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ERROR CORRECTION MODEL ANALYSIS OF THE EFFECT OF ECONOMIC GROWTH RATE (LPE), IINFLATION AND UNEMPLOYMENT ON HOUSEHOLD CONSUMPTION IN NORTH SUMATRA (2001-2021)

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Abstract
The primary component of aggregate demand, which represents both the stability of the local economy and the degree of community wellbeing, is household consumption. The purpose of this study is to examine how household spending in North Sumatra Province was affected by the Economic Growth Rate (LPE), inflation, and unemployment between 2001 and 2021. To assess both short-term and long-term correlations between variables, secondary data is analyzed using the Error Correction Model (ECM). According to the study's findings, long-term household consumption is positively and significantly impacted by LPE, indicating that economic expansion can raise people's purchasing power. In the meanwhile, both in the short and long term, unemployment and inflation have a detrimental but insignificant impact. A robust adjustment mechanism to the long-term balance is indicated by the significant correction coefficient of −0.969383. Therefore, it can be said that household spending in North Sumatra is mostly influenced by economic growth, with inflation and unemployment having comparatively little effect. The results of this research have implications for the importance of inclusive economic growth policies to strengthen household consumption, in line with achieving the Sustainable Development Goals (SDGs), especially Goal 1 (No Poverty) and Goal 8 (Decent Work and Economic Growth).

Keywords: Economic Growth Rate, Error Correction Model, Household Consumption, Inflation, Unemployment.

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INTRODUCTION

In macroeconomic studies, household consumption is always the main focus because of its very dominant role. First, household consumption makes the largest contribution to national income. In many countries, consumption expenditure reaches 60-70 percent of total national income, so its portion is much larger than the combination of the other three components, namely corporate investment, government spending and net exports (exports minus imports). Second, household consumption also plays an important role in determining the rise and fall of economic activity from time to time. In the long term, people's consumption and savings patterns have a major influence on the direction of economic growth (Sangaji, 2009). As a result, household consumption serves as both the primary component of GDP and a crucial metric for evaluating a region's economic stability. Understanding the factors influencing consumption at the provincial level is crucial for the development of fiscal and social policies since changes in consumption patterns directly affect aggregate demand, production, and growth rates.

The unemployment rate affects households' ability to earn income, which in turn can suppress real consumption levels. This condition is especially true in areas such as North Sumatra, where the labor market often experiences fluctuations due to changes in economic structure and commodity price dynamics. Various empirical evidence shows that unemployment has various influences on regional welfare indicators, so it needs to be investigated further(Siagian dkk, 2025).

Consumption is impacted by inflation in two ways. Inflation might motivate people to increase their consumption in the present when it is moderate. However, actual purchasing power declines and the makeup of household spending shifts when inflation is too high. Therefore, it is vital to investigate how inflation impacts consumption in Indonesia so that monetary policy may be more targeted in sustaining people's purchasing power.(Sahbana Kudadiri & Aurelia Sinaga, 2023)

The Error Correction Model (ECM) method is considered suitable for this research because it is able to differentiate short-term dynamics and long-term relationships (cointegration) between household consumption and macroeconomic variables such as unemployment, economic growth and inflation. The ECM also makes it possible to measure the speed of adjustment when deviations from balance occur. A number of previous studies in Indonesia have used ECM to capture these adjustment mechanisms.(Yulianisah, 2019)

Even though various national literature has discussed the relationship between consumption, economic growth, inflation and labor factors, studies that specifically

combine unemployment, economic growth and inflation on household consumption using the ECM approach in North Sumatra are still limited, especially for the 2001–2021 period. Therefore, this research is present to fill this gap with the aim of analyzing cointegration, estimating short-term and long-term effects, and preparing policy recommendations that can maintain the stability of household consumption amidst regional economic dynamics..(Ridha & Ismanidar, 2025)

In macroeconomic studies, household consumption is always the main focus because of its very dominant role. First, household consumption makes the largest contribution to national income. In many countries, consumption expenditure reaches 60-70 percent of total national income, so its portion is much larger than the combination of the other three components, namely corporate investment, government spending and net exports (exports minus imports). Second, household consumption also plays an important role in determining the rise and fall of economic activity from time to time. In the long term, people's consumption and savings patterns have a major influence on the direction of economic growth(Isliana, 2019; Mubyarto, 2001; Rofiuddin et al., 2024). As a result, household consumption serves as both the primary component of GDP and a crucial metric for evaluating a region's economic stability. Understanding the factors influencing consumption at the provincial level is crucial for the development of fiscal and social policies since changes in consumption patterns directly affect aggregate demand, production, and growth rates.

The state of the labor market is one macroeconomic element that affects household consumption. A high unemployment rate is a sign of inefficient labor usage and can lead to a drop in household income, which in turn puts pressure on levels of real consumption.(Okun et al., 1973) shows that an increase in unemployment is closely related to a temporary slowdown in output growth (Kristiana et al., 2022) found that a 1 percent increase in unemployment can reduce Gross Domestic Product growth. Apart from having an economic impact, unemployment also triggers social problems such as increasing poverty and social instability, as well as increasing the government's fiscal burden. This condition is relevant for North Sumatra, whose labor market often fluctuates due to changes in economic structure and dynamics of regional leading sectors. (Julyanthry et al., 2020; Sondang, 2006).

However, through raising people's income, economic growth serves as the primary force behind rising consumption. Theory (Keynes, 1936b, 1936a) highlighted that, although though the growth is not always proportionate, expanding employment opportunities will boost national income and promote consumption. Numerous empirical studies conducted in Indonesia demonstrate that economic growth bolstered by the creation of jobs and raising the caliber of the labor force can increase household consumption and people's purchasing power. (Maulana, 2019; Aminah, 2019; Nurul Amin, 2014). Thus, the rate of economic growth is an important variable in explaining the dynamics of household consumption, especially in the long term.

Inflation also has a strategic role in influencing consumption behavior. An increase in the prices of goods and services in general will reduce the real purchasing power of households, especially for low-income groups. Friedman (1957) dan Modigliani (1966) explained that uncontrolled inflation tends to suppress real consumption because households have to allocate greater expenditure for basic needs. Recent empirical findings in Indonesia show that the impact of inflation on consumption is heterogeneous across income groups, but in general high inflation has

the potential to disrupt economic stability and weaken growth. (Sahbana Kudadiri & Aurelia Sinaga, 2023; Jurnal Areai, 2024).

The relationship between economic growth, inflation and unemployment on household spending is not only static, but also dynamic in the short and long term. As a result, the Error Correction Model (ECM) approach is seen to be suitable for capturing both the adjustment process and the cointegration relationship between variables when long-term balance deviations take place. (Gujarati, 2003). ECM allows identification of short-term influences as well as speed of adjustment towards balance, as has been implemented in a number of studies in Indonesia (Yulianisah, 2019).

Although national literature has widely discussed the relationship between consumption and economic growth, inflation and labor factors, studies that simultaneously combine the rate of economic growth, inflation and unemployment on household consumption using the ECM approach in North Sumatra Province are still relatively limited, especially for the 2001–2021 period. Therefore, this research is here to fill this gap by analyzing short-term and long-term relationships between variables, as well as providing an empirical basis for formulating policies aimed at maintaining the stability of household consumption amidst regional economic dynamics. (Ridha & Ismanidar, 2025).

RESEACRH METHOD

In this research, a quantitative approach was used with secondary time series data for the period 2001–2021 sourced from the Central Statistics Agency (BPS). The variables used are household consumption as the dependent variable, as well as the open unemployment rate, economic growth rate (LPE), and inflation as independent variables.

Data analysis was carried out using EViews 12 through several stages: (1) stationarity test with Augmented Dickey-Fuller (ADF); (2) long-term regression estimation using the OLS method to obtain equations and residuals; (3) Engle-Granger cointegration test to ensure long-term balance; (4) establishment of an Error Correction Model (ECM) to analyze short-term relationships by including ECT(-1) as an adjustment mechanism; and (5) classical assumption tests including normality, multicollinearity, heteroscedasticity and autocorrelation to ensure the model meets the BLUE criteria.

With these stages, this research can identify the influence of unemployment, LPE, and inflation on household consumption in North Sumatra in 2001-2021 in the short and long term.

RESULT AND DISCUSSION

1. Stationary Test

Stationary Test is a method for finding out whether time series data has a constant average variance throughout the observation period. The data is stationary if it does not contain a trend or unit root, so that the movement pattern is stable and can be predicted statistically (Di Asih, 2012). Stationary criteria are generally determined through the Augmented Dickey Fuller (ADF) test, where the ADF must be negative and smaller than the MCKinnon critical value and the probability is smaller than 0.05.

Tabel 1. Unit Root Test Results at Level Level

Variabel	ADF Value (t-statistik)	Critis Value Mc.Kinnon 1%	Critis Value Mc. Kinnon 5%	Cristis Value Mc. Kinnon 10%	Probability	Ket
LPE	-2.364.740	-3.808.546	-3.020.686	-2.650.413	1,1347	TS
INFLATION	-0.932.394	-3.857.386	-3.040.391	-2.660.551	5,2312	TS
UNEMPLOYMENT	-2.637.496	-3.808.546	-3.020.686	-2.650.413	0,71041	TS
KRT	-2.129.760	-3.920.350	-3.065.585	-2.673.460	1,64305	TS

Source Data Processed, 2025

Keterangan
TS : Not Stationer
S : Stasioner

From the results of all variables in the unit root test at the LEVEL level, the variables LPE (Economic Growth Rate), Inflation, Unemployment and KRT (Household Consumption) are not stationary. This is illustrated by the ADF t-statistic value for all variables being greater than the McKinnon value at the 1%, 5% and 10% levels, as well as the probability value being greater than 0.05.

Tabel 2. Hasil Uji Unit Root Pada First Difference

Variabel	ADF Value	Cristis Value MC. Kinon			*prob*	Ket.
	t-statistik	1%	5%	10%		
LPE	-6.204.738	-3.831.511	-3.029.970	-2.655.194	0.0001	S
INFLATION	-4.970.439	-3.920.350	-3.065.585	-2.673.460	0.0014	S
UNEMPLOYMENT	-4.805.114	-3.831.511	-3.029.970	-2.655.194	0.0013	S
KRT	-5.721.042	-3.920.350	-3.065.585	-2.673.460	0.0003	S

Source Data Processed, 2025

Based on the results of the unit root test at the first difference level, all research variables in the form of LPE (Economic Growth Rate), Inflation, Unemployment and KRT (Household Consumption) are stationary. This can be seen from the absolute value of the ADF t-statistic produced by the four research variables which is smaller when compared to the MCKinnon value at 1%, 5% and 10% with a probability value smaller than 0.05.

1. The ADF t-statistic LPE (X1) value is -6,204,738 < a1%, 5% and 10% and the probability value is 0.0001 < 0.05
2. The ADF t-statistic for Inflation (X2) is -4,970,439 < a1%, 5% and 10% and the probability value is 0.0014 < 0.05
3. The ADF t-statistic value for Unemployment (X3) is -4,805,114 < a1%, 5% and 10% and the probability value is 0.0013 < 0.05
4. The ADF t-statistic KRT (Y) value is -5,721,042 < a1%, 5% and 10% and the probability value is 0.0003 < 0.05

2. Long Term Regression

Long-term regression analysis was carried out to identify the balance relationship between household consumption and the rate of economic growth, inflation and unemployment in the observation period. This test aims to capture the permanent influence of each independent variable on household consumption, with the assumption that the relationship between variables has reached a long-term equilibrium condition. The long-term regression estimation results are presented in Table 3.

Tabel 3. Long Term Testing Results

Dependent Variable: KRT
Method: Least Squares
Date: 09/26/25 Time: 20:14
Sample: 2001 2021
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LPE	0.690548	0.161422	4.277.909	0.0006
INFLATION	-0.023800	0.029943	-0.794821	3,04375
UNEMPLOYEMENT	-0.002190	0.001331	-1.645.411	0,82916667
C	1.972.870	0.884968	2.229.312	0,28125

Source Data Processed, 2025

The results of long-term regression testing produce the following equation:

KRT = 1.972870 + 0.690548 LPE – 0.023800 INFLATION – 0.002190 UNEMPLOYMENT

It can be seen that the LPE variable (X1) has a significant long-term effect on KRT (Y) with a probability of 0.0006 < 0.05. Meanwhile, the other variables are not significant because the probability is > 0.05.

Inflation (X2) shows that the probability value is 0.4383 > 0.05, which indicates that inflation has no significant effect in the long term. Likewise with the Unemployment variable (X3), it can be seen that the probability value is 0.1194 > 0.05, which indicates that unemployment has no significant effect in the long term.

In the long term, the rate of economic growth (LPE) shows a positive and significant influence on household consumption in North Sumatra Province. The LPE

coefficient of 0.690548 indicates that every 1 percent increase in economic growth will increase household consumption by 0.69 percent, assuming other variables are constant. This finding is in line with Keynesian theory which states that an increase in national income as a result of economic growth will encourage an increase in public consumption, although not always proportional. High statistical significance (probability 0.0006 < 0.05) shows that in the long term, economic growth is the main determinant of household consumption. This condition is relevant to the economic structure of North Sumatra which is supported by the trade, processing industry and plantation sectors, where the growth of these sectors contributed directly to increasing people's income and household purchasing power during the 2001–2021 observation period.

The long-term inflation variable shows a negative coefficient of –0.023800, which means that increasing inflation tends to reduce household consumption, although this effect is not statistically significant. Theoretically, this result is consistent with the view of Friedman and Modigliani who state that inflation suppresses real consumption because rising prices of goods and services reduce people's purchasing power. However, the insignificance of the influence of inflation (probability > 0.05) indicates that in the long term households in North Sumatra are relatively capable of adjusting their consumption patterns to price changes, either through consumption substitution or spending adjustments. Empirically, inflation conditions in North Sumatra during the research period tended to be at a moderate and fluctuating level, so that the impact on household consumption in the long term was not too strong.

Unemployment also shows a negative coefficient of –0.002190, which indicates that an increase in the unemployment rate tends to reduce household consumption. Theoretically, this finding is in line with Okun's law which emphasizes that increasing unemployment has implications for decreasing aggregate income and people's purchasing power. However, the effect of unemployment in this study is not statistically significant in the long term. This indicates that the impact of unemployment on household consumption in North Sumatra is more short term, while in the long term households tend to make adjustments through alternative sources of income, the informal sector, or family support. This condition reflects the characteristics of the employment structure in North Sumatra which is relatively flexible and supported by the informal sector, so that fluctuations in the unemployment rate do not directly suppress household consumption in the long term.

Overall, the long-term estimation results show that economic growth has a dominant role in shaping household consumption patterns in North Sumatra Province, while inflation and unemployment have a relatively weak influence. These findings confirm that the stability and increase in household consumption in the long term is more determined by the sustainability of regional economic growth than by price fluctuations or labor market conditions.

3. Cointegration Test

The cointegration test is carried out after going through the unit root test and determining the degree of integration. The purpose of this test is to ascertain whether the residuals from the regression results are stationary or not. If there are variables that have different degrees of integration, then these variables cannot form a cointegration relationship(Juanda & Junaidi, 2012). Thus, the residual obtained must be stationary at the level with a probability value of less than 0.05

Tabel 4. Cointegration Test Result

Variabel	Probability	Std.Eror
ECT	0.0122	Terdapat Kointegrasi

Source Data Processed, 2025

The probability value for the ECT variable is 0.012 which is smaller than 0.05. This condition indicates that ECT is stationary at the level, so it can be concluded that the variables KRT, LPE, inflation and unemployment are cointegrated with each other or have a long-term and short-term relationship. Therefore, the analysis can proceed to the next stage, namely estimating long-term and short-term equations(Tersiana, 2018).

4. Short Term Regression Test (ECM)

Error Correction Model (ECM) is an analysis method in econometrics that functions to see short-term and long-term relationships. This model can be applied if all variables are stationary at the same level of difference, for example at the first difference or second difference, making it possible to use regression with the ECM approach.

Tabel 5. Short Term Regression Testing Results

Dependent Variable: D(KRT)
Method: Least Squares
Date: 09/26/25
Time: 20:17
Sample (adjusted): 2002 2019
Included observations: 18 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LPE)	-0.020319	0.135901	-0.149517	6,13472222
D(INFLATION)	0.015903	0.011870	1.339.719	1,41180556
D(UNEMPLOYEMENT)	0.001342	0.000820	1.635.383	0,87430556
ECT(-1)	-0.969383	0.137430	-7.053.666	0.0000
C	0.105870	0.077968	1.357.871	1,37222222
Statistik	**Value**	**Statistik**	**Value**	
R-squared	0.824428	Mean dependent var	0.086111	
Adjusted R-squared	0.770406	S.D. dependent var	0.679404	
S.E. of regression	0.325543	Akaike info criterion	0.823488	
Sum squared resid	1.377.716	Schwarz criterion	1.070.813	
Log likelihood	-2.411.389	Hannan-Quinn criter.	0.857590	
F-statistic	1.526.096	Durbin-Watson stat	1.205.918	
Prob(F-statistic)	0.000078			

Source Data Processed, 2025

Referring to the ECM data processing results table, the regression equation formed is as follows:
KRT = 0,105670 – 0.020319 LPE + 0.015903 INFLATION + 0.001342 – 0.969383 (ECT(-1)

In table 5 it is known that the error correction term coefficient value ECT(-1) has a significant effect at the 1% level with a value of -0.96. This provides information that the ECM model is valid and this indicates that there is a long-term relationship between KRT and LPE (X1), Inflation (X2), and Unemployment (X3) where 96% of the long-term imbalance will be corrected each period. However, the short-term coefficients of variables x1, x2, x3 are not significant, probability > 0.05, so it can be interpreted that changes in the independent variables have not been able to influence KRT in the short term. Thus, the influence of LPE, Inflation and Unemployment is more accumulative and only has a real impact in the long term.

In table 5, it can be seen that the probability F statistic is 0.000078 <0.05, so simultaneously in the short term all variables have an influence on household consumption (krt). Adjusted R-Sqared also shows 0.770406, where 77.40% of variable Y can be explained by X1, x2, and x3 while the remaining 22.60% is explained by other variables outside the model. The R Squared value is 0.824428, where the independent variable has a very strong relationship with Y.

Classical Assumption Test

Classical assumption testing is carried out to ensure that the Error Correction Model (ECM) model used meets the Best Linear Unbiased Estimator (BLUE) criteria, so that the regression estimation results can be interpreted validly and reliably. Classic assumption tests in this research include normality, multicollinearity, autocorrelation and heteroscedasticity tests.The results of the normality test using Jarque–Bera statistics show a probability value of 0.569991 which is greater than the 5 percent significance level. This indicates that the residuals in the model are normally distributed, so the normality assumption is met. A normal residual distribution is an important requirement in testing parameter significance, especially in samples with a limited number of observations such as in this study.

Next, a multicollinearity test was carried out to see whether there was a high correlation between the independent variables in the ECM model. Based on the centered Variance Inflation Factor (VIF) value, all independent variables, namely changes in the rate of economic growth, inflation, unemployment, and error correction term (ECT), have VIF values below 10. This finding shows that there is no multicollinearity problem in the model, so that each independent variable is able to explain its influence on the dependent variable separately without distorting the strong linear relationship.

The autocorrelation test was carried out using the Breusch–Godfrey Serial Correlation LM Test to ensure there was no serial correlation in the residuals. The test results show that the Chi-Square probability value is greater than 0.05, so the null hypothesis which states there is no autocorrelation cannot be rejected. Thus, the residuals in the ECM model are independent between periods, which indicates that the model specification has been able to capture the dynamics of time series data well.

Apart from that, the heteroscedasticity test using the Glejser method shows that the Chi-Square probability value in Obs*R-squared is greater than the 5 percent significance level. These results indicate that the residual variance is constant or homoscedastic, so there is no heteroscedasticity problem in the model. This condition is important to ensure that the estimated regression coefficients are unbiased and have minimum variance. Overall, the results of the classical assumption test show that the ECM model used in this research meets all the basic assumptions of linear regression. Therefore, the results of short-term and long-term regression estimates can be used as a basis for analysis and drawing conclusions regarding the influence of the rate of economic growth, inflation and unemployment on household consumption in North Sumatra Province.

1. Normalitas Test

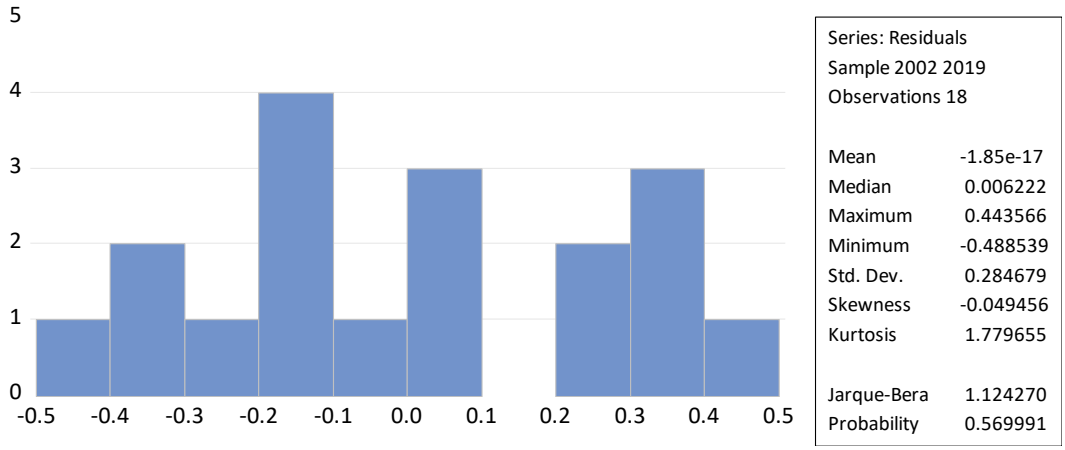

Figure 1. Normalitas Test Results
Source Data Processed, 2025

Based on the Jarque-Bera probability results showing 0.569991 > 0.05, the data is normally distributed and passes the normality test.

2. Multikolineritas Test

Tabel 6. Multikolineritas test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
D(LPE)	0.018469	1.220.432	1.205.545
D(INFLATION)	0.000141	1.055.390	1.043.922
D(UNEMPLOYEMENT)	6.73E-07	1.141.468	1.133.184
ECT(-1)	0.018887	1.140.684	1.139.481
C	0.006079	1.032.489	NA

Source Data Processed, 2025

Based on the results above, it shows that:
The variable LPE (X1) VIF is 1.205545 < 10, so multicollinearity does not occur.
Inflation Variable (X2) VIF is 1.043922 < 10, so multicollinearity does not occur.
Unemployment Variable (X3) VIF is 1.133184 < 10, so multicollinearity does not occur.

The ECT(-1) VIF variable is 1.139481 < 10, so multicollinearity does not occur.

3. Autocorelation Test

Tabel 7. Auticorelattion test Result

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.247.679	**Prob. F(2,11)**	2,255556
Obs*R-squared	3.328.288	**Prob. Chi-Square(2)**	1,315278

Source Data Processed, 2025

Based on the table above, it can be seen that prob.chi-square(2) is 0.1894 > 0.05, so there is no autocorrelation.

4. Heteroskedastisitas Test

Tabel 8. Heteroskedastisitas Test Result

Heteroskedasticity Test: Glejser
Null hypothesis: Homoskedasticity

F-statistic	0.807505	Prob. F(4,13)	3,76458333
Obs*R-squared	3.582.271	Prob. Chi-Square(4)	3,23263889
Scaled explained SS	1.665.359	Prob. Chi-Square(4)	5,53472222

Source Data Processed, 2025

Based on the results of the table above, it can be seen that prob.chi-square(4) in Obs.R-square is 0.4655 > 0.05, so the data does not contain heteroscedasticity.

Based on the estimation results using the Error Correction Model (ECM) approach, it was found that household consumption (KRT) in North Sumatra has a long-term relationship with the macroeconomic variables tested. This is indicated by the Error Correction Term (ECT) coefficient of −0.969383 which is significant at the 1% level ($p < 0.01$). This value confirms that the model is valid and that there is a very strong adjustment mechanism, where around 96% of the imbalance in household consumption relative to long-term conditions will be corrected each period. In other words, even though shocks occurred in the short term, household consumption in North Sumatra was able to return to its equilibrium point very quickly.

If viewed per variable, the estimation results show that the Economic Growth Rate (LPE) has a positive and significant effect on household consumption in the long term ($p = 0.0006 < 0.05$). This indicates that economic growth is able to increase people's purchasing power and encourage sustainable consumption. On the other hand, inflation ($p = 0.4383 > 0.05$) and unemployment ($p = 0.1194 > 0.05$) have a negative direction in the long term, but are not significant so they are not strong enough to explain variations in household consumption statistically. Meanwhile, in the short

term, the three independent variables are both insignificant ($p > 0.05$), which means that momentary fluctuations in LPE, inflation or unemployment have not had a real influence on people's consumption patterns. Thus, the results of this research confirm that in North Sumatra Province, the influence of macroeconomic variables is only felt in the long term, especially through economic growth, while inflation and unemployment, although in line with theory, have not been proven to be statistically significant.

This finding is in line with a number of previous studies which show that the Economic Growth Rate (LPE) has a positive and significant influence on household consumption in Indonesia. These results confirm that economic growth acts as a key factor that can strengthen public consumption (Rumpun & Daroen, 2024), and this is also proven in this study which uses data from North Sumatra Province, showing the significance of LPE in the long term.(Siti Fatimah Azzahra et al., 2024) found that unemployment tends to have a negative effect on household consumption due to reduced income. In theory, the higher the unemployment rate, the consumption tends to decrease, but in practice this effect is not always significant because household consumption can still be maintained through other sources of income or other supporting factors. Other research using the Error Correction Model (ECM) approach shows that unemployment and inflation do not have a significant influence on household consumption(Alhambra, 2024) These findings strengthen empirical evidence that certain macroeconomic variables can move in the direction of theory, but the level of significance depends on the data context and socio-economic conditions. Thus, these three studies provide a basis that is consistent with the findings of this research in North Sumatra Province: economic growth is proven to be significant for household consumption in the long term, while inflation and unemployment move according to theory but do not have a significant influence.

The consistency of LPE as a significant variable can be understood because economic growth encourages increased income, expands employment opportunities, and increases people's purchasing power capacity. This condition causes household consumption to increase in the long term, in line with its role as the main engine of the economy. On the other hand, inflation does not always have a real impact on consumption in the short or long term, especially when people's consumption patterns are rigid and more focused on basic needs that are difficult to reduce. In the short term, households are usually still able to maintain their consumption patterns by relying on savings, taking on debt, or postponing purchases of non-essential goods, so that the impact of inflation is not immediately visible. In the long term, consumption can remain stable if there is an increase in real income or if the government provides social protection through subsidies, assistance programs, or fixed price policies for basic necessities. The same also applies to unemployment, which, although in theory suppresses consumption, does not always have a significant effect. Households experiencing job loss are often able to survive through savings, family assistance, activities in the informal sector, or social safety net programs. Even in the long term, consumption can be maintained if there are alternative sources of income or increased investment that can create new jobs. Thus, although inflation and unemployment are not significant in this study, the direction of the coefficients remains consistent with economic theory, while LPE is proven to have a real influence as the main driver of household consumption.

The research's implications suggest that North Sumatra Province's regional economic development policies should be more concentrated on maintaining and boosting the rate of inclusive and sustainable economic growth. Increasing economic activity, growing the productive sector, and adding value all directly affect people's purchasing power, as evidenced by the Economic Growth Rate's substantial long-term impact on household consumption. As a result, development strategies that promote the expansion of key regional industries—such as the processing industry, trade, agriculture, and plantations—are essential to preserving the stability of household consumption, which serves as the primary engine of the regional economy.
However, even though the long-term effects of unemployment and inflation are not statistically significant, the direction of the coefficient is consistent with economic theory, suggesting that these two variables still require effective policy regulation. To preserve low-income households' purchasing power, stable inflation control is still crucial, particularly in the category of basic necessities. Similarly, even though the long-term effects on consumption are not always immediately apparent, employment policies focused on increasing employment opportunities, improving workforce skills, and bolstering the informal sector are still required to reduce the socioeconomic impact of unemployment.

In a broader sense, the research's implications also help the sustainable development agenda, particularly when it comes to accomplishing the Sustainable Development Goals (SDGs). While consumption stability helps to reduce poverty as required by Goal 1 (No Poverty), strengthening regional economic growth that can raise household consumption is in line with SDGs Goal 8 (Decent Work and Economic Growth). Therefore, the findings of this study can serve as an empirical foundation for local governments to develop economic policies that are focused on enhancing the welfare and economic resilience of households in North Sumatra Province in addition to growth.

CONCLUSION

With a large correction coefficient of −0.969383, the results of the analysis using the Error Correction Model (ECM) demonstrate the model's validity and point to the presence of a very powerful adjustment mechanism over time. Long-term household consumption (Y) is positively and significantly impacted by LPE (X1), but it is unaffected by inflation (X2) and the unemployment rate (X3). Household consumption (Y) is unaffected in the short term by LPE (X1), inflation (X2), and the unemployment rate (X3). The study's findings demonstrate that, in North Sumatra Province, macroeconomic factors only have an impact over the long run, particularly through economic growth, but inflation and unemployment, while consistent with theory, have notLong-term household consumption (Y) is positively and significantly impacted by LPE (X1), but it is unaffected by inflation (X2) and the unemployment rate (X3). Household consumption (Y) is unaffected in the short term by LPE (X1), inflation (X2), and the unemployment rate (X3).

This demonstrates that while inflation and unemployment have a very little impact, economic growth is the main factor driving the rise in household spending in North Sumatra. This study highlights how crucial it is to continue steady economic growth in order to preserve people's purchasing power while simultaneously

endorsing measures to limit inflation and job creation in order to promote the sustainability of family spending.

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