

THE INFLUENCE OF THE AMOUNT OF COFFEE PRODUCTION, VALUE EXCHANGE AND INFLATION ON COFFEE EXPORTS INDONESIA 2016—2020

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Keywords :

*Coffee export, coffee
production, exchange rate,
inflation*

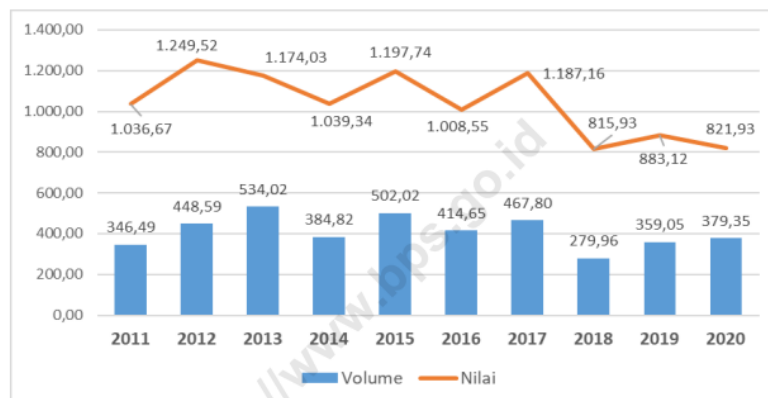
Abstrak

Exports play an important role in economic growth. This study aims to determine the effect of total coffee production, exchange rates and inflation on Indonesian coffee exports during the 2016-2020 period. The formulation of the problem in this study is whether coffee production, exchange rate, and inflation have a significant effect on Indonesian coffee exports during the 2016-2020 period. This study uses multiple linear regression statistical analysis techniques with the help of SPSS to test the hypothesis. The variables used in this study are coffee production, exchange rates, inflation and coffee exports. The data used in this study is secondary data in the form of time series data covering the 2016-2020 period obtained from Indonesia's Central Statistics Agency. The results showed that partially coffee production had a significant effect on Indonesian coffee exports with a probability value of $0.004 < 0.05$, the exchange rate had no significant effect on Indonesian coffee exports with a probability value of $0.221 > 0.05$ and inflation also had no significant effect on Indonesian coffee exports with a probability value of $0.392 > 0.05$. Meanwhile, simultaneously, coffee production, exchange rate and inflation affect Indonesia's coffee exports. This can be seen from the results of the F test calculation, where F-value (3.797) > F-table (2.766), which means that Production (X1), exchange rate (X2) and Inflation (X3) together affect Indonesian coffee exports

INTRODUCTION

Indonesia is one of the countries involved in trade internationally, acting as exporters and importers. In the exporter position, Indonesia sells its excess resources to other countries. While as importers, buying some commodities from other countries to meet domestic needs. According to data published by the Central Statistics Agency (BPS), more than 5,000 Indonesian products have entered the global market. The marketing of various production commodities has an inclusive impact on the sectors below, such as state income, employment to farmer welfare

Development of Volume and Value of Indonesian Coffee Exports 2011—2020



From the table above, it can be seen that coffee exports for the period 2011-2020.

That Indonesia's coffee exports during the last 9 years have fluctuated. The highest export in 2013 was 534.02 Tons. While the lowest exports occurred in 2018 which was 279.96 tons. According to the Chairperson of the General Chairperson of the Indonesian Coffee Exporters, the boosting factors for coffee exports are the growth of new consumer countries, such as Russia, Eastern Europe, Asia, and China, with growth reaching 35 percent and cultural changes in drinking coffee, namely from a conventional system to a modern pattern. coffee increased from 8 grams to 15 grams per cup. Another factor increasing the level of Indonesian coffee exports is the increasing level of consumption

in various producing countries, such as Brazil, Mexico, Vietnam and India.

Tabel 1.2 Perkembangan Produksi Kopi Indonesia periode 2016-2020.

Bulan	Total (Ton)				
	2016	2017	2018	2019	2020
Januari	959	956	645	669	300
Februari	515	513	2,827	2,945	226
Maret	804	749	1,02	1,057	450
April	41,1	41,428	16,764	17,149	1,724
Mei	37,169	37,43	67,109	69,298	14,163
Juni	69,243	69,644	138,783	144,229	64,52
Juli	109,036	109,396	167,235	173,855	221,737
Agustus	134,137	134,33	137,401	142,982	205,026
September	109,534	110,001	78,715	81,92	133,312
Oktober	102,997	103,802	60,797	63,676	84,528
November	45,744	46,087	39,258	37,567	16,711
Desember	12,631	12,658	6,366	6,311	9,817

Sumber: Badan Pusat Statistik tahun 2017-2020

The table above shows Indonesia's coffee production for the period 2016-2020 fluctuate. The process of ups and downs in coffee production is not without reason.

The increase in coffee production was triggered by increased demand from countries in the Americas, Asia and Europe. In addition, the quality of Indonesian coffee which is able to compete with other countries is able to increase the demand for coffee, resulting in an increase in coffee production.

Tabel 1.3 Perkembangan Nilai Tukar Rupiah Indonesia tahun 2016-2020

Bulan	Total (Rupiah)				
	2016	2017	2018	2019	2020
Januari	13.846	13.343	13.413	14.072	13.662
Februari	13.395	13.347	13.707	14.062	14.234
Maret	13.276	13.321	13.756	14.244	16.367
April	13.204	13.327	13.877	14.215	15.157
Mei	13.615	13.321	13.951	14.385	14.733
Juni	13.180	13.319	14.404	14.141	14.302
Juli	13.094	13.323	14.413	14.026	14.653
Agustus	13.300	13.351	14.711	14.237	14.554
September	12.998	13.492	14.929	14.174	14.918
Oktober	13.051	13.572	15.227	14.008	14.690
November	13.563	13.514	14.339	14.102	14.128
Desember	13.436	13.548	14.481	13.901	14.105

Sumber: Badan Pusat Statistik tahun 2016-2020

From the table above regarding the Development of the Indonesian Exchange Rate in 2016-2020, it can be seen that the Indonesian exchange rate fluctuates every year. In 2016 it decreased by Rp. 13,436 in 2017-2018 experienced an increase and in 2019 the exchange rate decreased again. The value of a country's currency will decline if more of the country's capital is flowed abroad due to higher interest rates and returns on investment in other countries

Tabel 1.4 Perkembangan Inflasi Indonesia Tahun 2016-2020 (Persen)

Bulan	Total (Persen)				
	2016	2017	2018	2019	2020
Januari	4,14	3,49	3,25	2,82	2,68
Februari	4,42	3,83	3,18	2,57	2,98
Maret	4,45	3,61	3,40	2,48	2,96
April	3,60	4,17	3,41	2,83	2,67
Mei	3,33	4,33	3,23	3,32	2,19
Juni	3,45	4,37	3,12	3,28	1,96
Juli	3,21	3,88	3,18	3,32	1,54
Agustus	2,79	3,82	3,20	3,49	1,32
September	3,07	3,72	2,88	3,39	1,42
Oktober	3,31	3,58	3,16	3,13	1,44
November	3,58	3,3	3,23	0,03	1,59
Desember	3,02	3,61	3,13	2,72	1,68

Sumber: Bank Indonesia

From the table above about the development of Indonesia's inflation from

2016-2020, it can be seen that Indonesia's inflation fluctuates every year. In 2016 there was a decline of 3.53%. From 2017 to 2020, it has decreased. Inflation can have a negative or positive effect on exports. The negative effect of inflation is that when inflation occurs, commodity prices will increase. The increase in commodity prices is due to production to produce commodities that cost a lot of money. Expensive commodity prices will make these commodities able to compete in the global market. A high inflation rate will cause the price of goods and services produced or offered by a country to increase so that these goods and services become less competitive and exports decline

RESEARCH METHODS

Approach and Type of Research

According to the type of data used, this research uses quantitative research. Quantitative research is research that emphasizes testing theories or hypotheses through measuring research variables in numbers and analyzing data with static procedures and systematic modeling by examining parts and phenomena and their relationships.

Data Collection Techniques

Based on documentation data collection techniques in the form of numbers obtained from the official website of BPS, International Coffee Organization, Ministry of Trade and the Association of Indonesian Coffee Exporters (AEKI).

RESULTS AND DISCUSSION

Research result

1. Descriptive Analysis

Descriptive Analysis Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
LOG_X1	60	2,35	5,35	4,2623	,91111
LOG_X2	60	3,17	4,21	4,1275	,12760
LOG_X3	60	,48	2,65	2,3791	,36623
LOG_Y	60	4,22	4,78	4,4809	,13328
Valid N (listwise)	60				

Based on the table above, it can be seen that the variable Y with the amount of data (N) has a mean of 4.4809 tons with a minimum value of 4.22 tons and a maximum value of 4.78 tons. Variable X1 with 60 data (N) has a mean value of 4.2623 tons with a minimum value of 2.35 tons and a maximum value of 5.35 tons. The variable X2 value with the amount of data (N) as much as 60 has a mean of 4.127 rupiah with a minimum value of 3,170 rupiah and a maximum value of 4,210 rupiah. The X3 variable with 60 data (N) has a mean value of 2.37 with a minimum value of 0.48 and a maximum value of 2.65.

2. Classical Assumption Test

a) Normality Test

Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		60
Normal Parameters ^{a, b}	Mean	,0000000
	Std. Deviation	,12148951
Most Extreme Differences	Absolute	,065
	Positive	,049
	Negative	-,065
Test Statistic		,065
Asymp. Sig. (2-tailed)		,200 ^{c, d}

- a. Test distribution is Normal.
 b. Calculated from data.
 c. Lilliefors Significance Correction.
 d. This is a lower bound of the true significance.

Based on the picture above, it is known that the significance value is $0.200 > 0.05$, which means that the independent variables are normally distributed

(b) Uji Multicolinearitas

Multicollinearity Test Results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,814	,548		8,791	,000		
	LOG_X1	,054	,018	,366	2,980	,004	,981	1,019
	LOG_X2	-,158	,128	-,152	-1,237	,221	,989	1,011
	LOG_X3	,039	,045	,106	,864	,392	,987	1,013

a. Dependent Variable: LOG_Y

Based on the table above, it can be seen that the VIF value of the Production, Exchange Rate and Inflation variables is less than 10 (1.019, 1.011, 1.013 < 10) and

the tolerance value is 0.981, 0.989, 0.987 > 0.1, so the data is said to be multicollinearity.

c) Autocorrelation Test

Autocorrelation Test Results

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,845 ^a	,714	,693	,07438	2,336

a. Predictors: (Constant), LAG_Y, LOG_X3, LOG_X2, LOG_X1

b. Dependent Variable: LOG_Y

Result=

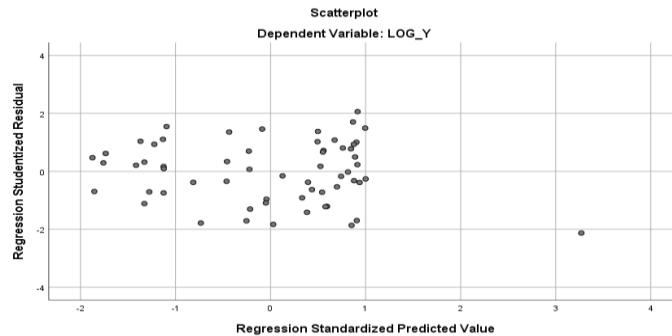
$dU < d$

$4-dU$

$= 1.69 < 2.336 < 2.34$, then this result is stated that there is no

autocorrelation.

c) Uji Heteroskeasticitas



Heteroscedasticity Test Results

Based on the table above, it is known that the points spread out to form a pattern which means that there is no heteroscedasticity..

3. Multiple Regression Analysis

Multiple Regression Analysis Results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,814	,548		8,791	,000
	LOG_X1	,054	,018	,366	2,980	,004
	LOG_X2	-,158	,128	-,152	-1,237	,221
	LOG_X3	,039	,045	,106	,864	,392

a. Dependent Variable: LOG_Y

$$\text{Ekspor} = 4,814 + 0,054(X_1) - 0,158(X_2) + 0,039(X_3) + e$$

4. Hypothesis

Test a) t test

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,814	,548		8,791	,000
	LOG_X1	,054	,018	,366	2,980	,004
	LOG_X2	-,158	,128	-,152	-1,237	,221
	LOG_X3	,039	,045	,106	,864	,392

a. Dependent Variable: LOG_Y

1. Based on the table, it is known that the tcount value is 2,980 > ttable 1.6720 and the significance of the production is 0.004 < 0.05. This result means that Production has a significant effect on Indonesian Coffee Exports.
2. Based on the table, it is known that the tcount value is -1.237 < ttable 1.6720 and the significance of the exchange rate is 0.221 > 0.05. This result means that the Exchange Rate does not have a significant effect on Indonesian Coffee Exports.
3. Based on the table, it is known that the tcount value is 0.864 < ttable 1.6720 and the significance of inflation is 0.392 > 0.05. The result means that inflation has no significant effect on Indonesian coffee exports.

a) Uji F

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,177	3	,059	3,797	,015 ^b
	Residual	,871	56	,016		
	Total	1,048	59			

a. Dependent Variable: LOG_Y

b. Predictors: (Constant), LOG_X3, LOG_X2, LOG_X1

The Test F results can be seen in the table above. The result of Fcount is 3.797 and sig = 0.015. From this research, it is known that Fcount(3.797) > Ftable(2.766) which means that together all independent variables have a significant effect on the dependent variable.

b) Determination Test of R²

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,411 ^a	,169	,125	,12470

a. Predictors: (Constant), LOG_X3, LOG_X2, LOG_X1

Based on the results of the Coefficient of Determination (R²) test results in the table above, the Adjusted R-Square value of 0.125 (12.5%) is obtained. This shows that the independent variables in this study affect the dependent variable by 12.5% while the remaining 87.5% is explained by variables

other than the variables studied in this study

DISCUSSION

1. Effect of Production on Coffee Exports

Based on the table, it is known that the tcount value is $2,980 > t_{table} 1.6720$ and the significance of the production is $0.004 < 0.05$. This result means that Production significant effect on Indonesian Coffee Exports. Furthermore, X1 has a positive influence so that the results of this study are in line with Makatita's theory which says that when production increases, exports increase. And conversely, if production decreases, exports also decline. This study also has the same t-test results as Eko Purwanto's research which results that coffee production has a significant effect on coffee exports. The research conducted by Sugihartono (2021) also found that coffee production had a significant effect on Indonesian coffee exports.

2. Effect of Exchange Rate on Coffee Exports

Based on the table, it is known that the tcount value is $-1.237 < t_{table} 1.6720$ and the significance of the exchange rate is $0.221 > 0.05$. This result means that the Exchange Rate does not have a significant effect on Indonesian Coffee Exports. Because the prob.t-statistical value of the exchange rate $>$ from an error rate of 0.05, it can be said that this variable does not have a significant effect on the Y variable. coffee exports 1991—2014. In a study also conducted by Sugihartono (2021) the results of the T test, namely the exchange rate variable did not have a significant effect on coffee exports. This study also produces the same t-test as research conducted by Kartini, (2018) that the exchange rate does not have a significant effect on Indonesian coffee exports.

3. Effect of Inflation on Coffee Exports

Based on the table, it is known that the tcount value is $0.864 < t_{table} 1.6720$ and the significance of inflation is $0.392 > 0.05$. This result means that inflation has no significant effect on Indonesian coffee exports. This study is in line with research conducted by Gabriela that inflation does not have a

significant effect on coffee exports, so the rise and fall of inflation does not affect the total volume of Indonesian coffee exports. The results from Sugihartono's (2021) research also have t-test results which say that the inflation variable does not have a significant effect on coffee exports from 2016-2020.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of data processing from this study entitled "The Effect" Production, Exchange Rate and Inflation Against Indonesian Coffee Exports in 2016-- 2020", the Export Regression value is $= 4.814+0.054(X1) - 0,158(X2)+0,039(X3)+ e$

Test Results The coefficient of determination (R²) is 12.5% percent while the remaining 87.5% is explained by other variables. The conclusions in this study can be concluded:

- a. Based on the t-test, the Production variable (X1) has a significant effect on Indonesian coffee exports.
- b. Based on the results of the t-test, the Exchange Rate variable (X2) has no effect significant impact on Indonesian coffee exports.
- c. Based on the results of the t-test, the inflation variable (X3) has no effect significant impact on Indonesian coffee exports.
- d. Based on the results of the F test variable Production (X1) Exchange Rate (X2) and Inflation (X3) have a significant effect together on Indonesian Coffee Exports (Y).

Suggestion

1. For the government, researchers suggest increasing the value of exports Indonesia, especially for Indonesian coffee commodities. The government must be able to overcome export problems such as transportation problems, warehousing problems and marketing problems as well as problems that may arise in carrying out export activities.
2. For coffee farmers, coffee farmers should regularly attend training or counseling events as well as farmer group meetings in order to be able to improve production quality and maximize agricultural days.
3. For further researchers who are interested in the problem of coffee exports in Indonesia, they should add other dependent variables such as coffee prices, demand, domestic consumption, GDP and others from

this research model to find out more about the variables that affect coffee exports in Indonesia. Indonesia. Further research is also suggested to extend the timeframe of the research data and to use the latest data.

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