ANALYSIS OF THE INFLUENCE OF TOBACCO PLANTATION LAND, TOBACCO PRODUCTION, AND TOBACCO EXPORTS ON TOBACCO EXCISE REVENUE FOR THE STATE OF INDONESIA 2009-2018

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ABSTRACT

Tobacco excise revenue plays an important role in a country's economy. Excise is one of the main sources of revenue for the government, which is used to finance various public programs and services, such as infrastructure, education and health. Tobacco excise revenue is influenced by several factors including the area of tobacco plantations, tobacco production, and tobacco exports. The purpose of this study was to analyze the effect of these three factors on tobacco excise revenue.

The data taken is the overall data in Indonesia. The type of data used in this study is secondary data so that data collection is carried out through intermediary media or obtained and recorded by other parties. The analytical method used is multiple analysis of time series data.

The results of this study indicate that the area of tobacco plantations has a positive and significant effect on Indonesia's tobacco excise revenue in 2009-2018, while the variables of tobacco production and exports have a negative effect on Indonesia's tobacco excise revenue in 2009-2018.

The implications of this research for the government are expected to increase tobacco excise revenue but still pay attention to the impact of tobacco and improve social welfare.

Keywords: *: Tobacco Excise, Tobacco Plantation, Tobacco Export, Tobacco Production.*

1. Introduction

Excise on tobacco products is a significant source of state revenue in Indonesia. Apart from being a source of state revenue, tax revenues from the tobacco sector can also be used as a policy instrument to control tobacco consumption, reduce the negative impact of smoking on health, and improve people's welfare. (Samuel, 2022) , Tobacco excise depends on factors such as tobacco land area, tobacco production, and tobacco exports.

Basically, the greater the tobacco production, the greater the tax revenue generated from the tobacco. This is because tobacco taxes are generally charged as a percentage of the selling price of tobacco. Therefore, the greater the tobacco production, the greater the value of tobacco sales, so that tobacco tax revenues will also increase. In addition, the effect of tobacco production on tobacco tax revenues may vary from country to country, depending on the taxation system adopted. In some countries, tobacco taxes are levied on only certain products, while in others, tobacco taxes are levied on all tobacco products, including cigarettes, cigars, and sliced tobacco.

Tobacco as a strategic commodity with a high contribution to the country's economy deserves special attention because tobacco is a plant that has many uses, both as an industrial raw material and for health. For white cigarettes, the stems can be used as firewood, and the flowers can be reused as tobacco seeds. The tobacco industry also contributes greatly to the employment sector. The Ministry of Industry noted that the total workforce absorbed from The cigarette industry sector has 5.98 million people, consisting of 4.28 million workers in the manufacturing and distribution sectors, and the remaining 1.7 million working in the plantation sector. This study aims to analyze the area of tobacco land, tobacco production, and tobacco exports on tobacco excise revenue. Land area is thought to have a significant effect on income, when harvested area increases, tobacco production will also increase, when tobacco production increases, tobacco purchases are high, all of these factors are interconnected with one another and have a positive effect on tobacco excise revenue.

This research provides a better understanding of the relationship between tobacco plantation area, tobacco production, tobacco exports, and tobacco excise revenues. With this understanding, relevant agencies, including the government and the excise agency, can formulate more effective public policies to maximize tobacco excise revenues.

This research can become a basis for making policy decisions that have a positive impact on the tobacco sector and national income. Through this research, we can understand how factors such as the area of tobacco plantations, tobacco production, and tobacco exports contribute to tobacco excise revenue. This study provides insight into the factors that influence tobacco excise revenue. Thus, related agencies can optimize state revenues through appropriate policies related to tobacco. This research can assist in determining optimal excise rates, effective management of resources and industrial development policies, as well as diversification of tobacco export markets to increase overall state revenues. With this understanding, relevant agencies can develop appropriate strategies to increase sustainable tobacco production and exports. This research can also help improve the quality and productivity of tobacco plantations, thus strengthening the tobacco industry as a whole.

2. Literature Review
2.1 Literature Review

2.1.1 Tobacco

Tobacco is a plantation sector crop that has been around for a long time in Indonesia and is a plantation cultivated by farmers because it has high value and has many benefits and has an important role in the Indonesian economy, tobacco plantations are a source of income for the state and society in providing jobs, Tobacco plantations also increase Indonesia's agribusiness and agroindustry sectors (Cahyono, 1988) .

2.2.2 Excise

Excise is included in indirect taxes because the burden can be delegated either in whole or in part to other parties. Excise is part of the tax levied on goods whose consumption must be limited because it has a certain impact.

2.2.3 Tobacco Plantation Land

Tobacco land area is the total area of tobacco land managed or cultivated by tobacco farmers. Land area affects farmers' income significantly,the wider the plantation area, the greater the farmer's income.

2.2.4 Tobacco Production

Production is the end result of the process or economic effectiveness by utilizing several inputs or inputs (Joesron & Fathorrozi, 2003).

2.2.5 Tobacco Exports

Production Export of Tobacco is defined as taking out or bringing Tobacco originating from domestic markets or products (in the customs area) to a certain place abroad (outside the customs area) with the aim of exchanging or selling it. (Ministry of National Education) .

3. Research Methodology

Type data used in this research is quantitative data as measured by use numeric scale . According to (Sugiyono, 2015) , method quantitative research is method Which to learn something population or sample Which collection technique is gather data with instrument research . Analysis this quantitative data aims For test hypothesis with hypothesis .

In this research data used is data secondary with using a time series or time series for 10 years from 2009-2018. According to (Sugiyono, 2015) , data secondary is data Which obtained from study literature or material other Which in a manner intrinsic related with study previously Which obtained from journals , books , articles , internet, and others.

3.1 Data analysis technique

This study uses quantitative methods with time series data analysis tools, to test the effect of the tobacco plantation land area, tobacco production and tobacco exports (Independent Variable) on Tobacco excise revenue (Dependent Variable).

3.1.1 Multiple Linear Regression Analysis

The multiple linear regression equation (*Multiple linear regression)* is formulated as follows:

$$Y = \beta_0 + \beta_1 \chi_{1_t} + \beta_2 \chi_{2_t} + \beta_3 \chi_{3_t} + e_t$$

Description   :
Y = Tobacco excise revenue
β_0 = Constant
b1, b2,b3 = Regression Coefficient
X_1 = Tobacco Plantation Land Area
X_2 = Tobacco Production

3.3.2 Test Classical Assumptions Test

Hypothesis testing classic The research regression model was used to test whether the model regression the good or not . In this research , testing hypothesis classic used is the normality test , multicollinearity test , heteroscedasticity test , and autocorrelation test.

3.3.3 Model Accuracy Test

Determination Coefficient Test (R^2)

According to (Supangat, 2008) , the definition of the coefficient of determination is a quantity that expresses the level of strength of the relationship between two or more variables in the form of a percentage (percentage indicating the diversity of Y can be explained by the diversity of X, or in other words, how much X contributes to Y.

F Test (Simultaneous Test)

This test is used to determine whether all the independent variables included in the regression have a simultaneous effect simultaneously or not on the dependent variable.

T test (Partial Test)

According to (Ghozali, 2013) , the t statistical test shows how influential the independent variables individually are in explaining the dependent variable.

4. Results

Statistical Test Results

Determination Coefficient Test (R^2)

Determination Coefficient Test Results (R^2)

Model	R	R Square	Adjusted R Square	R std. Error of the Estimate
1	.911 [a]	.811	.816	15.505990

Source : Secondary data, 2023 (processed)

Based on the analysis results in Table 1 the R-Squared value is 0.83 or 83%. This indicates that the independent variables in this study, namely Tobacco Land Area, Tobacco Production, Tobacco Export, contribute to a significant influence on Indonesian Tobacco Excise Revenue by 83% and the remaining 17% is explained by other variables.

F Test (Simultaneous Test)

The F test (simultaneous test) is used to test whether the independent variable can explain the value of the dependent variable or not in the model simultaneously.

Source : secondary data, 2023 (processed)

ANOVA [a]		
Model	F	Sig.
1 Regression	58,587	.000 [b]
residual		
Total		

Based on the results of the SPSS output above, Table 12 has a significant value or probability of 0.000, the value is less than 0.05, so it can be concluded that the hypothesis is accepted, which means the independent variables in this study are Tobacco Land Area, Tobacco Production, Tobacco Exports , simultaneously or simultaneously have a significant effect on the Indonesian State Tobacco Excise Revenue.

T test (Partial Test)

    The t-test is tested to find out whether the independent variable has a significant effect on the dependent variable or not.

t test results (partial)

Source : Secondary data, 2023 (processed)

Coefficients ª		
Model	t	Sig.
1 (Constant)	13,799	.000
LAND AREA	2055	047
PRODUCTION	-3,477	001
EXPORT	-10,180	.000

    The results of regression analysis of time series data, obtained significant values as follows:

1. The Tobacco Area Variable (X1) has a probability value of 0.047 so that this value is smaller than 0.05. this means that the hypothesis is accepted, namely the variable Tobacco Land Area has a partially significant effect on Indonesian State Excise Revenue.
2. The Tobacco Production Variable (X2) has a probability value of 0.001 so that this value is smaller than 0.05. this means that the hypothesis is accepted, namely the Tobacco Production variable has a partially significant effect on Indonesian State Excise Revenue.
3. The Tobacco Export Variable (X3) has a probability value of 0.00 so that value is smaller than 0.05. this means that the hypothesis is accepted, namely the Tobacco Export variable has a partially significant effect on Indonesian State Excise Revenue.

5. Discussion
5.1 Tobacco Plantation Land Area

    In preparing the hypothesis, it is assumed that land area has a positive effect on tobacco excise revenue, in this study the hypothesis is accepted, the variable area of tobacco land has a positive effect on tobacco excise income. These results are consistent with the hypothesis and research findings (Mubyarto, 1986) which states that land is one of the factors of production, where agricultural products are produced which have a sizable contribution to farming, because the amount of production from farming is greatly influenced by the narrow area of land used.

    With the increase in the area of tobacco plantations, it is likely that there will be an increase in tobacco production. In other words, the more land used to grow tobacco, the more tobacco will be produced. Higher tobacco production will contribute to an increase in the volume of tobacco sold and subject to excise.

    Larger tobacco plantations will require more labor to manage and cultivate the tobacco plants. Thus, an increase in the area of tobacco plantations also means an increase in employment opportunities in this sector. More workers involved in tobacco production will have an impact on increasing individual income and potentially increasing tobacco excise revenue.

5.2 Tobacco Production

In preparing the hypothesis it is assumed that production has a negative effect on tobacco excise revenue, in this study the hypothesis is rejected. If tobacco production increases significantly, but market demand remains low, this could lead to a reduction in tobacco prices. A reduction in the price of tobacco will have a negative impact on tobacco excise revenue, because the tax imposed on tobacco is based on the sale value of the tobacco.

In this case, even though tobacco production increases, excise revenues may decrease due to lower tobacco sales. Significantly increased tobacco production can also lead to a decrease in tobacco prices in the market. This was due to an increase in the supply of tobacco which exceeded market demand.

In this situation, tobacco excise revenues could be negatively affected because the tax levied on tobacco is based on the selling price of the tobacco. If the price of tobacco falls, the excise revenue generated will also decrease. Governments can change tobacco-related tax policies, such as lowering excise rates or imposing fiscal incentives, in order to encourage the growth of the tobacco industry. Even if tobacco production increases, such tax policy changes could negatively impact tobacco excise revenues.

5.3 Tobacco Exports

In preparing the hypothesis it is assumed that exports have a negative effect on tobacco excise revenue, in this study the hypothesis is rejected. When tobacco exports increase significantly, tobacco producers may focus more on meeting foreign market demand than the domestic market. This could result in a decrease in domestic tobacco supply, which in turn reduces tobacco excise revenue from sales in the domestic market.

When tobacco is exported, usually the taxes and duties imposed on the tobacco are calculated based on the value of the export. If tobacco exports increase, the taxes and duties paid to the state may also increase. However, potential tax and excise revenue from sales in the domestic market could be neglected or decreased. As a result, tobacco excise revenues can be negatively affected.

In the tobacco export market, tobacco producers must compete with producers from other countries. If there is increased price competition in the international market, tobacco producers may have to lower their selling prices to remain competitive. A decrease in the selling price of tobacco can have a negative impact on tobacco excise revenue, because the tax imposed is based on the sale value of tobacco.

6. Conclusion

a. Conclusions based on the results of simultaneous testing or F test, the independent variables in this study, namely Tobacco Land Area, Tobacco Production, Tobacco Exports, jointly or simultaneously have a significant effect on Indonesia's State Tobacco Excise Revenue in the period 2009 to 2018.
b. Conclusion based on the results of partial testing or T test, all the independent variables in this study, namely Tobacco Land Area, Tobacco Production, Tobacco Exports, had a positive and partially significant effect on Indonesia's State Tobacco Excise Revenue in the period 2009 to 2018.

c. Conclusion based on the results of partial testing or T test, all the independent variables in this study, namely Tobacco Land Area, Tobacco Production, Tobacco Exports, had a positive and partially significant effect on Indonesia's State Tobacco Excise Revenue in the period 2009 to 2018.

d. The most dominant independent variable on the dependent variable, when compared with other I,ndependent variables, namely the land area variable, by looking at the standardizzed coefficient which has a greater value than the other variables with a value of 0.371.

e. The variable land area is the most dominant variable because a larger land area can increase the potential for agricultural production. The larger the available land area, the more crops that can be planted. This can result in increased production and income.

References

Amir, M. . (2004). Strategy to Enter the Export Market .

Bawono, A., & Shina, AFI (2018). APPLIED ECONOMETRICS For Islamic Economics and Business Application by Eviews . Research institutions and community service.

Cahyono. (1988). Cultivation and Farming Business Analysis . Canisius.

Deliyanto, B. (2014). Land Introduction. Land Introduction , 1–35. http://www.pustaka.ut.ac.id/lib/wp-content/uploads/pdfmk/LING1002-M1.pdf

Directorate General of Plantations. (2020). Indonesian Plantation Statistics 2018- 2020. In Secretariat of Directorate General of Estates .

Gaspersz, V. (2005). Balanced Integrated Performance Management System .

Ghozali, I. (2013). Multivariate Analysis Application with IBM SPSS Program. 21 Update PLS Regression.

Ghozali, I., & Ratmono, D. (2017). Multivariate Analysis and Econometrics Theory, Concepts & Applications Eviews 10 (2nd ed.). Diponegoro University.

IAKMI. (2020). INDONESIAN Tobacco Facts 2020 Empirical Data for Tobacco Control. In the Association of Indonesian Public Health Experts (IAKMI) .Ii, CHAPTER, Excise, P., & Tobacco, H. (nd). Rachmat Muchjidin, Op. cit , p. 2. ,24 .

Joesron, TS, & Fathorrozi, M. (2003). Microeconomic theory: equipped with several forms of the production function . Salemba Four. http://repo.unikadelasalle.ac.id/index.php?p=show_detail&id=2230&keyworlds=