

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

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ABSTRACT

The purpose of this study is to analyse the implications of digital innovation of economic growth, labour force and inflation based on a literature study and analyse the relationship between economic growth, labour force and inflation in Indonesia. This study used secondary data obtained from the World Bank in the form of annual data with a quantitative descriptive approach using the Vector Error Correction Model (VECM). The results showed that there was no causal relationship between the labour force and economic growth nor was there a causal relationship between inflation and economic growth, but there was a one-way relationship between labour force and inflation, namely inflation affects the labour force. In the short term, there was no single variable that had a significant influence on economic growth. The labour force on economic growth in 2000-2021 in the short term had a positive and insignificant impact, while inflation on economic growth in 2000-2021 in the short term had a negative and insignificant impact, but in the long term inflation had a positive and significant impact.

KEYWORDS: Digital Innovation, Economic Growth, Force Labor, Inflation, VECM



Introduction

Currently, digital innovation has grown and developed in various fields of people's lives, such as the economy, education, health, banking, transportation, and many other fields. Digital innovation in the economic field or known as the digital economy has an impact on economic activity covering various aspects. This study tries to analyse the implications of digital innovation, especially related to macroeconomic variables, such as economic growth, labour force and inflation.

High economic growth is one of the development priorities because it is one of the successes of development. The indicator used to determine the economic condition of a country in a certain period is indicated by data on the rate of economic growth or the rate of Gross Domestic Product (GDP). Indonesia's economic growth data from 2000 to 2021 showed that Indonesia's economic growth had fluctuated where the highest economic growth in 2007 was 6.35 percent and the lowest economic growth occurred in 2020, which was -2.07 percent or a decline in economic growth of 2.07 percent in 2020 as the impact of the Covid-19 pandemic that occurred in Indonesia.

Several factors that influence economic growth are population and labor. Economic growth is relatively increasing every year and this will also affect the growth of the workforce. The growth of the workforce in Indonesia also continues to increase every year. In 2021 the number of the workforce in Indonesia reached 139.164.551 people.

Good economic growth also needs to be supported by controlled inflation. Lubis (2014) stated that inflation should be controlled so that inflation can have a positive impact on economic growth. When inflation increases it will cause a decrease in the level of investment because an increase in inflation will encourage an increase in interest rates, the increase in interest rates will in turn push investment, causing investment to decline. A decrease in investment means a decrease in production capacity which has an impact on reducing public consumption. The decline in public consumption also means a decrease in aggregate demand (consumption demand), when aggregate demand decreases, this causes the rate of economic growth to decline. So inflation has a negative effect on economic growth. Inflation reduces economic inefficiency because it distorts prices and price signals, when inflation is high it will be difficult to distinguish changes in relative prices and changes in overall prices. Data showed that the highest inflation in Indonesia during the period 2000-2021 occurred in 2006 at 13.11 percent. High inflation was caused by the increase in fuel oil (BBM) and the increase in real interest rates.

Indonesia's economic growth and inflation conditions fluctuated from 2000 to 2021, while the number of Indonesia's labour force continued to increase during the 2000-2021 period. In 2002, when economic growth increased from the previous year, which was 4.5 percent,

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

inflation in Indonesia also increased from the previous year, which was 11.9 percent, while in 2009, when economic growth declined, the inflation rate also declined. In 2012, it happened again when economic growth decreased from the previous year which was 6.03 percent, inflation in Indonesia also fell by 4.28 percent. Likewise in 2020, when economic growth decreased by -2.07 percent, inflation also decreased by 1.56 percent. This caused a phenomenon when Indonesia's economic growth increased, inflation also increased or when Indonesia's economic growth decreased, inflation also decreased. This was not in accordance with the theory, if economic growth increases, inflation will decrease and if economic growth increases, it means that the production process will also increase and will absorb a lot of labour to produce production output, which in the end will also have an impact on increasing the number of the workforce.

Based on the description above, in analysing the implications and relationships between variables, it is necessary to analyse the implications of digital innovation based on a literature study and analyse whether there is a long-term relationship and a reciprocal relationship (causality) between economic growth, labour force and inflation in Indonesia.

Related Literature

Digital Innovation and Economic Growth

Economic growth is the process of changing the economic conditions of a country on an ongoing basis towards a better state over a certain period. There are three basic components needed in the economic growth of a nation: 1) The continuous increase in the supply of goods, 2) advanced technology as the main factor that determines the degree of growth in providing a variety of goods to the population, 3) the widespread and efficient use of technology requires adjustments in the institutional and ideological fields, so that the innovations produced by science and technology can be utilized appropriately (Hasyim, 2017).

The implications of digital innovation and the digital economy cannot be easily measured, causing mismeasurements in the calculation of GDP. The GDP measurement is carefully designed to reflect the level of market economic activity (value added) in the economy including from free digital services (Ahmad & Schreyer, 2016).

Development (2013) classifies approaches to measuring the economic impact of the digital economy into: 1) The direct impact approach by measuring the digital economy as a part of GDP growth, 2) The dynamic impact approach, measuring the digital impact on all industries that affect productivity and GDP growth, 3) Indirect approach, measuring the effect of digital on economic phenomena, such as consumer surplus or how digital contributes to social welfare.

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

Direct digital economy impacts are part of GDP such as consumption, investment, government spending, and net exports. The dynamic impact of the digital economy on economic growth as companies actively seek solutions using digital that help in cutting costs and increasing revenue. Nakamura et al. (2017) developed an experimental method to be able to value digital content from a production perspective that combines marketing and advertising content and the impact of free digital content on US GDP which has been accelerating, especially since 2005.

In Indonesia, the development of digital technology has the potential to increase productivity and economic growth in the future. Das et. al (Das et al., 2016) reports that the use of digital technology can increase productivity which is estimated to have an additional impact of up to USD 120 billion on the Indonesian economy by 2025. The use of technology in finance is expected to increase productivity. The increase in productivity comes from reduced operational costs and digital technology also provides new product innovation and increased sales. Increasing productivity through digital technology will penetrate the financial, manufacturing, retail and transportation sectors. Digital technology also has the potential to add employment to 3.7 million workers and increase Indonesia's GDP to 35 billion US dollars by 2025.

Digital Innovation and Inflation

According to Nopirin (2016) inflation is the process of increasing general prices of goods continuously. This does not mean that the prices of various goods increase by the same percentage, there is an increase but not simultaneously during a certain period.

Low inflation in developed countries, indicated by global factors such as import prices, global output gaps, and integration of trade and production, but does not completely lead to low inflation, there are other factors that are new transmissions suspected of causing low inflation, namely economic digitalization. Digitalization affects inflation through three main transmission channels: 1) directly, through its effect on the prices of goods and services related to ICT (information and communication technology), 2) by changing market structures and the level of competition in certain sectors, 3) by influencing productivity and various labour requirements.

The first channel is through the price index. Two studies conducted by Durand (2016) and Schreyer (2017) state that price measurement is a new challenge for many statistical recording bureaus due to the development of new goods, the addition of new services, as well as products that are tailored to customer desires/tastes (customization) and goods that have similarities but with a different quality. In addition, as products undergo customization, price changes become more difficult to measure and the increase in the number of free digital products such as mobile applications and online travel bookings, is not well recorded in nominal GDP.

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

The second channel that can affect inflation is the effect of market structure and competition. The market structure changes and consumer preferences shift, the next stage of changing the structure will lead to changes in the rate and behaviour of inflation.

Digitization can also affect to the inflation by lowering a company's operating costs due to the advantages of efficiency, automation and new business models. Digital technology increases productivity by saving labour which will ultimately be affected by inflation and depends largely on which effect dominates.

Digital Innovation and Workforce

The labour is the working age population (aged 15-64 years) or the number of residents in a country who can produce goods and services if there is a demand for their labour and if they want to participate in these activities, while the labour force is the productive age population aged 15 -64 years old who already have a job, but are temporarily out of work or who are actively looking for work. The working population by business field is the economic sector that absorbs the most labour. Along with the development of technology in Indonesia, the use of the digital economy has opened up new business spaces, especially in the digital world. In the service sector, there are several providers of transportation service applications that are growing rapidly. This will affect to employment opportunities and changes in employment relationships. The digital economy has the potential to increase the number of jobs which in turn will increase the number of the workforce.

Research conducted by Demografi (2017) aims to measure the impact of Go-Jek on the Indonesian economy and is a survey involving more than 7500 respondents. The survey questions are aimed at answering service quality, increasing income before and after joining Go-Jek and various other variables. This study concludes that with Go-Jek motorbikes reduce unemployment pressure by expanding job opportunities. However, this research is a survey in nature so it is limited to respondents' opinions on the impact of Go-Jek's services on several economic variables and it is not yet known whether Go-Jek's impact applies as a whole to macro variables related to labour.

In the case of Indonesia, Go-Jek is a pioneer in the use of online technology in transportation services that connects not only people in need and motorcycle taxi drivers, but also between the community and MSMEs. Until February 2018, Go-Jek was able to absorb approximately 1.16 million active drivers with 69.5 percent of them being Go-Jek motorbike drivers.

Model Vector Error Correction Model (VECM Model)

VECM is an econometric analysis model that can be used to determine the short-term behavior of a variable against the long-term, due to a permanent shock (Ajija et al., 2011). The assumption that must be met in the VECM analysis is that all independent variables must be

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

stationary. This is indicated by all the residues being white noise, which has zero mean, constant variance, and there is no correlation between the dependent variables. Stationary test can be done by testing the presence or absence of unit root in the variable with Augmented Dickey Fuller (ADF) test. This data stationarity test is important because the presence of a unit root will result in a spurious regression. The approach taken to overcome the spurious regression equation is to differentiate the endogenous and exogenous variables. Thus, a stationary variable with degree $I(n)$ will be obtained.

Stationary data through differentiation only is considered insufficient, the existence of cointegration or long-term and short-term relationships in the model must also be considered. Detection of the presence of this cointegration can be done by the Johansen or Engel-Granger method. If the variables are not cointegrated and stationary on the same order, then standard VAR can be applied which results will be identical to OLS. However, if the test proves that there is a cointegration vector, then ECM can be applied for single equations or VECM for system equations.

Method

The type of data used in this study is secondary data in the form of time series data, namely annual data on economic growth, labour force and inflation in Indonesia for the period 2000-2021. The data source is obtained from the official website of the world bank. The method used in this research is Vector Error Correction Model (VECM) analysis to model the three variables. The stages in the VECM analysis are as follows:

1. Unit Root Test (stationarity check)

VECM modelling is based on time series data which is not stationary but cointegrated. To check the stationarity of the data can be used unit root test using Augmented Dickey Fuller (ADF) test statistic (Rosadi, 2012).

ADF t-statistics $>$ all critical values (1%, 5% and 10%) can mean the data is not stationary, but if ADF t-statistics $<$ all absolute critical values or p-values are less than the significance value, then it can be the stationary data.

2. Optimal Lag

The lag check is used to determine the optimal lag length that will be used in the next analysis and will determine the parameter estimation for the VECM model (Widarjono, 2017).

3. Cointegration Test

The next test is the cointegration test. Cointegration test is interpreted as a long-term equilibrium relationship between variables (Faisal & Ichsan, 2020). If:

Trace test $>$ critical value when, or p value $<$ significance value then there is a cointegration equation.

4. Causality Analysis

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

Causality analysis aims to see the long-run causality and short-run causality. Analysis of the long-term causality relationship between variables in the VECM modelling can be seen in the coefficients of the error correction term (ECT), which is based on the sign and the results of the t test on the Ordinary Least Square (OLS) method. Meanwhile, for short-term causality analysis for each variable, Granger causality test can be used. The Granger causality test is based on the Wald test statistic with a chi square distribution or the F test as an alternative (Lütkepohl, 2011).

5. Model Estimation and Structural Analysis (impulse response and variance decomposition)
The estimation of the VECM model is similar to the estimation and structural of the VAR model. In the VAR model, the analysis uses impulse response analysis and variance decomposition (Lütkepohl, 2011). Impulse response analysis aims to see the effect of each variable (endogenous) if given a shock or impulse (shock), while variance decomposition analysis aims to predict the contribution of each variable (percentage variance of each variable) caused by changes in certain variables in a system.

Result

1. Unit Root Test (Augmented Dickey Fuller)

The first step in this procedure was to perform a unit root test. The results obtained were as shown in Table 1 below.

Table 1. Unit Root Test (Augmented Dickey Fuller)

Variabel	Nilai Kritis (α)	Level		First Difference	
		ADF-statistic	p-value	ADF-statistic	p-value
GDP	5%	-2.337168	0.1704	-6.224767	0.0001
		-3.012363		-3.020686	
FL	5%	1.338148	0.9979	-3.985582	0.0073
		-3.012363		-3.029970	
INF	5%	-2.401384	0.1532	-6.761106	0.0000
		-3.012363		-3.020686	

Source: Results Eviews 12, 2022

Description: GDP: Economic Growth

FL : Labour Force

INF : Inflation

Based on Table 1 above, economic growth, labour force and inflation were data containing unit roots at the level or not stationary at the level because the p-value of each variable was greater than (5%). The results of the first differentiation showed that the data was stationary, it could be seen that each variable was smaller than (5%) meant that the data did not contain unit roots or is stationary.

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

2. Optimal Lag

In determining the optimal lag, values from Likelihood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), and Hannan-Quin Criterion (HQ) were used. Here are the results of the optimal lag test:

Table 2. Optima Lag Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-398.4269	NA	4.51e+14	42.25547	42.40459	42.28070
1	-342.7588	87.89702*	3.38e+12*	37.34303*	37.93952*	37.44398*
2	-341.1240	2.064979	8.03e+12	38.11832	39.16217	38.29498
3	-331.5860	9.036060	9.67e+12	38.06168	39.55290	38.31406

Source: Results Eviews 12, 2022

The purpose of the optimal lag test was to eliminate the autocorrelation problem in the VAR system, so that the autocorrelation problem did not reappear. In Table 2 it could be seen that the LR, FPE, AIC, SC and HQ criteria that met the optimal lag length were at lag 1.

3. Cointegration Test

The cointegration test method in this study used the Johansen cointegration test by looking at the trace statistics. This test was to determine whether there is a long-term effect for the variables studied. If there was a cointegration, then the VECM step could be continued.

Table 3. Cointegration Test Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.
None*	0.706397	53.31403	42.91525	0.0034
At most 1*	0.579282	28.80350	25.87211	0.0210
At most 2	0.436948	11.48766	12.51798	0.0739

Source: Results Eviews 12, 2022

Based on Table 3, the Trace Statistics value for None and At most 1 was greater than the Critical Value with a significance level of five percent with a probability value less than five percent significance, meant that there was a cointegration equation. Thus, between the variables of economic growth, labour force and inflation had a long-term equilibrium relationship and movement in the long run. This also meant that research could be continued using the VECM model.

4. Causality Analysis

Causality analysis in this study used the Granger Causality Test with a significance level of five percent. The presence or absence of causality could be seen from the magnitude of the probability. If the probability was less than 0.05 then there was causality between variables.

Table 4. Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
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THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

FL does not Granger Cause GDP	21	1.90046	0.1849
GDP does not Granger Cause FL		0.52686	0.4773
INF does not Granger Cause GDP	21	1.16114	0.2955
GDP does not Granger Cause INF		0.22448	0.6413
INF does not Granger Cause FL	21	0.85864	0.3664
FL does not Granger Cause INF		21.9756	0.0002

Source: Results Eviews 12, 2022

The variable of economic growth does not significantly affect the labour force, and vice versa, the variable of the labour force also does not significantly affect the variable of economic growth. This can be seen from the probability value of each being greater than 0.05, so that there was no causality between the two variables of economic growth and the labour force. The variable of economic growth was not statistically significant in influencing inflation and vice versa, the variable of inflation did not significantly affect the variable of economic growth as evidenced by the probability value of each of which was greater than 0.05 so that there was no causality between the variables of economic growth and inflation.

The labour force variable did not statistically affect the inflation variable, but the inflation variable significantly affected the labour force variable, this can be seen from the probability value which was smaller than 0.05, meant that there was a one-way causality between the labour force variable and inflation. Thus, inflation affected the labour force, if more of the workforce was unemployed, the production process will be hampered and result in reduced purchasing power, resulting in scarce production goods and inflation. With the digital economy, it is hoped that more people will use technology to improve their economy so that workers are no longer unemployed and the production process can run, which in turn can control inflation.

5. Model Estimation and Structural Analysis *VECM Estimation Results*

The results of the VECM estimation are short-term and long-term relationships between economic growth, labour force and inflation.

Table 5. Short-term VECM Estimation Results

Variable	Coefficient	t-Statistics	t-Table
CointEq1	-0.175328	[-0.96562]	
D(GDP(-1))	-0.388666	[-1.78072]	
D(FL(-1))	0.659072	[2.04912]	2.07961
D(INF(-1))	-0.162282	[-0.76601]	

Source: Results Eviews 12, 2022

In Table 5, the short-term VECM estimation results showed that the labour force (FL) and inflation (INF) variables at lag 1 had no significant effect on the economic growth variable (GDP) because the t-statistic value was smaller than the t-table.

Table 6. Long-Term VECM Estimation Results

Variable	Coefficient	t-Statistics	t-Table
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THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

FL(-1)	-4.20E-09	[-0.46899]	2.07961
INF(-1)	-0.473742	[-4.58674]	

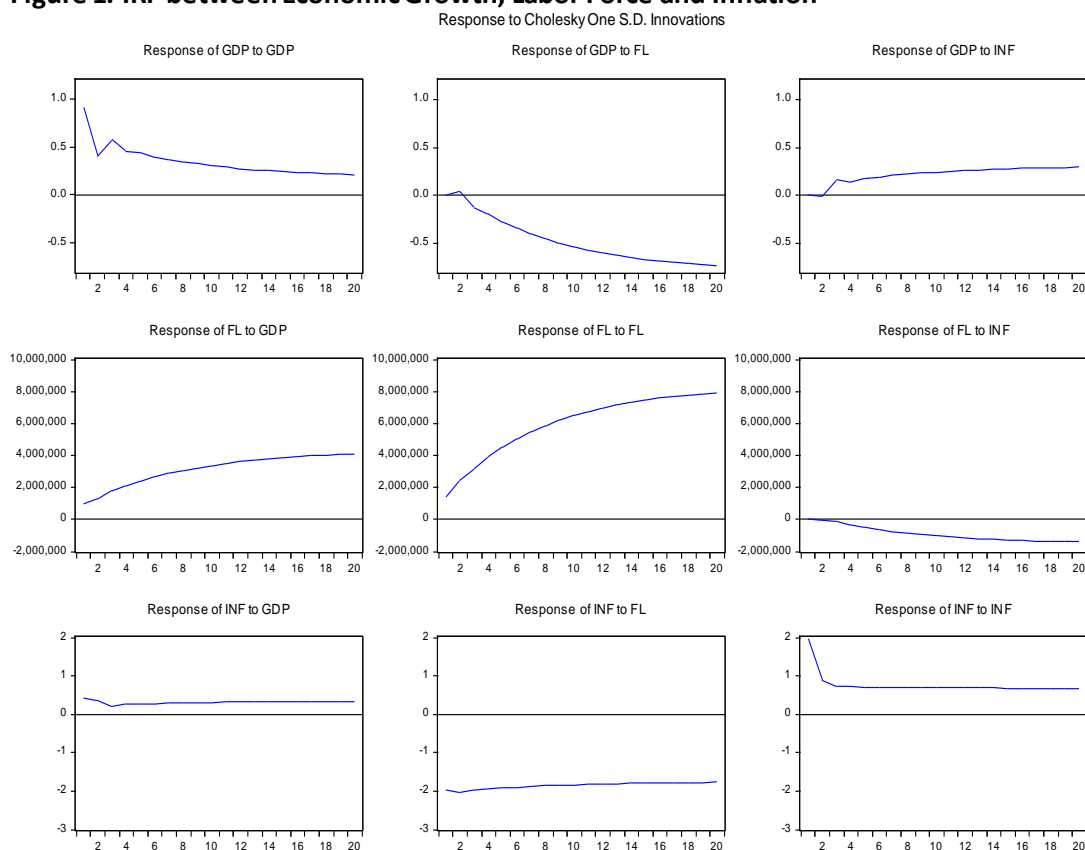
Source: Results Eviews 12, 2022

Based on Table 6, in the long run only inflation variable (INF) affected economic growth with a t-statistic value greater than t-table. The inflation variable had a positive and significant effect on the economic growth variable, meant that if there was an increase in inflation, then economic growth will also increase in the long term.

6. Structural Analysis Impulse Response Function (IRF)

IRF analysis can see the long-term dynamic response of each variable if there is a certain shock and also serves to see how long the influence lasts until the effect disappears and converges again.

Figure 1. IRF between Economic Growth, Labor Force and Inflation



Source: Results Eviews 12, 2022

Figure 1 shows the IRF between economic growth, labour force and inflation. First, the response of economic growth to the labour force (response of GDP to FL) shows that the response of the labour force initially increased until the third period, then a shock occurred in the workforce so that the response began to decline and shrink to below the horizontal line which indicates the labour force has a negative impact. Economically, it can be concluded that the realization of the labour force in Indonesia has changed, tends to decline and has a negative impact.

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

The second response of economic growth to inflation (response of GDP to INF) shows that in the second to third period inflation is below the horizontal line which indicates that this variable has a negative impact, then in the fourth period inflation begins to fluctuate and is above the horizontal line with tendency to increase, in the seventeenth period inflation has begun to stabilize. Economically, it can be concluded that inflation in Indonesia has experienced positive and negative changes from year to year.

The third is the response of the labour force to economic growth (response of FL to GDP). The results of the IRF analysis show that changes / shocks that occur in economic growth are always responded positively. From the first period to the twentieth period, economic growth continued to increase. Economically, it can be concluded that the realization of economic growth in Indonesia has changed from year to year.

Fourth is the response of the labour force to inflation (response of FL to INF). The results of the IRF analysis show that changes/shocks that occur in inflation have a negative response and tend to continue to decline from the first to the twentieth period. Economically, it can be concluded that the realization of inflation in Indonesia always experiences negative changes from year to year.

Fifth is the response of inflation to economic growth (response of INF to GDP). The results of the IRF analysis show that the changes / shocks that occurred in economic growth responded positively and were above the horizontal line, from the first period to the third period economic growth decreased then economic growth increased again in the fourth period and moved steadily until the second period. twenty. Economically, it can be concluded that the realization of economic growth in Indonesia is stable and has a positive response to inflation from year to year.

The sixth is the inflation response to the labour force (response of INF to FL). The results of the IRF analysis show that changes / shocks that occur in the workforce have a negative response and are below the horizontal line and tend to continue to increase. In the fifth to eighth period, the labour force continues to increase and in the ninth to twentieth period it moves steadily, but remains below the horizontal. Economically, it can be concluded that the realization of the labour force in Indonesia has a negative response to inflation and continues to increase from year to year.

Variance Decomposition

Analysis of variance decomposition is an analytical tool that provides information about the proportion of the movement of the influence of shock on one variable to other variables at this time and in the future period and measures the contribution or composition of the influence of each independent variable on the dependent variable.

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

Table 7. Result of Variance Decomposition of GDP

Variance Period	S.E.	GDP	FL	INF
1	0.911344	100.0000	0.000000	0.000000
2	1.001976	99.83272	0.156792	0.010493
3	1.175265	96.77538	1.277261	1.947362
4	1.282196	93.88601	3.311888	2.802098
5	1.397819	89.21221	6.789523	3.998265
6	1.506584	83.91200	11.06214	5.025851
7	1.618360	78.15450	15.83719	6.008310
8	1.731452	72.37388	20.75445	6.871672
9	1.846791	66.79249	25.57915	7.628361
10	1.963673	61.56854	30.15509	8.276368
11	2.081662	56.77466	34.39783	8.827507
12	2.200141	52.43409	38.27278	9.293128
13	2.318586	48.53668	41.77751	9.685816
14	2.436528	45.05431	44.92870	10.01699
15	2.553578	41.95024	47.75290	10.29686
16	2.669429	39.18512	50.28077	10.53411
17	2.783838	36.72044	52.54350	10.73605
18	2.896627	34.52031	54.57096	10.90874
19	3.007666	32.55226	56.39060	11.05714
20	3.116868	30.78750	58.02716	11.18534

Source: Results Eviews 12, 2022

Based on Table 7, to see the effect of the variables of economic growth, labour force and inflation, it can be seen that in the first period, the variable of economic growth is influenced by the variables themselves, but with increasing period, other variables begin to affect although the magnitude is not as big as the effect of the economic growth rate itself. As the period increases, the ability of the labour force to influence economic growth increases, while the ability of inflation to influence economic growth decreases. Among the two variables that contribute to economic growth, namely the labour force and inflation, the labour force variable is more capable in explaining economic growth than inflation. This is evident from the percentage of variance decomposition of economic growth to the labour force which continued to increase until the 20th period, reaching 58.03 percent, while economic growth to inflation, its contribution only reached 11.19 percent.

Discussion

Labor Force on Economic Growth in Indonesia

The results of the Granger causality test showed that there was no causal relationship between the labour force and economic growth and the results of the IRF test indicated that the labour force has changed and had a negative impact. This is because the increase in the number of the workforce if it is not followed by an increase in job opportunities or the number of the workforce cannot be distributed as a whole to a large enough job field and the small absorption of labour results in a low growth rate of job creation to accommodate workers who

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

are ready to work, which in turn causes the number of unemployed to increase, if unemployment increased it will have an impact on economic growth in Indonesia which will decline. With the digital economy, such as the existence of application service providers for transportation services, the presence of e-commerce which is an opportunity for micro, small and medium enterprises (MSMEs), it is hoped that more workers will be created and job opportunities will be wider and increase job opportunities and reduce unemployment, so that economic growth will increase.

Inflation on Economic Growth in Indonesia

Based on the results of the Granger causality test, there was no causal relationship between inflation and economic growth. The results of the IRF test showed that inflation in Indonesia underwent changes that had negative and positive impacts and moved steadily until the end of the period. This is in accordance with the research conducted by Quartey (2010) which uses the Johansen method to investigate whether there is an impact of maximizing income from inflation on economic growth in Ghana, the result was that there was a negative impact of inflation on economic growth. Research conducted by Umaru and Zubairu (2012) reveals that inflation had a positive impact on economic growth, through productivity and output levels.

Labor Force on Inflation in Indonesia

Granger Causality test results showed that there was a one-way relationship between the labour force and inflation with inflation affecting the labour force. The results of the IRF test showed that inflation in Indonesia was responded negatively from year to year. If the labour force was more unemployed, the production process will be hampered and result in reduced people's purchasing power, resulting in scarce production goods and reduced employment. However, inflation also plays a role in creating jobs. Low inflation can help determine the availability of jobs created by stable economic growth (Mansi et al., 2020).

Conclusion

Based on the results and discussion in this study, it can be concluded that by using the Granger causality test, the results showed that the labour force and economic growth variables did not have a causal relationship, inflation and economic growth variables did not have a causal relationship, while the labour force and inflation variables did not have a causal relationship but has a one-way relationship, namely inflation affected the labour force. The test resulted using the VECM model showed that in the short term, none of the variables had a significant effect on economic growth, the labour force on economic growth in 2000-2021 in the short term had a positive and insignificant impact, the inflation variable on economic growth in 2000-2021 in the short term would have a negative and insignificant impact. In the long term, the effect of inflation on economic growth in Indonesia in 2000-2021 would have a positive and significant impact. The results of the IRF analysis showed that the labour force in Indonesia experienced changes, which initially increased in the first two years, due to a shock, then

THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

tended to decrease and had a negative impact until the end of the period. Inflation in Indonesia experienced a change and had a negative impact in the first two years and tended to rise and had a positive impact until it stabilized at the end of the period. The results of the variance decomposition test showed that the labour force provided the largest contribution in explaining economic growth and inflation provided the smallest contribution in explaining economic growth.

To expand employment field and employment opportunities, the government's contribution is needed to support and empower the community optimally through informal education that supports community independence and also to maintain inflation stability in the long term by encouraging the increasing role of MSMEs through optimizing digitalization and the role of regional and central governments and monetary authorities. In synergizing to keep inflation stable with various programs that can encourage an increase in people's purchasing power which will ultimately lead to an increase in economic growth.

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THE IMPLICATIONS OF DIGITAL INNOVATION AND ANALYSIS OF THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, THE WORK FORCE AND INFLATION IN INDONESIA

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