

EFFECT OF THE RATE OF INFLATION ON THE HOUSEHOLD BUSINESS INCOME AT COVID-19 PANDEMIC (CASE: KLAMBIR LIMA KEBUN VILLAGE)

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ABSTRAK

Tujuan dari penelitian ini adalah untuk menganalisis tingkat laju inflasi terhadap pendapatan usaha rumah tangga Desa Klambir Lima Kebun selama pandemi COVID-19. Metode analisis yang digunakan adalah regresi linear sederhana dimana data yang diperoleh berasal dari kuesioner responden penelitian dan publikasi data oleh Statistik Provinsi Sumatera Utara periode 2018 sampai dengan 2021. Hasil penelitian menunjukkan bahwa tingkat laju inflasi berpengaruh negatif namun tidak signifikan terhadap pendapatan usaha rumah tangga Desa Klambir Lima Kebun selama pandemi COVID-19 pada CI 5%. Terdapat variabel lain yang mempengaruhi pendapatan usaha rumah tangga selain tingkat laju inflasi. Kegiatan usaha rumah tangga dapat menjadi tolak ukur produktivitas ibu rumah tangga sebagai pelaku ekonomi untuk mendukung peningkatan pendapatan.

Kata Kunci: COVID-19; Desa; Inflasi; Pendapatan; Rumah Tangga

ABSTRACT

This study aimed to analyze the inflation rate of the household income of Klambir Lima Kebun Village households during the COVID-19 pandemic. The analysis method used is simple linear regression. The data obtained comes from the questionnaire of research respondents and the publication of data by The Statistics of North Sumatra Province from 2018 to 2021. The results showed that the inflation rate had a negative but insignificant effect on the household income of Klambir Lima Kebun Village during the COVID-19 pandemic at 5% CI. Other variables affect household business income and the rate of the inflation rate. Household business activities can be a benchmark for household productivity as economic actors to support income increase.

Keywords: COVID-19; Household; Income; Inflation; Village

INTRODUCTION

Klambir Lima Kebun Village is one of the villages located in Hamparan Perak District, Deli Serdang Regency, North Sumatra Province. Administratively, the village's location is situated on the border of Medan City and the Deli Serdang Regency. The number of Klambir Lima Kebun village residents is recorded at $\pm 18,000$ people (Survey, 2021), which has an area of 2,323 Ha. Klambir Lima Kebun Village has XXI (twenty-one) hamlets and $\pm 7,000$ family heads (KK). About 75% of the population is livelihoods as factory workers, and settlements are located in plantation and factory areas that border municipalities and regencies.



Figure 1. Klambir Lima Kebun Village

Currently the world including Indonesia is still facing the Covid-19 pandemic. Since The first corona case was announced in March 2020, the impact of the pandemic Covid-19 has resulted in many companies closing in various sectors of the field effort (Nizar & Sholeh, 2021). The pandemic encouraged households to play a role in finding opportunities to increase income from their small businesses.

The main purpose of the development of a household business is to increase the value of products that utilize natural resources in Indonesia (Fadhilah et al., 2018). The labour productivity was affected by a number of firms' and owners' characteristics, including firm size, firm age, investment, competition, networking, female share, salary, and owner's age (Hien et al., 2021).

The household business sector that is part of the informal sector is also affected. This household business should not be ignored. So in order for them to survive during the Covid 19 pandemic, they must turn their brains using strategies that allow them to carry out their household business to keep running, still producing (Indrawati et al., 2021).



Figure 2. The Household Business at Klambir Lima Kebun Village

Source: Survey and Research (2021)

Inflation is an increase in the prices of goods and services that occurs continuously and within a certain period of time. The rate of inflation ensures that there are decent or unfit opportunities in running household businesses (Wulandari et al., 2021). One of the businesses that became feasible to be carried out by taking into account inflation is Marning Corn Karang Anyar Village. Inflation stability and income inequality are two factors that determine people's purchasing power (Hernaningsih, 2015). Because of the COVID-19 pandemic and the regional inflation rate, the purpose of this study is to see how much influence the inflation rate has on the household income of Klambir Lima Kebun Village.

RESEARCH METHODS

This research was conducted in Klambir Lima Kebun Village of Hamparan Perak District, Deli Serdang Regency, North Sumatra Province. Data analysis is adapted to simple regression analysis with a quantitative approach. The scope of this study focused on the rate of inflation as an exogenous variable to household business income as an endogenous variable during the COVID-19 pandemic.

The data sources used in this study are primary and secondary data, namely data obtained from observations, questionnaires, interviews/interviews, literature, and related agencies/institutions/organizations that support research related to the problems studied. The inflation rate is secondary data that has been available on the <https://sumut.bps.go.id> website, while household business income is primary data directly obtained from the questionnaire of research respondents.

1) Population and Sample

The population in this study is the number of household business amount to ± 250 people. How to take samples in this study using the formula Slovin as follows (Sugiyono, 2012):

$$n = \frac{N}{1+(N(\epsilon)^2)} \quad n = \frac{N}{1+(N(\epsilon)^2)} \quad [1]$$

where:

n : sample

N : population

e : error term (5% = 0.05)

so the results of the sample calculations are:

$$n = \frac{250}{1+(250(0,05)^2)} \quad n = \frac{250}{1+(250(0,05)^2)}$$

$$n = \frac{250}{1(250)(0,0025)}$$

$$n = \frac{250}{1 + (0,625)}$$

$$n = \frac{250}{1,625}$$

$$n = 153,85 \quad n = 153,85$$

[2]

Based on the calculations above, the respondents in this study are 153.85 people. So, 153.85 samples can be selected based on the criteria of 154 household business actors in Klambir Lima Kebun Village.

2) Validity and Reliability Test

The data that has been collected from the questionnaire is then tested for validity and reliability. Here's the test (Kurniawan, 2014):

a. Validity test.

Form questionnaire questions relevant to a concept or theory and consult with an expert (judgment report); in this case, discuss with the supervisor and do not use statistical calculations. Test the strength of the relationship (correlation) between the score of the item and the total score of the variable by using the product-moment correlation; if the correlation is significant, then the item/item of the question is valid.

b. Reliability test.

A reliability test is carried out to find out the concentration or confidence of measuring results that contain the accuracy of measurements. Reliability measurements in this study were carried out in a one-shot (one-time measurement).

3) Data Analysis Method

a. Linearity test

Before heading to a simple linear regression analysis method, the data must be tested at the linearity stage first. Linearity tests aim to determine whether two or more variables tested have a linear relationship or not significantly. This test is usually required in cholera analysis or linear regression. The basis for decision-making in linearity tests is (Setiawan & Yosepha, 2020): If the probability value of > 0.05 , then the relationship between variable (X) and (Y) is linear. If the probability value < 0.05 , then the relationship between variables (X) and (Y) is not linear.

b. Simple linear regression

A simple linear regression equation is an equation model describing the relationship of one free variable /predictor (X) with one non-free variable /response (Y), which is usually expressed straight (Yuliara, 2016). Here is a simple linear regression equation model in this study:

$$Y_t = \alpha + \beta X_t + e_t \quad [3]$$

where:

- α : constant
- β : coefficient
- Y : household business income
- X : the rate of inflation
- t : time series
- e : error term (5% = 0.05)

RESULTS AND DISCUSSION

1) Characteristics of Respondents

Desc.	Characteristics	Frequency	Percent
Gender	Male	-	-
	Female	144	100.0%
	Sum	144	100.0%
Age	30 – 35 years	45	31.3%
	36 – 40 years	40	27.8%
	41 – 45 years	35	24.3%
	46 – 50 years	15	10.4%
	>50 years	9	6.3%
	Sum	144	100.0%
Education	No school	11	7.6%
	Primary School	34	23.6%
	Junior High School	60	41.7%
	Senior High School	33	22.9%
	Bachelor	6	4.2%
	Sum	144	100.0%
Type of Business	Culinary	45	31.3%
	Fashion	17	11.8%
	Agribusiness	30	20.8%
	Others	52	36.1%
	Sum	144	100.0%
The number of dependents	1	18	12.5%
	2	52	36.1%
	3	41	28.5%
	4	20	13.9%
	>4	13	9.0%
	Sum	144	100.0%

Table 1. Characteristics of Respondents

Source: SPSS v.20 data processed (2022)

Based on the table above, it can be seen that all respondents are female. The research target is a business managed by a household in Klambir Lima Kebun Village. In the age category, respondents were 30-35 years. In the education category, respondents were at the junior high school level. In the category of business types, respondents are in other types besides culinary, fashion, agribusiness. In the category of number of dependents, respondents have a total of 2 dependents.

The Results

2) Validity and Reliability test

Variable	Indicator	Amount		Desc.
		Correlationi (r)	Sig.	
Household Business Income (Y)	Pen1	0.650	0.000	Valid
	Pen2	0.712	0.000	Valid
	Pen3	0.791	0.000	Valid
	Pen4	0.709	0.000	Valid

Table 2. The Validity Test Results
Source: SPSS v.20 data processed (2022)

Table 3. The Reliability Test Results

Variable	Cronbach's Alpha	Standart	Desc.
Household Business Income (Y)	0.680	0.60	Reliable

Source: SPSS v.20 data processed, 2022

The table of validity and reliability test results above indicates that the data is valid and reliable.

3) Linearity test

The discussion of the results of this linearity test are shown in the following figure:

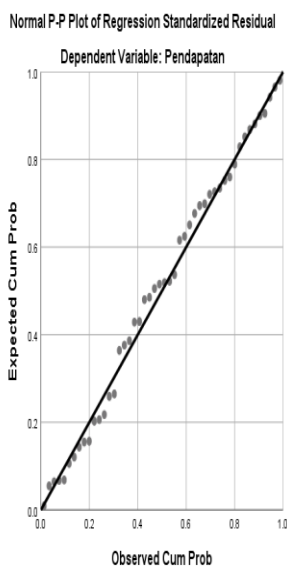


Figure 3. The Linearity test results
Source: SPSS v.20 data processed (2022)

Research data has been met linearity test. It says linearity data is viewed from the plot diagram, as the point follows latitude from the bottom left to the upper right.

4) Simple Linear Regression Analysis

Simple linear regression results can be seen in the following table:

Desc.	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
<i>Constant</i>	11.157	0.380		29.511	0.000
The rate of inflation	-0.461	0.595	-0.104	-0.726	0.595
				F	Sig.
R-squared	0.066				
Adj. R-squared	0.046			1.116	0.595

Table 4. Simple Regression Analysis Results

Source: SPSS v.20 data processed, 2022 ; Y : household business income

Based on the results of the simple linear regression estimate above, it can be written into the equation as follows:

$$Y = 11.157 - 0.461X + e \quad [4]$$

Based on the results of simple linear regression estimates, it can be seen that the inflation rate had a negative but insignificant effect on household business income during the COVID-19 pandemic in Klambir Lima Kebun Village, which is characterized by a coefficient value of -0.461 and a test value of -0.726 and sig. 0.595. If the inflation rate is worth 0, the household business income is positively worth 11.157 percent in the study period ($\alpha = 0.05 = 5\%$), *ceteris paribus*.

The R-squared value of 0.066 means that 6.6% of household business income is determined by variables, namely the inflation rate, and the remaining 93.4% is influenced by other variables outside the research model, *ceteris paribus*.

DISCUSSION

Coronavirus or Coronavirus disease 2019 (COVID-19) has made the Indonesian economy contract. The impact of the Corona Virus or COVID-19 seems to affect all sectors, mainly tourism and other sectors (Thomas, 2020). The impact of the COVID-19 pandemic on independent businesses brought businesses to a standstill and partially decreased production (Indrawati et al., 2021).

High unemployment rate due to job cuts, restrictions on wiggle room that cause the choking of the wheels of the economy, falling people's incomes, unstable demand, and high foodstuffs (Amalin & Panorama, 2021). This condition causes high inflation rates and economic instability in an uncertain period.

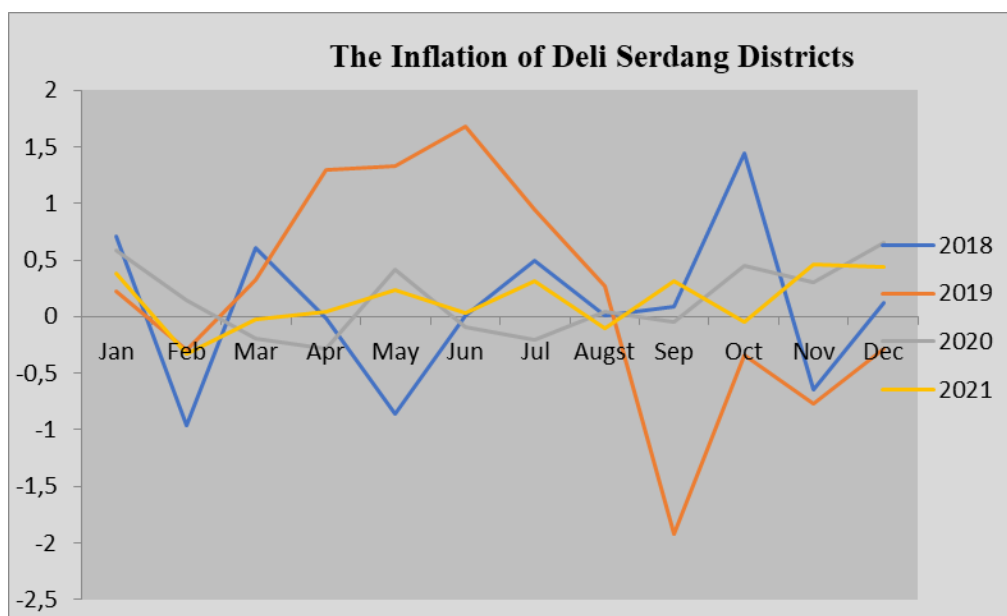


Figure 4. The Inflation of Deli Serdang Districts, Jan 2018-Dec 2021

Source: Statistic of North Sumatera

The figure above shows regional inflation data, namely Deli Serdang Regency as the location of Klambir Lima Kebun Village before the COVID-19 pandemic and during the pandemic, namely from 2018 to 2021. It can be seen that inflation data tends to fluctuate in the 2018-2019 study period. It was different in 2020-2021 during the COVID-19 pandemic. This condition is associated with the variable household business income of Klambir Lima Kebun Village.

This study shows that the inflation rate hurts household business income. This is following the theory that if the inflation rate increases, it will decrease the amount of income, affecting purchasing power. Previous research states that inflation stability and income inequality are two factors that determine purchasing power in a business (Hernaningsih, 2015). And the inflation rate did not significantly affect the household business income of Klambir Lima Kebun Village during the COVID-19 pandemic. The household business income of Klambir Lima Kebun Village during the COVID-19 pandemic was also affected by other variables besides the inflation rate.

CONCLUSIONS AND SUGGESTIONS

The rising inflation rate can reduce the household business income of Klambir Lima Kebun Village during the COVID-19 pandemic, but in this case, it is insignificant. Other variables affect the payment of the household business. It can be interpreted that during the COVID-19 pandemic, the household business of Klambir Lima Kebun Village was affected by variables other than the rate of inflation. It is recommended to the Village Head and other village devices, such as the Head of Hamlet, to continue to support the household business activities of Klambir Lima Kebun Village so as not to stop even though the COVID-19 pandemic has not been completed because the business activities in question can be a benchmark for the productivity of household as economic actors to support income increase.

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