

## **COMPARATIVE ANALYSIS OF PT PERUSAHAAN LISTRIK NEGARA (PLN) FINANCIAL PERFORMANCE WITH KOREAN ELECTRIC POWER CORPORATION (KEPCO) IN 2010-2019 PERIOD**

Athallah Fikrie Farrell<sup>1</sup>, Nora Amelda Rizal<sup>2</sup>

<sup>1,2</sup> Telkom University, Bandung

farrellfikrie@student.telkomuniversity.ac.id<sup>1</sup>, norarizal@telkomuniversity.ac.id<sup>2</sup>

### **Abstract**

Advances in technology today cannot be separated from people's lives. However, in this case, current technological developments rely on electricity, electricity is the biggest resource factor that can carry out current technological developments. This has become the focus of companies in each country to manage electrical energy used for the benefit of the state. Companies must manage their business well in order to create good company performance. In measuring the company's performance, one of them uses financial performance, in general financial performance can use financial ratios to take it into account. The purpose of this study was to compare the financial performance of PT. The State Electricity Company and the Korean Electricity Company. The variables used in this study were FL Ratio, TIER TATO, ITO, RTO, CR, QR, NPM, ROA & ROE by testing non-parametric statistical methods or Wilcoxon Sign-rank Test. The method used in this research is comparative descriptive with the source taken, namely secondary data in the form of company financial performance reports in the 2010-2019 period. The results that can be seen from this study are that there are differences in the RTO ratios in the two financial statements between PT. The State Electricity Company and the Korean Electricity Company.

**Keywords:** Financial Performance, Financial Ratio, PT Perusahaan Listrik Negara, Korean electric Power Company, Wilcoxon Sign Rank Test.

### **1. Introduction**

Today's technological advances are inseparable from people's lives. Now people can immediately know the various information that occurred in various parts of the world due to technological advances (globalization). These technological advances have caused a major change in human life with all its civilizations and cultures. This change also has a big impact on the transformation of values in society. On the other hand, technological developments provide benefits for various industrial sectors and provide rapid progress in the field of finance or currently known as *financial technology (fintech)*.

But in this case technological developments cannot occur if there is no electricity power, electricity power as the biggest resource factor that can carry out the development of technology today. Electrical energy is basically a form of energy that can be used as another energy source or can be converted into other forms of energy so that almost all industrial sectors today use electric power to support the operation of the industrial sector. Not only in the field of industry, nowadays almost all people in the world rely on a variety of electrical activities, ranging from lighting to production machinery, all of which currently rely on electrical energy as the driving source. Without electrical energy, human life today will experience many setbacks or obstacles.

When viewed from the industry in the electricity power sector, this sector continues to experience an increase due to the increasing consumption of electricity power consumption in the world. Quoted on the IEA website, (2019) states that in 2018, the total final consumption of world electricity power reached 22,315 TWh, 4.0% higher than 2017. In 2018, the OECD's total final electricity power consumption was 9,728 TWh, 1.8% higher than in 2017, while final electricity power consumption in non-OECD countries was 12. 587 TWh, up 5.7% from 2017. Surely this is related to the increasing need for electricity power for people around the world which is a challenge for companies in the electricity power sector to be able to provide more electrical energy to meet the needs of the community.



Indonesia's electricity power consumption annually continues to increase in line with the increasing national economic growth. Therefore, forecasts of long-term electricity power need in Indonesia are urgently needed in order to describe current and future electricity power conditions. This condition is an overview of a developing country, where electricity power supply is not a fulfillment of real needs entirely but rather an ability to generate and distribute electricity power to the community. In an effort to meet these electricity power needs, apart from generating its own, PLN buys electricity power from private power plants, or cooperatives.

The amount of electricity power consumed by a country in total is largely reflected by the size of the population. South Korea's electricity power consumption has risen steadily each year despite a decline in 2019. By electric power consumption calculations: per Capita data was reported at 11,414 kWh in 2019. Data shows that electricity power consumed by South Korea is higher than Indonesia

If the amount of electricity power consumed by a country in total is largely reflected by the size of the population while the difference in the population of Indonesia is about 216 million above South Korea, then it is evidence that the spread of electrical energy in Indonesia has not been carried out effectively due to the dispute of about 263,139 Giga Watts under South Korea. This is a big challenge for Indonesia, especially in the handle by PT. PLN as an electricity power company in Indonesia in improving the quality of electricity power use evenly and effectively.

From the explanation above according to the data taken that the population of Indonesia is above the population of South Korea but the electricity consumption used by South Korea is doubled above Indonesia, it is the performance of the company which is one of the affected by financial performance. Another thing that makes researchers compare the financial performance of PT. PLN with KEPCO because KEPCO is the number 2 largest company in Asia based on revenues that go into the ranks of the best electricity companies in the world (power-technology.com, 2019).

## 2. Literature Review

### 2.1. Financial Performance

Financial performance is an analysis conducted to see the extent to which a company has implemented using financial implementation rules properly and properly, such as making a financial statement that has met the standards in SAK (Financial Accounting Standard) or GAAP (General Accepted Accounting Principle) [10].

### 2.2. Financial Ratio

Financial ratio is an activity to compare the number in the financial statements. Comparisons can be made between one component and a component in a financial statement or between components in between financial statements. Then, 16 the compared numbers can be in the form of numbers in one period or several periods [15].

#### 2.2.1 Liquidity Ratio

Liquid assets are assets that can be quickly and routinely converted into cash at current market prices. Business liquidity is a function of its ability to have cash available when needed to meet its financial obligations [18]. Types of variables used are:

##### a. Current Ratio

Current Ratio is a ratio to measure the company's ability to pay short-term liabilities or debts that are due immediately when billed in its entirety. In other words, how much current assets are available to cover short-term liabilities that are due soon. The current ratio of the company's current assets is divided by current liabilities. This ratio shows the liquidity of the company by comparing current assets with its current liabilities [18].

$$\text{Current Ratio} = \frac{\text{current assets}}{\text{current liabilities}} \quad (1)$$

##### b. Quick Ratio

Quick ratio is a ratio that shows the company's ability to meet or pay obligations or short-term debt with current assets without taking into account inventory value. acid-test (quick) ratio of the amount of cash and receivables of the company divided by current obligations. This ratio is a tighter liquidity measure than the current ratio as it excludes inventory and other current assets (the most illiquid) of current assets [18].

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} \quad (2)$$

### 2.2.2 Solvency Ratio

Solvency Ratio is a ratio used to measure the extent to which a company's assets are financed with debt or to measure the ability of the company to pay all its obligations, both short-term and long-term if the company is dissolved [19].

#### a. Times Interest Earned

Times interest earned a firm's earnings before interest and taxes (EBIT) divided by interest expense. This ratio measures a firm's ability to meet its interest payments using its annual operating earnings [18].

$$\text{Times Interest Earned} = \frac{\text{Operating profits}}{\text{Interest Expense}} \quad (3)$$

#### b. Long Term Debt Equity

Is the ratio used in assessing long-term debt with self-issued equity in generally aims to find out the size of how many parts we make a guarantee of long-term debt [19].

$$\text{Long Term Debt to Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Equity}} \quad (4)$$

#### c. Long Term Debt to Equity Ratio (LTDER)

Is the ratio used in assessing long-term debt with self-issued equity in generally aims to find out the size of how many parts we make a guarantee of long-term debt.

$$\text{Long Term Debt to Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Equity}}$$

### 2.2.3 Activity Ratio

Activity Ratio is a ratio that measures the effectiveness of the company in using its assets [19].

#### a. Inventory Turnover

The company's cost of sales is divided by its inventory. This ratio measures the number of times a company's inventory is sold and replaced throughout the year i.e., relative liquidity of those inventories [18].

$$\text{Inventory Turnover} = \frac{\text{COGS}}{\text{inventory}} \quad (5)$$

#### b. Total Assets Turnover

The sale of the company is divided by its total assets. This ratio is the overall measure of asset efficiency based on the relationship between company sales and total assets [18].

$$\text{Total Asstes Tunover} = \frac{\text{Sales}}{\text{Total Assets}} \quad (6)$$

#### c. Account Receivable Turnover (RTO)

Receivable Turnover account is a ratio used to measure how long credit collection (receivables) or the number of times funds invested in receivables rotate over a period [18].

$$\text{Account Receivable Turnover} = \frac{\text{Credit Sales}}{\text{Account Receivable}} \quad (7)$$

### 2.2.4 Profitability Ratio

Profitability ratio is a ratio used to measure the company's ability to make a profit. Profitability ratio shows a measure of the effectiveness and efficient management of a company from profits derived from sales, assets and investment income [19].

#### a. Net Profit Margin

Net profit margin net income divided by sales. A ratio that measures the net income of the firm as a percent of sales [18].

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{sales}} \quad (8)$$

b. Return On Asset

Return on Total Assets or Return on Investment is a ratio that measures the effectiveness of management as a whole in generating returns with available assets [19].

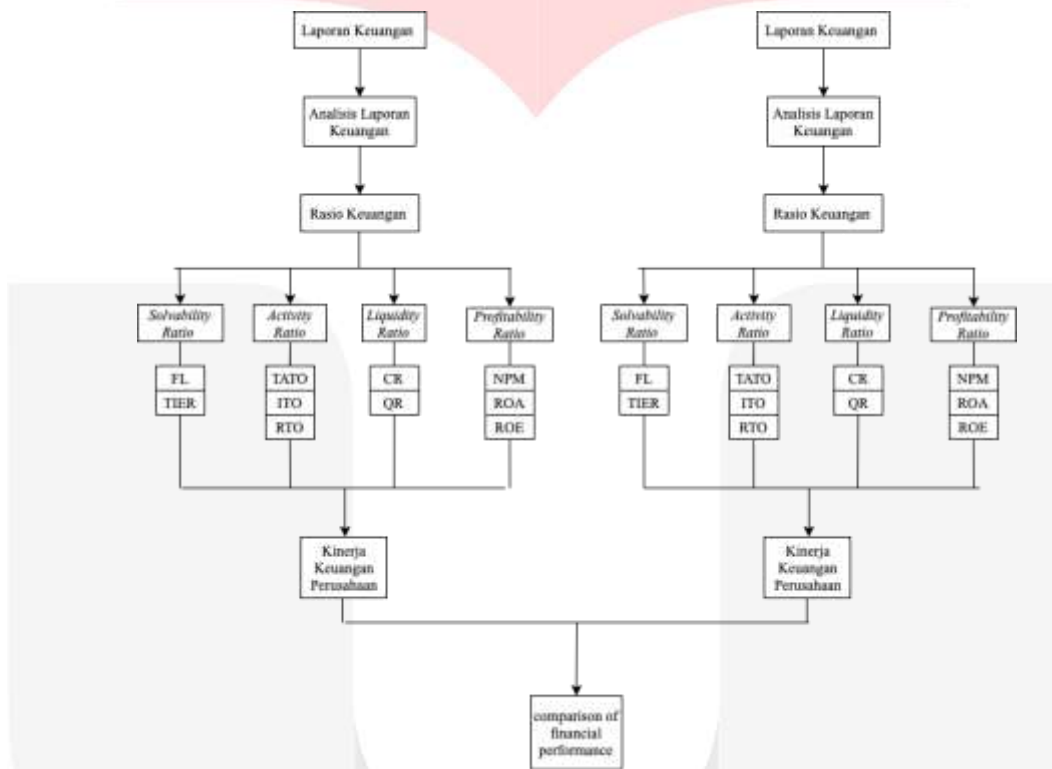
$$Return\ On\ Assets = \frac{Net\ Income}{Total\ Assets} \quad (9)$$

c. Return On Equity

Return on equity a firm's net income divided by its common book equity, also called stockholders' equity. This ratio is the accounting rate of return earned on the common stockholders' investment [18].

$$Return\ On\ Assets = \frac{Net\ Income}{Total\ Common\ Equity} \quad (10)$$

2.3 Research Framework



Picture 1. Research Framework

2.4 Research Hypothesis

H1 : There are significant differences between financial performance of electricity power company PT. PLN and KEPCO during 2010 – 2019.

2.5 Population

A population is an aggregate or totality of all units, subjects or members that conform to a set of specifications [27]. The population of this research is the Population Financial Report studied is electricity power company in Indonesia (PLN) and Korea (KEPCO).

2.6 Sample

The sample is part of the population (part time or representative of the population studied). Sample is part of a population consisting of several members chosen from him [34]. The research sample is part of the population taken as a data source and can represent the entire population. While sampling is the process of selecting the right number of elements of the population, so the study of samples and understanding of their properties or characteristics allows researchers to generalize those traits or characteristics to population

elements [34]. The sampling techniques used must pay attention to the representation of the population to be sampled. The Non-Probability sampling technique selected in the study was Purposive Sampling.

## 2.7 Collecting Data

Based on how to obtain data, this study uses secondary data. Data obtained in the form of finished, already collected, and processed by other parties, has generally been published. The secondary data used in this study is the financial statements of both state-owned electricity power companies from the period 2010-2019.

## 2.8 Data Characteristic

Based on this research, the type of data used is quantitative data. Based on its nature is discrete data. Based on the data according to the source is internal data because it describes the activities of the company.

## 2.9 Data Analysis Techniques

To compare financial performance between state-owned power electricity companies in Indonesia and Korea using financial ratio analysis and Wilcoxon Sign-rank Test. The data obtained will be calculated and processed and then analyzed

# 3 Research and Discussion

## 1.1 Ratio Calculation

| Electric Power Company | Year | Financial Ratio |       |       |       |       |       |       |        |       |        |
|------------------------|------|-----------------|-------|-------|-------|-------|-------|-------|--------|-------|--------|
|                        |      | FL              | TIER  | TATO  | ITO   | RTO   | CR    | QR    | NPM    | ROA   | ROE    |
| PT PLN                 | 2010 | 14,68           | 1,71  | 0,39  | 1,02  | 3,11  | 80,82 | 67,77 | 6,22   | 2,49  | 7,10   |
|                        | 2011 | 17,68           | 0,52  | 0,44  | 0,46  | 3,59  | 91,66 | 66,82 | 2,61   | 1,14  | 3,72   |
|                        | 2012 | 20,95           | 0,77  | 0,43  | 0,19  | 2,92  | 92,01 | 69,36 | 1,35   | 0,58  | 1,85   |
|                        | 2013 | 20,51           | -0,53 | 0,44  | -2,31 | 2,09  | 95,00 | 82,14 | -10,02 | -4,45 | -17,45 |
|                        | 2014 | 23,32           | 1,09  | 0,32  | 1,01  | 1,25  | 97,56 | 84,17 | 5,72   | 1,82  | 7,22   |
|                        | 2015 | 4,84            | 0,26  | -0,17 | 56,83 | 1,39  | 66,04 | 56,45 | 2,77   | 0,46  | 0,75   |
|                        | 2016 | 3,10            | 0,98  | 0,18  | 0,52  | 1,49  | 81,04 | 71,44 | 3,66   | 0,64  | 0,93   |
|                        | 2017 | 3,76            | 0,69  | 0,19  | -0,49 | 1,88  | 67,44 | 58,22 | 1,73   | 0,33  | 0,51   |
|                        | 2018 | 4,39            | 1,22  | 0,18  | 3,81  | 2,27  | 71,83 | 61,92 | 4,24   | -0,78 | 1,25   |
|                        | 2019 | 5,34            | 1,32  | 0,18  | 0,00  | 2,47  | 95,02 | 86,81 | 1,51   | 0,27  | 0,47   |
| KEPCO                  | 2010 | 10,16           | 1,10  | 0,31  | -0,03 | 16,22 | 93,49 | 68,74 | -0,28  | -0,09 | -0,20  |
|                        | 2011 | 12,07           | -0,16 | 0,32  | -0,92 | 10,13 | 77,60 | 55,89 | -8,23  | -2,61 | -6,61  |
|                        | 2012 | 14,94           | -0,73 | 0,34  | -0,99 | 9,67  | 74,05 | 55,76 | -6,92  | -2,33 | -6,66  |
|                        | 2013 | 16,30           | 0,99  | 0,35  | 0,08  | 9,27  | 75,54 | 54,37 | 0,67   | 0,23  | 0,70   |
|                        | 2014 | 15,92           | 2,79  | 0,35  | 0,54  | 8,53  | 77,86 | 56,86 | 4,25   | 1,49  | 4,45   |
|                        | 2015 | 12,45           | 10,25 | 0,34  | 2,72  | 8,37  | 96,98 | 75,20 | 22,81  | 7,67  | 19,80  |
|                        | 2016 | 10,96           | 6,99  | 0,34  | 1,31  | 8,13  | 79,67 | 57,52 | 11,87  | 4,02  | 9,78   |
|                        | 2017 | 14,91           | 3,01  | 0,33  | 0,22  | 8,18  | 81,72 | 56,09 | 2,25   | 0,74  | 1,85   |
|                        | 2018 | 16,06           | -0,07 | 0,33  | -0,18 | 8,48  | 90,40 | 57,49 | -2,11  | -0,69 | -1,80  |
|                        | 2019 | 15,17           | -0,59 | 0,29  | -0,30 | 7,74  | 80,40 | 51,31 | -3,60  | -1,08 | -3,09  |

Figure 2. Overall Financial Ratio Calculation Result

## 3.2 Ratio Comparison

### 1. Solvency Ratio

Based on the results of the comparison of FL and TIER variables, it was found that the two variables from the Korean Electric Power Company had a higher value when compared to PT. Perusahaan Listrik Negara.

### 2. Activity Ratio

Based on the comparison results of the TATO, ITO, and RTO variables, it was found that the Korean Electric Power Company's TATO and RTO variables had a higher value when compared to PT. Perusahaan Listrik Negara. PT Perusahaan Listrik Negara was found to have a higher average RTO value than the Korean Electric Power Company.

### 3. Liquidity Ratio

Based on the results of the comparison of the QR and CR variables, it was found that the two variables from PT. The State Electricity Company has a higher value when compared to the Korean Electric Power Company.

### 4. Profitability Ratio

Based on the results of the comparison of the variables NPM, ROA, and ROE, it was found that the three variables of the Korean Electric Power Company had a higher value when compared to PT. State Electricity Company.



### 3.3 Normality Test

#### a. Normality Test Result



Figure 3. Test for normality of the PLN-KEPCO Ratio (Data that has been processed using SPSS, 2021)

From the results of the image above, it can be seen that the results after the normality test are still data that are not normally distributed. If seen from the significant level of the ratio ITO\_PLN, NPM\_PLN, ROA\_PLN, ROE\_PLN, QR\_KEPCO there are level values, (0.000001), (0.001), (0.00039), (0.000109), and (0.00024) which means less than 0.05. So the next step is to do the test using the Wilcoxon Sign Rank Test.

### 3.4 Wilcoxon Sign Rank Test

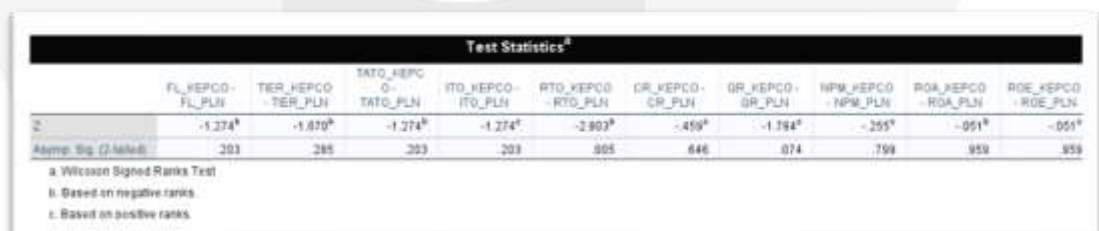


Figure 4 Wilcoxon Sign Rank Test (Data that has been processed using SPSS, 2021)

In the interim results in the hypothesis testing section which is used as a reference in the Wilcoxon Sign Rank Test:

- a. If the significance level is less than 0.05 or "H0 is rejected", then there is a significant difference in the two sample companies.

- b. If the level of significance is greater than 0.05 or "H<sub>0</sub> is accepted", then there is no significant difference between the two sample companies

Based on the test results using the Wilcoxon Sign Rank Test above, the test results for the hypothesis are as follows:

1. Solvency Ratio

There is no significant difference in the Financial Leverage variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.203, which means that it is greater than 0.05. Due to  $\text{sig } 0.203 > 0.05$ , H<sub>0</sub> is accepted, meaning that there is no difference in the Financial Leverage variable on the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

There is no significant difference in the Times Interest Earned variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.285 which means that it is greater than 0.05. Because  $\text{sig } 0.285 > 0.05$  then H<sub>0</sub> is accepted, meaning that there is no difference in the Times Interest Earned variable in the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

2. Activity Ratio

There is no significant difference in the Total Assets Turnover variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.203, which means that it is greater than 0.05. Because  $\text{sig } 0.203 > 0.05$  then H<sub>0</sub> is accepted, meaning that there is no difference in the Total Assets Turnover variable in the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

There is no significant difference in the Inventory Turnover variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.203, which means that it is greater than 0.05. Because  $\text{sig } 0.203 > 0.05$  then H<sub>0</sub> is accepted, meaning that there is no difference in the Total Assets Turnover variable in the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

There is a significant difference in the Receivable Turnover variable between the PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.005, which means less than 0.05. Because  $\text{sig } 0.005 < 0.05$ , H<sub>0</sub> is rejected, meaning that there is a difference in the Receivable Turnover variable in the financial performance of the PT Perusahaan Listrik Negara and the Korean Electric Power Company.

3. Liquidity Ratio

There is no significant difference in the Current Assets variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.646, which means that it is greater than 0.05. Due to  $\text{sig } 0.646 > 0.05$ , H<sub>0</sub> is accepted, meaning that there is no difference in the Current Assets variable in the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

There is no significant difference in the Quick Ratio variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.074 which means greater than 0.05. Due to  $\text{sig } 0.074 > 0.05$ , H<sub>0</sub> is accepted, meaning that there is no difference in the Quick Ratio variable on the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

4. Profitability Ratio

There is no significant difference in the Net Profit Margin variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.799, which means that it is greater than 0.05. Due to  $\text{sig } 0.799 > 0.05$ , H<sub>0</sub> is accepted, meaning that there is no difference in the Net Profit Margin variable on the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

There is no significant difference in the Return on Assets variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.799, which means that it is greater than 0.05. Because  $\text{sig } 0.799 > 0.05$  then H<sub>0</sub> is accepted, meaning that there is no difference in the Return on Assets variable on the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

There is no significant difference in the Return on Equity variable between PT Perusahaan Listrik Negara and the Korean Electric Power Company. This can be seen in the significant results of 0.959 which means that it is greater than 0.05. Due to  $\text{sig } 0.959 > 0.05$ , H<sub>0</sub> is accepted, meaning that there

is no difference in the Return on Equity variable in the financial performance of PT Perusahaan Listrik Negara and the Korean Electric Power Company.

### 3.5 Management Aspect

#### A. PT Perusahaan Listrik Negara

##### 1. Solvency Ratio

PT Perusahaan Listrik Negara has an unstable Financial Leverage ratio but has tended to increase in the last three years, while the results of the times interest earned ratio have increased and decreased insignificantly so that they can be categorized as tending to be stable. The increase and decrease in PLN solvency is a direct impact of the increase and decrease in the balance of liabilities to support capital expenditures which will have a positive impact on increasing income in the future. By maintaining the solvency ratio, PLN will still have great capability to raise funds (Annual Report PT Perusahaan Listrik Negara, 2019) [4].

##### 2. Activity Ratio

At PT Perusahaan Listrik Negara, the results of the ratio of Total Assets Turnover and Receivable Turnover have decreased and increased but are not significant, so it can be said that the decline and increase experienced tends to be stable. It is different from the Inventory Turnover ratio which has experienced increasing numbers and has decreased drastically from year to year. This affects how efficiently the company can utilize and manage its resources to generate income. In minimizing the risk of uncollectible receivables, the Company and its subsidiaries apply a customer guarantee deposit and terminate the electricity connection to the customer if the customer does not pay more than three months to minimize credit risk (PT Perusahaan Listrik Negara's annual report, 2019) [4].

##### 3. Rasio Likuiditas

The liquidity ratio shows the Company's ability to meet its short-term obligations that are due. At PT Perusahaan Listrik Negara, the results of the Current Ratio and Quick Ratio variables experienced a significant decrease and increase, this was influenced by the increase in the value of cash and cash equivalents owned by the company. In managing liquidity risk, the Company and its subsidiaries maintain sufficient cash, deposits, bank facilities and reserve loan facilities by continuously monitoring the forecast and realization of cash flows and matching the maturity profile of financial liabilities. Furthermore, the Company and its subsidiaries also maintain adequate funds by maintaining adequate amounts of cash and cash equivalents and short-term investments that are easily converted into cash when experiencing unexpected disruptions from cash collection (Annual Report PT Perusahaan Listrik Negara, 2019) [4].

##### 4. Rasio Profitabilitas

This ratio shows the Company's ability to generate net income using available resources. At PT Perusahaan Listrik Negara, the results of NPM, ROA and ROE have a value that tends to fluctuate every year. To maintain its profitability, the company increased operating revenues mainly from the sale of electricity, while other revenues mainly came from revenues from the network and telecommunications services business. The efficiency and energy mix strategy succeeded in reducing the increase in business costs, which was mainly triggered by the efficiency of the cost of purchasing electricity, renting power plants, fuel costs, and lubricants (Annual Report of PT Perusahaan Listrik Negara, 2019) [4].

#### B. Korean Electric Power Company

##### 1. Solvency Ratio

At the Korean Electric Power Company, the variable financial leverage and times interest earned ratio have fluctuating results, this is because the company continues to use net cash generated from operating activities, funding from banks and other financial institutions with the aim of meeting capital investment as well as expenses and repaying or pay all loans through the amount of assets owned

##### 2. Activity Ratio

In the Korean Electric Power Company, the variables Inventory Turnover, Total Assets Turnover, and Receivable Turnover have fluctuating ratios but tend to be stable. This can happen because the company maintains the efficiency of asset management.

##### 3. Liquidity Ratio

In the Korean Electric Power Company, the variable Current Ratio and Quick Ratio have fluctuating results, this is influenced by the assets and liabilities owned by the company. KEPCO has



a high enough ratio, this means that the company has a good ability to pay off its obligations because the ratio of assets is greater than its liabilities.

#### 4. Profitability Ratio

In the Korean Electric Power Company, the variables of Net Profit Margin, Return on Assets, and Return on Equity have fluctuating results. It can be interpreted that the company uses its assets to generate profits and value for shareholders has not been stable, but the average value in each ratio still shows positive results and moves to increase in 2019.

## 4 Conclusion and Recommendation

### 4.2 Conclusion

#### 1. Financial performance of Indonesian electricity power companies (PLN)

From the results of the financial ratio analysis, it shows that the financial performance of PT Perusahaan Listrik Negara has increased and decreased from 2010 - 2019. After knowing the industry average ratio, it can be concluded that the ratio of LTDER, TIER, CR, QR, NPM, ROA, ROE, TATO, ITO, and RTO at PT PLN from 2010 - 2019 is below the industry average

#### 2. Financial performance of state-owned company electricity power industry in Korea (KEPCO)

From the results of the financial ratio analysis, the financial performance for KEPCO has increased and decreased in 2010-2019. After knowing the industry average ratio, it can be concluded that the ratio of LTDER, TIER, CR, QR, NPM, ROA, ROE, TATO, ITO, and RTO at KEPCO from 2010 - 2019 is below the industry average

#### 3. There is no comparison of financial performance between PT PLN and KEPCO on the ratios of LTDER, TIER, CR, QR, NPM, ROA, ROE, TATO and ITO. Only the RTO ratio shows that there are significant differences in financial performance between companies. Judging from the RTO ratio that the average value produced by KEPCO is greater than PT PLN, it can be concluded that KEPCO's receivables turnover is better than PT PLN.

### 4.3 Recommendation

#### 4.3.1 Theoretical Aspect

On the academic side, the results of this study can be used as material for reference on how to compare the company's financial performance with other companies, a reference to the results of comparisons that have been made at electric power companies for companies that want to compare the performance of other electricity companies by using financial ratio analysis.

#### 4.3.2 Practical Aspect

- a. For companies from this research sample, it can be used as evaluation material in improving the company's financial performance. Through the results of calculations that have been carried out, the researcher recommends PT PLN to be able to increase the entire ratio because its condition is still below the industry average, the researchers recommend that if at any time there are obstacles to PT PLN, PT PLN can still maintain company stability, And the author recommends to PT. PLN to increase the Accounts Receivable Turnover Ratio because this ratio affects the efficiency and productivity of the company in collecting its debts and proves that the company has customers who are able to pay off their debts, this can be improved by a strategy of increasing debt collection activities to customers.
- b. For investors, the results of this study can be used as a consideration in determining investment decisions on companies and as an analysis of investors in paying attention to the financial performance of the companies that investors are investing in.

## REFERENCE

- 1) Alam, H. M., Raza, A., & Akram, M. (2011). A financial performance comparison of public vs private banks: The case of commercial banking sector of Pakistan. *International Journal of Business and Social Science*, 2(11)
- 2) Ali, H. F., & Charbaji, A. (1994). Applying factor analysis to financial ratios of international commercial airlines. *International Journal of Commerce and Management*
- 3) Annual Report KEPCO Korean [online]. Tersedia: [https://home.kepco.co.kr/kepco/EN/ntcob/list.do?boardCd=BRD\\_000259&menuCd=EN030201](https://home.kepco.co.kr/kepco/EN/ntcob/list.do?boardCd=BRD_000259&menuCd=EN030201) [... September 2020].
- 4) Annual Report PLN Indonesia. [online]. Tersedia: <https://web.pln.co.id/stakeholder/laporan-tahunan> [... September 2020].
- 5) Barry Eliot., Jamie Elliot. (2019). *Financial Accounting And Reporting* (9<sup>th</sup>ed). London: Pearson Education.
- 6) Borhan, H., Mohamed, R. N., & Azmi, N. (2014). The impact of financial ratios on the financial performance of a chemical company. *World Journal of Entrepreneurship, Management and Sustainable Development*.
- 7) Campisi, D., Mancuso, P., Mastrodonato, S. L., & Morea, D. (2019). Efficiency assessment of knowledge intensive business services industry in Italy: Data envelopment analysis (DEA) and financial ratio analysis. *Measuring Business Excellence*.
- 8) Creswell, J. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Merrill Prentice Hall.
- 9) Dewi, M. (2017). Analisis Rasio Keuangan untuk Mengukur Kinerja Keuangan PT Smartfren Telecom, Tbk. *Jurnal Penelitian Ekonomi Akuntansi (JENSI)*, 1(1), 1-14.
- 10) Fahmi Irham, 2014. Analisis kinerja keuangan panduan bagi akademisi, manajer dan investor untuk menilai dan masyarakat bisnis dari aspek keuangan. Alfabeta. Bandung
- 11) Fenyves, V., Zsido, K. E., Bircea, I., & Tarnoczi, T. (2020). Financial performance of Hungarian and Romanian retail food small businesses. *British Food Journal*.
- 12) Hannah Ritchie and Max Roser. "South Korea: Energy Country Profile" <https://ourworldindata.org/energy/country/south-korea>
- 13) Hawaldar, I. T., Rahiman, H. U., Rajesha, T. M., & KR, N. K. (2017). A comparison of financial performance of Islamic and conventional banks in Bahrain. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS)*, 33(1), 100-110.
- 14) Jahja, A. S. (2012). Analisis Perbandingan kinerja keuangan perbankan Syariah dengan perbankan Konvensional. *Epistemé: Jurnal Pengembangan Ilmu Keislaman*, 7(2), 337-360.
- 15) Kasmir, 2014. Analisis Laporan Keuangan, Edisi Pertama, Cetakan Ketujuh. Jakarta: PT. Rajagrafindo Persada.
- 16) Kasmir, 2016. Analisis Laporan Keuangan. Jakarta : PT. Raja Grafindo Persada
- 17) Kasmir. 2009. Pengantar Manajemen Keuangan. Jakarta: Kencana
- 18) Keown J., Titman S., Martin John. (2016). *Foundation of Finance* (9<sup>th</sup> ed). London: Pearson Education.
- 19) Keown J., Titman S., Martin John. (2017). *Financial Management: Principles and Applications* (13<sup>th</sup> ed). London: Pearson Education.
- 20) Latuconsina, Y. N. A., & Rizal, N. A. (2018). Perbandingan Kinerja Keuangan Perusahaan BUMN Sektor Pertambangan Di Indonesia Dan China Dilihat Dari Rasio Keuangan. *Jurnal Penelitian Pendidikan*, 18(1), 77-86.
- 21) Linarwati et al (2016). Studi Deskriptif Pelatihan Dan Pengembangan Sumberdaya Manusia Serta Penggunaan Metode Behavioral Event Interview Dalam Merekrut Karyawan Baru Di Bank Mega Cabang Kudus. *Journal Of Management*, 2(2), 1–8.
- 22) Liu, C. M., O'Farrell, G., Wei, K. K., & Yao, L. J. (2013). Ratio analysis comparability between Chinese and Japanese firms. *Journal of Asia Business Studies*.
- 23) Lontoh, R. D., Mangantar, M., & Mandagie, Y. (2017). Analisis Perbandingan Kinerja Keuangan PT. Hm Sampoerna Tbk Dan PT. Gudang Garam Tbk Periode 2011-2014. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 5(2).
- 24) Maith, H. A. (2013). Analisis Laporan Keuangan dalam Mengukur Kinerja Keuangan pada PT. Hanjaya Mandala Sampoerna Tbk. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 1(3).
- 25) Mbona, R. M., & Yusheng, K. (2019). Financial statement analysis: Principal component analysis (PCA) approach case study on China telecoms industry. *Asian Journal of Accounting Research*.

- 26) Munawir, S. 2010. Analisis laporan Keuangan Edisi keempat. Cetakan Kelima Belas. Yogyakarta: Liberty
- 27) Neuman, W.L. (2006), Social Research Methods: Qualitative and Quantitative Approach, 6th ed. Boston: Allyn and Bacon.
- 28) Norhayati, A. (2011). A comparative study of financial performance of Islamic banks and conventional banks in Indonesia. *International Journal of Business and Social Science*, 15, 2.
- 29) Pamela Peterson., Frank J Fabozzi. (2010). *The Basic of Finance* (9<sup>th</sup> ed). New Jersey: Wiley.
- 30) Putri, M. Q. S., & Hardi, M. (2018). Analisis Rasio Keuangan Dan Economic Value Added (Eva) Sebagai Penilai Kinerja Keuangan Pada Pt. Primarindo Asia Infrastructure, Tbk Yang Terdaftar Di Bursa Efek Indonesia Periode 2010-2014. *JEA17: Jurnal Ekonomi Akuntansi*, 3(01).
- 31) Restianti, T., & Agustina, L. (2018). The effect of financial ratios on financial distress conditions in sub industrial sector company. *Accounting Analysis Journal*, 7(1), 25-33.
- 32) Ronald W Melicher., Edgar A. Norton (2016). *Introduction to Finance: Markets, Investments and Financial Management* (16<sup>th</sup> ed). New Jersey: Wiley.
- 33) Sekaran, Roger Bougie (2017) Metode Penelitian Untuk Bisnis, Salemba Empat Jakarta.
- 34) Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach: John Wiley & Sons
- 35) Singh, A. B., & Tandon, P. (2012). A study of financial performance: A comparative analysis of SBI and ICICI Bank. *International Journal of Marketing, Financial Services & Management Research*, 1(11),56-71.
- 36) Suhendro, D. (2017). Analisis Profitabilitas dan Likuiditas Untuk Menilai Kinerja Keuangan Pada Pt Siantar Top Tbk. *Human Falah: Jurnal Ekonomi dan Bisnis Islam*, 1(1).
- 37) Suraya, A. (2017). Analisis Rasio Keuangan Dalam Hubungannya Dengan Kinerja Keuangan Dan Pertumbuhan Perusahaan (Studi Kasus Pada Perusahaan Jasa Konsultan Pajak PT. Bina Fiscal Indonesia). *KREATIF: Jurnal Ilmiah Prodi Manajemen Universitas Pamulang*, 3(2).
- 38) Tampubolon, L. D. (2016). Analisis Pengaruh Rasio Keuangan: Likuiditas, Aktivitas dan Leverage terhadap Penilaian Kinerja Keuangan Studi Empiris: Perusahaan Manufaktur di Bursa Efek Indonesia Periode 2010–2012. *Jurnal Keuangan dan Perbankan*, 12(1), 1-12.
- 39) Tarawneh, M. (2006). A comparison of financial performance in the banking sector: Some evidence from Omani commercial banks. *International Research Journal of Finance and Economics*, 3(3), 101-112.
- 40) Tho'in, M. (2019). The Comparison of Islamic Banking Financial Performance In Indonesia. *International Journal of Scientific Research And Education*, 7(5).
- 41) Wijaya David. (2017). *Manajemen Keuangan 1 Berbasis IFRS Teori, Soal dan Penyelesaian* (1<sup>st</sup> ed). Yogyakarta: Gava Media.