The Influence of Product Price and Exchange Rate toward Export Volume of Adidas T-Shirts
(A Case Study at PT. Apparel One Indonesia 1)

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ABSTRACT

This study aims to explain the influence of both product price and exchange rate variables and each partial influence toward export volume of Adidas t-shirts. This study used explanatory study type with quantitative approach. The independent variables of this study are product price and exchange rate, while the dependent variable is export volume of Adidas t-shirts. The data used in this study is secondary data in the form of time series within the period of May 2016 to December 2018. This study used multiple linear regression analysis in IBM SPSS 23. The analysis results of this study showed that together, both variables of product price and exchange rate are influencing export volume of Adidas t-shirts. While partially, the variable of product price has a negative and significant influence toward export volume of Adidas t-shirts. The variable of exchange rate has a positive but insignificant influence toward export volume of Adidas t-shirts.

Keywords: Product Price, Exchange Rate, Export Volume

Pengaruh Harga Produk dan Nilai Tukar terhadap Volume Ekspor T-Shirts Adidas
(Studi Kasus pada PT. Apparel One Indonesia 1)

Abstrak

Studi ini dilaksanakan untuk mengetahui dan menjelaskan pengaruh variabel harga produk dan nilai tukar secara bersama-sama maupun secara parsial terhadap volume ekspor t-shirts Adidas. Studi ini menggunakan jenis studi penjelasan dengan pendekatan kuantitatif. Variabel independen yang digunakan dalam studi ini adalah harga produk dan nilai tukar, sedangkan variabel dependen yang digunakan adalah volume ekspor t-shirts Adidas. Data yang digunakan dalam studi ini adalah data sekunder dengan deret waktu selama periode Mei 2016 hingga Desember 2018. Studi ini menggunakan analisis statistik regresi linear berganda dengan program IBM SPSS 23. Hasil analisis pada studi ini menunjukkan bahwa variabel harga produk dan nilai tukar secara bersama-sama mempengaruhi volume ekspor t-shirts Adidas. Sedangkan secara parsial, variabel harga produk memiliki pengaruh negatif dan signifikan terhadap volume ekspor t-shirts Adidas. Variabel nilai tukar memiliki pengaruh positif namun tidak signifikan terhadap volume ekspor t-shirts Adidas.

Kata kunci: *Harga Produk, Nilai Tukar, Volume Ekspor*

INTRODUCTION

International trade is an essential aspect of a country. International trade occurred when two countries can not produce enough goods nor service to meet the demands of its own society. This can be the

result of climate, natural resources, technology, human resources, social and politics differences between two countries.

In other explanation Sutedi (2014: 3) stated that international trade is a transaction that carried out across countries, involved between two parties and crossing state borders. As a country that adopts open economic system, Indonesia relies on international trade to help promote economic growth.

Export is one of the most important component in order to establish international trade. The definition of export as stated by Ekananda (2015: 9) is an activity of selling goods that were done by many people, government or corporation with the purpose of obtaining profits. In other words export is a production result that sold and sent to destination country and paid in the form of foreign exchange all by obeying the international trade laws.

Indonesia's government always encourage domestic industries to keep improving their export. The export of industry commodities has bigger role than the export of agriculture and mining sector. This is the reason why Indonesia's government should be developing this sector to increase economic growth through international trades and exports. Export can stimulate national economy growth to dominate global market (Hadin et al., 2015: 2). One of the most influential industry that contributes to non-oil & gas export is apparel industry.

Indonesia has long been one of the biggest countries that manufactures and supplies apparel in the world. Within this period, it became one of the largest manufacturing industry of Indonesia as of generating high number of production which goes along with vast amount of employment. Apparel manufacturing industry built and developed its investment and production capacity mainly based on trans-border markets and export.

PT. Apparel One Indonesia 1 is one of the famous manufacturer company that focuses on apparel products. Operating solely to manufacture Adidas' products, this company is capable of producing roughly millions units of apparel each year. All of which will be exported to many countries of the six continents in the world, Asia, Australia, Europe, North America, South America and Africa. Though the company also produces a slight amount for domestic needs.

The export volume of PT. Apparel One Indonesia 1 in 2018 was 7.229.279 pieces in total. But if we divide it by the month, they are unstable. With the lowest export volume in February at 298.706 pieces followed by June at 340.453 exported pieces. The second highest export volume was in July at 816.269 pieces. August hit the highest number of export volume in 2018 which amounted at 1.264.926 pieces in a month. In the following month, the number dropped significantly by 680.250 pieces, more than half amount of the previous month. The number of export was increased slightly in October at 622.141 pieces followed by steady decrease in the next two months. The export volume was amounted at 494.436 in the latter month of 2018. In 2018, product sales were dominated by t-shirts by 52% or slightly more than half of total sales in that year. Shorts contributes 19% of total sales followed by pants at 16%. Meanwhile jackets is the least sold products that year at 13%.

As an export oriented company, PT. Apparel One Indonesia 1 must face up new challenges to come. Some factors affecting exports are product prices and exchange rates.

Price becomes an important factor in purchasing and determining market share. The definition of price according to Kotler and Keller (2009: 67) is a certain amount of money that charged for a product or service or a value that exchanged for the benefits obtained by the consumer of a product or service. Price has become a measurement used by consumer to evaluate quality, class, and grade of a product. The price of a product is also a criterion of how big someone's

satisfaction value of the purchased product. High price reflects the scarceness of a commodity, because when price reaches it's highest point, consumer tends to replace that commodity with cheaper alternatives (Huda & Widodo, 2017: 50).

Demand is a combination of price and quantity that shows the amount of goods that are wanted and able to be bought by consumer on several price levels (Nopirin, 2000: 32). Demand theory is basically an analysis tool to see the amount of goods or service demanded and its shift according to the law of demand.

Exchange rate is also an important factor in international trading as it is used as a guidelines in international payment. Exchange rate is a price level that was agreed upon two countries to do trade with each other. According to Mankiw (2006: 242), Real exchange rate is a relative price of goods between two countries. Appreciation of a currency is an increase in the price of one currency relative against other currency, on the contrary, depreciation is a fall in the price of one currency against another. If a currency appreciates, another currency will certainly depreciates. The appreciation of Rupiahs exchange rate will causes a fall of export volume because the price of the commodity in international market will rise (Hadi & Setyo, 2019: 29).

As for the problem is the export volume of the product from time to time are unstable because the amount is always fluctuating. Hence, it is required to determine what were causing the fluctuations so that it can be anticipated in times to come.

In previous studies, price was stated to had a negative and significant influence toward export volume (Listianingrum, 2015; Ayuningtyas, 2015; Kusumawati, 2016). On the other hand, the variable of price was stated to had a positive and significant influence toward export volume (Mulatsih, 2017; Hadi & Setyo, 2019).

The variable of echange rate was stated to had a negative and significant influence toward export volume (Listianingrum, 2015; Mejaya et al., 2016). Otherwise, a study stated that exchange rate had an insignificant effect toward export volume (Ayuningtyas, 2015).

Therefore, this study was aimed to determine the influence of product price and exchange rate both partially and collectively toward export volume of Adidas t-shirts at PT. Apparel One Indonesia 1. It is hoped that the results of this study can be considered by the company in order to increase their sales and export volume.

METHOD

This study used explanatory study method with quantitative approach. The utilization of the quantitative descriptive method is harmonized by the study variables that concern about actual problems with study results in the form of meaningful numbers.

The data that were analyzed in this study were secondary data obtained from PT. Apparel One Indonesia 1 and Bank Indonesia (www.bi.go.id). The data were collected by observation and documentary research techniques. The data were time series data in the form of monthly reports within the period of May 2016 – December 2018. The data of this study were quantitative data which means the data was numeric and measured in ratio scale.

The variables in this study were export Volume of Adidas T-shirts at PT. Apparel One Indonesia 1 as the dependent variable. The independent variable of this study were product Price of Adidas T-shirts at PT. Apparel One Indonesia 1 and exchange Rate of Rupiahs as the second independent variable.

Using IBM SPSS 23, the first data analysis that was used in this study is descriptive statistics. The approach used in this analysis is by presenting and describing data with table, graphic, or diagram. The aim of this analysis is to give an overview of the object being researched through data to provide general conclusion for it to be easier

to understand. Descriptive analysis is a way of analyzing data as they are by describing and depicting all the gathered data (Sugiyono, 2017: 147). Descriptive analysis aims to find the amount of data (n), minimum variable value (min), maximum variable value (max), average (mean), and deviation score (standard deviation).

In order to conduct regression analysis, several classic assumption tests must be done prior to the analysis. This study used 5 classic assumption tests which were normality test, multicolinearity test, heteroscedasticity test, autocorrelation test and linearity test. The purpose of normality test is to find out whether both independent and dependent variable used in the regression model are normally distributed or not.

According to Ghozali (2016: 103), the purpose of multicolinearity test is to verify if in the regression model can be found any correlation between independent variables. While the purpose of heteroscedasticity test is to test whether there is a variance inequality of residual between one observation to another. The purpose of autocorrelation test is to test whether there is a correlation between error in t period to the previous t period (t-1) in a linear regression model. According to Ghozali (2016: 159), the purpose of linearity test is to test whether the used model specification is correct or not.

Multiple linear regression analysis in which the result is a regression model, can be used to predicts the value of the dependent variable according to the independent variables value changes (Sugiyono, 2017: 188). Coefficient of determination (R2) aims to measure how far is the ability of a model in explaining the variation of dependent variable within the value of zero and one.

Multiple linear regression analysis was conducted with aims to find out how significant is the influence of product price and exchange rate both collectively and partially towards export volume of Adidas t-shirts at PT. Apparel One Indonesia 1 by running f-test and t-test.

RESULTS AND DISCUSSION

Descriptive Statistics

The highest export volume of Adidas t-shirts was occurred in June 2016 at 271.420 PCS and the lowest in August 2018 at 81.339 PCS. The export volume was averaged at 144.705,72 PCS with a standard deviation of 36.577,271 PCS

The lowest product price of Adidas t-shirts was 3,81 USD which was occurred in the same month of the highest export volume, June 2016. The highest product price was 6,61 which was occurred in July 2018. Product price was averaged at 4,9159 USD with a standard deviation of 0,63507 USD.

The highest appreciation of Rupiahs exchange rate was Rp 12.998 which was occurred in October 2016. The highest depreciation of Rupiahs value occurred in November 2018 at Rp 15.227. The average value of Rupiahs exchange rate was Rp 13.660,03.

Classic Assumption Test

Regression model is decent if the independent and dependent variable is normally distributed. If this assumption is violated, the statistic test will be invalid. Normality test conducted using Kolmogorov-Smirnov test in SPSS.

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test	
	Unstandardized Residual
N	32
Kolmogorov-Smirnov Z	.540
Asymp. Sig. (2-tailed)	.933

Source: Secondary Data (Processed), 2019

The results of statistic test of normality using Kolmogorov-Smirnov showed that the significance value is 0,933 which is higher than significance level of 0,05. Therefore, the data in this study are normally distributed according to the graphic and statistic test results.

The regression model will experience difficulties in detecting the influence between independent variable toward the dependent variable if there is a multicolinearity. To find out whether there is or there is not multicolinearity in regression model is by looking the tolerance value and variance inflation factor (VIF) value on coefficients table.

Table 2. Multicolinearity Test

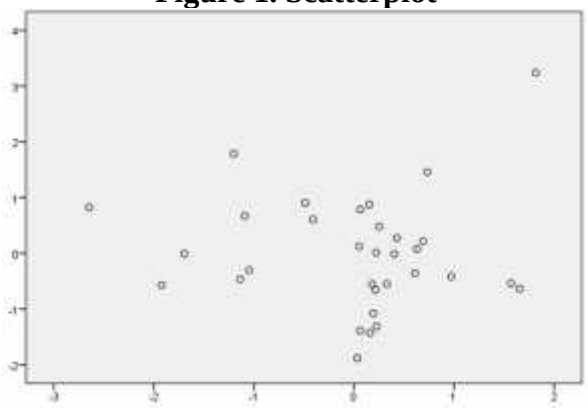
Coefficients[a]			
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	PP	.784	1.276
	ER	.784	1.276

Source: Secondary Data (Processed), 2019

The results of multicolinearity showed that the Tolerance value is higher than 0,10 and the VIF value is lower than 10. Therefore, there is no correlations between the independent variables of this study.

Heteroscedasticity will cause inefficiency in the assessment of regression coefficients. To test heteroscedasticity is by looking at the spread of variance on scatterplot diagram in SPSS output.

Figure 1. Scatterplot



Source: Secondary Data (Processsed), 2019

The results of heteroscedasticity test using Scatterplot showed that the dots were spread above and below zero (0) on Y axis. Therefore, the regression model of this study is free from heteroscedasticity.

Autocorrelation test applies for time series data because it appears that the problem often occurs on time series data in which an error in someone or a group tends to influence the error in someone or a group in the next period. To detect an autocorrelation problem is by conducting the Durbin-Watson test.

Table 3. Autocorrelation Test

Model Summary[b]	
Model	Durbin-Watson
1	2.089

Source: Secondary Data (Processed), 2019

The autocorrelation test resulted that the Durbin-Watson value (d) is 2,089 which sits between the upper limit of dU (1,574) and 4 – dU (4 – 1,574 = 2,426). Therefore, the model of this study is free from autocorrelation.

The last classic assumption test is the linearity test. A linear model is the right model to test the variables. Linearity test can be done using Lagrange Multiplier test.

Table 4. Linearity Test

Model Summary[b]	
Model	R Square
1	.495

Source: Secondary Data (Processed), 2019

The results showed that the R^2 value is 0,495 with the amount of data N = 32, C^2_{value} = 32 x 0,495 = 15,84. The C^2_{value} then compared to the C^2_{table} of 43,77297 that obtained from df = 32 – 2 = 30, and significance level of 0,05. The result of this test is that C^2_{value} is lower than C^2_{table} (15,84 < 43,77297). Therefore, the model in this study is linear.

Multiple Linear Regression

The value of the coefficient of determination depicts the ability of the influence of independent variable toward dependent variable.

Table 5. Coefficient of Determination

Model Summary[b]	
Model	Adjusted R Square
1	.460

Source: Secondary Data (Processed), 2019

The coefficient of determination value obtained from this test was 0,460 which means that the variance of export volume of Adidas t-shirts can be explained by the variable of product price and exchange rate for 46%. While the rest of 54% can be explained by other variables outside of this study.

F-test aims to examine whether all independent variables entered into the model are influencing the dependent variable in the same time (Ghozali, 2016: 96).

Table 6. F-test

ANOVA[a]		
Model		Sig.
1	Regression	.000[b]

Source: Secondary Data (Processed), 2019

Based on the statistic f-test, the result obtained was that the sig. value (0,000) is lower than the significance level (0,05) which means that the regression is significant. In other words, it can be explained that collectively, both variable of product price and exchange rate are influencing export volume of Adidas t-shirts.

Table 7. Regression

Coefficients[a]		
		B
1	(Constant)	287150.662
	PP	-42299.920
	ER	4.795

Source: Secondary Data (Processed), 2019

Based on the regression results, that the regression model of this study is:

EV = 287.150,662 – 42.299,920 PP + 4,795 ER

The constant value of 287.150,662 means that if the value of product price and exchange rate are zero (0), the export volume (EV) will be 287.150,662 PCS.

The coefficient value of product price (PP) showed a negative influence toward export volume which means if product price increased, the export volume will be decreased. In this case, if product price increased by 1 USD, the export volume will decrease by 42.299,92 PCS. Otherwise, if product price decreased by 1 USD, the export volume will increase by 42.299,92 PCS. With

the assumption that the other variable remain the same.

The coefficient value of exchange rate (ER) showed a positive influence toward export volume which means if exchange rate increased, the export volume will also increased. In this case, if exchange rate increased by Rp 1.000, the export volume will increase by 4.795 PCS. Otherwise, a decrease of exchange rate by Rp 1.000, will also decrease the export volume by 4.795 PCS. With the assumption that the other variable remain the same.

T-test examines the partial influence of independent variable toward dependent variable.

Table 8. T-test

Coefficients[a]		
Model		Sig.
1	(Constant)	.024
	PP	.000
	ER	.630

Source: Secondary Data (Processed), 2019

The variable of product price (PP) has significance value of 0,000 which is lower than the significance level of 0,05. Therefore, the independent variable of product price has a significant influence toward export volume of Adidas t-shirts.

The variable of exchange rate (ER) has significance value of 0,630 which is higher than the significance level of 0,05. Therefore, the independent variable of exchange rate has an insignificant influence toward export volume of Adidas t-shirts.

Discussion

Based on the data analysis, it can be obtained that all independent variables which are product price and exchange rate are influencing the dependent variable of export volume of Adidas t-shirts at PT. Apparel One Indonesia 1. The independent variables in this study are also able to explain the variance of the dependent variable for 46%.

The variable of product price has a negative and significant effect toward export volume of Adidas t-shirts. This result is also in accordance to the demand theory which stated that the relation between price and demand is negative. If the price of a goods is increased, then the demand of the goods will be decreased and vice versa. In other words, the higher the product price, the lower the demand of Adidas t-shirts, thereby reducing the export volume of the products.

On the other hand, the variable of exchange rate has an insignificant effect on export volume of Adidas t-shirts. The depreciation of domestic exchange rate will promotes export volume because the price of domestic commodity will be cheaper in the international market.

The depreciation of exchange rate is considered as an incentive for a company to increase their exports, but doesn't necessarily means that they can sell as much goods as possible. Export volume can also be affected by the importer's country needs. Other than that, the complexity of the production process of manufacture industry company can also be a factor. The depreciation of exchange rate will elevates the price of imported raw materials needed to produce the goods.

This study showed that the variable of product price is significantly influencing the export volume of Adidas t-shirts. According to that, it can be implied that in order to increase the export volume, PT. Apparel One Indonesia 1 should consider to be able to give a competitive price as this study resulted that the lower the price, the export volume will be higher.

Although the partial test stated that exchange rate has an insignificant influence on export volume, PT. Apparel One Indonesia 1 should not ignore this variable because of the fact that the f-test and the determination of coefficients (R2) of this study stated that together, both variable of product price and exchange rate has influence on export volume for 46%.

CONCLUSIONS & SUGGESTIONS

The conclussions of this study about the influence of product price and exchange rate toward export volume of Adidas t-shirts at PT. Apparel One Indonesia 1 are that both variable of product price and exchange rate collectively have influence toward export volume of Adidas t-shirts and the ability of product price and exchange rate to explain the variance of export volume of Adidas t-shirts is 46%.

It can be concluded that the variable of product price has a negative and significant influence toward export volume of Adidas t-shirts. On the other hand, the variable of exchange rate has a positive influence, but partially has an insignificant effect toward export volume of Adidas t-shirts.

Based on the analysis results of this study, recommendations can be given regarding the export volume of Adidas t-shirts export volume at PT. Apparel One Indonesia 1 in order to increase the export volume of Adidas t-shirts, PT. Apparel One Indonesia 1 should give the best price for the market because this study analysis showed that the decrease of the price will increase the export volume. It is recommended to purchase raw materials locally instead of imports to reduce the production cost so that the final product price can be lower.

Albeit the insignificant partial influence, the exchange rate fluctuations should also be considered by PT. Apparel One Indonesia 1 as this study obtained that the depreciation of Rupiahs exchange rate will increase the export volume as the depreciation will make the product price cheaper in the international market.

It is hoped that this study can be used as a reference for future studies by considering to include several other variables outside of this study.

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