www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

Analysis of Buy or Rent Measuring Tank Equipment Decision at PT ABC

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Abstract

PT. ABC Group is committed to providing and developing renewable energy to create national energy independence. The process of stockpiling fuel oil in storage tanks throughout work area is an activity that is inseparable from a fuel stockpiling terminal. Measurement activities can be done manually or automatically. Measurements performed manually have many limitations. These limitations can be solved if measurements are carried out using Automatic Tank Gauging (ATG). ATG is able to convert data into digital form so that it can be used for reading or processing data in other systems. The required ATG can be obtained in several ways for instance buying with a loan or renting. The purpose of this study is to apply the analysis of NPV (Net Present Value) and APV (Adjusted Present Value) to implement the use of ATG. NPV and APV analysis were used to obtain the most favorable option for using ATG. Based on the results of the analysis conducted on the data and assumptions obtained, it can be concluded that there is no choice between renting and buying with a loan that is always superior to all conditions in providing ATG. Many factors influence each decision, including the percentage of the rental price compared to the ATG value, technological developments, and the amount of the discount rate or expected return value by the company.

Keywords
APV analysis; NPV analysis; buy or rent; discount rate; investment

I. Introduction

PT ABC Group is committed to providing energy and developing new and renewable energy in order to support the creation of national energy independence. ABC Group as a holding company has held the mandate in the energy sector since it was established by the Ministry of SOEs of the Republic of Indonesia on June 12, 2020.

The discussion of this research is focus on the process of stockpiling fuel oil in storage tanks throughout working areas. Most of the ABC Group FUEL Terminals in Indonesia still use manual measurement patterns for handover of FUEL with consumers. Based on the measurement hierarchy in the best practice oil and gas company, Automatic Tank Gauging (ATG) measurements have been used earlier than manual measurements by stockpiling tank officers. ATG able to convert real time data into digital form so that it can be used for reading needs or data processing in other systems. Measurement using ATG, is expected to further increase consumer trust.

In the cost management science, the procurement of machinery, equipment, goods and or services can be reached through several methods including:

a. Buy with partly using company cash and partly through investment debt.
b. Rent from the lessor
c. Buy through bank installments.

PT ABC as a corporation that is oriented towards optimizing company profits, needs to conduct a comprehensive analysis of the 3 (three) options above to produce the best decision, to achieve the company's goals. There are several things that need to be considered by PT ABC in making decisions, including technical capabilities in this field, cost effectiveness to be incurred and PT ABC's role as an oil and gas business operator, namely procuring and handing over fuel from producers to consumers. This study applies the concept of calculating Net Present Value (NPV) and cash flow estimation, so that the company has a comprehensive basis for calculating the investment valuation that will be carried out. The calculation is carried out by considering elements such as interest and discount rates, capital gains, tax shields and other elements, namely the procurement contract for storage tank measuring equipment which has a contract period of 5 to d. 10 years.

II. Review of Literature

2.1 PSAK 73: Leases

The principal arrangement of PSAK 73 is the provision for lessee entities to record lease assets and liabilities for all leases with a lease term of more than 12 (twelve) months except low-value underlying assets leases. Under PSAK 73, financial lease is a lease that transfers all the risks and rewards incidental to ownership of the underlying asset substantially. Some characteristics of financial lease:

a. Lessees are required to recognize right-of-use assets and lease liabilities, except for short-term leases and low value underlying assets.
b. Leased assets are generally owned, maintained, and insured by lessors.
c. Option of cancellation. This option gives the lessee the right to cancel the agreement before the lease expires as stated in the agreement.

Right-of-use assets are measured at cost at beginning of the lease. The value of right-of-use assets consists of the initial measurement of the lease liability, payments made before or when the lease commences, lease incentives, initial direct costs, estimated costs for demolition and removal of the underlying asset, restoration of the place where the asset is located, except for costs paid to produce inventory (Martani, 2019). Right-of-use assets are then measured using the cost model by reducing the accumulated depreciation and accumulated impairment losses and if there is a remeasurement of the lease liability. If at the end of the lease term the ownership of the underlying assets is transferred to the lessee or if the acquisition cost of the right-of-use asset reflects that a call option will be exercised by the lessee, then the depreciation of the right-of-use asset is carried out from the commencement date of the lease until the end of the economic life of the underlying assets. The economic condition of the population is a condition that describes human life that has economic score (Shah et al, 2020). However, if there is no transfer of ownership of the underlying assets to the lessee, then depreciation is calculated from the beginning to the end of the economic life of the right-of-use asset or the end of the lease term. If there is a change, the entity will revise the lease term.

2.2 Buy or Rent

One of the common questions asked by companies in carrying out their operations is to buy or rent machines. The most important thing to know is the costs that must be incurred. The energy resources business requires large capital to run its operations. This includes, among others, the procurement of fixed assets that can be allocated through a

fixed asset rental mechanism, so that the funds can be used to develop the business. Another thing to consider is when the company that has high income needs to pay a large amount of income tax, the company should consider buying fixed assets. By buying fixed assets, companies can reduce rental costs, invest more funds and rent unused fixed assets so as to provide additional income for the company.

Decisions taken to buy or lease fixed assets are needed in carrying out the company's business activities. Although the cost of fixed assets is a significant business expense, the decision to buy or lease is more than a financial decision.

2.3 Valuation and Budgeting for Loans

Debt brings benefits and also lowers the agency cost of equity on the one hand. On the other hand, debt also increases the risk of bankruptcy and increases the agency cost of debt. To some extent the benefits of taxation and reduced agency costs of equity outweigh the risk of bankruptcy and agency costs of debt. However, this value exceeds a certain debt ratio for tax benefits and equity agency which is dominated by bankruptcy risk and debt agency costs.

In general, for a company with a loan, investment appraisal can be done using three approaches, namely Adjusted Present Value (APV), Flow to Equity (FTE) and Weighted Average Cost of Capital (WACC).

III. Research Method

3.1 Types of Research

Research on the Analysis of Decisions to Buy or Rent Storage Equipment Measuring Equipment at PT ABC was conducted using comparative research methods with quantitative techniques. Comparative research describes a comparison between three or more variables. In this study, by comparing the NPV and estimated cash flow from 3 (three) decision options, namely buying some cash and partly using investment, leasing or by bank installments for storage tank measuring equipment.

3.2 Population Determination

The object used in this study is the total amount of the planned procurement of storage tank measuring instruments at PT ABC, which is 642 measuring instruments spread across depots throughout Indonesia. The amount and nominal stated in this study are not the actual figures from the company data of PT ABC. This is done in order to maintain the confidentiality of company data.

3.3 Data Source

The source of data in this study is primary data, namely data taken directly from the object of research. The data in this study is the plan and mechanism for the procurement of storage tank measuring instruments in all PT ABC work areas in Indonesia.

3.4 Method of Collecting Data

This research was conducted by direct observation of the company to obtain primary and secondary data needed to answer and analyze the problems discussed. This field research was conducted by means of interviews and observations in the company environment. Research to obtain primary data obtained in field by interviews and observations in the company environment. Research through secondary data is obtained through reading and studying books, scientific literature and other articles related to the

problems studied so that the authors gain theoretical knowledge as a basis for thinking and a guide in describing problems and drawing conclusions.

3.5 Data Collection Technique

a. This research was conducted by direct observation of the company to obtain primary and secondary data needed to answer and analyze the problems discussed. This field research was conducted by means of interviews and observations in the company environment.
b. Secondary Data, namely data obtained from various literature sources that are used to strengthen the theoretical basis as well as various supporting literature and provisions related to the analysis of decisions to buy or rent storage tank measuring equipment at PT ABC.

IV. Results and Discussion

In determining the decision to buy or lease, it is necessary to identify the investment data on the asset value of the equipment. The identification carried out includes an analysis of investment costs and operational/maintenance costs. PT ABC invests in the procurement and maintenance of automatic tank gauging (ATG) equipment, which is installed in the fuel storage tank. The maintenance of this ATG equipment requires workers with special contracts to ensure the reliability of the equipment so that it can operate properly and safely. The maintenance system will be made through a Long-Term Service Agreement (LTSA) contract system for 5 (five) years and can be extended as needed. The LTSA procurement and maintenance contract is made in 1 (one) contract in the context of the efficiency of the goods and services procurement process. This is the background for the emergence of 3 (three) decision choices in the procurement and maintenance of the ATG equipment, namely: Buying and LTSA (Option 1), Leasing with the Built Operate Transfer (BOT) and LTSA (Option 2) scheme, and Buying by Installment and LTSA (Option 3).

According to Mr. RSR, in the event that PT ABC makes the decision to buy because PT ABC does not want to burden operational costs per liter (CPL) at each fuel Terminal location. The fuel terminal has a fairly strict target regarding CPL costs and is one of the Key Performance Indicator (KPI) targets for the Head of Fuel Terminal Location. In addition, asset ownership can be recognized immediately after the construction process is completed as evidenced by the Handover Report from the contractor vendor to the Company signed by both parties. In accordance with company policy through the Decree of the Director of Finance No. Kpts-004/H00000/2016-S0 regarding Determination of Benefit Period Fixed Assets For Commercial Accounting and Taxation Purposes, ATG will be depreciated over 10 (ten) years using the straight-line method with no residual value.

If the company makes a rental decision, which is in accordance with the direction of the Company's policy to use the BOT (Built, Operate, Transfer) scheme, then this is taken with consideration of cashflow efficiency at the beginning of the project. PT ABC's cashflow can be allocated for other, more prioritized investments. The BOT rental scheme is relatively profitable for companies in terms of technology that continues to develop rapidly because in the next few years, the technology currently used is likely to become obsolete and replace with new technology. In accordance with the Term of Reference (TOR) approved by PT ABC management, upgrading this ATG technology will be the contractor's burden but there will still be separate calculations regarding the need for unit replacement or spare parts later. Another thing that needs attention is if the BOT lease

scheme is at the end of the contract period after 5 (five) years, there will be an adjustment to the ATG asset value due to the 5 (five) year usage period.

Another procurement scheme that can be used as an alternative is to buy in installments. The concept used in this scheme is to use Down Payment (DP) when the EPC process has been completed or carried out per term of work completion. The total DP issued is 40%, and the remaining 60% payment will be paid in installments over 5 (five) years with a monthly maintenance fee of 1%. This can be a middle ground for the procurement scheme, because it will not burden PT ABC's cash flow at the beginning of the procurement period. In addition, this scheme uses an investment budget, so the maintenance of LTSA for 5 (five) years will use the same budget. The use of this budget can be assumed that the LTSA maintenance operational budget does not use the budget at the FUEL Terminal location, so it does not burden the Cost Per Liter (CPL) target at the FUEL terminal. The rental calculation is calculated using a formulation that refers to Individual Governance (TKI) No.C-001/K30000/2017-S9 0th Revision regarding the Calculation of the Cost of Providing Information Technology Equipment through Lease using the following formula:

$$C_S = \frac{P \times \left[1 - \frac{S}{(1+i)^{n+1}}\right] \times i \times (1+i)^n}{(1+i)^n - 1}$$

Where:
Cs= Pure rental cost per month
P = Cost
S = Residual value
N = Equipment rental period (in months)
i = Retail/corporate base interest rate from Government Bank

4.1 Cash Flow Analysis from Purchasing Assets for Storage Tanks with Company Funds through the Installment Scheme

In the option of selecting the procurement scheme, the installation and maintenance of ATG through investment / buying assets using own funds and payments made in installments (installation), requires a fairly high cash flow at the beginning of the procurement year. The choice of payment method can be done by paying method

DP of 40% after the EPC process is complete or by making payments per term of work. The remaining 60% EPC payment plus LTSA Operation and Maintenance (O&M) costs will be completed within the next 5 (five) years, meaning that 12% will be paid annually. The EPC period required in the TOR is 14 (fourteen) months, meaning a minimum of 1 (one) year before the EPC process takes place. PT ABC must have budgeted for the availability of funds for the procurement of the ATG unit and preparation for its maintenance after the ATG is ready to operate.

The costs incurred by PT ABC for the next 60 (sixty) months (excluding a down payment of 40%), are IDR 5.44 billion per month or Rp.326.61 billion for 5 (five) years. These costs consist of installment costs, ATG spare part replacement material costs, maintenance costs (LTSA ATG and ATG Calibration), transportation costs, and assuming the benefits and risks of field work (maximum 8%), with each explanation as follows:

a. The installment fee of IDR 25.29 billion per year is the result of the installment calculation that refers to the formula in the Individual Work Procedure (TKI) No. C-001/K30000/2017-S9 0th Revision regarding the Calculation of the Cost of Providing

Information Technology Equipment Through Lease. The resulting installment fee is IDR 25.29 billion per year or IDR 126.46 billion for 5 (five) years.

b. The material cost of replacing ATG spare parts is Rp. 65.27 billion in the 5th year, which is the result of the present value of the calculation of the total price of material procurement in the 0th year of Rp. 57.86 billion.
c. The total cost of maintenance (LTSA ATG and ATG Calibration) is the calculation of the LTSA ATG cost is the accumulated total cost of materials and services for LTSA work is IDR 18.37 billion in the first year which in subsequent years until the 5th year is influenced by an average inflation factor of 2.35%. While the ATG Calibration fee is the cost of ATG calibration certification work services of IDR 415 million in the first year which then in subsequent years until the 5th year is influenced by an average inflation factor of 2.35%.
d. The total transportation cost is IDR 14.16 billion, which is the accumulated transportation cost for the services of supervisor technician and daily site technician is IDR 2.70 billion which then in the following years until the 5th year is influenced by the average factor. inflation rate is 2.35%.
e. The assumed profit and risk of field work (maximum 8%) of IDR 23.14 billion in the 5th year is 8% of the accumulated calculation of total installment costs, material costs for replacement of spare parts and maintenance costs.

Based on the details of the calculations above ATG Investment Scheme for 5 (Five) Years with Installment, the total monthly installment fee will be Rp5.4 billion multiplied by 12 (twelve) months or equal to IDR 65.3 billion which is starting from the 2nd year to the 5th year. Using the average basic interest rate for corporate loans of 8.06%, the cost NPV for the option to purchase a combination of installments and LTSA for 5 years is IDR 324.44 billion.

4.2 Cash Flow Analysis from Leasing Storage Tanks for 5 (Five) Years

The alternative to the decision to rent using the BOT (Built, Operate, Transfer) system for 5 (five) years, was taken so that PT ABC did not need to spend a large cash investment at the beginning. This scheme has relatively refreshed the company's balance sheet due to the lack of cash out at the beginning of the EPC period. The cash held by the BBM Terminal can be used for other investments that are more of a priority for the company.

The 1st year rental fee in the table above is the rental fee per year which consists of the accumulation of pure ATG main equipment rental costs, pure ATG spare parts rental costs, LTSA maintenance costs and ATG calibration, accumulated transportation costs and maximum profit and risk of 8%. The costs in the 1st to 5th years are relatively the same, consisting of pure rental costs for the main ATG equipment and maintenance costs for 5 (five) years of Rp. 83.5 billion.

The costs that must be incurred by PT ABC for the next 5 (five) years are IDR 6.96 billion per month or IDR 417.65 billion. These costs consist of rental costs, material costs for replacing ATG spare parts, maintenance costs (LTSA ATG and calibration). ATG), transportation costs, and the assumption of benefits and risks of field work (maximum 8%).

a. The cost of renting ATG for 5 years is IDR 210.77 billion for 5 years, which is the result of the installment calculation which refers to the formula in the Individual Work Procedure (TKI) No. C-001/K30000/2017-S9 regarding the Calculation of Provisioning Costs Information Technology Devices through Lease. The resulting rental fee is IDR 42.15 billion per year or IDR 210.77 billion for 5 (five) years.
b. The material cost of replacing ATG spare parts is IDR 65.27 billion, which is the result of the present value of the calculation of the total price of material procurement in year 0 of IDR 57.86 billion.
c. The maintenance cost (LTSA ATG and ATG Calibration) of IDR 97,57 billion. The calculation of the LTSA ATG cost is the accumulated total cost of materials and services for LTSA work of IDR 18.37 billion in the first year which then in the following years until the 5th year is influenced by an average inflation factor of 2 ,35%. While the ATG Calibration fee is the cost of ATG calibration certification work services of Rp. 415 million in the first year which then in subsequent years until the 5th year is influenced by an average inflation factor of 2.35%.
d. Transportation costs of IDR 14.16 billion, representing transportation costs for the services of supervisor technicians and daily site technicians of IDR 2.70 billion which then in the following years until the 5th year was influenced by the average inflation factor. by 2.35%.
e. The assumption of profit and risk of field work (maximum 8%) is IDR 23.14 billion, which is 8% of the accumulated calculation of total installment costs, material costs for replacement of spare parts and maintenance costs.

Based on the details of the calculations above, ATG Rental Scheme for the 5 (five) years above, will get the total rental fee per month, which is Rp. 6.96 billion multiplied by 12 months or equal to Rp. 83.53 billion per year. With the reference to the average basic interest rate for corporate loans of 8.06%, the NPV of costs for the option of renting and maintaining LTSA for 5 (five) years is Rp.332.99 billion.

4.3 Cash Flow Analysis from Leasing Storage Tanks for 10 (Ten) Years

The next alternative decision is to rent the ATG unit and extend its maintenance period to 10 (ten) years. This 10 (ten) year period is determined because it is in accordance with the useful life of ATG's assets to be depreciated (according to SK-004/H00000/2016-S0 dated 28 July 2016 with Asset Type Code (4182) Componentization Code (8208)). At the end of the contract period, the presentation of the residual value of the assets will be 0 (zero) because ATG has been fully utilized during its useful life (unless there are new regulations that state differently in the middle of the contract period).

The costs that must be incurred by PT ABC for the next 10 (ten) years are IDR 4.96 billion per month or IDR 595.32 billion. These costs consist of rental costs, material costs for replacing ATG spare parts, maintenance costs (LTSA ATG and calibration). ATG), transportation costs, and the assumption of benefits and risks of field work (maximum 8%).

a. The cost of renting to use ATG for 5 years is IDR 252.53 billion for 10 years which is the result of the installment calculation that refers to the formula in the Individual Work Procedure (TKI) No.C-001/K30000/2017-S9 regarding Provision of Cost Calculations Information Technology Devices Through Lease. The resulting rental fee is IDR 25.25 billion per year or IDR 252.53 billion for 10 (ten) years.

b. The material cost of replacing ATG spare parts is IDR 63.66 billion, which is the result of the present value of the calculation of the total price of material procurement in the 0th year of IDR 57.86 billion.
c. The maintenance cost (LTSA ATG and ATG Calibration) of IDR 207.19 billion is the accumulated cost of calculating the LTSA ATG and ATG calibration costs. The calculation of the LTSA ATG cost is the accumulated total cost of materials and services for LTSA work of IDR 18.37 billion in the first year which then in the following years until the 10th year is influenced by an average inflation factor of 2 ,35%. While the ATG Calibration fee is the cost of ATG calibration certification work services of IDR 415 million in the first year which then in the following years until the 10th year is influenced by an average inflation factor of 2.35%.
d. Transportation costs of IDR 30.07 billion, representing transportation costs for the services of supervisor technicians and daily site technicians of IDR 2.70 billion which then in the following years until the 10th year was influenced by the average inflation factor. by 2.35%.
e. The assumed profit and risk of field work (maximum 8%) of IDR 41.87 billion is 8% of the accumulated calculation of total installment costs, material costs for replacement of spare parts and maintenance costs.

Based on the details of the calculations of the ATG Lease Scheme for 10 (ten) years above, we will get the total rental fee per month, which is IDR 4.96 billion multiplied by 12 months or equal to IDR 59.53 billion per year. With the reference to the average basic interest rate for corporate loans of 8.06%, the NPV of costs for the option of renting and maintaining LTSA for 5 (five) years is IDR 398.39 billion.

4.4 Advantages and Disadvantages of Decision Options

a. Advantages of the Decision to Buy Storage Tanks

Storage tank measuring equipment is a long-term investment because it provides benefits for the owner in the form of:

1. Value Added of Equity
   The interesting thing about buying storage tank measuring instruments on leasing is the company's opportunity to build equity value when making loan payments. Each loan payment will be in the form of principal and interest, so that the principal amount paid can increase the value of the company's assets.
2. Appreciation of Asset Value
   When the company owns stockpiling tank measuring equipment, the company also benefits from the increase in value obtained from the increase in the market price of storage tank measuring equipment. This increase in value represents an increase in value over time and can be realized when the storage tank gauge is sold.
3. Control over the Measuring Tool
   When storage tank gauges for operations are purchased, the company can control all usage of the storage tank gauges. When the option is to lease, the company owns certain rights over the leasing storage tank gauge. For example, most owners of storage tank gauges will negotiate an increase in the rental price with each renewal of the lease contract. The number of increases can reach 3 s.d. 5% per year from the previous rental price.

b. Disadvantages of the Decision to Buy Storage Tanks

1. Upfront Capital Requirements
   When the decision to purchase storage tank gauges is made, the company usually has to invest as much as 6x more in upfront costs or down payment, when compared to renting a building. This is due to the fact that most people who purchase storage tank gauges finance their purchase by taking out loans that require at least 10-20% down payment.
2. Increased Liability
   The choice of purchasing a storage tank gauge is also accompanied by an increase in liability. Obligations related to responsibility for the health and safety of the people in it. Another obligation to note is in relation to the repair and maintenance of the property itself. If the owner decides to lease part of his/her property to someone else, the owner also has management responsibilities for storage tank gauges including the obligation to take out additional insurance and comply with stricter legal requirements. Some business owners find this obligation overwhelming, so they decide to lease operational equipment in order to focus on their core business.
3. Asset Impairment Losses
   As with any investment, investing in stockpile gauges carries the risk that the stockpile gauge may actually decline in value. In a recession, it is possible to rent less than buy.
4. Less Flexible
   Investing in storage tank measuring equipment is an illiquid investment compared to renting. These investments require tied up capital over a long period of time, giving rise to potential opportunity costs.

c. Advantages of the Decision to Rent a Storage Tank Measuring Tool

1. Liquidity
   The option of renting a storage tank gauge has a much lower upfront cost than buying it. Small expenses provide more liquidity of the fund because capital is not tied up in long-term assets.
2. Tax Advantage
   Tax gains arise from rentals that occur because of differences in tax rates. If the user is at a low tax rate to purchase a storage tank measure, the company will receive a small tax benefit from the deduction of taxes on depreciation and interest expense. If the lessee makes the lease, the landlord will enjoy the tax benefits of depreciation and interest expense. With the tax advantages received, owners can reduce rental costs when market conditions become more competitive. Cheap rental fees make the choice of renting more preferable to buying a storage tank measuring instrument directly whose funding comes from a loan. Tax savings will benefit both parties if there is a difference in the tax rate due to depreciation costs, loan interest costs and interest costs for tenants.
3. Greater Flexibility
   Flexibility is greater when the option is to rent storage tank gauges, as the rental period is usually between 5-10 years and the location of storage tank gauges is easy to move when compared to buying them. The condition that occurs is that more operating equipment is available for rent when compared to operating equipment available for sale. Operating equipment of favorable quality may be too expensive to buy, but affordable to rent for several years.

According to Ross (2015), leasing is a good choice if it meets at least one of the following:

a) Tax will be Reduced due to Leasing (Tax Advantage)
   An important reason for long-term leasing is tax deductions. Tax advantages from leasing can be realized because different companies are in different tax ranges.
b) Leasing Contracts Will Reduce Certain Types of Uncertainty
   The lease agreement can reduce some of the uncertainty that will occur. The lessee does not have a stockpile measuring instrument directly at the time the lease is due. The value of the storage tank measuring instrument at maturity will be the property of the owner. At the time the lease agreement was signed, there was uncertainty regarding the residual value of the storage tank measurements. The risk of this uncertainty is borne by the owner.
c) Low Transaction Fee
   Asset management costs (insurance and regular maintenance) generally cost more than the cost of making a lease agreement.

d. Disadvantages of the Decision to Rent a Storage Tank Measuring Tool

Some of the weaknesses of the decision to lease assets for business operations, namely:

1. No Investment Potential
   Tenants do not have stockpiling tank gauges, so they will not be able to take advantage of the long-term investment potential. The lessee also cannot obtain a return in the form of price appreciation in the event of a sale or refinancing. Because the lessee is not the owner of the storage tank, the lessee has no potential to receive rental income.
2. High Monthly Fee
   In certain businesses, the tenant is required to bear other costs related to the monthly fees that must be paid such as insurance costs for storage tank measuring equipment, utility costs and maintenance costs.
3. No Control over Operational Equipment
   The lessee has no control over the size of the storage tank being rented and will always follow the wishes of the owner. One of them is the increase in rental rates after the lease expires. The owner of the machine can increase the lease above and beyond the escalation outlined in the foregoing agreement.
4. Rent Can Increase the Amount of Debt Recorded in the Financial Statements
   Companies that carry out capital leases/financial leases will record the leased assets and total lease debt in the financial statements, so that the financial statements will present a higher total liability. Companies that tend to require a strong display of their reports will prefer operating leases. In addition, a lease will provide a lower return on assets (ROA) than a capital lease or purchase of assets in cash. Payment for the lease will be recorded as an expense. Meanwhile, by buying directly, depreciation and interest on loans are recognized costs. At least at the beginning of the asset's useful life, the annual lease payments will be lower than the sum of the annual depreciation expense and interest. Recording income and calculating ROA will be lower than cash purchases. Recording a finance lease does not increase revenue when capitalizing the storage tank gauge. This condition considers the depreciation expense and interest expense has been recorded in the income statement. In an efficient capital market, accounting information cannot be used to deceive investors in assessing the company. It is unlikely that the implications of recording a lease will have an impact on the value of a company.

5. Hundred Percent Financing
   Leases are often considered as one hundred percent financing and the purchase of storage tank gauges requires a down payment. This assumption cannot be followed, because the previous analysis stated that operating leases did not cause an increase in the amount of debt. This is different if the company capital leases or cash purchases

V. Conclusion

Based on the comparison of the NPV of the choice of decision alternatives, it can be concluded that the NPV of buy mechanism investment (DP 40%) and installment of 5 (five) years are the most preferable and profitable for PT ABC Group.

The calculation of the NPV of buy mechanism is the lowest amount compare to the other scheme. Total monthly installment fee will be Rp5.4 billion multiplied by 12 (twelve) months or equal to IDR 65.3 billion which is starting from the 2nd year to the 5th year. Using the average basic interest rate for corporate loans of 8.06%, the cost NPV for the option to purchase a combination of installments and LTSA for 5 years is IDR 324.44 billion.

Buy mechanism also provide advantages for PT ABC as storage tank measuring equipment is a long-term investment. The benefits include in the form of value added, appreciation value of asset, tax advantage eventhough tax benefits when buying storage tank gauges are usually lower than renting storage tank gauges and control over the measuring tool.

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