

Indonesian Interest Rate (Sbi) and Exchange Affect the Growth of the Cosmetic Industry in Indonesia

RatihIkha Permata Sari, Cicih Ratnasih, Sugiyanto

Borobudur University

Date of Submission: 15-04-2023

Date of Acceptance: 25-04-2023

ABSTRACT

This study aims to analyze the growth factors of the cosmetic industry in Indonesia. The economic variables analyzed were SBI and kurs as independent variables. Meanwhile, the growth of the cosmetic industry is the dependent variable. The data used is secondary data from five companies, namely PT. Paragon Technology and Innovation, Marthatilaaar Group, Viva Cosmetics, PT. MustikaRatu and LOREAL, during the period 2010-2021. This research is a quantitative research, which is to explain statistically the relationship and influence of economic variables on the growth of the cosmetic industry in Indonesia, both in whole and in part. The data analysis technique used is multiple linear regression with panel data. The results showed that SBI had a significant effect while inflation had no effect on the growth of the cosmetics industry. This is indicated by the value of F-statistics 424.2280 > F-table and prob (Fstatistics) of 0.000000 <0.05. Partially SBI has a significant effect on the growth of the cosmetic industry where the t-statistic value is 28.82672 < ttable value 1.70 and the prob value (t-statistic) is 0.0000 > 0.05. Meanwhile, kurs has no effect on the growth of the cosmetic industry on economic growth, where the t-statistic value is 0.950083 < ttable value 1.70 and the prob value (t-statistic) is 0.3431 > 0.05.

Keywords: SBI, kurs, cosmetic industry growthand linear regression multiple.

I. INTRODUCTION

A. Background

The Ministry of Industry revealed that the cosmetics industry sector grew significantly in 2020. It can be seen from the performance of the cosmetics industry that it grew 9.39%, this sector contributed 1.92% to the Gross Domestic Product (GDP). Even in the midst of pressure from the

impact of the Covid-19 pandemic, the manufacturing group made a significant contribution to foreign exchange through the achievement of its export value which exceeded US317 million or IDR 4.44 T in the first half of 2020, up 15.2% compared to the previous period. It is hoped that the cosmetics industry will continue to be encouraged to use local raw materials because Indonesia has a comparative advantage compared to countries producing herbal and cosmetic products made from natural ingredients such as Korea, China, Malaysia and Thailand. Indonesia has the potential for many medicinal plants to grow in various regions with a total of around 30,000 of the 40,000 species of medicinal plants in the world. In the modern era, cosmetics have become a necessity for society, especially women who want to look attractive, so that cosmetic products are currently a need that continues to increase every year. Not only women but men (Ministry of Industry, 2020).

The growth of the cosmetics industry over the last five years has developed very rapidly due to the large investment both domestic and foreign in the cosmetic industry sector. The development of the cosmetic industry market in Indonesia occurred in 2011-2019, where the growth of the cosmetic industry market has increased every year. In 2011 the growth of the cosmetic industry market was -4.49% and continued to increase to an average of 9.67% per year. Industry ministry data show that in 2016 domestic cosmetic sales amounted to IDR 36 T, an increase of two times compared to 2015 which amounted to IDR 14 T and it is estimated that the market size of cosmetics is IDR 46.4 T in 2021. With this amount, Indonesia has the potential market for beauty industry entrepreneurs both from outside and within the country. The rapid growth of business in the cosmetic sector, the very sharp business competition at this time is a challenge for companies to remain in industrial competition.

DOI: 10.35629/5252-050412441254 |Impact Factorvalue 6.18| ISO 9001: 2008 Certified Journal Page 1244



Competition that occurs will force producers to compete in creating innovations and product variations that can make consumers increase. Association of Cosmetic Companies and Associations (PPAK), Indonesia's export of cosmetic products is quite small compared to the total revenue of the cosmetic market which reaches Rp. 80 T. This condition illustrates that the cosmetics industry in Indonesia has not optimally exploited the export market (Ministry of Industry, 2018).

Indonesia's interest rate for 2017-2021, reached a highest rate of 10.85% in 2017, then in 2018 it decreased by 10.51% and so on decreased, namely in 2019 it was 10.14%, in 2020 it was 9.57% and in 2021 of 9.81%. In the Board of Governors' Meeting (RDG) Bank Indonesia on January 19-20 2022 decided to maintain the BI 7-Day Reverse Repo Rate (BI7DRR) at 3.50%, the Deposit Facility interest rate at 2.75% and the Lending Facility interest rate at 4. .25%. This decision is in line with maintaining inflation, exchange rate and financial system stability as well as efforts to support economic growth amid increasing external pressure which is in line with economic fundamentals and market mechanisms. For example, the absence of arbitrage opportunities in the long run implies that we can interpret the general expected trend in real interest rates across

B. Problem Identification

The problems encountered from the background mentioned above can be identified as the following problems:

1. The growth of the cosmetic industry experienced problems in increasing foreign investment (FDI) in suppressing inflation, Indonesian interest rates, exchange rates, exports and consumer tastes as measured by sales data in national and international industrial policies.

2. The government does not have a vision in increasing the growth of the cosmetic industry because it does not receive adequate support, there are many legal products that hinder the growth of the cosmetic industry. Fiscal policies tend to kill the cosmetics industry. Monetary, fiscal and investment policies have not been conducive which could boost the involvement of the cosmetic industry sector in increasing Gross Domestic Product (GDP).

3. The Government's unpreparedness for protection in the manufacturing industry sector, namely the cosmetics industry sector. The more rapid the business in the cosmetic sector, the competition that occurs will force producers to compete in creating innovations and product variations that can countries as trends in world real interest rates, such as growth in global consumption. The exchange rate in 2017 was IDR 13380.8, strengthening from the dollar, then in 2018 it was IDR 14236.9, in 2019 it was 14147.7, in 2020 it was 14582.2 and in 2021 or IDR 14229.1. Currency exchange rates are part of the important elemental variables in research, movements in currency exchange rate fluctuations and being able to predict future value fluctuation movements, so as to prepare the right business strategy so that transactions, both the entry of investment and exports of cosmetic industry production goods that occur, can have an impact positive on export activities carried out. The exchange rate or exchange rate is defined as a comparison of the value of a currency with another currency (Mishkin, 2008). Cosmetics is a very promising industrial sector in Indonesia, with 760 large, medium and small scale cosmetic companies spread across Indonesia, able to absorb approximately 300 thousand workers directly and around 600 thousand workers indirectly. The purpose of this study was to examine and find out how much influence the Indonesian Interest Rate (SBI) variable and the exchange rate have on the growth of the monetary and social cosmetic industry in influencing the growth of the cosmetic industry in Indonesia.

increase consumers. Exports of Indonesian cosmetic products are relatively small compared to the total revenue from the cosmetic market, which reaches Rp. 80 trillion. This condition illustrates that the cosmetic industry in Indonesia has not exploited the export market optimally.

4. Economic growth over the last two decades or 10 years has been relatively stagnant, ranging from 4% to 5.5%, not yet optimal.

5. The trend of foreign investment (FDI) in the cosmetics industry has tended to increase in the last 10 years but has not been directly proven to overcome the employment rate.

6. The cosmetics industry is a fairly large market but has not been able to promise and fulfill consumer tastes for cosmetic manufacturers as the population increases. With today's developments, the cosmetic industry still has to expand its target consumers, not only targeting women but men.

7. Strengthening branding and the benefits of cosmetics for women have not maximally influenced future national cosmetic products in achieving success like cosmetic products from abroad.

8. The effect of age, education, income and female population on consumer purchase intentions for



cosmetic products has not yet affected the growth of the cosmetic industry.

9. The Indonesian cosmetics industry has not optimally utilized local raw materials or natural ingredients such as products originating from spices and Indonesian cultural characteristics, such as: Bali, Java, Sundanese, Kalimantan, etc. which are rich in benefits compared to chemicals.

II. LITERATURE REVIEW A. Economic Growth 1. Definition of Economic Growth

Economic development is defined by several experts in several senses, as follows: Todaro, M.P. and Smith (2020) explain that economic growth is a process of increasing production capacity in an economy over time and being able to give birth to an increase in national income. Economic growth is also interpreted as an increase in total output (GDP) in the long run without being linked to population growth and economic structure. According to Schumpeter. economic development is not a harmonious or gradual process, but a spontaneous and uninterrupted change. Economic development is caused by changes, especially in the field of industry and trade (Suryana, 2014, p.70). According to Schumpeter, Hicks and Madison (2010), economic growth is the growth of quantitative measures of economic performance such as GNP and GND per capita. The emphasis is on change or development itself (Boediono, 1992). Economic growth is one of the successes of economic development. Simon Kuznets (Jhingan, 2014), economic growth is the ability of a country to provide for the needs of its population in the long term. This capability is in accordance with the technological, institutional and ideological needs of the country. There are several measuring instruments for economic growth, namely: 1. Gross Domestic Product (GDP): Gross Domestic Product/Gross Regional Domestic Product at the national level is the amount of goods and services produced by an economy in one year and expressed in market prices. 2. Regional Gross Domestic Product Per Capita: Gross Domestic Product Per Capita can be used as a better measure of growth in reflecting the welfare of the population. Economic growth can be determined by comparing the GRDP in one particular year (PDRBt) with the GRDP of the previous year (PDRB t-1).

Gt = ((PBDt – PBDt-1) / PBDt-1)) x100% Description: Gt = Economic Growth Rate PBDt = GDP value for period t PBDt-1 = GDP value for the previous period

Economic growth as a process of increasing output per capita in the long term. The emphasis is on three aspects, namely process, increasing output per capita and in the long term. Economic growth is a process, not an economic picture at a time (one shot). The dynamic aspect of an economy, namely seeing the economy as something that develops or changes from time to time. According to Schumpeter, Hicks and Madison (2010), economic growth is the growth of a quantitative measure of economic performance such as GNP, GND per capita. The emphasis is on change or development itself (Boediono, 1992). Economic growth is one of the successes of economic development. Simon Kuznets (Jhingan, 2014), economic growth is the ability of a country to provide for the needs of its population in the long term. This capability is in accordance with the technological, institutional and ideological needs of the country. To achieve increased economic growth and stable prices, the Central Bank or the Monetary Authority must maintain a market balance between money supply and goods supply so that inflation can be controlled, there will be full employment opportunities and the smooth supply or distribution of goods. Monetary policy is carried out by setting interest rates, minimum reserve requirements, intervention in the foreign exchange market. Zhang (2019) conducted research on the analysis of the long-term relationship between economic growth, foreign direct investment, foreign trade (exports), inflation, economic growth rates and exports for the period 1980-2011 had a significant effect on economic growth. Liao (2018), the results of the industrial revolution have an impact on economic growth in the manufacturing industry sector quickly. Investment in direct technology that makes the manufacturing sector grow rapidly. M. Natsir (2012), monetary policy is an act of central bank efforts to be able to influence macroeconomic variables or monetary variables (money supply, interest rates and exchange rates) to achieve the desired goals. PeryWarjiyo and Solikin (2003), monetary policies of central banks or monetary authorities in the form of monetary amounts to achieve economic growth by considering the cycle of economic activity, the character of a country's economy and other economic fundamental factors.

B. Cosmetic Industry Growth

The definition of growth in the industrial sector is an industry whose main activity is converting raw materials, components or other parts into finished goods that meet specification standards. The manufacturing industry is generally capable of producing on a large scale.



Manufacturing is a branch of industry that applies equipment and a process medium for the transformation of raw materials into finished materials for sale. This effort involves the intermediate processes required for the production and integration of the components of a product. Cosmetics comes from the Greek word "kosmetikos" which means skill to decorate. arrange. The term cosmetic has been used by many different professional groups, so that the definition of cosmetics itself is so broad and unclear. Kosmetogolo which is the study of cosmetics, this term has been used since the 1950s in England, Germany and France. Cosmetology is the science that studies chemical, physical, biological and microbiological laws regarding the manufacture, storage and use of cosmetics. Cosmetics are materials or preparations that are used on the outside of the human body (epidermis, hair, nails, genitals and genital organs) teeth and oral mucous membranes, especially for cleaning, deodorizing, changing appearance, improving body odor or protecting or maintaining the body (BPOM No. 19 of 2015). Some empirical evidence regarding investment, LuhurSeloBaskoro's research, Yonsuke Hara (2019), found that foreign direct investment (FDI) has good and positive performance on economic growth in the manufacturing sector in Indonesia. DadangSaepuloh's research (2019), variable foreign direct investment is a long-term investment for development in Indonesia. Likewise research conducted FaridahPardi, by MohdAzlanAbdMajid& ZahariahSahudin, Ali (2021) shows foreign direct investment has a significant effect on sustainable economic development in 16 Asian countries. According to Heizer (2005) manufacturing comes from the word manufacture (manually) or with a machine so as to produce goods. To make an item by hand or machine, materials or other items are needed. Manufacturing can also be interpreted as the activity of processing input into output. Manufacturing activities can be carried out by individuals (manufacturers) or by companies (manufacturing companies). Based on the above understanding, it can be concluded that the growth of the cosmetic industry is a beauty manufacturing industry whose main activities are converting chemical and non-chemical raw materials, components or other parts into finished goods that meet cosmetic specifications standards. The cosmetic manufacturing industry is generally capable of producing on a large scale. The purpose of processing cosmetic products is to discover, develop, manufacture and market cosmetics. The cosmetics industry complies with various

regulations, testing, safety, benefits and marketing of cosmetics.

C. Indonesian Interest Rate (SBI)

Muhammad, 2002) interest rates are loan obligations expressed in a percentage of the money lent or interest rates expressed in percent over a period of time (monthly or annually). Interest rates are distinguished: 1) The nominal interest rate is the rate that can be observed by the market, 2) The real interest rate is a measure of the actual interest rate, the real interest rate is equal to the nominal interest rate minus the expected inflation rate, as follows :

 $r = i - \mu$

Note: r = real interest rate

i = nominal interest rate

 $\mu = inflation rate 1$

Hubbard (1997) says interest is the cost incurred by the borrower or the loan made and the reward for the investment for the owner of the capital. Meanwhile, Kern (1992) assumes that interest rates are a price. The price of interest rates is determined by the forces of supply and demand. Case, Karl E., Fair (2014) interest rate is the annual interest payment of a loan. The amount of interest received each year is divided by the loan amount in percentage form. Interest is the price of resources used by the debtor that must be paid to the creditor. Lipsey, Ragan, (1997) interest rate is the price paid for a currency unit loan borrowed at a certain time period. Mishkin (2008), interest rates are the cost of borrowing, the price paid for borrowing funds. According to Robert Pindyck& Daniel L. Rubinfeld (2007) the interest rate is the price paid by the borrower to the lender.

Like market prices, the determination of interest rates is determined by the supply and demand of loanable funds. Siamat (2005) divides the meaning of interest into 2 groups, namely:

1. Interest from the demand side. Interest is remuneration for credit received. Interest is the cost or price of money.

2. Interest from the supply side. Fund owners offer to distribute their funds to investments that provide better interest payments.

Economists classify interest rates into two types, namely nominal interest rates and real interest rates. The nominal interest rate is the interest determined by market mechanisms, while the real interest rate is a measure of the rate of return on inflation. The effect of inflation expectations is known as the Fisher effect. Fisher formulates the relationship between inflation and interest rates shown as follows :

 $I = r + \pi$



Note: I = nominal interest rate r = real interest rate π = expected inflation rate.

The inflation rate is very important in predicting and analyzing interest rates. The actual interest cost is the difference between nominal interest and inflation. faced by individuals and companies. Meanwhile, real interest is a very important measure for the monetary authority. Domenici Gianonnone (2019) based on the results of his research stated that the world's real interest rate for liquid assets has been close to 2% for more than a century but has fallen significantly over the past three decades. These declines are common in developed economies, driven by increasing yields on safe and liquid assets and by lower global economic growth. HuseyinSen, et al, (2019) conducted research to examine the possibility of a long-term relationship between interest rates, inflation and exchange rates in five developing economic markets (Brazil, India, Indonesia, South Africa and Turkey).

D. Kurs

(Mishkin, 2008), the exchange rate is the value of one currency in another currency or as a comparison of values determined by the Central Bank of a country. When we exchange one currency for another country's currency, it will produce a comparison of the value or price of the two currencies. In a country that determines the exchange rate system, the exchange rate changes are determined by the government. The state's policy of officially raising currency exchange rates against foreign currencies is called revaluation. The government's policy of lowering currency exchange rates against foreign currencies is called devaluation.

Generally, exchange rates are divided into 3, namely buying rates, selling rates and middle rates. The factors that affect exchange rates are as follows:

1. Import payment factors, activities of importing goods exchange rates then money in a country. Because import payments use the buying rate, so the more the value of imported goods, the more the demand for foreign currency so that the local currency exchange rate decreases. And conversely, if a small amount of imported goods will make the domestic exchange rate strengthen.

2. The capital outflow factor means that state capital goes out to pay debts for the needs of other countries. The more debt that is paid or the needs of the country, the demand for foreign exchange increases and the domestic currency exchange rate decreases. If the state invests abroad, the exchange rate will strengthen.

The exchange rate or exchange rate is defined as a comparison of the value of a currency with another currency (Mishkin, 2008). Meanwhile, Krugman (2000) says the exchange rate is the price of a currency compared to other currencies. Distinguish changes in currency values into two, namely depreciation and appreciation. Depreciation is the decrease in the value of the domestic currency compared to other currencies. Appreciation is the increase in the value of the domestic currency compared to other currencies. Ceteris paribus, the depreciation of a country's currency causes the price of the country's goods to be cheaper for foreign parties while the price of foreign goods is more expensive for foreign parties. In the same way, the appreciation of a country's currency causes the price of that country's goods to become expensive for foreign parties, the price of foreign goods becomes cheaper for domestic parties. Exchange rates are classified into two, namely nominal exchange rates and real exchange rates. The nominal exchange rate is the relative price of currency between two countries. If IDR 8,500 per USD then on the foreign exchange market we can exchange USD for IDR 8,500. Meanwhile, the real exchange rate is the relative price of an item between two countries. The real exchange rate shows an exchange rate of goods between two countries or terms of trade. Exchange rate movements are caused by a number of fundamental and non-fundamental characteristics. Fundamental factors include changes in macroeconomic variables such as inflation, economic growth and changes in trade balance. The factors that affect exchange rates are as follows :

1. Imports, the greater the imports, the greater the demand for foreign currency which makes the exchange rate depreciate.

2. The capital outflow factor, the greater the outflow of capital, the greater the demand for foreign exchange and weakens the value of the local currency. 3. Speculation activity, the more speculation in the foreign exchange market, the greater the demand for foreign exchange.

There are supply factors that affect the exchange rate, including:

1. Export receipts, the greater the volume of exports, the greater the amount of foreign exchange owned by a country and causes the local currency exchange rate to strengthen.

2. Capital inflow, the greater the capital inflow into a country, the more local currency is needed and causes the value of the local currency to strengthen.



The theory of one price explains the relationship between the exchange rate and the price level. The theory of one price is better known as The Law of One Price. Stating that "the price of a traded good will be the same in both the domestic and foreign economies when expressed in a cool currency". To explain the effect of the exchange rate on the price level, Gustav Cassel in 1921 introduced the theory of Purchasing Power Parity (PPP). The statement is formulated as follows :

 $P = P^* e$

Description: P = price of goods in the country

P * = price of goods in foreign currency

e = foreign exchange rate measured from the domestic currency

This theory is based on the law of one price (LOOP) which states that all goods in different places are sold at the same price. The main features of this theory are: (i) traded goods are homogeneous and prices for non-traded goods are flexible, (ii) there are no constraints in international trade, (iii) low transportation costs and (iv) thesame inflation rate. Krugman (2000) defines ERPT as the percentage change in the exchange rate that is transmitted to the price of goods traded domestically. If the percentage change in price is the same as the percentage change in the exchange rate, it is known as a complete pass-through. If the price level is not affected by changes in exchange rates, it is known as zero exchange rate passthrough.

III. DATA AND ECONOMETRIC MODELS

A. Population, Sample and Sampling

Population is the data of monetary variables of Indonesian Interest Rate (SBI) and Kurs, while the sample is part of the population, the idata of monetary variables of Indonesian Interest Rate (SBI) and Kurs during the period 11 of the last years 2010 to 2021. The sampling technique or sampling isnon-probability sampling with quota sampling types.

B. Research Operational Variables

To facilitate the research, the research variables need to be defined both conceptually and operationally and given a measurement scale. The definitions of the variables in the research are as follows:

No	Variable Name	Operational Definition	Measuremant Scale	
1	Labor	LFPR = $a/b \ge 100\%$ Description: $a = Total$ workforce $b = Total$ population over 15 years The data uses the Labor Force Participation Rate Index obtained from	Ratio Data	
2	Cosmetic Industry Growth	BPS for 2010 to 2021 The formula that can be used to calculate the percentage of Cosmetic Industry Growth ((final value / initial value) $1/t - 1$) X 100 In using this formula it is known that t is the variable number of years previously entered in point 3	Ratio Data	
3	FDI	Investment Realization consisting of PMA (Foreign Investment)	Ratio Data	
4	Inflation	Inflation proxied by GDP deflator	Ratio Data	
5	Indonesian Interest Rates	Comparative Exchange Rates 1 USD with IDR and RM currency	Ratio Data	
6	Kurs	The middle rate of the selling rate and buying rate	Ratio Data	
7	Export	Indonesia's export data for the end of the year	Ratio Data	
8	SalesDataProxyNumber of cosmetic products nationallyConsumer Tastes		Ratio Data	

Table 1. Definition of Research Operational	Variables
---	-----------

C. Data Analysis Technique

The research model, as indicated by the research paradigm, is formulated as a linear function with the Cobb-Douglas production function model approach, along with its equation: Model of the Influence of Indonesian Interest Rates (SBI) and Exchange Rates on the Growth of



the Cosmetics Industry. The data analysistechniques used in this research are as follows:1. Quantitative Analysis

The steps of the quantitative analysis carried out are:

a. Data input. The multiple linear regression equation model is:

 $Y_{ij} = \alpha_i + \beta_1 X_{1ij} + \beta_2 X_{2ij} + \varepsilon_{ij}$

Then the second equation is changed to :

 $lnY_{ij} = \alpha_i + \beta_1 \, lnX_{1ij} + \beta_2 \, lnX_{2ij} + \epsilon_{ij}$ where:

Z = dependent variable = labor

Y = dependent variable = Cosmetic Industry Growth

A = constant

 X_1 = independent variable 1 = Indonesian Interest Rates

 X_2 = independent variable 2 = kurs

2. Classic Assumption Test. Pada linear regression with data time series test assume classic that needs to be done :

a. Normality Test. A good regression model, the residual data is normally distributed, with a p-value >0.05 or a Jarque-Bera value< 2 (Ghozali, 2016)

b. Multicollinearity Test. to see whether there is a high correlation between the independent variables. The tool used is the VIF multicollinearity test. This test value is good if it is less than 10

c. Heteroscedasticity test to determine whether in the regression model there is an inequality of residual variance from one observation to another observation. A good regression model has no symptoms of heteroscedasticity, with a p-value > 0.05.

d. Autocorrelation test to see whether there is a correlation between a period t and the previous period. Autocorrelation can be known by the Breusch-Godfrey Test. If the prob score > 0.05 then there is no autocorrelation

3. Feasibility Test Model Regression

a. F-statistics test. The F-statistical test basically shows whether all independent variables in the model have an overall or joint effect on the independent variable (Kuncoro, 2012). This test was carried out with a confidence level of i5%. This test is carried out in two ways, namely :

i. If the value of F statistic > 0.05, H_0 is accepted or H_1 is rejected, If the value of F-statistic <.05. H_0 is rejected or H_1 is accepted

ii. If the value of F-statistic >Ftabel, H_0 is rejected or H_1 is accepted, If the value of F statistic <.Ftable, H_0 is accepted or H_1 is rejected

 H_0 is rejected, which means that all independent variables i as a whole affect the independent variables

b. Test t-statistics. This test was conducted to determine the effect of the independent variables on an individual basis on the dependent variable. To find out the significance of the effect, criterion is used: t-counts > t-table means has an effect

c. Coefficient of Determination (R2). The coefficient of determination is to see how much the ability of the independent variable together gives an explanation of the iterative of the dependent variable. The value of R2 ranges from 0 to 1 ($0 \le R2 \le 1$)

IV. RESULTS AND DISCUSSION

A. Indonesia

The stationarity test is intended to test whether there is a spurious regression situation as the excess of the relationship between variables in a non-stationary model. The stationarity test was carried out through the Panel Unit Root Test using the Levin, Lin & Chu (LLC) Test which tested stationarity in general/general and the Fisher Chi-Square Test which tested stationarity individually. The data must be stationary, meaning that the data has an average and has a tendency to approach the average. The stationery test needs to be carried out so that there are no errors in the estimation of the model. Based on the results of data processing with eviews 13 regarding the stationary test, the following results are obtained :

No	NamaVariabel	ADF - Fisher Chi Square		Kesimpulan	
		Statistik	Prob		
1	Cosmetic Industry Growth	88.8857	0,0000	Stationery padatingkat 1 st difference	
2	Indonesian Interest Rates	78.0079	0,0003	Stationery padatingkat 1 st difference	
3	Kurs	38.6660	0,0073	Stationery padatingkat 1 st difference	

DOI: 10.35629/5252-050412441254 |Impact Factorvalue 6.18| ISO 9001: 2008 Certified Journal Page 1250



Because this research is time series data > cross section data, the model chosen is the Fixed Effects Model (FEM) which is obtained from the results of data processing with Eviews 13 as follows :

Dependent Variable: Y									
Method: Panel Least Squares									
Date: 06/18/22 Time: 10:46									
Sample: 1 2020									
Periods included: 120									
Cross-sections include	Cross-sections included: 10								
Total panel (unbalanc	ed) observation	ns: 220							
Variable	Coefficient	Std. Error	t-Statistic	Prob.					
SBI_X1	62.61750	2.172203	28.82672	0.0000					
KURS_X2	16.41110	17.27333	0.950083	0.3431					
С	-57.42297	83.12815	-0.690777	0.4904					
R-squared	0.796331	Mean dependent							
Adjusted R-squared	0.794454	S.D. dependent var 1319.210							
S.E. of regression	598.0922	Akaike info criterion 15.63891							
Sum squared resid	77624002	Schwarz criterior	n 15.68519						
Log likelihood	-1717.280	Hannan-Quinn criter. 15.65760							
F-statistic	424.2280	Durbin-Watson stat 0.681141							
Prob(F-statistic)	0.000000								

Based on the results of data processing (see table 2) the regression equation is obtained, as follows :

Y = -57.42 + 62.7962X1 + 16.41X2

The regression equation for the growth of the cosmetics industry contains the following meanings:

1. If the SBI and the exchange rate under certain conditions or changes are equal to 0, then economic growth is -57.42%.

2. SBI has a positive and significant effect on the growth of the cosmetic industry. This can be seen from the t-statistic value of 28.83 > 1.70. (Manuel Fernandes et al., 2017), conducted research to determine Indonesia's status as an SBI destination; factors that attract SBI to Indonesia and how they can be increased and factors that hinder the flow of SBI to Indonesia and how they can be reduced. The research conducted analyzes and examines various determinants of SBI such as market size, economic growth, infrastructure, political risk, labor corruption, market, raw materials, technological readiness, innovation, financial system, taxation, cost of capital, ease of doing business and government policies. The research results show that Indonesia's environment is investor-friendly and has the potential to develop. 3. The exchange rate is positively related and has no effect on the growth of the cosmetic industry, as seen from the t-statistic value of 0.95 < 1.70.

Krugman (2000) defines ERPT as the percentage change in the exchange rate that is transmitted to the price of goods traded domestically. If the percentage change in price is the same as the percentage change in the exchange rate, it is known as a complete pass-through. If the price level is not affected by changes in exchange rates, it is known as zero exchange rate passthrough. Okafor et al. (2018), currency exchange rates test the effect of exchange rate fluctuations on the output growth of the manufacturing industry in Nigeria using time series data, the period 1986-2015. The results of the analysis show unidirectional causality from value to industrial output. The response of industrial output to shocks from the exchange rate is positive and significant. Mina Kim et.al. (2019) found that an increase in the USD exchange rate causes the price of imported goods to rise faster than the fall or fall in the price of these imported goods. Gor A, Khachatryan (2020) found that exchange rates had a weak impact on Armenian exports. Troy Segal (2021) found that exchange rates or exchange rates can affect trade in merchandise, economic growth, capital flows, inflation and interest rates.

Test the Coefficient of Determination

For economic growth the value of R Squared is 0.796331 with Adjusted R Square: 0.392018. According to Chin (1998) the value of R2 is



categorized as strong if > 0.67, moderate if 0.33 < R2 < 0.67, and weak if 0.19 < R2 < 0.33. So the R2 for the growth of the cosmetic industry as a result of this study is 0.79 which is at a strong level.

V. CONCLUSIONS AND SUGGESTIONS A. Conclusion

Based on the results of data processing and discussion, the following conclusions can be drawn:

1. SBI jointly has a significant effect on the growth of the cosmetics industry.

2. The exchange rate is positively related and has no significant effect on the growth of the cosmetic industry.

DAFTAR PUSTAKA

- [1]. Ademuyiwa dan Adetunji. (2019). Impact_of_COVID-19s_Pandemic_on_the_Economy_of_In.pdf . (n.d.).
- [2]. Adi. (2017). Inflation and Economic Growth: a Review of The Inernational Literature. Journal Comparative Economic Research,20(3). DOI : <u>https://doi.org/10.1515/cer-2017-0019</u>.
- [3]. Adrian, Tobias, N. B. and D. G. (2019). Vulnerable Growth. American Economic Review, 109(4), 1263–1289.
- [4]. Ali Abdulkadir. (2018) The Impact of Imports and Exports Performance on the Economic.pdf. (n.d.).
- [5]. Anggriawan, R., Maskie, G., & Syafitri, W. (2019). Analysis of the performance of the manufacturing industry sector in east Java Province and implications for strategy preparation. International Journal of Scientific and Technology Research, 8(2), 72–77.
- [6]. Badan Pusat Statistik. (2019). Ekonomi Indonesia Maju Karena UKM Kuat. Indonesia: Badan Pusat Statistik. Diakses pada 2 Oktober 2021 pk.14.17.
- Badan Pusat Statistik. (2020). Tren Produk Kecantikan di Indonesia Tahun 2020. Jakarta: Badan Pusat Statistik. Diakses pada 07 Oktober 2021.
- [8]. Ball et all. (2014). Pengantar Teori Ekonomi Makro. Jakarta : GP Press.
- [9]. Baskoro, L. S., Hara, Y., & Otsuji, Y. (2019). Labor Productivity and Foreign Direct Investment in the Indonesian Manufacturing Sector. Signifikan: Jurnal Ilmu Ekonomi, 8(1), 9–22. DOI: <u>https://doi.org/10.15408/sjie.v8i1.7836</u>.

- [10]. Behun, M., Gavurova, B., Tkacova, A., & Kotaskova, A. (2018). the Impact of the Manufacturing Industry on the Economic Cycle of European Union Countries. Journal of Competitiveness, 10(1), 23–39. DOI:<u>https://doi.org/10.7441/joc.2018.01.02</u>.
- [11]. Boediono. (1992). Reflections On Ricardian Equivalence. Jakarta : GP Press.
- [12]. Chin. (2018). Aplikasi Analisis Multivariate Dengan Program SPSS. Semarang : Badan Penerbit Universitas Diponegoro.
- [13]. Dadang Saepuloh, S. N. M. (2019). The Influence of Economic Growth, BI Rate, and Inflation and the Impact on Direct Foreign Investment in Indonesia in 2010-2017. KnE Social Sciences, 1172–1187.
- [14]. Dinh, T. T.-H., Vo, D. H., The Vo, A., & Nguyen, T. C. (2019). Foreign Direct Investment and Economic Growth in the Short Run and Long Run: Empirical Evidence from Developing Countries. Journal of Risk and Financial Management, 12(4), 176. DOI: https://doi.org/10.3390/jrfm12040176.
- [15]. Ekawarna dan Muslim, F. (2010). Pengantar Teori Ekonomi Makro. Jakarta : GP Press.
- [16]. Faridah Pardi, Zahariah Sahudin, Mohd Azlan Abd Majid, S. J. and N. A., & Ali, M. (2021). Digital Economy and Sustainable Development Path in Selected Asian Countries. Global Business and Management Research: An International Journal, 13(4), 1-14.
- [17]. Ghozali, I. (2011). Aplikasi Analisis Multivariate Dengan Program SPSS. Semarang: Badan Penerbit Universitas Diponegoro.
- [18]. Gujarati, D. N. (2015). Basic Econometrics (Edisi Keli). Jakarta Selatan: Salemba Empat. DOI: <u>https://doi.org/10.1126/science.1186874%0</u> <u>D</u>.
- [19]. H. Masri, Z., Ratnasih, C., & Yolanda, Y. (2022). Of Several Monetary Variables on Economic Growth and Its Implications on FDI (Studies Analysis in Indonesia and Malaysia). February 2021. DOI: <u>https://doi.org/10.4108/eai.30-10-2021.2315832</u>.
- [20]. Ha, Jongrim, M. Marc Stocker, and H. Y. (2020). Inflation and Exchange Rate Pass-Through. Journal of International Money and Finance. DOI: <u>https://doi.org/105:</u> <u>102187</u>.
- [21]. Handriani & Robiyanto. (2018). Investment

DOI: 10.35629/5252-050412441254 |Impact Factorvalue 6.18| ISO 9001: 2008 Certified Journal Page 1252



Opportunity and. 19(2), 295–312.

- [22]. Heizer Jay. (2005). Operations Management. Jakarta : Salemba Empat.
- [23]. Herman, E. (2016). The Importance of the Manufacturing Sector in the Romanian Economy. Procedia Technology, 22(October 2015), 976–983. DOI: <u>https://doi.org/10.1016/j.protcy.2016.01.12</u> 1.
- [24]. Hermanto, & Sutrisno. (2021). ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI PERTUMBUHAN SEKTOR INDUSTRI FARMASI DAN **IMPLIKASI** TERHADAP **KETERSERAPAN** TENAGA **KERJA** Oleh. Ekonomi, 23(3), 217 - 228.https://ejournal.borobudur.ac.id/index.php/1 /article/viewFile/873/807.
- [25]. Irma M. (2017). Analisis Pengaruh Motivasi Kerja, Gaya Kepemimpi Irma M, et.al nan, Disiplin Kerja terhadap Kinerja Kerja Karyawan PT. Siantar Top Waru-Sidoarjo. Jurnal Ecobisma, 1(2), 1–18.
- [26]. Ismail, P dan Z. (2012). Teori Ekonomi (Edisi 1). Surabaya : Dharma Ilmu, 2012.
- [27]. Jamaludin, Nurasyikin, S. I., & Manaf, S. A. (2017). Macroeconomic Variables and Stock Market Returns: Panel Analysis from Selected ASEAN Countries. International Journal of Economics and Financial Issues, 7(1), 37–45.
- [28]. Jhingan, M. (2014). Ekonomi Pembangunan dan Perencanaan (Edisi Keen). Jakarta: Rajawali Pers.
- [29]. Kementrian Perindustrian. (2015). Rencana Induk Pembangunan Industri Nasional. Jakarta : Kementrian Perindustrian. Diakses pada 27 Oktober 2021 pk.19.23.
- [30]. Kementrian Perindustrian. (2018). Industri Kosmetik Nasional Tumbuh 20%. Jakarta : Kementrian Perindustrian. Diakses pada 03 November 2017 pk.14.47.
- [31]. Kementrian Perindustrian. (2019). Industri Kosmetik Tumbuh Signifikan Pada 2020 (J : K. Perindustrian (Ed.)). Diakses pada 30 Oktober 2021 pk.19.23.
- [32]. Kilavuz, E., & Altay Topcu, B. (2012). Export and economic growth in the case of the manufacturing industry: Panel data analysis of developing countries. International Journal of Economics and Financial Issues, 2(2), 201–215.
- [33]. Krugman. (2000). Konsentrasi geografis industri kecil dan rumah tangga (IKRT) di Kabupaten Pemalang Provinsi Jawa Tengah, 2000-2004.

- [34]. Kuncoro. (2018). Metode Penelitian. Jakarta: Erlangga.
- [35]. Liao, Y., Loures, E. R., Deschamps, F., Brezinski, G., & Venâncio, A. (2018). The impact of the fourth industrial revolution: A cross-country/region comparison. Production, 28. DOI: <u>https://doi.org/10.1590/0103-6513.20180061</u>.
- [36]. Luhur Selo Baskoro, Yonsuke Hara, Y. O. (2019). Labor Productivity and Foreign Direct Investment in the Indonesian Manufacturing Sector. Ilmu Ekonomi, 8(1), 9–22.
- [37]. M. Nazir. (2011). Metode Penelitian. Jakarta : Ghalia Indonesia.
- [38]. Mads Kieler. (2006). The ECB's Inflation Objective. https://doi.org/Kieler, Mads, The Ecb's Inflation Objective (May 2003). Available at SSRN: https://ssrn.com/abstract=879167 or http://dx.doi.org/10.2139/ssrn.879167
- [39]. Manohar, J., Koshy, L., & Manohar, S. J. (2016). influence of television advertisement on buying behaviour of vouth towards cosmetic products OF **TELEVISION INFLUENCE ADVERTISEMENTS** ON BUYING BEHAVIOUR OF YOUTH TOWARDS COSMETICS PRODUCTS. April, 2-5. https://www.researchgate.net/publication/30 1350494.
- [40]. Manuel Fernandeset al. 2017. StatistikaDeskriptifUntukAnalisisEkonomi. Jakarta. PenerbitBumuAksara.
- [41]. Michael Ehrmann.Central bank communication.pdf. (n.d.).
- [42]. Mishkin. (2008). Pengaruh inflasi dan tingkat suku bunga terhadap harga saham: studi pada perusahaan sektor Pertambangan yang terdaftar di Bursa Efek Indonesia (BEI) Tahun 2013-2017.
- [43]. Moeliono, A. M. (2008). Pengaruh Modal, Tenaga Kerja, dan Bahan Baku. Terhadap Hasil Produksi dalam Industri. Jakarta: Balai Pustaka.
- [44]. NachrowidanHardius. (2006). Instrumen Penelitian. Jakarta : Kencana Prenada Media Group.
- [45]. Okafor, T., Adegbite, E., & Abiola, B. (2018). Exchange rate fluctuations, inflation and industrial output growth in Nigeria. International Journal of Supply Chain Management, 7(5), 118–128.
- [46]. Okonkwo. (2016). Inflation, Foreign Exchange Rate and Manufacturing in



Nigeria. European Journal of Accounting, Auditing and Finace Research, 4(3), 37–55.

- [47]. Onuchuku, Otto & Nenbee (2019). Trade Liberalisation and Selected Manufacturing Sectoral Groups in Nigeria. World Journal of Innovative Research, 5(6), 37–46. DOI : <u>https://doi.org/10.31871/wjir.5.6.9</u>.
- [48]. Pery Warjiyo dan Solikin. (2003). Ekonomi Pembangunan. Makassar : Media.
- [49]. Prasetyo. (2021). Teori Ekonomi Makro. Jakarta: LPFEUI.
- [50]. Rogoff, K. (2009). Paul Samuelson's Contributions to International Economics. Samuelsonian Economics and the Twenty-First Century, i. DOI: <u>https://doi.org/10.1093/acprof:oso/9780199</u> <u>298839.003.0015</u>.
- [51]. Salvatore, D. (2014). Ekonomi Internasional. Jakarta : Salemba Empat.
- [52]. Samsul, M. (2006). Pasar Modal dan Manajemen Portofolio. Erlangga.
- [53]. Samuelson, P. A. & W. D. N. (1994). Makro Ekonomi (Edisi keem). Jakarta: Erlangga.
- [54]. Schumpeter, Hicks dan Madison. (2010) Ekonomi Internasional. Jakarta: Salemba Empat.
- [55]. Sugiyono. (2009). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung : Alfabeta.
- [56]. Swasta, B. dan H. (2000). Manajemen Pemasaran, Analisa Perilaku Konsumen (Edisi 7). Prestice Hall.
- [57]. Todaro, M.P. dan Smith, S. . (2020). Pembangunan Ekonomi (Jilid I Ed). Jakarta : Erlangga.
- [58]. Zhang, Y. (2019). Impact of Foreign Trade, FDI, Exchange Rate And Inflation on Economic Growth. Global Journal of Economics and Business Administration, 3(17), 1–11.