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Juridical Analysis On Corporate Social Responsibility (CSR) Based On Article 74 ACT No. 40 of 2007 Regarding Limited Liability Companies (The Study About Indonesian Supreme Court Decision No. 53/PUU-VI/2008 <b>Suhadi Sukendar Situmorang .....</b>	<b>192-215</b>
The Validity of Student’s Mathematics Worksheet For Grade X of Senior High School As Cooperative Learning Media With A Number of Variations <b>Tetty Natalia Sipayung, S.Si., M.Pd. &amp; Sinta Dameria Simanjuntak, S.Si.,                      M.Pd. ....</b>	<b>216-226</b>
Analysis of Influence of Capital and Employment on Palm Oil Production in PT. Gruti Lestari Pratama <b>Rianto .....</b>	<b>227-250</b>
Forms of Hate Distribution Which Contains Ways In Social Media <b>H. Abdul Lawali HSB, S.H, M.H .....</b>	<b>251-283</b>
The Effect of Regional Generated Revenue (RGR), Land Are, Block Grant (BG), Special Grant (SG) on Capital Expenditures (A Case Study in Districts and Towns in North Sumatera Province) <b>Putra Raja Tunggal Hasugian .....</b>	<b>284-306</b>
Filling System at Insurance Company <b>Sri Kumala, S.E, M.M .....</b>	<b>307-334</b>
Anteseden Interest in Entrepreneurship: A Case Study In Student Faculty of Economics, University Methodist Indonesia <b>Maludin Panjaitan &amp; Winarto, S.E, M.Sc .....</b>	<b>335-345</b>
Analysis Of The Effect Of Training And Development On Employee Performance: Empirical Study At A Bank In Medan City <b>Jhoni Maslan .....</b>	<b>346-353</b>

## **ANALYSIS OF INFLUENCE OF CAPITAL AND EMPLOYMENT ON PALM OIL PRODUCTION IN PT. GRUTI LESTARI PRATAMA**

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### **Abstract**

*Needs of optimal capital and skilled labor plays an important role in carrying out the production process. Factors palm oil production is crucial for manufacturers producing cooking oil, butter and other manufacturers mainly used raw materials from palm oil as most of producers are located in the region of North Sumatera. The use of capital and labour effective and efficient will result in optimal production of palm oil. The use of capital and labour in the production process of palm oil at PT. Gruti Lestari Pratama significant on production. Economic indicators that affect the level of production is investment / capital, labor and technology advancement. Capital formation, the material in the form of machines, tools and equipment as well as improving the quality of human resources is seen as a major factor in the economic development that will lead to the full utilization of economic resources available. The use of more advanced technology will create efficiencies in productions that ultimately result in increased production. PT. Gruti Lestari Pratama is one of the private plantations producing palm oil fresh fruit bunches (FFB) in North Sumatera. The presence of all these companies was instrumental in improving the region's economic growth, apart from an increase in revenue (PAD) can*

*also create new jobs for the society in general as well as surrounding communities in particular. To support the palm oil production process PT. Gruti Lestari Pratama in need of capital and labor. The results of the analysis of data with simultaneous test shows that capital and labor are very significant influence on the production of palm oil PT. Gruti Pratama Lestari at 95 % confidence level. The result of the analysis with partial test shows that capital very significant influence of the production of palm oil, and labor have a significant effect on the production of palm oil at 95% confidence level. Judging from the use of factors of production to the production of capital turned out to be more dominant than labor. This means that the use of capital has more influence on the increase in palm oil production than labor. Standardized Coefficients capital of .0915% and the Standardized Coefficients work force by 0132 against the production of palm oil, a much greater capital than labor means that PT. Guti Pratama Lestari using capital-intensive technology.*

**Keywords :** Capital, Production, Palm Oil

## **A. Introduction**

PT. Gruti Lestari Pratama is one of the private oil palm producing company of Fresh Fruit Bunch (TBS) in North Sumatera. The presence of this company is very instrumental in improving regional economic growth, apart from the increase of local revenue (PAD) can also create new jobs for the general public and also the surrounding community in particular. So with the presence of this plantation company, indirectly PT. Gruti Lestari Pratama has helped the government program to alleviate poverty and reduce unemployment.

To support the process of palm oil production PT. Gruti Lestari Pratama requires capital and labor. Optimal capital needs and skilled workforce play an important role in running the production process. Without the workforce the company is unable to produce the optimum production and in accordance with the capacity expected by the company. Palm oil production factors are crucial for producers of cooking oil, butter and others, especially producers who use raw materials from palm oil such as most producers located in North Sumatra. Effective and efficient use of capital and labor will result in optimal palm oil production.

In the relationship of capital and labor usage of PT. Gruti Lestari Pratama takes into account the extent to which capital expenditures targeted through investment or increased labor will affect the increase of palm oil production.

In carrying out the process of oil palm production, then used capital to finance all activities that is the overall expenditure of funds associated with the problem of operations and activities of the company. All expenditures incurred are expected to be recouped through the sale of proceeds (income) and then used to finance the subsequent operations.

Economic aspects of a company can be viewed from the input (input) or from the output (output). The view from the input side assumes that the output value is a function of input use. While the view from the output side assume that the cost (total cost, average cost, marginal cost) is a function of output. Economic indicators that affect production levels are investment / capital, labor and technological progress. The formation of capital, materials in the form of procurement of machinery, tools and equipment and the improvement of the quality of human resources is seen as a major factor in economic development that will lead to the full utilization of existing economic resources.

The use of advanced technology will create efficiency in production that ultimately impact on increased production. The composition of ownership of share capital of PT. Graji Lestari Pratama is 100% owned by private individuals. The following shows the development of capital, labor and palm oil production in 2006-2010.

Growth of Capital, Labor and Production of Palm Oil

Year 2006 – 2010

Year	Capital	Growth	Labour	Growth	Production	Growth
	(Rp.Milyar)	(%)	Man	(%)	(Ton)	(%)
2006	96.846	-	1137	-	664.201	-
2007	82.696	-14.61	1107	-2.64	220.369	-66.82
2008	135.113	63.38	1258	13.64	586.035	165.93
2009	125.986	-6.75	1232	-2.07	491.016	-16.21
2010	123.897	-1.65	1196	-2.92	335.271	-31.72

Source: PT.Gruti Lestari Pratama 2010

In Table 1.1 it can be seen that in 2007 the madal tended to decrease to 14.61%. This is because the gardens do not operate normally because there is little disturbance in the location of the plantation for almost 1 year. The following year there was an increase of up to 63.38%, but in 2009 and 2010 again respectively decrease reached 6.75% and 1.65%. For about 5 years the average increase reaches 8.07% per year.

For labor usage in 2007 there was a decrease of 2.64%. This is caused by many employees who resigned because the gardens do not operate normally because there is little disturbance in the garden. In the next year there is additional labor reach 13.64% because PT.Gruti Lestari Pratama

will add expansion of harvest area. However, in 2009 and 2010 there was a decrease of 2.07 and 2.92% due to some workers being dismissed due to unproductive workforce age / labor usage increased by an average of 1.20% per year.

In facing employment problems in connection with the era of globalization, the plantation sector, especially PT. Gruta Lestari Pratama is expected to create jobs, but on the other hand the use of labor that is not optimum will result in production is not optimal. Basically large industry indicates that the use of capital is greater than the use of labor.

Viewed from the development of palm oil production PT. Gruti Lestari Pratama is able to produce above capacity 570.000 ton / year. The highest production achieved in 2006 was 664,201 tons or 17%. However in 2007 the production that can be achieved only amounted to 220,369 ton below far from 2010. This is because the location of the security garden is less conducive due to the intimidation of a handful of certain elements to employees so that the garden does not operate normally and maximally.

Based on the above input and output development, changes in capital, labor and palm oil production need to be done more deeply in how the capital and labor interact in a production process within a certain period so that it affects a number of palm oil production PT. Gruti Lestari Pratama.

In particular the issues to be discussed in this study can be formulated as follows:

1. Is there any influence of capital and labor on palm oil production at PT. Gruti Lestari Pratama.
2. Which factors are the dominant influence on palm oil production at PT. Gruti Lestari Pratama.

## **B. CAPITAL**

The term "Capital" can be interpreted variously, the term Capital in corporate spending can be divided into 2, namely Active Capital and Passive Maodal. Active Capital is a wealth or use of funds, while Passive Capital is a source of funds. Another definition of Capital is the goods or equipment that can be used to perform the production process. Capital can be classified by source, form and by ownership, and by its nature. Based on the source, capital can be divided into 2 ie own capital and foreign capital. Capital itself is the capital that comes from within the company itself. For example a deposit from the owner of the company. Meanwhile, foreign capital is capital sourced from outside the company. For example capital in the form of bank loans or bank credit. Based on its form, capital is divided into concrete capital and abstract capital. Concrete capital is a capital that can be seen clearly in the production process. For example machines, buildings, cars and equipment.

While the abstract capital is a capital that has no real form, but has a value for perusahaan.misalnya patents, good name, brand rights and other patents. By ownership, capital is divided into individual capital and capital of society. Individual capital is the capital whose source is from the individual and the result becomes the source of income for the owner. An example of individual capital is the capital of private house rented or the interest on savings received from the bank. While ynag referred to by community capital is the capital owned by the government and used for public purposes in proeses production. Examples of public capital are public hospitals owned by government, roads, bridges or ports, as well as other public facilities.

While the capital is divided by the nature of fixed capital and current capital. Fixed capital is a type of capital that can be used repeatedly. For example, machines and



factory buildings. Meanwhile, what is meant by the current capital is the capital used up in one production process. For example, factory raw materials for a production process.<sup>1</sup>

Another understanding is also about capital is one of the factors of production used in the production process or can also be said the wealth of the owner of an embedded company, the amount is the difference between the assets and debt for capital consists of two kinds of their own capital and capital stock. pengertian capital itself is money spent to start a business that comes from personal wealth. While the capital stock is capital derived from the purchase of shares of companies that have gone public. Production can be improved by using efficient production machine tools. In the production process there is no difference between own capital and loan capital, each of which plays a direct role in the production process. Capital accumulation occurs when a portion of the income is saved and reinvested in order to increase productivity and earnings.

The procurement of new factories, machinery, equipment and raw materials raises the physical stock of capital (ie the real value of all physical productive capital goods) and this clearly enables an increase in output in the future.<sup>2</sup> According to Bringham and Houston capital is an investment company which is financed (incurred) for the production process in a certain period or in the short term.<sup>3</sup>

Capital is goods or money that together factors of production, land, and labor produce new goods that is output. The importance of capital role as it can help produce production, increasing skill and skill of worker also increase production productivity. T.W. Schultz in Mubyarto strongly proposes the distinction between human capital and physical capital. Associated with human capital is the relationship between capital and technology. Technology is a means or method that can reduce production costs and

increase production. For the workforce the knowledge of new ways or methods can be distinguished knowledge in technical and organizational or managerial knowledge.<sup>4</sup>

Working capital is the expense of expenditure in one business cycle. The definition of business cycle includes the period of manufacture and sale of a number of products, namely the amount of costs incurred by industry companies in this period, until the company receives cash income in search of certain sales.

Working capital is called gross working capital, ie all current assets items in the balance sheet are called gross working capital, ie all current assets items in the balance sheet of metal industry companies such as Cash, Giro, Receivables, Inventories of raw materials, Finished Goods and Goods Half So, and plus the cost of one business cycle for example one month.

As for net working capital ie gross working capital minus passive items smoothly include trade payables, tax liabilities, interest charges, Telephone, Electricity and others not yet due. How to calculate working capital based on assumptions about the business cycle (period of rotation) of each type of assets and passive smoothly besides the projected increase in sales and production costs in one year after investment.

Every company always needs working capital to finance the day-to-day operations of the company. For example, for the purchase of raw materials and pay the salaries of employees where the issued capital is expected to be re-entered into the company within a short period of time through the sale of production. The money coming from the proceeds will come out again to finance the next operation. Thus, the fund continues to rotate every period during the life of the company. From the above description can be dismipulkan that working capital is the cost incurred by the company for the needs of operating costs in a period.

Working capital is a company's investment in the short run that creates cash, accounts receivable, inventory.<sup>5</sup> Working capital is the costs incurred for the operations of a company within a period (in the short term) covering cash, inventory, pituang, depreciation of buildings and depreciation machinery. Working capital is the cost required by the company to finance the company's day-to-day operations.<sup>6</sup>

Capital management covers the management of assets and the management of current liabilities. Prior to running the company's operations, the company first establishes policies on receivables and inventories, then the current assets are influenced by the level of operations of the company and will affect the size of the company providing cash. Capital is influenced by various factors that are beyond the control of the company and Influenced by the company's financing and investment policies.<sup>7</sup> Factors that can not be controlled by the company are interest rates and tax rates. While the factors that can be controlled by the company are capital structure policy, dividend policy, and investment policy.

### **C. Labor**

Labor is an insane production factor that directly or indirectly runs production activities. Factor of labor production is also categorized as original production factor. In labor production factor contained physical element, mind and ability possessed by labor. Therefore, the workforce can be grouped based on the quality of ability and expertise and based on the nature of its work.

Based on its quality, the workforce can be divided into an educated workforce, skilled labor, and uneducated and untrained workforce. An educated workforce is a workforce that requires a certain education so that it has expertise in their field, such as

doctors, engineers, accountants, and legal experts. Skilled labor is a workforce that requires a course or training in certain skill areas so skilled in the art. For example an electrician, a mechanic, a welder, and a driver. Meanwhile, uneducated and untrained workers are workers who do not require education and training in performing their work. For example sweepers, scavengers and others.

Based on the nature of the work, labor is divided into spiritual labor and physical labor. Spiritual labor is a labor that uses mind, taste, and intention. For example teachers, editors, consultants, and lawyers. Meanwhile, physical labor is a work force that uses physical strength in production activities.

For example a welder, pedal rickshaw, and driver. Every effort undertaken definitely requires manpower. Therefore, in the analysis of employment in the field of business as well as employer use of labor expressed by the amount of labor outpouring. A company in carrying out the production process can not rely solely on the utilization of facilities with modern technology, because the production system requires the services of labor to facilitate the production process that will benefit the community. Labor is one of the most important factors in the production process to produce goods and services in addition to production factors of capital, technology, and natural resources.

Manpower is the person who performs and mobilizes all activities, using equipment and technology in producing goods and services of economic value to meet human needs. The scale of business will affect the size of the required labor and also requires skilled labor. Usually small companies will determine the number of workers a little, and vice versa large scale companies need more labor and have the expertise. In employment analysis is often associated with the stages of work within the company, it is

very important to see the allocation of distribution of labor usage during the production process so that excess labor on certain activities can be avoided.

In developed countries, labor progress is measured by high labor productivity, all efforts are directed at increasing productivity. The labor force is the most limited number of production factors, in which case labor saving machines are found to increase productivity of labor and productivity of output generated.<sup>8</sup> The use of labor as a variable in the production process is more determined by the labor market, in this case influenced by the wage of labor and the price of its output.<sup>9</sup> Entrepreneurs tend to increase labor as long as the marginal product (the added value of output caused by the increase of one unit of labor) is higher than the cost incurred for labor wages. Labor is human efforts directed at the creation of goods and services. Manpower in running the business motivated and will produce more enterprising when diimbali with adequate wages. In addition, companies need to pay attention to the satisfaction of workers by giving awards, allowances so they are encouraged to increase productivity.<sup>10</sup>

For the purposes of budget preparation and cost calculation, the workforce is usually divided into:

1. Direct labor is the labor that is directly involved in the production process and the costs associated with the cost of production or goods produced.
2. Indirect labor is the labor that is not directly involved in the production process and the cost is attributed to the overhead cost of the garden.<sup>11</sup> According to Maher and Dealin direct labor is the workers are workers who actually convert raw materials into finished goods during the production process.<sup>12</sup>

One of the goals of labor management is to increase production. Goals in other operations include cost, quality, reliability and flexibility. The purpose of labor management is not to maximize but to optimize the implementation of work due to various limitations surrounding the operation of the organization. Factors to be considered are the welfare of employees, this factor concerns the level of wages earned as a source of income, while to maintain the workforce can be done by motivating workers, giving incentives and providing social security.

According to Schroeder managing human (labor) is a very important thing in the operation, because there is nothing that can be solved without human do. Managing a good and efficient workforce is the key to success from the operations section.<sup>13</sup>

#### **D.Production**

In economics, the factor of production is the resource used in a process of producing goods and services. Initially, the factors of production were divided into four groups, namely labor, natural resource capital, and entrepreneurship. However, in its development, the natural resource factor extends its scope into all tangible objects, either directly from nature or not, used by the company, which is then referred to as physical factors.

In addition, some experts also consider information resources as a factor of production given the increasing importance of the role of information in this era of globalization. In total, there are currently five things considered as factors of production, namely labor, capital, physical resources, entrepreneurship, and information resources.<sup>14</sup> According to Pappas production is related to the way in which resources are used to produce company products.<sup>15</sup> According to Beattie and Taylor production is the process of combining and

coordinating materials and forces (input, factor, resources, or production services) in the manufacture of an output or product or service.<sup>16</sup>

According to Joesron and Fathorrozi production is the end result of economic processes or activities by utilizing some input or input.<sup>17</sup> Putong production or produce adds usefulness (value of use) of a good. The usefulness of an item will increase if it gives new benefits or more than the original form. More specifically production is a company's activity by combining inputs to produce output at a minimum cost.<sup>18</sup> Ahyari explains production is an activity that can generate additional benefits or create new benefits. These benefits may consist of several kinds, such as the use of forms, the usefulness of time, the usefulness of the place, and the combination of the above benefits. Thus production is not limited to manufacture, but to distribution. Commodities not only in the form of goods, but also services.<sup>19</sup> According to Salvatore the product is referring to the transformation of various inputs or resources into output in the form of goods or services.<sup>20</sup> Prawirosentono explained that production is a process of activities that convert raw materials into finished materials have added value of higher value.<sup>21</sup>

Herjanto further explained that production and operation is an activity related to the creation / manufacture of goods, services through the process of transformation from inputs of production resources into outputs desired.<sup>22</sup> Thus production is the process of transforming input into output or company activity by combining multiple inputs to produce output.

Miller and Mainers say production as a resource utilization that turns a commodity into a different commodity.<sup>23</sup> Furthermore, Ahyari explained that production is any activity in creating and adding the usefulness of goods and services, for activities needed production factors that in economic science in the form of land, capital and labor.<sup>24</sup>

The production process performed by the company simply involves three main activities as seen in the following production scheme <sup>25</sup>

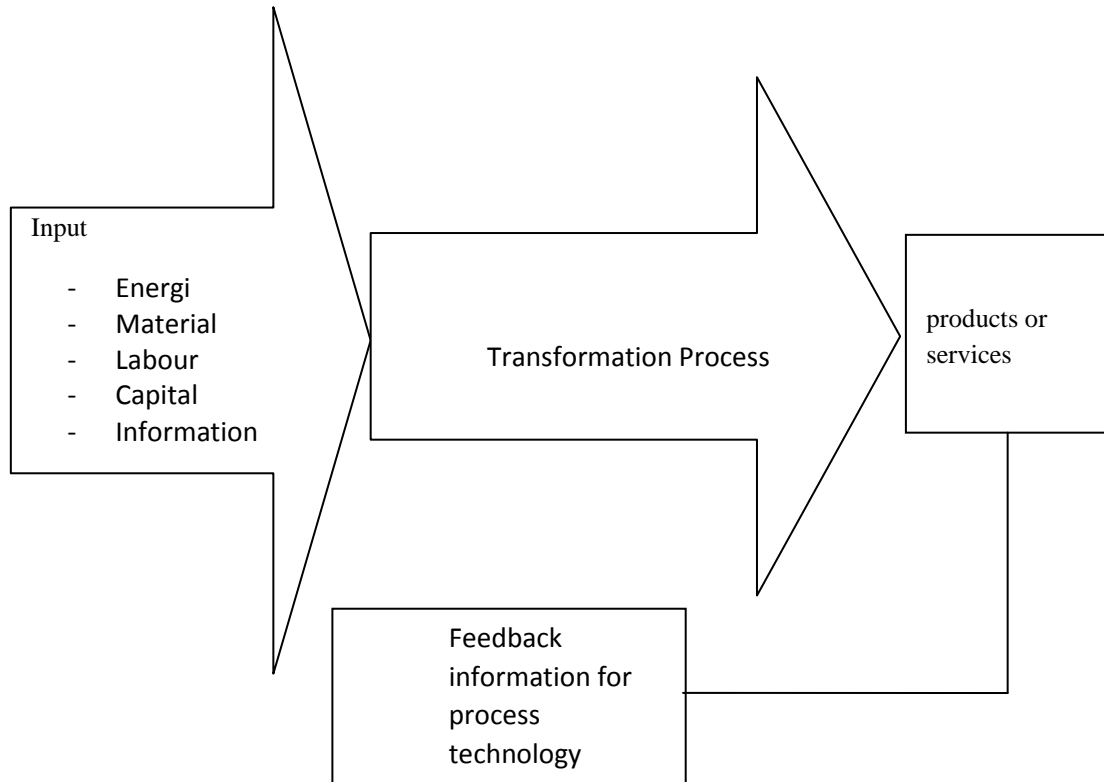


Figure 2.1 Production Scheme

Production management aims to regulate the use of resources (production factors) in the form of materials, labor, machinery and equipment in such a way that the production process can run effectively and efficiently. According to Beattie and Taylor production is a process of combining and coordinating materials and power (production factors, resources) in producing a good or service (output) or production.<sup>26</sup> Further Reksohadiprojo states that production is the creation and addition of benefits, form, time and place of the factors of production so that more useful for the fulfillment of human needs.<sup>27</sup> From the above definition we can know that the production process can not be separated from the use of existing resources to create or increase the usefulness of a good



or service, so that the goods or services that are the finished product will have economic value to achieve the goal of obtaining profit from the results of the business undertaken by the company.

Pappas explains the production function is a descriptive statement that links input to expenditure. This function represents the maximum that can be produced with a certain number of inputs or other alternatives to the minimum number of inputs required to produce a certain level of output. The production function is determined by the available technology. Namely the relationship of input / output for each production system is a function of the characteristics of factory technology, equipment, labor, materials and so on used by the company. Any technological improvements, such as the addition of a process control computer that allows a manufacturer to produce certain outputs with less raw materials, energy and labor, or training programs that increase labor productivity, produce a new production function.<sup>28</sup> According to Samuelson the production function is the technological link between the maximum amount of output produced by each and every input device (production factor). This function is fixed for each level of technology used.<sup>29</sup>

Joesron and Fathorrozi state that the production function specifies that a company can not achieve a higher output without using more input, and an unusual firm uses fewer inputs without reducing its output level .<sup>30</sup> Beattie and Taylor further explain the function of production is a mathematical or quantitative description of the various technical production possibilities faced by a company.<sup>31</sup>

The production function connects the input with the output and determines the optimum output level that can be produced with a certain number of inputs, or the minimum number of inputs required to produce a given level of output. The production

function is determined by the level of technology used in the production process. Therefore the relationship of input output to a production system is a function of the level of factory technology, equipment, labor, raw materials and others used in a company.<sup>32</sup> Production process is a system that requires management, in this case is production management. Production management is concerned in making decisions regarding the production process and leads to the resulting product in accordance with the plan, both in terms of time and cost.

The production function is actually an activity that is measured as the level of output per unit of time. The relationship between the quantity of production and the input used in the production process is formulated as a function, which is generally shaped as follows:

$$Q = f ( K, L, M)$$

Q = The amount of output of an item produced during a given period

K = The amount of capital used

L = Labor used

M = Other variables that are likely to affect production

If in the production process there are only two combinations of input (input) factors ie capital and labor, then the model form of the relationship between output and input is  $Q = f (K, L)$ . The maximum quantity of a product that can be produced (Q) by using a combination of alternatives between capital (K) and labor (L). The production function describes the technology used by a company. In certain technological circumstances, the relationship between input and output is reflected in its production function. The production function will change if any of the input variables change, the

production function must be technically efficient which is subject to the law of diminishing return. Miller (1994) the relationship of input and output includes a combination of inputs that technically if one or more inputs of quantity decreases then the quantity of output also decreases.

The change in output is obtained because the change of input usage can be measured by a concept of production elasticity. The elasticity of production is the percentage change in the dependent variable resulting from the change of one percent of the independent variable.<sup>33</sup> Sudarsono further confirms the production function is one of the most important elements of a series of decision-making systems in production management.<sup>34</sup> One of them to know the causal relationship between the independent variable with the dependent variable. It is further said that the function of production is very useful as a basic concept in understanding the problem of use of production factors that are included in decision making.

Production functions obtained can be used to test and measure the efficiency of a production process. In the production process a certain number of products can be obtained by using several different production factors combinations. In the production business the company seeks to integrate various production factors in order to achieve an efficient condition. The condition can be described by a production function that sees the relationship between the level of production and the use of production factors.

### **E. The Role of Capital and Labor in the Production Process**

Capital and labor can be used as a measure to analyze industry traits and develop development policies.<sup>35</sup> While the role of capital and labor in the production process can be seen from the ratio of each Input to production. If the production process is capital

intensive it means that relatively capital has a more important role than other production factors in producing productivity. This situation resulted in the benefits of each of the larger production factors received by the owner of capital rather than the owner of other production factors. In developing countries, generally the savings for capital cultivation are less than the required amount and most of the capital goods must be imported. Therefore, the development of industry is more precisely directed to industries that require less capital goods less, if measured from the amount of savings and the amount of foreign currency is limited.

In this regard, the labor-intensive mining policy of labor-intensive industries is more appropriately applied to developing countries because it is generally faced with problems in the field of manpower. This is in line with the opinion of Syahrudin in Jaesron and Fathorrozi states that in principle there is a way to expand employment opportunities, namely industrial development, especially (*labor intensive*) industry types that can absorb relatively labor in the production process (*absorptive labor*).<sup>36</sup>

## **F. Research Methodology**

The research was conducted at PT.Gruti Lestari Pratama, which is headquartered on the street General Ahmad Yani number 96 Medan. Based on the type of problem studied, this study was classified as a comparative study. Comparative research is a kind of descriptive research that wants to find a fundamental answer about causality (Nazir, 1988). Comparative research method is *ex post fact* means data collected after all events. The type of data used in this study is quantitative data in the form of a ratio, according to the time dimension is time series data (*time series*).

Data by source is using secondary data and primary data that is driven from documentation, monthly report and survey at PT. Gruti Lestari Pratama Medan. The data is analyzed further to generate conclusions from each problem to be studied. The data used is the amount of capital, the number of labor, the number of production and the number of working days (HK) from 2006 to 2010 are estimated every month. The amount of data used for 5 years. While the variables in this study are as follows:

1. Dependent variable (dependent variable) with symbol Y, that is palm oil production PT. Gruti Lestari Pratama - Medan.
2. Independent variables (independent variable) ie factors that affect the production of palm oil PT. Gruta Lestari Pratama consists of capital ( $X_1$ ) and labor ( $X_2$ ).

This study uses multiple linear regression analysis model, to determine the effect of whether capital and labor simultaneously affect the production of oil palm. In analyzing the capital and production of oil palm used constant price growth, while for labor used percentage of growth. Used constant prices and growth in analyzing data is to see how the value of prices and production values change with time and technology changes. Multiple regression analysis model that is formulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where :

Y = Production Growth

X1 = Capital Growth

X2 = Labor Growth

$\beta_0$  = Constants

$\beta_1$  = Coefficient of Variable X1

$\beta_2$  = Coefficient of Variable X2

$\varepsilon$  = Variable Interrupt (Error term)

Influence of independent variable to dependent variable is tested with confidence level 95% or significant level ( $\alpha$ ) = 5%.

### **G. The Effect of Capital Growth and Labor on Production**

Goodness of fit model testing is performed to determine the feasibility of a regression model, which is seen from R Square. R Square value obtained from this research = 0.838 indicates that 83.80% variation of variable capital and variation of variable of labor able to explain variation of variable of palm oil production, while the rest 0,162 or 16,20% explained by other variable not examined. To see if the variation is coincidental or not (feasible or unfit model) the test is continued by looking at the value of the variance F. The F value indicates a  $F_{count}$  of 132,380 with a sig value of 000 <probability 0.05. This shows the existence of the feasibility of the model (goodness of fit model).

Hypothesis testing with simultaneous test can be seen from the value of F. If the value of  $F_{count} > F_{table}$  and significant value <value  $\alpha = 0.05$  then the capital and labor simultaneously significant effect on the production of oil palm. In table 4.2 we get the value of  $F_{count}$  132,380 with significant level 0,0000 much smaller than  $\alpha = 0,05$  and obtained  $F_{tabel}$  value equal to 2.50 at 95% confidence level. This explains that capital and labor simultaneously have a significant influence on palm oil production PT. Gruti Lestari Pratama. Thus  $H_0$  which states that there is no significant influence of capital and labor simultaneously on the production of palm oil PT. Gruti Lestari Pratama was rejected. In other words accept  $H_1$  which states against the influence of capital and labor simultaneously on the production of palm oil PT. Gruti Lestari Pratama.

While the partial test is done by using t test. Hypothesis testing with partial test can be seen from t value. If the value of  $t_{count} > t_{tabel}$  dan significant value  $< \text{value } \alpha = 0.05$  then the capital has a very significant effect on palm oil production. Based on Table 4.5, it is known that the value of  $t_{count}$  of variable of capital ( $X_1$ ) is 16,225 with significant value 0,000, while  $t_{count}$  at 95% or  $\alpha 0,05$  is 2,009. In other words, capital has a very significant influence on palm oil production. Significant test results indicate that  $H_0$  is rejected and vice versa  $H_1$  accepted which means that there is a very significant effect of capital on palm oil production PT. Gruti Lestari Pratama.

The estimation results show that the regression coefficient of capital is 0.880%. This study is supported by the results of research Firdaus (2000) which states that there is a significant influence between the use of capital to output. And this finding is supported by the results of research conducted by Lains (1990) which states that capital is more influential than labor to cement production in Indonesi. And furthermore this research is also supported by research Aliasuddin (2002) which states that capital has a positive effect on output.

Based on the value of t table is known the value of t count for the variable of labor ( $X_2$ ) equal to 2,336 with significant value 0,023, while  $t_{table}$  at 95% confidence level or value  $\alpha = 0,05$  is 2,009 this mean that  $t_{count} > t_{tabel}$  ( $2,336 > 2,009$ ) other labor has a significant effect on palm oil production. The test results show  $H_0$  rejected and vice versa  $H_1$  accepted which states that there is a positive influence of the use of labor to the production of palm oil PT. Gruti Lestari Pratama. This finding is in line with Lains (1990) which states that labor has a positive effect on output, but the effect is less than capital. And furthermore the principle is also not much different from the findings Firdaus (2000) which states that labor has a positive effect on output. The regression coefficient for labor

variable of 0.163 explains that with the use of labor 1% will cause the increase of oil palm production by 0,163%.

The empirical findings show that capital is more dominant than labor because the value of standardized capital coefficients ( $X_1$ ) 0.915 and standardized coefficients of labor ( $X_2$ ) 0.132. This shows that PT. Gruti Lestari Pratama is capital intensive. Capital shows a greater impact on efforts to increase palm oil production than labor.

## **BIBLIOGRAPHY**

- <sup>19,24</sup> Agus Ahyari. Production Management, Production Control. Yogyakarta: Ghalia 1997
- <sup>5</sup> Bambang Riyanto, Corporate Expenditure Basics, Third Edition, . Foundation of Gadjah Mada Publishing Agency, Yogyakarta. 1992,
- <sup>9</sup> Budiono. Monetary Economics. Issue 3. BPFE. Yogyakarta.2000.
- <sup>6</sup> Bps.go.id/index.php?
- <sup>16,26,31</sup> Bruce R, Beattie and C, Robert Taylor. Production Economics. Yogyakarta: Gadjah Mada University Press. 1994.
- <sup>20</sup> Dominick Salvatore, International Economics, 7th, Seventh Edition, McGraw-Hill Companies, 2001
- <sup>22</sup> Eddy Herjanto, Production and Operations Management, Jakarta: PT Gramedia. 1997, Erlangga.1999
- <sup>3,7</sup> Eugene Brigham, and Joel F Houston, Financial Management II.Jakarta: Salemba Four, 2001
- <sup>11</sup> Gunawan Adisaputro Corporate Budget, Printed I. Yogyakarta; BPFE. 2000



<sup>10</sup>Indriyo Gitosudarmo and Agus Mulyono, Business Management Logistics Ed.1, Cet.1.

Yogyakarta: BPFE, 1998

<sup>18</sup>Iskandar Putong. Introduction to Micro and Macro Economy, Jakarta: Ghalia, 2002

<sup>15,28,33</sup>James L Pappas and Mark Hirschey, Managerial Economics. Volume I, Sixth Edition, Jakarta. Binarupa Aksara, 1995

<sup>17,30,36</sup>Joesron Suhartati and Fathorrozi, Theory of Micro Economics: Salemba Four. Jakarta. 2003

<sup>14</sup>L. Kahlor, Dunwoody, S., Griffin, R. and Neuwirth, K, "Seeking and processing information about impersonal risk." Science Communication 28 (2), 163-194. In 2006,

<sup>32</sup>Lincoln Arsyad ., Managerial Economics. Fifth Edition. Yogyakarta. Balai Pustaka. 2003

<sup>2</sup>Michael P Todaro and Smith, Stephen C.2006. Economic Development, Jakarta: Salemba Four, 2001

<sup>12</sup>Michael W.Maher and Edward B.Deakin. Cost Accounting, Translation Hermawan Wibowo and Adjat Djatnika, Issue 4. Erlangga. Jakarta, 1996.

<sup>13</sup>Mikko Ketoviki, Roger Schroeder, Manufacturing practices, strategic fit and performance: A routine based view ", International Journal of Operations & Production Management, Vol.24 Iss: 2, pp, 171-191, 2004.

<sup>23</sup>Miller, R.L. and Mainers, R.E, Intermediate Micro Economic Theory, Haris Munandar translation, Jakarta. Raja Grafindo Persada, 1994

<sup>4,8</sup>Mubyarto, Introduction to Agricultural Economics, Pustaka LP3ES, Jakarta, 1994

Paul Samuelson. A. Economics. Fifteenth Edition. Jakarta. Gelora Aksara Pratama 2002

<sup>25</sup>Roger G Schroeder, Operations Management: Decision Making in Production Functions, Language Translation Team translator Publisher Erlangga, Third Edition, Jakarta. Erlang, 1999

<sup>34</sup>Sudarsono Edilius, Cooperative Management Indonesia, 3rd print, Jakarta: Rineka Cipta. 2004.

<sup>21</sup>Suyadi Prawirosentono, 2000, Operations Management: Analysis and Case Study, 2nd edition of 1st Printing, Jakarta: PT. Earth Script.

<sup>27</sup>T Hani Handoko and Sukanto Reksohadiprodjo. Company Organization. Theory, Structure and Behavior. BPFE, Yogyakarta, 1990

<sup>1</sup>Wikipedia.org/wiki/Production Factor September 2011

Y. kaneko, Processing Industry: Analysis and Policy. In Shinici Ichimura (editor), Indonesia Economic Development, Jakarta, UI Press 1989,