HDI variables as mediating variables. This is what distinguishes this research from previous studies.

The reason for using HDI as a mediating variable is because of the results of the effort government in improving human development is indicated by the Index Human Development while the reason for locally-generated revenue as a mediating variable is because based on stewardship theory it assumes that local governments are responsible for providing services to the community through capital expenditure budget allocations because the community has implemented it obligations for paying local taxes, regional levies absorbed in locally-generated revenue locally-generated revenue is one of the mediating variables used in researching the effect of inflation on economic growth. locally-generated revenue is the income earned by the region. Princess (2015); Santoso (2021) states that locally-generated revenue has an effect on Economic Growth.

HDI is one of the mediating variables used in researching the effect of inflation on economic growth. The Human Development Index (HDI) measures the achievement of human development based on a number of basic components of quality of life. The Human Development Index (HDI) explains how the population can access development outcomes in terms of income, health, education, and so on (UNDP, 1990). The urgency of the research is that HDI is a comparative measure of life expectancy, literacy, education and standard of living for all countries around the world including in Indonesia. HDI is used to classify whether a country is a developed country, a developing country or an underdeveloped country and also to measure the influence of economic policy on quality of life.

This study aims to examine the effect of locally-generated revenue, HDI and inflation on economic growth in the city of Semarang and also to test whether locally-generated revenue and HDI mediate the effect of inflation on economic growth in the city of Semarang.

**METHOD**

This study uses secondary data obtained from BPS and LKPJ of the Mayor of Semarang in 2010-2021, in the form of: locally-generated revenue, HDI and inflation on economic growth in the city of Semarang in 2010-2021 and from various other sources that can support this research. The method of analysis uses quantitative analysis (path analysis) using the SPSS’ 25 program). The research variables consist of inflation as an independent variable, economic growth (GRDP) as an independent variable and locally-generated revenue, HDI as a mediating variable.

This study uses secondary data obtained from BPS and LKPJ Mayor of Semarang in 2010-2021, in the form of: locally-generated revenue, HDI and inflation on the economic growth of Semarang City in 2010-2021 and from various other sources that can support this research.

Methods of data analysis using quantitative analysis in the form of path analysis (path analysis) using the SPSS 25 program). The research variables consist of inflation as an independent variable, economic growth (GDP) as an independent variable and locally-generated revenue, HDI as a mediating variable.

The analysis of the mediating variables in this study was carried out using the coefficient difference method using the inspection method by conducting an analysis with and without involves a mediating variable. The difference coefficient method is carried out by conducting two analyzes, i.e. analysis involving mediating variables and analysis without mediating variables. The method of examining mediating variables using the
A coefficient difference approach was carried out as follows: (1) examine the direct effect of the independent variable on the dependent variable in the model involving the mediating variable (2) examine the effect of the independent on the dependent variable in the model without involving the mediating variable, (3) examining the effect of the independent variable on the mediating variable, (4) examining the effect mediating variable to the dependent variable.

The regression equation is as follows:

\[ Y_{LGR} = b_0 + b_{Inf}X_{Inf} + e_1 \]  \hspace{1cm} \text{Regression Equation (1)}

\[ Y_{HDI} = b_0 + b_{Inf}X_{Inf} + e_2 \]  \hspace{1cm} \text{Regression Equation (2)}

\[ Y_{EG} = b_0 + b_{Inf}X_{Inf} + b_{LGR}X_{LGR} + b_{HDI}X_{HDI} + e_3 \]  \hspace{1cm} \text{Regression Equation (3)}

Information:
- Inf = Inflation
- LGR = Locally-Generated Revenue
- HDI = Human Development Index
- EG = Economic Growth
- \( b_{Inf} \) = Intercept Inflation
- \( b_{LGR} \) = Intercept Locally-Generated Revenue
- \( b_{HDI} \) = Intercept Human Development Index
- \( b_{EG} \) = Intercept Economic Growth Intercept
- e = Error

**RESULT**

Descriptive Statistical Analysis

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Mean</th>
<th>Standar Deviasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation</td>
<td>35,77</td>
<td>3,748</td>
</tr>
</tbody>
</table>

**Multicollinearity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg. Eq. (1)</td>
<td>Inflation</td>
<td>PAD</td>
<td>Tolerance 1.000 VIF 1.000</td>
</tr>
<tr>
<td>Reg. Eq. (2)</td>
<td>Inflation</td>
<td>HDI</td>
<td>Tolerance 1.000 VIF 1.000</td>
</tr>
<tr>
<td>Reg. Eq. (3)</td>
<td>LGR</td>
<td>EG</td>
<td>Tolerance 0.471 VIF 2.122</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HDI</td>
<td>Tolerance 0.621 VIF 1.611</td>
</tr>
</tbody>
</table>

The results of the multicollinearity test, the tolerance value shows that there is no independent variable that has a tolerance value of < 0.1. The results of the calculation of the VIF value also show that there is no single independent variable that has a VIF value > 10, so there is no multicollinearity. The multicollinearity test aims to test and find out whether in a regression model a high or perfect correlation is found between the independent variables. In this study, the multicollinearity test did not occur, meaning that the regression model did not find a correlation between the independent variables or the independent variables.

The heteroscedasticity test was carried out in the regression model to test whether there is an unequal variance from the residuals from one
Regression Analysis
Regression analysis is needed to determine the regression coefficients and significance so that it can be used to answer the hypothesis, and to find out the direct and indirect effects of the independent variable on the dependent variable. In general the formulation of regression analysis can be written as follows:

\[ Y_{LGR} = 27,601 + 0.806X_{Inf} + e \]
\[ Y_{HDI} = 0.531 + 0.492X_{Inf} + e \]
\[ Y_{EG} = 17,036 + 0.240X_{Inf} + 0.416X_{LGR} + 0.043X_{HDI} + e \]

Table 4. Regression Equation Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Path Coefficient</th>
<th>t-value</th>
<th>Sig.</th>
<th>F-value</th>
<th>Sig.</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg. Eq. (1)</td>
<td>Inflation</td>
<td>LGR</td>
<td>0.679</td>
<td>7.040</td>
<td>0.000</td>
<td>49.566</td>
<td>0.000</td>
<td>0.452</td>
</tr>
<tr>
<td>Reg. Eq. (2)</td>
<td>Inflation</td>
<td>HDI</td>
<td>0.538</td>
<td>4.864</td>
<td>0.000</td>
<td>23.654</td>
<td>0.000</td>
<td>0.277</td>
</tr>
<tr>
<td>Reg. Eq. (3)</td>
<td>Inflation</td>
<td>HDI</td>
<td>0.262</td>
<td>2.186</td>
<td>0.033</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LGR</td>
<td>EG</td>
<td>0.539</td>
<td>4.334</td>
<td>0.000</td>
<td>27.057</td>
<td>0.000</td>
<td>0.570</td>
</tr>
<tr>
<td></td>
<td>HDI</td>
<td></td>
<td>0.043</td>
<td>0.397</td>
<td>0.006</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regression equation 1 is used to analyze the effect of inflation on LGR. The table above shows the adjusted R square test value of 0.452, which means that the 45.2% LGR variable can be explained by the inflation variable, while the remaining 54.8% is explained by other variables. The results of the individual significance test (t-test) of regression equation 1 has a value of 7.040 with a significance of 0.000. This means that inflation has a significant and positive effect on LGR, while for the feasibility test the F value test is 49.566 with a significance of 0.000. The adjusted R square value is 0.570. This means that 57% of economic growth variables can be explained by the inflation variable, while the remaining 43% can be explained by other variables outside of this study.

Regression equation 2 examines the effect of inflation on HDI innovation. Based on the table above, it can be seen that the adjusted R square value is 0.570. This means that 57% of economic growth variables can be explained by inflation, LGR and HDI variables, while the remaining 43% can be explained by other variables outside of this study.
with a significance of 0.000, so that the three variables have a positive and significant effect on economic growth.

In the results of the regression equation test 1, the standardized beta value for the effect of inflation on LGR is 0.679 and is significantly below 0.05. The standardized beta value of 0.679 is the path value of path p1. In the results of the regression equation test 2, the standardized beta value for the effect of inflation on HDI is 0.538 and is significantly below 0.05. The standardized beta value of 0.538 is the path value of path p2 path. In the results of the regression equation test 3, the standardized beta values are 0.262; 0.539; and 0.043. The standardized beta value of 0.262 is the path value of path p5 and is significant <0.05. The standardized beta value of 0.539 is the path value of p3 path and is significant < 0.005. The standardized beta value of 0.043 is the path value of p4 path and is not significant. The value of e = 1 - R2 so that e1=√1 - 0.461 = 0.734 ; the value of e2 = 1 - 0.290 = 0.843; and the magnitude of e3 = 1 - 0.592 = 0.638.

To test the mediating power of the intervening variable, the Sobel test was carried out by analyzing the regression data as follows:

### Table 5. SPSS Regression Model Output Results 1

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>27.6</td>
<td>4.117</td>
<td>6.7</td>
<td>0</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.806</td>
<td>0.115</td>
<td>7.04</td>
<td>0</td>
</tr>
</tbody>
</table>

- a. Dependent Variable: LGR

### Table 6. SPSS Regression Model Output Results 2

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>0.53</td>
<td>3.639</td>
<td>0.15</td>
<td>0.89</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.49</td>
<td>0.101</td>
<td>4.86</td>
<td>0</td>
</tr>
</tbody>
</table>

- a. Dependent Variable: HDI

### Table 7. SPSS Regression Model Output Results 3

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: EG

a. The Effect of Organizational Commitment in Mediating Budgetary Participation on Managerial Performance.

From tables 5, 6 and 7, the following data can be obtained:

1. Unstandardize Coeff. B Inflation, Regression Equation (1) = a = 0.896
2. Unstandardize Coeff. Std.Error Inflation, Regression Equation (1) = Sa = 0.115
3. Unstandardize Coeff. B PAD, Inflation, Regression Equation (3) = b = 0.416
4. Unstandardize Coeff. Std.Error LGR, Inflation, Regression Equation (3) = Sb = 0.096

The effect of mediation shown by the multiplication coefficient (ab) needs to be tested with the Sobel test as follows:

\[ SBab = \sqrt{b^2Sb^2 + a^2Sa^2} \]

\[ SB^2 = \sqrt{(0.416)^2(0.096)^2 + (0.043)^2(0.096)^2 + (0.043)^2(0.115)^2} = 0.09055 \]

To calculate the t statistic of mediation effect using the following formula:

\[ t = \frac{ab}{SBab} \]

\[ t = \frac{(0.806)(0.416)}{0.09055} = 3.7029 \]

From the above calculation, it is known that the value of t count (3.7029) > t table value (1.96), so the mediation coefficient ab (0.3966) has a mediating effect or intervening LGR in relation to inflation on economic growth.

b. The Effect of HDI in Mediating Inflation on Economic Growth.

From tables 10 and 12 above, the following data can be obtained:

1. Unstandardize Coeff. B Inflation, Regression Equation (2) = c = 0.492
2. Unstandardize Coeff. Std.Error Inflation, Regression Equation (2) = Sc = 0.101
3. Unstandardize Coeff. B HDI, Regression Equation (3) = d = 0.043
4. Unstandardize Coeff. Std.Error HDI, Regression Equation (3) = Sd = 0.108

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The effect of mediation shown by the multiplication coefficient (cd) needs to be tested with the Sobel test, as follows:

\[ Scd = \sqrt{dSc^2 + c^2Sd^2 + Sc^2 Sd^2} \]
\[ = \sqrt{(0.043)^2 + (0.492)^2 + (0.108)^2} + (0.101)^2 (0.108)^2 \]
\[ = 0.002941 \]

To calculate the t statistic of mediation effect using the following formula:

\[ t = \frac{cd}{Scd} \]
\[ = \frac{(0.492)(0.043)}{0.002941} \]
\[ = 7.1935 \]

From the above calculation, it is known that the t arithmetic value (7.1935) is larger than t table value (1.96), so it can be concluded that the mediation coefficient cd (0.02116) means that there is a mediating or intervening HDI effect in relation to inflation on economic growth.

DISCUSSION

A. The Effect of Inflation on LGR

Inflation fluctuates, so economic activity will tend to adjust to conditions that occur. The impact of rising inflation causes a decline in people's purchasing power. Because the real value of the currency has decreased.

Hypothesis 1, namely that there is a negative effect between inflation on LGR can be proven and accepted through the results of regression equation analysis 2. This is indicated by the results of the individual significance test (t-test) regression equation 2 has a value of 4.864 with a significance 0.000 < 0.05 which means means that inflation has a positive effect on LGR. Thus, the higher the inflation rate, the higher the economic growth. The results of this study contradict Salim & Purnamasari (2021) explaining that inflation has a negative effect on economic growth. However, the results of this study also do not support Ronaldo (2019); Endri (2008); which explains that inflation has no effect on economic growth. It is also different from the results of research from Salim & Purnamasari (2021); Arifin (2016) which states that inflation has a positive effect on Economic Growth and supports the results of this study.

B. The Effect of Inflation on Economic Growth

Boediono (2014) in Ningsih & Andiny (2018), inflation is the tendency of prices to rise in general and continuously. An increase in one or two goods is not called inflation, unless the increase is widespread and affects most of the prices of other goods.

Economic growth is defined as the process of increasing the production capacity of an economy which is manifested in the form of an increase in national income. Economic growth can be used as an indicator of the success of economic development. Economic growth is measured by using GRDP. GRDP is actually able to provide an overview of the gross added value generated by production units in an area within a certain period. There are two kinds of prices that are used as the basis for calculating GRDP, namely at current prices and at constant prices. The rate of economic growth is calculated by comparing the GRDP of a certain year with the previous year based on ADHK.

Hypothesis 2, namely that there is an influence between inflation and economic growth can be proven and accepted through the results of regression equation analysis 2. This is indicated by the results of the individual significance test (t-test) regression equation 2 has a value of 4.864 with a significance 0.000 < 0.05 which means means that inflation has a positive effect on Economic Growth. Thus, the higher the inflation rate, the higher the economic growth. The results of this study contradict Salim & Purnamasari (2021) explaining that inflation has a negative effect on economic growth. However, the results of this study also do not support Ronaldo (2019); Endri (2008); which explains that inflation has no effect on economic growth. It is also different from the results of research from Salim & Purnamasari (2021); Arifin (2016) which states that inflation has a positive effect on Economic Growth and supports the results of this study.
Monni (2008) which explains that if the development of human resources has increased it will also have an effect on increasing its economy because the existence of quality human resources can make a real contribution to the growth of an economy, even though in reality the growth The economy has a dual causal relationship with the Human Development Index where each region has its own results due to the different composition of the three HDI components in influencing economic growth in a region. The results of this study support Izzah (2015); Firmansyah & Soejoto (2016); Wididarma & Jember (2021) stated that HDI has a positive effect on economic growth. On the other hand, the results of this study do not support Priestnall et al. (2020); Prameswari et al. (2021); Utami (2020) that HDI has a negative effect on Economic Growth

D. The Effect of Inflation on HDI

Mankiw (2006) that inflation is a natural thing, there is an important variation in the rate of price increase. The public often views this high rate of inflation as a major problem in the economy. The public often views this high rate of inflation as a major problem in the economy.

HDI is a composite number of education, health, and economic indicators. This HDI which is declared can be considered as the Human Welfare Index. The government as the implementer of development certainly requires quality human capital. Hypothesis 3, namely that there is a positive influence between inflation on HDI can be proven and accepted through the results of regression equation analysis 2. This is indicated by the results of the individual significance test (t-test) regression equation 2 has a value of 4.864 with a significance of 0.000 <0.05 which means that inflation has a positive effect on economic growth. Thus, the higher the LGR, the higher the economic growth it has. The higher the LGR of a region, the less the level of fiscal dependence of the region on the center. Furthermore, regions are more flexible and flexible in planning budget allocations according to their economic agenda. Through routine expenditures, development/infrastructure expenditures, or other expenditures, this will further increase the value of GRDP and the level of community welfare. This happens because the regions are more flexible in utilizing LGR in accordance with their economic development agenda. The results of this study support Putri (2015); Santosoto (2020), that LGR has a positive effect on Economic Growth. However, this study contradicts Wididarma & Jember (2021) stating that LGR does not affect economic growth.

F. The Effect of HDI on Economic Growth

The United Nations Development Program (UNDP), the Human Development Index (HDI) measures human development achievements based on a number of basic components of quality of life. The HDI explains how the population can access development outcomes in terms of income, health, education, and so on (UNDP, 1990).
GRDP is the total value generated by all business units (economic sectors) in a region and within a certain time period (Dewi et al., 2020). There are two kinds of prices that are used as the basis for calculating GRDP, namely at current prices and at constant prices. The rate of economic growth is calculated by comparing the GRDP of a certain year with the previous year based on ADHK.

Hypothesis 5, namely that there is a positive influence between HDI on Economic Growth can be proven and accepted through the results of regression equation analysis 2. This is indicated by the results of the individual significance test (t-test) regression equation 2 has a value of 4.864 with a significance of 0.000 <0.05 which means HDI has a significant and positive effect on economic growth. Thus, the higher the HDI level, the higher the economic growth. The results of this study are in line with the research of Izzah (2015); Firmansyah & Soejoto (2016); Widdarma & Jember (2021) stated that HDI has a positive effect on economic growth. However, the results of this study contradict Prameswari et al. (2021), where the Human Development Index (HDI) actually has a negative effect on Economic Growth.

**CONCLUSION**

Inflation has a positive effect on LDR. The higher the inflation, the PAD will increase. Inflation has a positive effect on HDI. This means that the higher the inflation, the higher the HDI. Inflation has a positive effect on economic growth. The higher the inflation, the higher the economic growth. LGR has a positive influence on economic growth. The higher the LGR, the higher the economic growth. HDI has a positive influence on economic growth. The higher the HDI, the economic growth will increase. LGR and HDI are mediating variables proven to be able to mediate the relationship between inflation and economic growth. Government to increase regional revenue sources with the aim of improving public services in the form of health, education and the economy so that the quality of human development increases because if there is a low HDI in one of the Regencies/Cities it will affect the size of the HDI in the Province as a whole.

**REFERENCES**


