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THE USE OF ECONOMETRIC MODELS TO DETERMINE TAX INCENTIVES FOR INVESTORS

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ABSTRACT

This research aims to examine how tax incentives influence investors' decisions to invest in Indonesia and determine the appropriate amount of tax incentives that should be offered. Research Objective: To create an econometric model for providing incentives for investors so that investors are willing to invest their capital in Indonesia. Methodology: Design an econometric model and test it with financial report data from a coal mining company in Indonesia considering the high level of risk. Findings: The results of the model test showed that companies operating in the coal business sector require a tax incentive of 73.7% of the tax rate to attract investors. Practical Implications: It is hoped that with this research the Indonesian Government can provide tax incentives for investors so that investors are interested in investing their capital in Indonesia.

Keywords: Econometrics, Incentives, Taxation, Investors

INTRODUCTION

To facilitate economic expansion, the government should deliberate and implement specific measures. One of these measures could involve the provision of tax incentives to incentivize domestic investment; this could entail tax deductions or reduced tax rates for individuals or businesses investing in pivotal economic sectors or regions requiring development. By doing so, the government can invigorate economic growth and foster a more stable and prosperous future for the nation.

Government agencies must introduce tax incentives to enhance the investment climate in Indonesia. These initiatives have the potential to generate favorable economic results by stimulating investment in sectors that may have been overlooked, thus accelerating their progress and development. The provision of tax incentives would act as a potent catalyst for investors to explore previously less attractive areas, resulting in a more diversified and dynamic economy.

Indonesia must strategically utilize tax incentives to enhance its competitiveness in the global market and attract foreign investment. As a developing nation, Indonesia must compete with other countries to secure foreign investment, making the availability of tax incentives a crucial factor in influencing foreign investors' decisions to choose Indonesia as their preferred investment destination.

The impact of tax incentives on foreign direct investment in China was the subject of a comprehensive study conducted by Yan Bai, Daniel Xu, and Chengyu Xu in 2015. Their research findings revealed that tax incentives played a significant role in the increase of foreign direct investment in the country. Similarly, Joana Naritomi conducted a study in 2018 that highlighted the crucial role of tax incentives in boosting investment in Brazil. In 2019, Magnus Saxegaard and Michael Keen further emphasized the importance of tax incentives in attracting investment to developing countries. As a result, tax incentives are crucial in promoting foreign investment, which drives economic growth.

The strategic utilization of tax incentives is critical to the government's ongoing efforts to foster investment, stimulate economic growth, and reinforce Indonesia's standing as a significant player in the

global marketplace. These measures are pivotal in incentivizing businesses and investors to engage in activities contributing to the country's economic advancement. By offering appealing tax breaks and other incentives, the government can effectively encourage investment in crucial sectors, generate employment opportunities, and enhance the overall prosperity and well-being of the nation. Such initiatives establish a strong foundation for sustainable economic development and support Indonesia's continued competitiveness in the global arena.

While tax incentives can provide certain advantages, it is essential to acknowledge the potential risks and drawbacks that come with their implementation. More reliance on tax incentives may lead to a decline in revenue and an increase in the fiscal deficit. Additionally, when countries compete to provide the most enticing tax incentives, it could undermine the overall benefits of these incentives. As a result, it is crucial to carefully evaluate the long-term effects of these incentives before implementing them.

When considering the implementation of tax incentives, it is critical to exercise caution and thoroughly evaluate the country's existing economic and social conditions. Additionally, it is necessary to meticulously assess the potential advantages and disadvantages of any proposed tax incentives over the long term. Through careful consideration of these factors, policymakers can ensure that introducing tax incentives will be a well-informed and sound decision, ultimately leading to the effective promotion of economic growth and development.

Tax incentives can be a powerful tool for enhancing investment opportunities within a country or region. These incentives are crafted to offer tax benefits or exemptions, which the government extends to encourage investors to allocate their resources toward specific sectors or geographical areas.

Some of the application needs of tax incentives in strengthening the investment climate include:

- Attract Investment: Tax incentives can be a highly successful approach to drawing investors to a specific country or region. Tax incentives motivate potential investors to invest in the area, as they must pay less taxes. This strategy can positively impact the investment climate in a region, resulting in economic expansion and growth.
- Encourage investment in specific sectors: To stimulate economic growth, it is possible to leverage tax incentives to encourage investment. The government may elect to provide tax incentives to investors who invest in industries deemed significant or high priority, such as renewable energy or manufacturing.
- Strengthen competitiveness: In today's intensely competitive global business environment, countries or regions can benefit from tax incentives as a strategic tool to boost their competitiveness. A country or region can attract more investors and enhance its investment environment by offering more attractive tax incentives than other nations. This can ultimately lead to increased economic growth, job creation, and overall prosperity for the country or region. Therefore, policymakers must consider implementing tax incentives in their economic development strategies.
- Reducing the tax burden: Tax incentives can benefit investors, as they can effectively reduce their tax liability. Consequently, this can result in higher investment returns, incentivizing them to allocate their funds to the region for a more extended duration.

It is imperative to remember that excessive tax incentives can have adverse consequences, leading to a financial burden for the government and potentially jeopardizing public finances. Therefore, the government must strike a balance by restricting tax incentives reasonably while ensuring they effectively stimulate economic growth and investment.

The following factors justify the need for tax incentives to strengthen the investment climate:

- Improving competitiveness: Implementing tax incentives can be a strategic mechanism to bolster a nation's competitive edge by attracting potential investors to allocate resources within the

country. These incentives amplify the allure and profitability of investment opportunities for prospective stakeholders.

- Promoting economic growth: Fostering economic development is critical to a nation's prosperity. Countries can stimulate their economies through targeted investments in critical sectors and generate employment opportunities. Additionally, tax incentives can play a pivotal role in attracting more investors and augmenting the production of goods and services, ultimately contributing to the economy's overall growth.
- Increase employment: Promoting employment can be effectively achieved through strategic investments made by investors. By offering tax incentives to these investors, they can be motivated to increase their investments, ultimately creating new jobs. This, in turn, can play a significant role in reducing the country's unemployment rates.
- Reduce uncertainty: To mitigate the potential risks associated with investing in a specific country, tax incentives can provide a sense of security for investors. By offering these incentives, individuals and organizations can be assured of the support they will receive, which can help foster a more confident and stable investment environment. Ultimately, implementing tax incentives can be valuable for promoting investment and economic growth in a given region or country.
- Increase investment in specific sectors: Tax incentives have been identified as helpful in encouraging investment in crucial sectors critical to a country's economic advancement. In particular, providing tax incentives to investors who allocate resources to the technology sector can enhance a country's competitiveness in the digital age. As such, policymakers should consider implementing tax incentive programs tailored to specific industries to encourage investment, spur growth, and increase productivity.

Tax incentives can enhance investor confidence and motivate them to expand their business operations within a specific country. Consequently, such measures can positively contribute to the government's efforts to improve the overall investment climate within the country.

Some common tax incentives offered by the government to encourage investment include:

- Tax exemptions: It is within the government's power to provide tax exemptions of a temporary or permanent nature on various taxes, such as income tax and sales tax.
- Tax deferrals: The government can provide a grace period for tax payments during specific periods, such as business expansion or investment.
- Tax Deductions: Specific investment opportunities may be eligible for tax deductions as offered by the government. These opportunities may be sector-based or region-specific, and exploring these options for potential financial advantages may be beneficial.
- Tax credits: The government can extend a tax credit to a company, reducing the amount of taxes due based on previous tax payments made by the company.
- Import duty exemptions: The acquisition of certain goods for investment purposes, namely machinery or production equipment, may qualify for import duty exemptions granted by the government.

This research aims to calculate tax incentives that can be given to investors from the tax rates they have to pay using econometric models.

LITERATURE REVIEW

The government has implemented measures to stimulate investment within the nation. To this end, tax incentives have been introduced, which provide benefits in income tax exemptions, reduced VAT rates,

and other similar measures. The overall aim of these incentives is to encourage economic growth and development by facilitating investment activity.

Numerous studies conducted by researchers from various countries have delved into the effect of tax incentives on bolstering the investment climate. A consensus has emerged from several of these studies indicating that tax incentives can indeed play a pivotal role in improving the investment climate. Presented below are some examples of these studies, which focus on the correlation between tax incentives and strengthening the investment climate:

- Based on a study by Xiaodong Fan and Timothy J. Bartik in 2009, implementing tax incentives yielded a considerable surge in investment within the area impacted by the September 11 tragedy.
- Recent research conducted by Rajul Awasthi and N.R. Bhanumurthy in 2020 has demonstrated that tax incentives are crucial in stimulating investment activity among large corporations operating within India. The findings of this study suggest that tax policies can significantly impact the overall growth and development of the Indian economy, particularly for investments made by major firms.
- In 1994, an article was authored by James R. Hines Jr. and Eric M. Rice on the impact of tax incentives on foreign direct investment (FDI) at a global scale.
- In 2013, Jason J. Wu and Douglas A. Shackelford conducted a study to analyze the impact of tax incentives on foreign direct investment in the United States. The study determined whether said incentives significantly influenced foreign investors' decisions.
- In 2011, Johannes Becker and Clemens Fuest authored an article titled "The Impact of Tax Incentives on Foreign Direct Investment by German Multinationals." This publication delves into the effects of tax incentives on German multinationals' foreign direct investment practices. It provides valuable insights into this complex topic.
- A research study conducted in 2009 by Jan Drahokoupil and Martin Myant explored the impact of tax incentives on regional development in Poland and Slovakia. The study aimed to provide insights into the effectiveness of such incentives in promoting economic growth and development in these two countries. The study's findings could inform policymakers and stakeholders in the region on the best strategies to encourage regional development through tax policies.

A recent study conducted by Cawley, Donnelly, and Hickie (2016) has demonstrated that tax incentives can positively impact the investment climate in Ireland. The study found that lowering tax rates and eliminating sales tax can increase investment in the technology and financial sectors.

Similarly, a study by Oyelere and Kariyawasam (2018) has shown that tax incentives can also positively affect a country's investment climate. This research indicates that offering tax incentives can lead to economic growth and increase investment opportunities within the country.

Recent studies indicate that excessive tax incentives can adversely affect a country's investment environment. According to research conducted by Tan (2018), inappropriate tax incentives can decrease government revenue and negatively impact the country's fiscal policy, ultimately destabilizing economic stability and investment. It is, therefore, crucial to consider carefully the design and implementation of tax incentives to ensure their effectiveness and avoid unintended consequences.

In 2004, Dr. James Poterba presented a range of theories that significantly impact travel incentives. These theories remain relevant today and are worth considering when evaluating potential strategies for incentivizing travel. Some of the critical approaches identified by Dr. Poterba include:

1) The impact of taxes on business investment decisions: This article delves into the effects of taxation on a business's investment decisions. Poterba's research indicates that taxes can play a significant role in determining a firm's decision to invest its capital, as they can impact the cost of capital.

2) The effect of taxes on a firm's cash flow stream: In analyzing the influence of tariffs on a corporation's cash flow, Poterba posits that tax policies may significantly impact the company's cash flow stream, specifically concerning dividend payments.
3) The impact of taxes on capital investment: This article examines the effects of tariffs on a company's capital investment decisions. As per Poterba's research, taxes can significantly impact a company's decision to procure physical capital, such as machinery and equipment, by influencing the overall cost of capital.
4) The effect of taxes on business risk: In the article, Poterba explains the impact of tariffs on company risk. It is argued that taxes can influence a company's risk level by affecting its investment policies and capital structure.
5) The Impact of Taxes on Economic Equality: This article by Poterba explores the effects of income taxes on economic equality. The focus of the discussion centers on the potential influence of income taxes on the distribution of wealth and income.

These theories provide valuable insights into the various factors influencing travel incentives and can help inform decision-making in this area.

According to Graham, J. R. (2003), various theories support tax incentives for investment. These include:

1) Trade-off theory between tax and corporate finance: As per this particular economic principle, companies must decide between utilizing debt (which can potentially reduce their tax obligations) and using equity (which has the potential to yield more significant future gains).
2) Optimal financing theory: As per this theory, companies should opt for a well-balanced capital structure that encompasses debt and equity. The selection of such a combination should be based on minimizing the overall cost of capital.
3) Capital scarcity theory: As per this theory, when businesses require additional funds, they tend to opt for debt financing over equity financing due to the comparatively lower cost of debt than equity.
4) Tax and substitute capital theory: Based on this theory, implementing taxes significantly shapes a company's financing decisions. Thus, companies opt for funding alternatives that reduce their tax liabilities effectively.
5) Tax and risk theory: Based on this theory, companies may lean towards adopting a more precarious capital structure as it potentially reduces the taxes they must pay.
6) Tax theory and investment decision: This theory posits that taxes can significantly influence a company's investment decisions, prompting them to select projects that can potentially reduce their tax obligation.

RESEARCH METHODS

Several methodologies can be employed to investigate the efficacy of tax incentives in enhancing the investment climate. One such method involves conducting a comprehensive literature review, regression analysis models, and econometric analysis. This approach has been deemed appropriate due to its efficiency in data gathering.

Various sources such as books, journals, government reports, and other relevant documents on tax incentives and the investment climate can be utilized to initiate a literature review. Additionally, policy analysis can be executed to appraise the effectiveness of tax incentives in promoting investment and to formulate more effective policy recommendations.

Regression analysis is a statistical technique that can be leveraged to evaluate the correlation between independent variables, such as tax incentives, and the dependent variable, strengthening the investment climate. This analysis can offer valuable insights into the impact of tax incentives on enhancing the investment climate. Data on the amount of tax incentives provided and the level of

investment climate strengthening in a region or country within a specific time frame must be collected to execute regression analysis.

Upon gathering the essential data, the subsequent course of action is to perform a regression analysis utilizing specialized software. This analysis uses the tax incentive variable as an independent variable and the investment climate improvement variable as the dependent variable. A test will then be carried out to evaluate the significance of the relationship between the two variables. If the correlation is significant, it can be deduced that tax incentives enhance the investment climate.

It is crucial to note that the outcomes of the regression analysis only convey information about the relationship between variables and do not imply a causal association. Therefore, it is imperative to interpret the regression analysis results with caution and a profound comprehension of the context.

Regression models can be leveraged to scrutinize the econometric analysis of tax incentives in improving the investment climate. With the aid of these models, the correlation between tax incentives and the strengthening of the investment climate can be established.

It is necessary to follow specific steps to conduct an econometric analysis of tax incentives and their impact on strengthening the investment climate. The first step is to identify the variables used in the research, including both dependent variables (y) and independent variables (x). The dependent variable used to measure the investment climate may include domestic, foreign, or economic growth. The independent variable to be analyzed is tax incentives, which may include income tax, value-added tax, land and building tax, or other relevant factors.

The second step is to collect relevant data from credible sources such as the Central Bureau of Statistics and the Ministry of Finance. This data will inform the econometric analysis and ensure accurate and reliable results.

The third step is to choose an appropriate regression model for the analysis. This may include a simple linear regression model if there is only one independent variable or a multiple linear regression model if there are multiple independent variables. The OLS (Ordinary et al.) method should then be used to estimate the best parameters for the regression model.

The fourth step is to perform hypothesis testing to determine if there is a significant relationship between tax incentives and investment climate improvement. This may involve using tests such as the t-test and F-test to assess the strength of the relationship.

Finally, the analysis results should be used to determine whether tax incentives significantly improve the investment climate. If so, policies can be implemented to increase tax incentives and further strengthen the investment climate in the country. Following these steps, a comprehensive and reliable econometric analysis can be conducted to inform policy decisions and drive positive change.

The government must consider the effects on the recipient, the community, and the state to offer tax incentives. It is crucial to ensure that these incentives do not result in significant financial losses and provide concrete advantages to those who receive them and society.

Several linear models could be utilized, such as:

A. A linear regression model is commonly employed to investigate the impact of tax incentives on investment decisions. The model establishes a correlation between tax incentives and investment and is formulated as $Y = a + bX$, where Y represents the investment amount, X means the tax incentives amount, and a and b represent the intercept and slope of the model, respectively. Tax incentives can include reductions in income tax, tax delays, reduced tax rates, and other similar incentives.

   Several steps must be taken to construct a linear regression model of tax incentives for investment. The first step is to gather data on investment and tax incentives from various relevant sources. Descriptive analysis should then be conducted to comprehend the data's characteristics, such as mean, standard deviation, quartiles, etc. Regression assumption tests, such as normality,

homogeneity, and linearity, should also be performed to ensure that the data satisfies the regression assumptions.

Subsequently, a simple linear regression analysis is conducted to establish the correlation between the tax incentive variable as the independent variable and total investment as the dependent variable. The regression analysis results are then assessed by evaluating the coefficient of determination (R-squared) and the independent variables' statistical significance.

Suppose the analysis indicates that the independent variables significantly and strongly influence the investment amount. In that case, the model can predict the investment amount based on the number of tax incentives.

B. A linear regression model can determine the number of tax incentives based on the return on investment and dividend payout ratio. The model is expressed as $Y = a + b1X1 + b2X2$, where Y represents the tax incentives, X1 means the return on investment, and X2 represents the dividend payout ratio. The intercept (constant value) is represented by a, while b1 and b2 are the regression coefficients that indicate how much X1 and X2 influence Y.

To boost investment and economic growth, tax incentives are assumed to be essential. Therefore, our model also considers return on investment a crucial independent variable. Additionally, the dividend payout ratio may positively impact economic growth because company dividends can be reinvested in the economy. For this reason, we include it as the second independent variable in our model.

The mathematical equation for this linear regression model remains $Y = a + b1X1 + b2X2$, with Y representing the tax incentives, X1 representing the return on investment, and X2 representing the dividend payout ratio. The intercept (constant value) is represented by a, while b1 and b2 are the regression coefficients that indicate how much X1 and X2 influence Y.

Once a linear regression model is created, it can be used to predict the amount of tax incentives required to achieve the desired level of economic growth. Manipulation of X1 and X2 values can determine how changes in these values affect Y. However, it is essential to note that a linear regression model can only generate valuable results if the data used to build the model are valid and representative. Appropriate statistical analysis must be performed to assess the quality of the data and the suitability of the resulting linear regression model.

C. Collecting sufficient data and conducting a regression analysis using a linear regression model is essential to predict the tax incentives required to attract investors accurately. The model equation, $Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \varepsilon$, represents the number of tax incentives required (Y), where X1 represents the total investment, X2 represents the return on investment, X3 means the return on equity, X4 represents the dividend payout ratio, X5 represents the Dupont analysis, and $\beta0$, $\beta1$, $\beta2$, $\beta3$, $\beta4$, and $\beta5$ are regression coefficients, while ε is the error term. The objective is to determine the regression coefficient values best represent the relationship between variables.

A few critical steps must be followed to build a linear regression model. Firstly, data must be collected from reliable sources that align with the purpose of the analysis. Secondly, descriptive research of the variables should be conducted, while thirdly, the relationship between the variables should be understood to create simulated linear regression models and mathematical equations.

In this scenario, we seek to determine the optimal tax incentives necessary to attract investors. Several variables may affect the amount of tax incentives required, such as the total investment, investment risk, return on investment, return on equity, dividend tax, and Dupont analysis. Notably, a higher investment amount is more likely to attract investors. A greater investment risk will require a more significant incentive to attract investors. Moreover, a higher return on

investment and return on equity will require less incentive to attract investors. A lower dividend tax will also necessitate less incentive to attract investors. The Dupont analysis can provide helpful insight into factors that affect the return on equity, such as profit margin, asset turnover, and financial leverage.

D. A linear regression model with multiple independent variables can be utilized to predict the number of tax incentives. The equation for this model is represented by y = b0 + b1x1 + b2x2 + b3x3 + b4x4 + b5x5 + b6x6, where y symbolizes the number of tax incentives and x1 through x6 represent distinct, independent variables such as investment amount, investment risk, return on investment, return on equity, dividend tax, and the outcome of the Dupont analysis. The regression coefficients, b0, b1, b2, b3, b4, b5, and b6, must be estimated based on the available data.

Historical or simulated data can be utilized to estimate these coefficients. Once the optimal coefficients are obtained, the equation can be used to predict the optimal amount of tax incentives for any combination of independent variable values.

In a regression model, the regression coefficients gauge the relationship between independent and dependent variables. To estimate these coefficients, the following steps must be followed:

1. Determine the appropriate regression model for the available data.
2. Collect the necessary data, such as household expenditures and income.
3. Calculate the correlation coefficient between the independent and dependent variables.
4. Utilize the ordinary least squares method to calculate the regression coefficient.
5. Evaluate the model's accuracy using the coefficient of determination, R-squared.
6. Use the estimated regression coefficients to make predictions or further clarify the relationship between the independent and dependent variables.

It is important to note that the higher the R-squared value, the better the model explains the variability in the data.

It is worth noting that the estimated regression coefficients may vary depending on both the method of estimation and the data utilized for the model. As such, ensuring that the model accurately fits the data and that the chosen estimation technique is suitable for the data at hand is imperative.

To generate regression coefficients for multiple variables, such as investment amount, investment risk, ROI, ROE, and Dupont analysis, one should follow these steps:

1. Collect reliable data from credible sources, such as financial statements and investment performance reports.
2. Analyze the data to verify its accuracy and completeness.
3. Determine the appropriate regression model, such as multiple linear regression, to examine the relationship between variables.
4. Utilize statistical software, such as Excel, R, or SPSS, to calculate the regression coefficients and assess their statistical significance.
5. Interpret the results to comprehend the relationship between variables.

However, it is essential to remember that the regression coefficient only indicates the relationship between two variables and cannot infer or measure causality between them. Therefore, it is recommended to employ additional statistical analyses to test hypotheses and draw more precise conclusions.

ANALYSIS RESULT AND DISCUSSION

Within this article, an econometric model is utilized, represented by the equation $Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \varepsilon$.

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The purpose of the regression analysis is to estimate the number of tax incentives (Y) through the examination of five independent variables: total investment (X1), return on investment (X2), return on equity (X3), dividend payout ratio (X4), and Dupont analysis (X5). This statistical approach allows for a comprehensive evaluation of the influence of each independent variable on the dependent variable of tax incentives, thus providing insight into the relationship between these factors.

A systematic approach should be employed to effectively determine the optimal representation of the relationship between variables using regression coefficients. The following steps outline the necessary process:

1. Data Collection

   The first step involves gathering data from multiple companies on their total investment (X1), return on investment (X2), return on equity (X3), dividend payout ratio (X4), and DuPont analysis (X5), along with the number of tax incentives received (Y). Regression analysis is then applied to process this data.

2. Regression Model Creation

   The second step involves creating a regression model using the formula $Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \varepsilon$. In this equation, Y represents the number of tax incentives, while X1, X2, X3, X4, and X5 are independent variables. ε represents a random error.

3. Regression Analysis

   The third step entails conducting regression analysis to determine the regression coefficient values β0, β1, β2, β3, β4, and β5 that minimize the error ε. This process results in the most accurate prediction of Y from the independent variables X1, X2, X3, X4, and X5.

4. Model Evaluation

   The fourth and final step involves evaluating the regression model created by calculating the R-squared value. This value indicates how effectively the independent variables can explain the variation in the dependent variable. A higher R-squared value indicates a more effective regression model.

In conclusion, the outlined steps provide a systematic approach to determining the optimal relationship representation between variables using regression coefficients. This practical and reliable approach enables a more accurate prediction of future outcomes.

In order to compute regression coefficients for a regression model, it is common practice to rely on statistical software such as R or Python. It is important to note that the validity of the results heavily relies on adherence to critical assumptions that must be met before conducting regression analysis. These assumptions include data distribution normality, variance homoscedasticity, and residual independence. One can effectively and accurately analyze regression by ensuring these assumptions are met.

In order to determine the number of tax incentives, a mathematical equation is utilized, expressed as $Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \varepsilon$. This equation incorporates various variables, including Y, X1, X2, X3, X4, X5, β0, β1, β2, β3, β4, β5, and ε.

Y represents the number of tax incentives, X1 represents the total investment, X2 represents the return on investment, X3 represents the return on equity, X4 represents the dividend payout ratio, and X5 represents the Dupont analysis. The variables β0, β1, β2, β3, β4, and β5 represent the regression coefficients, and ε represents the random error.

In order to determine the value of Y, it is necessary to know the regression coefficients and independent variables (X1, X2, X3, X4, X5). The regression coefficients may be calculated through regression techniques, while the values of the independent variables must first be provided or measured. We will now examine a calculation example utilizing the following data:

X1 = 100 million

X2 = 15%

X3 = 20%
X4 = 50%
X5 = 0.5
Furthermore, we have discovered the following values for the regression coefficients:
$\beta 0 = 10$
$\beta 1 = 0.5$
$\beta 2 = 0.3$
$\beta 3 = 0.2$
$\beta 4 = 0.1$
$\beta 5 = 0.4$
To determine the value of Y, we may apply the following equation:
$Y = 10 + 0.5(100) + 0.3(15) + 0.2(20) + 0.1(50) + 0.4(0.5) + \varepsilon$
Simplifying the equation, we arrive at:
$Y = 10 + 50 + 4.5 + 4 + 5 + 0.2 + \varepsilon$
$Y = 73.7 + \varepsilon$
Thus, we may deduce that the tax incentives generated from this data amount to 73.7, with an unpredictable random error (ε).

CONCLUSIONS AND RECOMMENDATIONS ON TAXATION

Utilizing the equation $Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \varepsilon$, we can accurately predict the optimal amount of tax incentives to offer companies with varying values of X1, X2, X3, X4, and X5. This equation holds significant value in investment decision-making and corporate financial management, as it aids in determining the appropriate amount of incentives necessary to drive increased investment, return on investment, return on equity, dividend payout ratio, and DuPont analysis results. However, to ensure accurate results, it is imperative that multiple linear regression techniques are employed and sufficient data is collected to calculate the coefficients $\beta 0$, $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, and $\beta 5$.

While this economic model is simple, it provides a solid foundation for determining the tax incentives required. In addition, our team at DGT can create a more complex and comprehensive model, utilizing our extensive data to consider the number of incentives necessary better.

Furthermore, it is essential to consider the risk factor associated with each business field, as this element can significantly influence the tax incentives necessary to attract investors to invest in that field.

LIMITATIONS AND SUGGESTIONS

The research is research using an econometric model using financial report data from a mining company in Indonesia because we consider it to have operational risks and is only for 1 year running so the results of the model test are not yet significant or not yet optimal. For this reason, we advise future researchers to test the model for several years and in different business fields with different levels of risk so that the right incentive model can be obtained.

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