

# **ANALYSIS DU PONT SYSTEM IN MEASURING COMPANY FINANCIAL PERFORMANCE (CASE STUDY OF TELECOMMUNICATION COMPANIES LISTED ON THE IDX IN 2016-2021)**

**Ayu Lestari<sup>1</sup>, Muhammad Fauzan<sup>2</sup>**

<sup>1,2</sup>Management Study Program, Faculty of Economics and Business, Universitas Islam Indragiri, Indonesia

\*e-mail: [ayu.lestari0413@gmail.com](mailto:ayu.lestari0413@gmail.com)

## **Article Info**

### **Article history:**

Received 06 22, 2023

Revised 06 25, 2023

Acepted 06 29, 2023

### **Keywords:**

Dupont system

Financial performance

Return On Investment

Net Profit Margin

Total Asset Turnover

## **Abstract**

This research was conducted to measure the financial performance of telecommunications companies listed on the Indonesia Stock Exchange. The purpose of this study is to find out and analyze the financial performance of telecommunication companies listed on the IDX in 2016-2021 using the method Dupont system. Research population conducted by researchers are 6 companies in the field of telecommunications. The sample of this research using purposive sampling method is 5 telecommunication companies with 6 years period. The data analysis used in this study used a descriptive method with a quantitative approach and to measure financial performance in this study the test tool used was analysis Dupont system using industry averages Net Profit Margin (NPM), Total Asset Turnover (TATO) and Return On Investment (ROI) (Du Pont) throughout the period of the company as a comparison of performance in each company. The results of the study show that the financial performance of telecommunications companies listed on the Indonesia Stock Exchange is calculated using Dupont system yet good, with value Return On Investment (ROI) (Du Pont) decrease. This is due to a decrease in value Net Profit Margin (NPM) and Total Assets (TATO) in every company. Of the five companies studied, namely PT Bakrie Telekom Tbk, PT Indosat Tbk, PT Smartfren Tbk, PT XL Axiata Tbk, and PT Telekomunikasi Indonesia Tbk, the ROI value (Du Pont) only PT.XL Axiata Tbk whose financial performance is quite good because of the ROI value (Du Pont) has a dominant value above the company's industry average. PT.XL Axiata Tbk is included in the company whose financial performance is in good criteria.

## **1. INTRODUCTION**

### **Background problem**

Technology is something that is very related to humans today. In a matter of years without realizing it, technology has become a necessity that is difficult to replace. The rapid growth of technology causes various changes that occur over time. Humans are essentially social beings who cannot be separated from reciprocal actions between one another in conveying information, this certainly has a big impact, especially in communication activities. Along with the development of the times, the human need for communication is getting bigger and more important. Telecommunications companies are experiencing rapid growth in line with the rapid rate of information technology. So every year more and more telecommunications companies emerge with various advantages they have.

In this modern era, the need for telecommunications equipment is constantly growing, because telecommunications equipment is now used as a support for human activities. The rapid growth of technology has pushed telecommunications technology to break through from urban to rural areas and is expected to be able to grow the quality of public knowledge and also make it easier for humans to communicate. The role of technology industry players is now very large for society, especially in various things that are created to support human activities. This indirectly can lead to competition among companies in seeking attention to the public so that they are attracted to the things offered by the company. Competition between companies, especially in the increasingly competitive telecommunications sector, can lead to competition between telecommunications companies to improve their company's performance in more innovative ways, and not cause losses to the company so that future targets can be carried out properly and planned.

As a society in the era of globalization, the existence of companies is very influential on activities in various sectors, including the telecommunications sector. In the telecommunications industry, the competition that occurs requires every company, whether it's a newly established company or an old company, to always formulate a strategy to maintain the company's survival and even make the company develop better. It is undeniable that the main purpose of establishing a company is to gain profits for the sake of business continuity, the things that are done are expected to create financial performance that can support the company's activities to operate according to predetermined standards and can be said to be a good and healthy company.

In assessing the financial performance of a company, related data is needed regarding the company's activity report. In carrying out its activities, companies need information that can be used to see the level of company performance from year to year. One of the methods used by the company is to look at the financial statements prepared by the accountant to find out whether the company's performance is in line with the company's plans and objectives by measuring financial performance.

According to Fahmi (2013) Financial performance is an analysis carried out to see the extent to which a company has carried out using the rules of financial implementation properly and correctly. To find out the financial performance of a company, the way that can be done is to analyze the financial statements. Financial statements mean records regarding the financial information of a company in the accounting period used to describe the company's performance. Companies need to carry out an analysis of financial statements because financial reports are used to assess company performance and compare company conditions from the previous year to the current year whether the company is getting higher or not so that companies can consider what decisions will be taken for the coming year in accordance with the company's performance. Financial reports in general will be published periodically. These financial reports are useful for assisting interested parties in making economic decisions and can also read past, present and future company conditions. In analyzing financial statements there are quite a number of types of analysis that can be used. The description of the results of the analysis that projects the company's financial condition in a period through determination with this analysis can make investors know how good or bad the condition of a company is. The importance of assessing the economic condition of a company is based on the motivation to find out the actual condition of the company, unlike investors who use it to determine whether to invest in a particular company. Measuring tools that can be used to analyze financial statements include ratio analysis, market value added analysis (Market Value Added/MVA), Analysis of

economic added value (Economic Value Added/EVA) and Balance Score Card/BSC, Analysis Capital Asset, Management, Equity, and Liquidity (CAMEL), Dupont system (Warsono, 2003).

One method that can be used to analyze a company's financial performance is the method Dupont system. In the 1920s, Du Pont Corporation pioneered one method of company performance analysis which until now is known as Analysis Du Pont. Analysis Du Pont System is an analysis that includes all activity ratios and profit margins on sales to show how these ratios affect profitability (Weston and Bringham, 2004). Analysis Du Pont The system can measure financial performance in more detail, namely showing how net profit margins and total asset turnover determine Return on Investment (ROI). Types of profitability ratios in the dupont system include: Net Profit Margin (NPM) and Return on Investment (ROI), while the activity ratio used is Total Assets Turnover (TATO) because it measures the effectiveness of the company in managing its total assets.

Net Profit Margin (NPM) is influenced by the level of sales and net profit generated. With increasing sales from a company it will also increase company profits, so automatically Return On Investment (ROI) companies also increased, where Return On Investment (ROI) is one of the analysis of company profitability. In general the higher the value Return On Investment (ROI) the better for the owners of capital. Through Analysis Dupont system This method provides information about the various factors that cause the ups and downs of a company's financial performance, in fact the method is almost the same as regular financial statement analysis, but the approach is more specific by using the composition of financial statements as an element of analysis, namely by analyzing financial ratios so that companies can find out the various factors that affect the company's performance. affect its effectiveness in managing the company's resources, so that its financial planning will be better in the future.

The purpose of this analysis is used to determine the effectiveness of the company in managing its assets from sales that generate profits. Du Pont System itself can be said to be different from other financial performance analysis because Du Pont System has advantages, one of which is a more integrative approach and uses financial reports as an element of analysis, while the weaknesses Du Pont System located on Return On Investment (ROI), where Return On Investment (ROI) of a company is difficult to compare with Return On Investment (ROI) of other similar companies, due to a difference in the accounting practices used.

In Indonesia, there are various types of companies, one of which is a telecommunications company. The development of the telecommunications industry is very attractive to investors to invest in the telecommunications industry. This is increasing rapidly, this is indicated by the increasing number of consumer demands for very high telecommunications facilities, namely by the emergence of various features as superior telecommunications products.

The following is an overview of the changes that occur in the data Earning After Tax (EAT), Revenue, and Total Assets of telecommunication companies listed on the Indonesia Stock Exchange in 2016-2021.

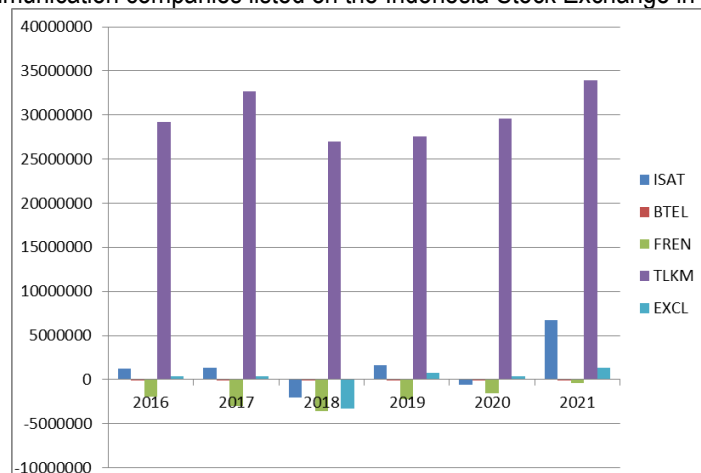


Figure 1 Earning After Tax (EAT) Telecommunications Companies in Indonesia Period 2016-2021 (Units of Millions of Rupiah)  
Source: Data processing by the author, 2022

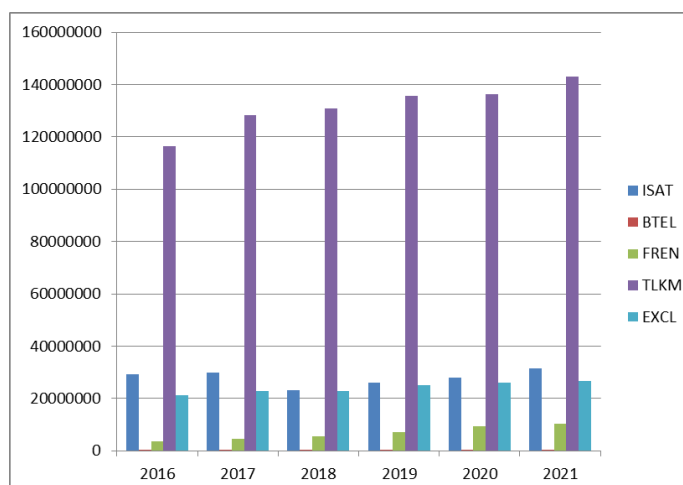


Figure 2 Revenue of Telecommunications Companies in Indonesia for the 2016-2021 Period (Units of Millions of Rupiah)  
Source: Data processing by the author, 2022

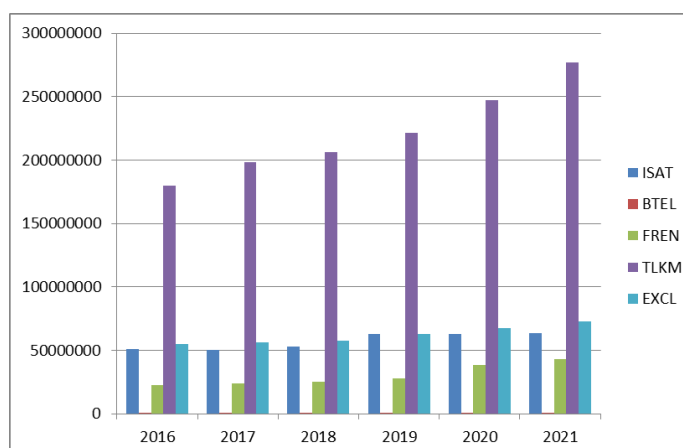


Figure 3 Total Assets of Telecommunications Companies in Indonesia for the 2016-2021 Period (Units of Millions of Rupiah)  
Source: Data processing by the author, 2022

Table 1 Data comparison Data Earning After Tax (EAT), Revenue, and Total Assets of telecommunications companies listed on the IDX in the initial year of the study, namely 2016 and the final year of the study, namely 2021

COMPANY CODE	YEAR	EARNING AFTER TAX (EAT) (RP)	INCOME (RP)	TOTAL ASSETS (RP)
ONE	2016	1.275.655.000.000	29.184.624.000.000	50.838.704.000.000
	2021	6.750.873.000.000	31.388.311.000.000	63.397.148.000.000
BTCL	2016	-139.211.500.000	14.132.800.000	156.977.500.000
	2021	-10.100.000.000	5.211.000.000	2.075.800.000
BRAKES	2016	-1.974.434.427.311	3.637.385.751.473	22.807.139.288.268
	2021	-435.325.081.365	10.456.828.821.565	43.357.849.742.875
TLKM	2016	29.172.000.000.000	116.333.000.000.000	179.611.000.000.000
	2021	33.948.000.000.000	143.210.000.000.000	277.184.000.000.000
EXCL	2016	375.516.000.000	21.341.425.000.000	54.896.286.000.000
	2021	1.287.807.000.000	26.754.050.000.000	72.753.282.000.000

Source : [www.idx.co.id](http://www.idx.co.id), 2022

Based on the Figure and Table above shows the value Earning After Tax (EAT), Revenue, Total Assets of telecommunications companies listed on the Indonesia Stock Exchange for 6 periods, namely 2016-2021, show values that vary widely and change from year to year. Telecommunications companies as the unit of analysis include PT Bakrie Telecom Tbk, PTs Indosat Tbk, PT Smartfren Tbk, PT XL Axiata Tbk and PT Telekomunikasi Indonesia Tbk.

Previous research on analysis dupont carried out by A.Yuliatma Hidayat, Indianik Aminah, and Novitasari (2019) with the title Assessment of Company Financial Performance with AnalysisDupont system Case Studies of four Telecommunications Companies Listed on the Indonesia Stock Exchange for the 2014-2018 Period. From calculations using the Company's Financial Performance Assessment With Analysis Dupont System Case studies on four telecommunications companies listed on the Indonesia Stock Exchange for the 2014-2018 period, it can be concluded that PT Telekomunikasi Indonesia Tbk has very good financial performance where all variables are above the industry average. PT XL Axiata Tbk has a fairly good financial performance because it is only a variableNet Profit Margin which is above the industry average. PT Indosat Tbk has a fairly good financial performance where only variablesTotal Asset Turnover which is above the industry average. PT Smartfren Tbk has poor financial performance because all variables are below the industry average.

From the description that has been explained, the writer wants to examine the analysisDu Pont in measuring the financial performance of telecommunications companies listed on the IDX. The difference between this research and previous research is the research period, research objects and the number of research objects that are different from previous studies.

Based on the background description, the writer is interested in researching the title "**AnalysisDupont systemIn Measuring Company Financial Performance (Case Study of Telecommunications Companies Registered on the IDX in 2016-2021)**".

### **Formulation of the problem**

Based on the background above, the formulation of the problem in this study is as follows:

"How is the financial performance of Telecommunications Companies Listed on the IDX 2016-2021 using the Analysis methodDupont system?"

### **Research purposes**

Based on the background above, the objectives of this study are as follows:

To analyze the financial performance of telecommunications companies listed on the IDX 2016-2021, the analytical method is usedDupont system.

## **2. LITERATURE REVIEW**

### **Financial management**

#### **a. Definition of Financial Management**

Financial management is a process in the company's financial activities related to efforts to obtain company funds and minimize company costs as well as efforts to manage the finances of a business entity or organization in order to achieve financial goals that have been set. Financial management according to Sundjaja and Barlian (2003) in Fauzan M (2018) explains that financial management is "Management related to duties as a financial manager in a business company. Finance managers actively manage the financial affairs of various types of businesses, whether financial or non-financial, private or public, large or small, profit or non-profit. They carry out various activities, such as budgeting, financial planning, cash management, credit administration, investment analysis and efforts to obtain funds. While understanding.[1]

The term financial management can be interpreted as good fund management related to allocating funds in various forms of investment effectively as well as efforts to collect funds for investment financing or spending efficiently (Sartono, 2012). Although the function of a financial manager in every organization is not necessarily

the same, in principle the main function of a financial manager is to plan, seek and utilize various ways to maximize the efficiency of company operations. Financial management is related to 3 activities, namely:

1. Activities using funds, namely activities to invest funds in various assets.
2. Fundraising activities, namely activities to obtain sources of funds, both from internal funding sources and external funding sources of the company.
3. Asset management activities, namely after the funds are obtained and allocated in the form of assets, the funds must be managed as efficiently as possible.

From the theories above, it can be concluded that financial management is an effort to manage funds that are collected and allocated to finance all company activities in order to achieve the goals of the company.

#### **b. Financial Management Objectives**

The goal of financial management is to maximize the value of the wealth of shareholders. Wealth value can be seen through the development of stock prices (Common Stock) companies in the market. In this case, the share value can reflect the company's financial investment and dividend policy. Therefore, in financial theories, the variable that is often used in capital market research to represent company value is stock prices, with various types of indicators, including general shares, common stock prices, abnormal Return Price Earning Ratio (PER), and other indicators that represent the price of ordinary shares in the capital market. Thus, it can be interpreted that the purpose of corporate financial management is to maximize the wealth of shareholders, which means increasing the value of the company which is an objective measure of value by the public and an orientation towards the survival of the company.

#### **Indonesia Stock Exchange (IDX)**

Indonesia Stock Exchange (IDX) (English:Indonesia Stock Exchange (IDX) is a stock exchange operating in Indonesia. The Indonesia Stock Exchange is an exchange resulting from the merger of the Jakarta Stock Exchange (BEJ) and the Surabaya Stock Exchange (BES). For the sake of operational and transaction effectiveness, the Government decided to merge the Jakarta Stock Exchange as a stock market with the Surabaya Stock Exchange as a bond and derivatives market to become the IDX. The exchange resulting from this merger began operating on December 1, 2007. According to Capital Market Law No. 8 of 1995, the Stock Exchange is a part that regulates and provides a system or means to combine offers to carry out buying and selling transactions in other parts with the aim of exchanging securities between them.

Stock Exchange is a legal entity that has the task of being a facility in carrying out and regulating the course of Securities trading activities in the Capital Market. Meanwhile, from a micro-economic point of view, for stock exchange members (issuers), the function of the Stock Exchange is to obtain capital that can be used for business expansion. Meanwhile, from a macroeconomic perspective, the Stock Exchange has an important role in driving the country's economy. If Securities trading in the capital market carried out on the Stock Exchange shows positive results, then this picture can result in achieving positive performance in a country's economy, as well as if the opposite happens.

In essence, the Stock Exchange is a conventional market that brings together sellers and buyers. It can be defined that basically the activities carried out by the Stock Exchange are organizing and providing trading facilities or systems for its members. This Stock Exchange has two main tasks, namely as a facilitator or provider and supervisor.

1. Duties of the Stock Exchange as a Facilitator
  - a) Provide securities trading facilities.
  - b) Making the liquidity of an instrument can flow funds quickly in the securities that have been sold.
  - c) Create and disseminate stock exchange information to all levels of society.
  - d) Conducting capital market promotions for the acquisition of potential investors or new companies that have gone public or known as IPOs.
  - e) Create a new tool or service instrument.



2. Stock Exchange Duties As SRO

- a) Set a rule related to exchange activities.
- b) Can prevent a transaction practice that is very binding for capital market implementers.
- c) Make a regulation that is relevant to exchange activities.

The types of instruments contained in the Indonesia Stock Exchange are as follows:

1. Shares

In general, shares are a letter indicating the participation of a person or party in a company or Limited Liability Company (PT). So far, stock instruments are still the most widely traded on the Stock Exchange.

2. Bond

Bonds are government bonds with medium and long terms that can be traded on the Exchange.

3. mutual funds

Mutual funds are investment products that serve as a place for collecting or managing investors' funds. These funds are then managed by investment managers who are divided into several instruments, such as bonds, stocks, money markets, or other securities.

4. ETF

Stand for Exchange Traded Fund which is more or less the same as mutual funds and sold through the Stock Exchange, not through investment managers like mutual funds in general. This ETF itself is a capital market instrument that is traded on the Stock Exchange.

5. Derivatives

These securities are widely known as other forms of shares. However, there are two types of derivatives that can be found in the capital market, warrant and right. Derivatives on the Stock Exchange are variables based on financial instruments which can be in the form of stocks, bonds, interest rates and other financial instruments.

6. Asset Backed Securities

These Asset Backed Securities are securities printed by a collective investment contract. In this EBA, there are several assets whose portfolio more or less consists of several financial assets that are formed from claims arising from commercial securities, credit card bills, bills that grow in the future, mortgage loans, debt securities guaranteed by the government. Cash flow/cash flow and credit enhancement facilities/credit enhancement.

It can be concluded that the stock exchange or capital market is a meeting place between parties who have excess funds (investors) and parties who need funds (companies) by trading securities in the form of stocks, bonds, or other types of securities through securities brokerage services.

## Financial statements

### a. Definition of Financial Statements

According to Fahmi (2017) financial statements are information that describes the condition of a company, where in the future it will become information that describes the performance of a company.

Financial reports are used as a basic measurement tool in making decisions, so that financial reports require certain measurements and where these measurements use financial report analysis (Anwar, 2019).

From the explanation above it can be concluded that financial statements are the basis for determining or assessing a company's financial position, where the results of the analysis can be used by interested parties to make decisions.

### b. Purpose and Benefits of Financial Statements

According to Harahap (2013) the purpose of financial statements is:

1. Screening, analysis is carried out with the aim of knowing the situation and condition of damage from financial reports without going directly to the field.
2. Understanding, understand the company, financial condition, and business results.

3. Forecasting, analysis is used to predict the company's financial condition in the future.
4. Diagnosis, analysis is intended to see the possibility of problems that occur either in management, operations, finance, or other problems within the company.
5. Evaluation, the analysis was carried out to assess management achievements in managing the company.

The benefits of financial statement analysis according to Harahap (2013) can be stated as follows:

1. Can provide broader, deeper information than is available from ordinary financial reports.
2. Can dig up information that is not visible to the naked eye from a financial report or that is behind the financial report.
3. Can find out the errors contained in the financial statements.
4. Can dismantle matters that are inconsistent in relation to a financial report both in relation to the internal components of financial reports and in relation to information obtained from outside the company.
5. Knowing the properties of relationships that can eventually give birth to models and theories that are available in the field.
6. Can provide the information desired by decision makers.
7. Can determine the ranking of companies according to certain criteria that are well known in the business world.
8. Can compare the company's situation with other companies with the previous period.
9. Can understand the situation and financial condition experienced by the company.
10. It can also predict what potential the company might experience in the future

### **c. Components of Financial Statements**

According to the Indonesian Accounting Association (2012) financial statements consist of the following components:

#### **1. Neraca**

The company's balance sheet is presented in such a way as to highlight the various elements of financial position required for a fair presentation. The minimum balance sheet includes the following items: tangible assets, intangible assets, financial assets, required investments using the equity method, inventories, trade receivables and other payables, estimated liabilities, long-term interest obligations, minority interests, share capital and other equity items .

#### **2. Income statement**

The company's income statement is presented in such a way as to highlight the various elements of financial performance required for a fair presentation. An income statement includes, as a minimum, the following items: revenues, profit and loss of companies, borrowing expenses, share of profits or losses of philanthropy and associated companies required using the equity method, tax expenses, gains or losses from the normal activities of companies, extraordinary items, rights minority, net income and the current period.

#### **3. Statement of Changes in Equity**

Changes in equity reflect the increase or decrease in net assets or wealth during the period based on the measurement principles adopted.

#### **4. Cash flow statement**

The statement of cash flows reports the cash inflows and cash outflows or cash equivalents for a certain period. Cash flows are classified according to operating activities, investing activities and financing activities.

#### **5. Financial report notes**

Notes to the financial statements include negative explanations or details of the amounts shown in the balance sheet, income statement, cash flow statement and statement of changes in equity as well as additional information such as commitments.

## **Financial Ratios**

### **a. Definition of Financial Ratios**



According to Kasmir (2012), financial ratios are activities of comparing numbers in financial reports by dividing one number by another. Comparisons can be made between one component and components in one financial report or between components that exist between financial statements.

Meanwhile, according to Munawir (2010) states that financial ratio analysis is an analytical technique to determine the relationship of certain items in the balance sheet or income statement individually or a combination of the two reports.

From the statement above, it can be concluded that financial ratios are a mathematical calculation that is done by comparing certain items in the financial statements that have a relationship and can show the company's financial condition in a certain period.

#### **b. Types of Financial Ratios**

##### **1. Liquidity Ratio**

The ratio used to measure a company's ability to meet short-term financial obligations in the form of short-term debts. The formula for the liquidity ratio formula includes namely Current Ratio Quick Ratio Cash Ratio (Slow Ratio) and Working Capital to Total Asset Ratio. In general, a good liquidity ratio is having a value that exceeds its current liabilities or thus  $> 1$ . By having a liquidity value of  $> 1$ , it can be judged that the company has the ability to pay short-term financial obligations in the form of short-term debts.

##### **2. Solvency Ratio**

The ratio used to measure a company's ability to meet financial obligations in the form of debts. The solvency ratio formula includes Total Debt to Equity Ratio (DER), Total Debt to Asset Ratio (DAR), Long Term Debt to Equity Ratio, Tangible Assets Debt Coverage, dan Times Interest Earned Ratio. In general, a good solvency ratio is a value that is less than the value of its assets for DAR and equity for DER. The government provides a limit of 4:1 for the ratio debt to equity ratio in 2016. While in general the ratio debt to asset has a default of 30%. By having a solvency value below this standard, it can be assessed that the company has the ability to pay financial obligations. in the form of debts.

##### **3. Activity Ratio**

The ratio used to measure a company's ability to manage company assets. The activity ratio formulas include, namely Total Assets Turnover, Receivable Turnover, Average Collection Period, Inventory Turnover, Working Capital Turnover, dan Average Day's Inventory. The activity ratio is a ratio that measures how effective a company is in utilizing all of its available resources. In general, an activity ratio is good if there is an appropriate balance between sales and various elements of assets, such as inventories, fixed assets and other assets. For example, total assets turn over is a ratio that shows the level of efficiency in using the company's overall assets in producing a certain sales volume. All activity ratios involve a comparison between the level of sales and investment in various types of assets.

##### **4. Profitability Ratio**

The ratio used to measure the company's ability to fulfill the profit. Profitability ratio formulas include namely Gross Profit Margin, Net Profit Margin, Earning Power of Total Investment (rate of Return on Total Assets/LONG), Rate or Return For The Owners (Rate of Return on net Worth), Operating Income Ratio or Operating Profit Margin, Operating Ratio, and Net Earning Power Ratio (Rate or Return on Investment). In general, a good profitability ratio is having a value greater than the value of its assets for ROA and equity for ROE. In general ratio return on asset have standard 5% and return on equity is 20%. By having a profitability value above this standard, it can be assessed that the company has the ability to generate company profits based on its assets and equity.

#### **Telecommunication company**

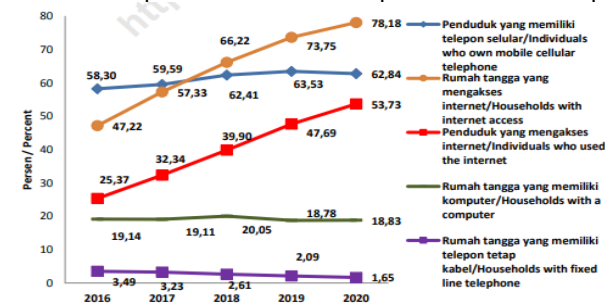
Telecommunications services in Indonesia began during the Dutch East Indies colonial era in 1882, with the establishment of the Post-en Telegraafdienst (Post Telegraph Telephone/PTT) Company in 1884. After Indonesia's independence, PTT underwent many name changes and in 1961, its status was changed to State Enterprise for Post and Telecommunications (PN Postel). In 1965, PN Postel was split into the State Post and

Giro Company and the State Telecommunications Company. In 1974, the State Telecommunications Company changed to the Public Telecommunications Company (Perumtel) and in 1991, Perumtel changed to PT Telekomunikasi Indonesia. In 1966, when President Suharto took office, ITT (International Telephone and Telegraph Corporation), a giant US telecommunications company, became the first foreign company to invest in telecommunications in Indonesia. The Indonesian government then collaborated with ITT to build the first earth station in Indonesia which was located in Jatiluhur. Station construction was completed on September 29, 1969, and PT Indonesian Satellite Corporation (Indosat) was established as the organizer of the work. The first Telecommunications Law, namely Law No. 3 of 1989 concerning Telecommunications, came into force on April 1, 1989. This law provided opportunities for the private sector to participate in the telecommunications industry with the condition that they must establish cooperation with PT Telkom or PT Indosat. This rule was later confirmed by the issuance of Government Regulation No. 8 of 1993 and Ministerial Regulation No. 39 of 1993 which regulate basic telephone services and types of cooperation between private companies and state companies.

In its development, a new Telecommunications Law was issued, namely Law No. 36 of 1999, effective on September 8, 2000. This law reflects the contents of the telecommunication policy substance document or known as the 1999 Blueprint which was ratified in mid-year by Decree of the Minister of Transportation No. 72 of 1999. In addition, the government also issued several laws and regulations to create healthy competition in the telecommunications industry, such as Law No. 5 of 1999 concerning Prohibition of Monopolistic Practices and Unfair Business Competition, Decree of the Minister of Transportation No. 35 of 2004 concerning Implementation of Local Fixed Networks Wireless with Limited Mobility, and Decree of the Minister of Transportation No. 33 of 2004 concerning Supervision of healthy competition in the operation of fixed networks and the operation of basic telephone services. In the past, governments in many countries made the communications sector a monopoly market. However, in the end the government realized that not all parts of the telecommunication industry have the right characteristics if it is carried out under a monopoly system, especially with the decrease in investment costs and the increase in public demands for the availability of new capacity. Therefore, the government needs to pay attention to competence as the ultimate goal in public policy, not just see competition as an alternative to monopoly. To overcome this, the Indonesian government issued a law that encouraged the formation of two new institutions.

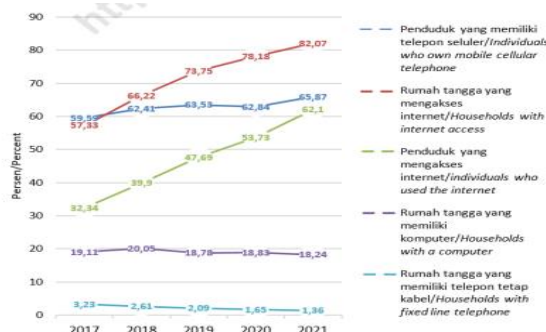
1. Indonesian Telecommunications Regulatory Body (BRTI), which aims to guarantee the independence and fairness of telecommunications operations. BRTI also initiated the establishment of a Telecommunications Traffic Clearing System, which ensures transparency in the imposition of interconnection fees.
2. Telecommunications Interconnection Clearing Association (Askritel), which was formed by telecommunications operators. Askritel is a non-profit organization that accommodates the interests of members in competing in the telecommunications industry, as well as acting as a mediator for those who have disputes. In this case, the government acts as a supervisor, while operators are responsible for systems and operations.

The development of telecommunications in Indonesia has been quite rapid, especially since the transition period from fixed telephone to mobile telephone. This condition provides sufficient space to develop.



Sumber/Source: BPS, Survei Sosial Ekonomi Nasional/BPS-Statistics Indonesia, National Socio-Economic Survey

Figure 4 Development of ICT Indicators in Indonesia, 2016-2020  
Source: Processed from the Central Bureau of Statistics 2020, 2023



Sumber/Source: BPS, Survei Sosial Ekonomi Nasional/BPS-Statistics Indonesia, National Socio-Economic Survey

Figure 5 Development of ICT Indicators in Indonesia, 2017-2021  
Source: Processed from the Central Bureau of Statistics 2021, 2023

With a large population and a vast territory, Indonesia is both a market and an attractive challenge for the telecommunication industry. This has been responded by the growth in the number of telecommunications operators which continues to increase. In 2021, there are 1,307 companies that have obtained licenses to provide telecommunication services in Indonesia. This number has increased compared to 2020 which only amounted to 959 companies. This increase cannot be separated from the policy of free competition and openness implemented by the government in the method of investment in the telecommunications industry in Indonesia, especially cellular telecommunications.



Sumber/Source: Kementerian Komunikasi dan Informatika /Ministry of Communications and Information Technology

Figure 6 Number of Telephone Subscribers by Type of Network Operation 2016-2021  
Source: Processed from the Central Bureau of Statistics 2021, 2023

## Financial performance

### a. Definition of Financial Performance

According to Utari et al. (2016) "financial performance is management achievement as measured from a financial point of view, namely maximizing company value". Financial performance that is commonly used by companies includes analysis of liquidity, solvency, profitability, activity, growth, and valuation analysis, bankruptcy, and financial performance analysis. Du Pont. Financial performance is an analysis carried out to see how far a company has carried out by using the rules of financial implementation properly and correctly. Such as by making a financial report that meets the standards and provisions in SAK (Financial Accounting Standards) or GAAP (General Accepted Accounting Principle). (Fahmi, 2012).

Based on some of the definitions above, it can be concluded that financial performance is work performance and the acquisition of success of a company in managing its company as measured from a financial point of view.

## **b. Financial Performance Assessment**

After knowing the measurement, the company can evaluate performance from a financial perspective. Furthermore, the company can make improvements to all company operations, especially in terms of finance which is often a scourge in the development of a business.

According to Sunardi (2018) an assessment of a company's financial performance is very important for a company to know the effective and efficient allocation of its assets in order to achieve the company's goal of obtaining maximum profit. According to Fahmi (2015), there are 5 (five) stages in analyzing the financial performance of a company in general, namely:

### **1. Reviewing financial report data.**

The review here is carried out with the aim that the financial statements that have been made are in accordance with the application of generally accepted principles in the world of accounting, so that the results of these financial reports can be accounted for.

### **2. Do the calculations.**

The application of the calculation method here is adjusted to the conditions and problems being carried out so that the results of these calculations will provide a conclusion according to the desired analysis.

### **3. Make comparisons with the calculation results that have been obtained.**

From the calculation results that have been obtained, then a comparison is made with the calculation results from various other companies. According to Fahmi (2017) there are ratio comparisons that can be done, namely:

a) Times Series Analysis, a comparison of the company's financial ratios from one period to another. The ratio achieved now with the ratio of the past, thus the company is experiencing progress or setbacks.

b) Cross Sectional Approach, the comparison of one company with other similar companies at the same time.

From the results of using these two methods, it is expected that a conclusion will be made which states that the position of the company is in very good, good, moderate/normal, not good, and very bad condition.

### **4. do interpretation (interpretation) to the various problems found.**

At this stage the analysis looks at the company's financial performance. After the three stages are carried out, interpretation is then carried out to see what problems and constraints the company is experiencing.

### **5. Search and provide solutions to problems (solution) to various problems found.**

At this final stage, after the various problems encountered, a solution is sought to provide an input or input so that what has been the constraints and obstacles so far can be resolved.

Based on some of the definitions above, it can be concluded that the company's performance appraisal is an analysis of the company's ability to manage and control its resources and describe the achievements of the company from its operational activities.

## **Analysis Du Pont System**

### **a. Definition of Analysis Du Pont System**

In 1919 DuPont Corporation pioneered one of the company performance analysis methods which until now is known as Du Pont Analysis. "Analysis Du Pont System is an analysis that includes all activity ratios and profit margins on sales to show how these ratios affect profitability" (Weston and Bringham, 2004).

According to Bong et al. (2020) "method Du Pont The system is a thorough analysis, covering all activities and the upper profit margin profit margin on sales to show how the ratios influence each other in order to determine the profitability of assets.

From the theory above it can be concluded that Du Pont System is a method that can be used to assess financial performance by combining activity ratios and profit margins.

### **b. Benefits Analysis Du Pont System**

Du Pont The system can help management to make an analysis of the company's financial performance and help companies convince capital owners and investors that the company is able to guarantee the security of company assets and guarantee increased prosperity for capital owners.

According to Anwar (2019) "the benefits of this analysis include that we can also determine the increase in the value of certain financial ratios by increasing or decreasing certain components".

By using Du Pont System Investors can compare the operational efficiency of two similar companies. According to Lyn & Aileen (2008) "benefits Du Pont is to help interested parties see how a company's decisions and activities over the course of an accounting period as measured by financial ratios produce an overall return on equity."

From the above understanding it can be concluded that Analysis Du Pont System beneficial for the company because it comprehensively assesses and analyzes the company's operations whether they are running efficiently or not.

### c. Measurement Analysis Du Pont System

#### 1. Net Profit Margin (NPM)

According to Sudana (2015) "Net Profit Margin (NPM) is a ratio measuring a company's ability to generate net profit from sales made by the company. This ratio reflects the efficiency of all parts, namely production, personnel, marketing, and finance within the company. That efficiency makes it more likely for companies to survive when product lines fall short of expectations, or when periods of economic contraction hit the wider economy.

According to Kasmir (2013) "net profit margin is a measure of profit by comparing profit after interest and taxes compared to sales". This ratio shows the company's net revenue from sales as well as the proportion of sales remaining after deducting all costs related to the sales process.

From the theory of understanding Net Profit Margin (NPM) above, it can be concluded that Net Profit Margin (NPM) is the ratio used in measuring a company's net profit to its revenue. According to Kasmir (2013) this ratio can be calculated in the following way:

$$\text{Net Profit Margin} : \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

According to Kasmir (2013) purpose Net Profit Margin (NPM) taken from the objective of the profitability ratios as follows:

- To measure or calculate the profit earned by the company in a certain period.
- To assess the company's profit position in the previous year with the current year.
- To assess the development of profits from time to time.
- To assess the amount of net profit after tax with own capital.
- To measure the productivity of all company funds used both loan capital and own capital.
- To measure the productivity of all company funds, both own capital is used.

According to Kasmir (2013) benefits Net Profit Margin (NPM) taken from the benefits of the following profitability ratios:

- Knowing the level of profit earned by the company in one period.
  - Knowing the position of the company's profit in the previous year with the current year.
  - Know the development of profits from time to time.
  - Knowing the amount of net profit after tax with own capital.
  - Knowing the productivity of all company funds used both loan capital and own capital.
- #### 2. Total Assets Turnover (TATO)

According to Sipahutar & Sanjaya (2019) "Total Assets Turnover (TATO) is the ratio between the total assets used and the amount earned during a certain period. This ratio is a measure of how far the assets have been used in activities or shows the number of times assets rotate in a certain period. If in analyzing this ratio over several periods it shows a trend that tends to increase, it gives an illustration that the more efficient the use of assets so that it increases.



According to Kasmir (2013) "Total Assets Turn Over is the ratio used to measure the turnover of all assets owned by the company and measure how many sales are obtained from each asset rupiah. The higher the asset turnover rate, the better the company is in making profits from the assets it owns.

According to Kasmir (2013) this ratio can be calculated in the following way:

$$\text{Total Asset Turnover} = \frac{\text{sale}}{\text{total assets}}$$

According to Kasmir (2013) some of the benefits of activity ratios include:

- a) In the field of companies: Companies or management can find out how long receivables can be collected during one period. Then, management can also find out how many times the funds invested in these receivables rotate in one period. Thus, it can be seen whether or not the company's activities in the field of billing are effective.
- b) In the field of inventory: Management can find out the average inventory stored in the warehouse. These results are compared with predetermined targets or industry averages. Then the company can also compare these results with ratio measurements several periods ago.
- c) In the field of working capital: Management can find out how many times the funds invested in working capital rotate in one period or in other words, how many sales can be achieved by each working capital used.
- d) In the field of assets and sales:
  - 1) Management can find out how many times the funds invested in fixed assets rotate in one period.
  - 2) Management can find out the use of all company assets compared to sales in a certain period.
3. Return On Investment (ROI)

Determine Return On Investment (ROI) Dupont is a ratio that shows the results (return) on the amount of assets used in the company or a measure of management efficiency. This ratio shows the results of all assets under its control regardless of the source of funding and usually this ratio is measured as a percentage.

According to Bong et al. (2020) "ROI (Return On Investment) which is a comparative figure or ratio between the profits earned by the company and the total assets of the company. Return On Investment can be known by dividing the profit after tax with total assets.

According to Kasmir (2013) states that "Return on investment or better known as Return On Investment (ROI) or Return On Total Assets is the ratio that shows the result (return) on the total assets used in the company. ROI is also a measure of management effectiveness in managing its investments. This ratio shows the results of all controlled assets and is usually measured by a percentage.

According to Kasmir (2013) the formula for searching Return On Investment (ROI) is:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

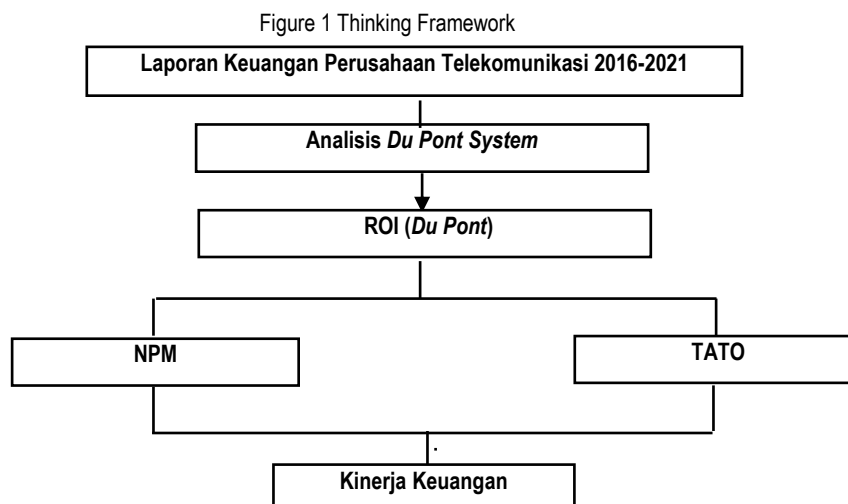
Return On Investment (ROI) is a form of profitability ratios that are intended to be able to measure the ability of a company with all funds invested in assets used for the company's operations to generate profits. The amount of ROI is influenced by two factors, namely:

- a) Asset turnover rate used for operations.
  - b) Profit Margin, namely the amount of operating profit expressed in percentage and the amount of net sales.
- This Profit Margin measures the level of profit that can be achieved by the company in relation to its sales.

### Thinking Framework

According to Sugiyono (2016) The framework is a conceptual model of how theory relates to various factors that have been identified as important issues. The conceptual framework is based on research questions, and represents a set of several concepts and the relationships between these concepts. The framework of thought in the author's research is as follows:





Source: (Popy Andari Putri, 2021)

### 3. RESEARCH METHODS

#### Research design

According to Sugiyono (2016) research design or research design is a guideline that contains the steps to be followed. Overall the research design is all the processes needed in planning and conducting research, while the partial research design is an overview of variable relationships, data collection and data analysis, so that with a good research design both researchers and interested parties have an overview of the interrelationships between variables.

This research uses a descriptive study method with a quantitative approach. This research is categorized as a descriptive study, which is research on a particular phenomenon or population obtained by researchers from subjects in the form of individuals, organizational, industrial or other perspectives. The purpose of this study is to explain the characteristics of a phenomenon that can be used as a basis for making decisions to solve the observed problems. This study uses financial reports to measure company performance.

#### Population and Sample

##### a. Population

According to Sugiyono (2016) "population is a generalized area consisting of objects/subjects that have certain quantities and characteristics set by researchers to study and then draw conclusions.

The population in this study are telecommunications companies listed on the Indonesia Stock Exchange (IDX) for 2016-2021. The number of telecommunication companies listed on the IDX in 2016-2021 is 6 companies, as shown in the following table:

Table 2 Research Population

No.	Code	Company name
1	BTEL	PT. Bakrie Telecom tbk
2	EXCL	PT. XL Axiata tbk
3	FREN	PT. Smartfren Tbk
4	JAST	PT. Jasnita Telekomindo Tbk
5	TLKM	PT. Telekomunikasi Indonesia Tbk
6	ISAT	PT. Indosat Tbk

Source : <http://idx.co.id>, Processed Data, 2022

## b. Sample

The sample is part of the number and characteristics possessed by the population (Sugiyono, 2016). The selection of this research sample is determined by metode Purposive Sampling. Purposive Sampling is a sampling technique with certain considerations (Sugiyono, 2016).

Purpose of using Purposive Sampling is to get a sample that fits the predetermined criteria. The sample criteria and telecommunications companies listed on the Indonesia Stock Exchange (IDX) that comply are as follows:

Table 3 Process of taking the Sampling Criteria Assessment

No.	Criteria	Sample
1	Telecommunications company that presents complete financial statements for the period 2016-2021	6
2	Telecommunications companies that publish their financial reports consecutively during the 2016-2021 period.	5
3	Telecommunication company listed on the Indonesia Stock Exchange during the 2016-2021 period.	5
The number of companies used as samples		5
<b>Total Samples (5X6)</b>		<b>30</b>

Source: Processed Data, 2022

Based on the table above, it is known that of the 6 populations of telecommunications companies listed on the IDX, there are 5 companies telecommunication registered on the IDX for 2016-2021 that meet the sampling criteria

Table 4 Telecommunications Sub Sector Companies and Components Including Sample Criteria

No.	Code	Company name
1	BTEL	PT. Bakrie Telecom Tbk
2	EXCL	PT. XL Axiata Tbk
3	FREN	PT. Smartfren Tbk
4	TLKM	PT. Telekomunikasi Indonesia Tbk
5	ISAT	PT. Indosat Tbk

Source: Processed Data, 2022

## Operational Definition and Variable Measurement

According to Sugiyono (2016) explained that the research variable is basically everything in whatever form is determined by the researcher to be studied so that information is obtained about it, then conclusions are drawn. In this study Analysis Du Pont is not a regression analysis, so this study does not need to use variables X and Y variables in it. So in measuring financial performance in this study the test tool used is analysisDu Pont System using industry averagesNet Profit Margin (NPM), Total Asset Turnover (TATO) andReturn On Investment (ROI) (Du Pont) throughout the period of the company as a comparison of performance in each company.

## Data collection

The type of data used in this research is quantitative data. According to Sugiyono (2016) quantitative data, namely research based on the philosophy of positivism, is used to examine certain populations or samples. Quantitative data can be interpreted as types of data that can be measured or calculated directly, in the form of information or explanations expressed in numbers or in the form of numbers.

In this study, the data source used is secondary data derived from publications on the Indonesia Stock Exchange (IDX). According to Sugiyono (2016), secondary data is data that does not directly provide data to data collectors, for example research must go through other people or search through documents.

For data collection, documentation study techniques and literature studies were used. Documentation according to Sugiyono (2016) is a method used to obtain data and information in the form of books, archives, documents, written numbers and pictures in the form of reports and information that can support research. The documentation used in this study is the financial statements of telecommunication companies listed on the Indonesia Stock Exchange during the 2016-2021 period.

While library research is research conducted by collecting, classifying, and analyzing written data obtained from published records, textbooks, letters and articles (Noor, 2014). Literature studies were obtained

from several data sources that came from previous research references or journals, theses and sources from the internet related to this research.

### Data analysis

According to Sugiyono (2016) data analysis is an activity after data from all respondents or other data sources has been collected. After collecting data, then all the data collected is processed by the researcher. The research method used is a quantitative descriptive method, namely by thoroughly describing the data obtained during the research process through the calculation process.

The stages of data analysis in this study are as follows:

- a. Compiled telecommunication company financial data from 2016-2021. Data collection which is the company's financial statements is carried out by downloading directly from the official website of the Indonesia Stock Exchange. The types of financial statements used in this study are the statements of financial position and income statements of PT Telekomunikasi Indonesia Tbk, PT XL Axiata Tbk, PT Indosat Tbk, PT Bakrie telecom Tbk and PT Smartfren Tbk in 2016-2021.

- b. Conduct a comparative analysis of balance sheets and income statements for 2016-2021.

- c. Perform analysis calculations Du Pont System 2016-2021 years:

1. Count Net Profit Margin (NPM)

Net Profit Margin (NPM) is a ratio that measures the extent to which a company's ability to generate net profit at a certain level of sales. This ratio is also interpreted as the company's ability to reduce costs (a measure of efficiency) in the company in a certain period.

$$\text{Net Profit Margin} : \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

2. Calculating Totals Assets Turnover (TATO)

Measure the turnover of all assets owned by the company.

$$\text{Total Asset Turnover} = \frac{\text{sale}}{\text{total assets}}$$

3. Calculating ROI (Du Pont)

Analysis Method Dupont system it uses a particular approach of ratio analysis to evaluate a company's effectiveness. ROI can measure the level of profit generated from the company's total investment. In calculating this ratio, the formula used is as follows:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

4. Calculating the Industry Average

The calculation of the industry average is carried out for each variable using the following arithmetic techniques:

$$\text{Industry Average (NPM, TATO, ROI(Du Pont))} = \frac{\text{Total (NPM, TATO, ROI(Du Pont)) company}}{\text{Company totals}}$$

5. Assessing the company's financial performance and comparing the variables that have been studied using the analysis method Du Pont System based on existing criteria, while the ideal company financial performance criteria based on each variable per year are as follows:

- 1) The criterion of the company is said to be good, if the ROI (Du Pont) lies above the industry average. Shows asset turnover and profits are high. It is said that the company's financial performance in generating profits is getting better.

- 2) The company's criteria are said to be unfavorable, if the ROI (Du Pont) is below the industry average. Shows asset turnover and net profit is very low. It is said that the company's financial performance in generating profits is not good.

6. Draw conclusions from the ROI comparison results (Du Pont), NPM, and TATO of each company throughout the company's period as a comparison of performance in each company every year which has been studied using the analytical method Dupont system based on existing criteria.

#### 4. RESULTS AND DISCUSSION

##### RESULTS

##### a. PT. XL Axiata Tbk (EXCL)

Based on the financial report data of PT. XL Axiata Tbk and the formula can be calculated Net Profit Margin (NPM), Total Asset Turnover (TATO), and Return On Investment (ROI) (Du Pont).

##### 1. Net Profit Margin (NPM)

Net Profit Margin (NPM) can be calculated by the following formula:

$$\text{Net Profit Margin} = \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

The following is the value calculation Net Profit Margin (NPM) at PT. XL Axiata Tbk (EXCL):

$$\text{Year 2016} = \frac{375.516.000.000}{21.341.425.000.000} \times 100\% = 1,76\%$$

$$\text{Year 2017} = \frac{375.244.000.000}{21.341.425.000.000} \times 100\% = 1,64\%$$

$$\text{Year 2018} = \frac{-3.296.890.000.000}{22.938.812.000.000} \times 100\% = -14,37\%$$

$$\text{Year 2019} = \frac{712.579.000.000}{25.132.628.000.000} \times 100\% = 2,83\%$$

$$\text{Year 2020} = \frac{371.598.000.000}{26.009.095.000.000} \times 100\% = 1,43\%$$

$$\text{Year 2021} = \frac{1.287.807.000.000}{26.754.050.000.000} \times 100\% = 4,81\%$$

##### 2. Total Asset Turnover (TATO)

Total Asset Turnover (TATO) can be calculated by the following formula:

$$\text{Total Asset Turnover} = \frac{\text{sale}}{\text{total assets}}$$

The following is the value calculation Total Asset Turnover (TATO) at PT. XL Axiata Tbk (EXCL):

$$\text{Year 2016} = \frac{21.341.425.000.000}{54.896.286.000.000} \times 1 \text{ times} = 0.39 \text{ times}$$

$$\text{Year 2017} = \frac{22.875.662.000.000}{56.321.441.000.000} \times 1 \text{ times} = 0.41 \text{ times}$$

$$\text{Year 2018} = \frac{22.938.812.000.000}{57.613.954.000.000} \times 1 \text{ times} = 0.40 \text{ times}$$

$$\text{Year 2019} = \frac{25.132.628.000.000}{62.725.242.000.000} \times 1 \text{ times} = 0.40 \text{ times}$$

$$\text{Year 2020} = \frac{26.009.095.000.000}{67.744.797.000.000} \times 1 \text{ times} = 0.38 \text{ times}$$

$$\text{Year 2021} = \frac{26.754.050.000.000}{72.753.282.000.000} \times 1 \text{ times} = 0.37 \text{ times}$$

##### 3. Return On Investment (ROI) (Du Pont)

The following is the calculating formula Return On Investment (ROI) (Du Pont) are as follows:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

The following is the calculation of the ROI value (Du Pont) at PT. XL Axiata Tbk (EXCL):

$$\text{Year 2016} = 1,76\% \times 0,39 = 0,69\%$$

$$\text{Year 2017} = 1,64\% \times 0,41 = 0,67\%$$

$$\text{Year 2018} = -14,37\% \times 0,40 = -5,74\%$$

$$\text{Year 2019} = 2,83\% \times 0,40 = 1,13\%$$

$$\text{Year 2020} = 1,43\% \times 0,38 = 0,54\%$$

$$\text{Year 2021} = 4,81\% \times 0,37 = 1,78\%$$

Table 5 Data Earning After Tax (EAT), Income, Total Assets, Net Profit Margin (NPM), Total Asset Turnover (TATO) and Return On Investment (ROI) (Du Pont) at PT. XL Axiata Tbk in 2016-2021

YEAR	EARNING AFTER TAX (EAT) (IDR)	INCOME (IDR)	TOTAL ASSETS (IDR)	NPM	THIS	ROI (DU PONT)
2016	375.516.000.000	21.341.425.000.000	54.896.286.000.000	1,76 %	0.39 Times	0,69%
2017	375.244.000.000	22.875.662.000.000	56.321.441.000.000	1,64%	0.41 Times	0,67%
2018	-3.296.890.000.000	22.938.812.000.000	57.613.954.000.000	-14,37%	0.40 Times	-5,74%
2019	712.579.000.000	25.132.628.000.000	62.725.242.000.000	2,83%	0.40 Times	1,13%
2020	371.598.000.000	26.009.095.000.000	67.744.797.000.000	1,43%	0.38 Times	0,54%
2021	1.287.807.000.000	26.754.050.000.000	72.753.282.000.000	4,81%	0.37 Times	1,78%
INDUSTRY AVERAGE				-0,32%	0.39 Times	-0,15%

Source: IDX Annual Report (Data processed), 2022

## b. PT. Indosat Tbk (ISAT)

Based on the financial report data of PT. Indosat Tbk and the formula can be calculated Net Profit Margin (NPM), Total Asset Turnover (TATO), and Return On Investment (ROI) (Du Pont).

### 1. Net Profit Margin (NPM)

Net Profit Margin (NPM) can be calculated by the following formula:

$$\text{Net Profit Margin} = \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

The following is the value calculation Net Profit Margin (NPM) at PT. Indosat Tbk (ISAT):

$$\begin{aligned} \text{Year 2016} &= \frac{1.275.655.000.000}{29.184.624.000.000} \times 100\% = 4,37\% \\ \text{Year 2017} &= \frac{1.301.929.000.000}{29.926.098.000.000} \times 100\% = 4,35\% \\ \text{Year 2018} &= \frac{-2.085.059.000.000}{23.139.551.000.000} \times 100\% = -9,01\% \\ \text{Year 2019} &= \frac{1.630.372.000.000}{26.117.533.000.000} \times 100\% = 6,24\% \\ \text{Year 2020} &= \frac{-630.160.000.000}{27.925.661.000.000} \times 100\% = -2,26\% \\ \text{Year 2021} &= \frac{6.750.873.000.000}{31.388.311.000.000} \times 100\% = 21,51\% \end{aligned}$$

### 2. Total Asset Turnover (TATO)

Total Asset Turnover (TATO) can be calculated by the following formula:

$$\text{Total Assets Turnover} = \frac{\text{sale}}{\text{total assets}}$$

The following is the value calculation Total Asset Turnover (TATO) at PT. Indosat Tbk (ISAT):

$$\begin{aligned} \text{Year 2016} &= \frac{29.184.624.000.000}{50.838.704.000.000} \times 1 \text{ times} = 0.57 \text{ times} \\ \text{Year 2017} &= \frac{29.926.098.000.000}{50.661.040.000.000} \times 1 \text{ times} = 0.59 \text{ times} \\ \text{Year 2018} &= \frac{23.139.551.000.000}{53.139.587.000.000} \times 1 \text{ times} = 0.43 \text{ times} \\ \text{Year 2019} &= \frac{26.117.533.000.000}{62.813.000.000.000} \times 1 \text{ times} = 0.42 \text{ times} \\ \text{Year 2020} &= \frac{27.925.661.000.000}{62.778.740.000.000} \times 1 \text{ times} = 0.44 \text{ times} \\ \text{Year 2021} &= \frac{31.388.311.000.000}{63.397.148.000.000} \times 1 \text{ times} = 0.49 \text{ times} \end{aligned}$$

### 3. Return On Investment (ROI) (Du Pont)

Here is the formula calculate Return On Investment (ROI) (Dupont) are as follows:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

The following is the calculation of the ROI value (Du Pont) at PT. Indosat Tbk (ISAT):

$$\text{Year 2016} = 4,37\% \times 0,57 = 2,49\%$$

Year 2017 =  $4,35\% \times 0,59 = 2,57\%$   
 Year 2018 =  $-9,01\% \times 0,43 = -3,87\%$   
 Year 2019 =  $6,24\% \times 0,42 = 2,62\%$   
 Year 2020 =  $-2,26\% \times 0,44 = -0,99\%$   
 Year 2021 =  $21,51\% \times 0,49 = 10,54\%$

Table 6 Data Earning After Tax (EAT), Income, Total Assets, Net Profit Margin (NPM), Total Asset Turnover (TATO) and Return On Investment (ROI) (Du Pont) at PT. Indosat Tbk in 2016-2021

YEAR	EARNING AFTER TAX (EAT) (IDR)	INCOME (IDR)	TOTAL ASSETS (IDR)	NPM	THIS	ROI (DU PONT)
2016	1.275.655.000.000	29.184.624.000.000	50.838.704.000.000	4,37%	0.57 Times	2,49%
2017	1.301.929.000.000	29.926.098.000.000	50.661.040.000.000	4,35%	0.59 Times	2,57%
2018	-2.085.059.000.000	23.139.551.000.000	53.139.587.000.000	-9,01%	0.43 Times	-3,87%
2019	1.630.372.000.000	26.117.533.000.000	62.813.000.000.000	6,24%	0.42 Times	2,62%
2020	-630.160.000.000	27.925.661.000.000	62.778.740.000.000	-2,26%	0.44 Times	-0,99%
2021	6.750.873.000.000	31.388.311.000.000	63.397.148.000.000	21,51%	0.49 Times	10,54%
<b>INDUSTRY AVERAGE</b>				-0,32%	0.39 Times	-0,15%

Source: IDX Annual Report (Data processed), 2022

### c. PT. Telekomunikasi Indonesia Tbk (TLKM)

Based on the financial report data of PT. Telekomunikasi Indonesia Tbk and the formula can be calculated Net Profit Margin (NPM), Total Asset Turnover (TATO), and Return On Investment (ROI) (Du Pont).

#### 1. Net Profit Margin (NPM)

Net Profit Margin (NPM) can be calculated by the following formula:

$$\text{Net Profit Margin} = \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

The following is the value calculation Net Profit Margin (NPM) at PT. Telekomunikasi Indonesia Tbk (TLKM):

$$\begin{aligned} \text{Year 2016} &= \frac{29.172.000.000.000}{116.333.000.000.000} \times 100\% = 25,08\% \\ \text{Year 2017} &= \frac{32.701.000.000.000}{128.256.000.000.000} \times 100\% = 25,50\% \\ \text{Year 2018} &= \frac{26.979.000.000.000}{130.784.000.000.000} \times 100\% = 20,63\% \\ \text{Year 2019} &= \frac{27.592.000.000.000}{135.567.000.000.000} \times 100\% = 20,35\% \\ \text{Year 2020} &= \frac{29.563.000.000.000}{136.462.000.000.000} \times 100\% = 21,66\% \\ \text{Year 2021} &= \frac{33.948.000.000.000}{143.210.000.000.000} \times 100\% = 23,70\% \end{aligned}$$

#### 2. Total Asset Turnover (TATO)

Total Asset Turnover (TATO) can be calculated by the following formula:

$$\text{Total Asset Turnover} = \frac{\text{sale}}{\text{total assets}}$$

The following is the value calculation Total Asset Turnover (TATO) at PT. Telekomunikasi Indonesia Tbk (TLKM):

$$\begin{aligned} \text{Year 2016} &= \frac{116.333.000.000.000}{179.611.000.000.000} \times 1 \text{ times} = 0.65 \text{ times} \\ \text{Year 2017} &= \frac{128.256.000.000.000}{198.484.000.000.000} \times 1 \text{ times} = 0.65 \text{ times} \\ \text{Year 2018} &= \frac{130.784.000.000.000}{206.196.000.000.000} \times 1 \text{ times} = 0.63 \text{ times} \end{aligned}$$



$$\begin{aligned}\text{Year 2019} &= \frac{135.567.000.000.000}{221.208.000.000.000} \times 1 \text{ times} = 0.61 \text{ times} \\ \text{Year 2020} &= \frac{136.462.000.000.000}{246.943.000.000.000} \times 1 \text{ times} = 0.55 \text{ times} \\ \text{Year 2021} &= \frac{143.210.000.000.000}{277.184.000.000.000} \times 1 \text{ times} = 0.52 \text{ times}\end{aligned}$$

### 3. Return On Investment (ROI) (Du Pont)

The following is the calculating formula Return On Investment (ROI) (Du Pont) are as follows:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

The following is the calculation of the ROI value (Du Pont) at PT. Telekomunikasi Indonesia Tbk (TLKM):

$$\begin{aligned}\text{Year 2016} &= 25,08\% \times 0,65 = 16,30\% \\ \text{Year 2017} &= 25,50\% \times 0,65 = 16,57\% \\ \text{Year 2018} &= 20,63\% \times 0,63 = 13\% \\ \text{Year 2019} &= 20,35\% \times 0,61 = 12,41\% \\ \text{Year 2020} &= 21,66\% \times 0,55 = 11,91\% \\ \text{Year 2021} &= 23,70\% \times 0,52 = 12,32\%\end{aligned}$$

Table 7 Data Earning After Tax (EAT), Revenue, Total Assets, Net Profit Margin (NPM), Total Asset Turnover (TATO) and Return On Investment (ROI) (Du Pont) at PT. Telekomunikasi Indonesia Tbk in 2016-2021

YEAR	EARNING AFTER TAX (EAT) (IDR)	INCOME (IDR)	TOTAL ASSETS (IDR)	NPM	THIS	ROI (DU PONT)
2016	29.172.000.000.000	116.333.000.000.000	179.611.000.000.000	25,08%	0.65 Times	16.30%
2017	32.701.000.000.000	128.256.000.000.000	198.484.000.000.000	25,50%	0.65 Times	16,57%
2018	26.979.000.000.000	130.784.000.000.000	206.196.000.000.000	20,63%	0.63 Times	13%
2019	27.592.000.000.000	135.567.000.000.000	221.208.000.000.000	20,35%	0.61 Times	12,41%
2020	29.563.000.000.000	136.462.000.000.000	246.943.000.000.000	21,66%	0.55 Times	11,91%
2021	33.948.000.000.000	143.210.000.000.000	277.184.000.000.000	23,70%	0.52 Times	12,32%
INDUSTRY AVERAGE				22,82%	0.60 Times	13,75%

Source: IDX Annual Report (Data processed), 2022

### d. PT. Bakrie Telecom Tbk (BTCL)

Based on the financial report data of PT. Bakrie Telecom Tbk and the formula can be calculated Net Profit Margin (NPM), Total Asset Turnover (TATO), and Return On Investment (ROI) (Du Pont).

#### 1. Net Profit Margin (NPM)

Net Profit Margin (NPM) can be calculated by the following formula:

$$\text{Net Profit Margin} = \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

The following is the value calculation Net Profit Margin (NPM) at PT. Bakrie Telecom Tbk (BTCL):

$$\begin{aligned}\text{Year 2016} &= \frac{-139.211.500.000}{14.132.800.000} \times 100\% = -985,02\% \\ \text{Year 2017} &= \frac{-149.648.200.000}{787.100.000} \times 100\% = -19012,60\% \\ \text{Year 2018} &= \frac{-72.057.500.000}{852.600.000} \times 100\% = -8451,50\% \\ \text{Year 2019} &= \frac{-36.114.900.000}{1.027.500.000} \times 100\% = -3514,83\% \\ \text{Year 2020} &= \frac{-10.827.700.000}{1.053.700.000} \times 100\% = -1027,59\% \\ \text{Year 2021} &= \frac{-10.100.000.000}{5.211.000.000} \times 100\% = -193,82\%\end{aligned}$$

## 2. Total Asset Turnover (TATO)

Total Asset Turnover (TATO) can be calculated by the following formula:

$$\text{Total Asset Turnover} = \frac{\text{sale}}{\text{total assets}}$$

Here is the calculation value of Total Asset Turnover (TATO) at PT. Bakrie Telecom Tbk (BTCL):

$$\text{Year 2016} = \frac{14.132.800.000}{156.977.500.000} \times 1 \text{ times} = 0.09 \text{ TIMES}$$

$$\text{Year 2017} = \frac{787.100.000}{71.802.200.000} \times 1 \text{ times} = 0.01 \text{ TIMES}$$

$$\text{Year 2018} = \frac{852.600.000}{71.350.500.000} \times 1 \text{ times} = 0.01 \text{ TIMES}$$

$$\text{Year 2019} = \frac{1.027.500.000}{1.567.700.000} \times 1 \text{ times} = 0.65 \text{ TIMES}$$

$$\text{Year 2020} = \frac{1.053.700.000}{326.600.000} \times 1 \text{ times} = 3.23 \text{ TIMES}$$

$$\text{Year 2021} = \frac{5.211.000.000}{2.075.800.000} \times 1 \text{ times} = 2.51 \text{ TIMES}$$

## 3. Return On Investment (ROI) (Du Pont)

The following is the calculating formula Return On Investment (ROI) (Du Pont) are as follows:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

The following is the calculation of the value (ROI) (Du Pont) at PT. Bakrie Telecom Tbk (BTCL):

$$\text{Year 2016} = -985,02\% \times 0,09 = -88,65\%$$

$$\text{Year 2017} = -19012,60\% \times 0,01 = -190,13\%$$

$$\text{Year 2018} = -8451,50\% \times 0,01 = -84,51\%$$

$$\text{Year 2019} = -3514,83\% \times 0,65 = -2284,64\%$$

$$\text{Year 2020} = -1027,59\% \times 3,23 = -3319,11\%$$

$$\text{Year 2021} = -193,82\% \times 2,51 = -486,49\%$$

Table 8 Data Earning After Tax (EAT), Revenue, Total Assets, Net Profit Margin (NPM), Total Asset Turnover (TATO) and Return On Investment (ROI) (Du Pont) at PT. Bakrie Telecom Tbk in 2016-2021

YEAR	EARNING AFTER TAX (EAT) (IDR)	INCOME (IDR)	TOTAL ASSETS (IDR)	NPM	THIS	ROI (DU PONT)
2016	-139.211.500.000	14.132.800.000	156.977.500.000	-985,02%	0.09 Times	-88,65%
2017	-149.648.200.000	787.100.000	71.802.200.000	-19012,60%	0.01 Times	-190,13%
2018	-72.057.500.000	852.600.000	71.350.500.000	-8451,50%	0.01 Times	-84,51%
2019	-36.114.900.000	1.027.500.000	1.567.700.000	-3514,83%	0.65 Times	-2284,64%
2020	-10.827.700.000	1.053.700.000	326.600.000	-1027,59%	3.23 Times	-3319,11%
2021	-10.100.000.000	5.211.000.000	2.075.800.000	-193,82%	2.51 Times	-486,49%
INDUSTRY AVERAGE				-5530,89%	1.08 Times	-1075,59%

Source: IDX Annual Report (Data processed), 2022

## e. PT. Smartfren Tbk (FREN)

Based on the financial report data of PT. Smartfren Tbk and the formula can be calculated Net Profit Margin (NPM), Total Asset Turnover (TATO), and Return On Investment (ROI) (Du Pont).

### 1. Net Profit Margin (NPM)

Net Profit Margin (NPM) can be calculated by the following formula:

$$\text{Net Profit Margin} = \frac{\text{Earning After Tax (EAT)}}{\text{Sale}} \times 100\%$$

The following is the value calculation Net Profit Margin (NPM) at PT. Smartfren Tbk (FREN):

$$\begin{aligned}\text{Year 2016} &= \frac{-1.974.434.427.311}{3.637.385.751.473} \times 100\% = -54,28\% \\ \text{Year 2017} &= \frac{3.022.735.742.456}{4.668.495.942.494} \times 100\% = -64,75\% \\ \text{Year 2018} &= \frac{-3.552.834.007.240}{5.490.311.128.559} \times 100\% = -64,71\% \\ \text{Year 2019} &= \frac{-2.187.771.846.923}{6.987.804.620.572} \times 100\% = -31,31\% \\ \text{Year 2020} &= \frac{-1.523.602.951.388}{9.407.882.876.396} \times 100\% = -16,19\% \\ \text{Year 2021} &= \frac{-435.325.081.365}{10.456.828.821.565} \times 100\% = -4,16\%\end{aligned}$$

## 2. Total Asset Turnover (THIS)

Total Asset Turnover (TATO) can be calculated by the following formula:

$$\text{Total Asset Turnover} = \frac{\text{sale}}{\text{total assets}}$$

The following is the value calculation Total Asset Turnover (TATO) at PT. Smartfren Tbk (FREN):

$$\begin{aligned}\text{Year 2016} &= \frac{3.637.385.751.473}{22.807.139.288.268} \times 1 \text{ times} = 0.16 \text{ times} \\ \text{Year 2017} &= \frac{4.668.495.942.494}{24.114.499.676.408} \times 1 \text{ times} = 0.19 \text{ times} \\ \text{Year 2018} &= \frac{5.490.311.128.559}{25.213.595.077.036} \times 1 \text{ times} = 0.22 \text{ times} \\ \text{Year 2019} &= \frac{6.987.804.620.572}{27.650.462.178.339} \times 1 \text{ times} = 0.25 \text{ times} \\ \text{Year 2020} &= \frac{9.407.882.876.396}{38.684.276.546.076} \times 1 \text{ times} = 0.24 \text{ times} \\ \text{Year 2021} &= \frac{10.456.828.821.565}{43.357.849.742.875} \times 1 \text{ times} = 0.24 \text{ times}\end{aligned}$$

## 3. Return On Investment (ROI) (Du Pont)

The following is the calculating formula Return On Investment (ROI) (Du Pont) are as follows:

$$\text{ROI (Du Pont)} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

The following is the calculation of the ROI value (Du Pont) at PT. Smartfren Tbk (FREN):

$$\begin{aligned}\text{Year 2016} &= -54,28\% \times 0,16 = -8,68\% \\ \text{Year 2017} &= -64,75\% \times 0,19 = -12,30\% \\ \text{Year 2018} &= -64,71\% \times 0,22 = -14,24\% \\ \text{Year 2019} &= -31,31\% \times 0,25 = -7,83\% \\ \text{Year 2020} &= -16,19\% \times 0,24 = -3,88\% \\ \text{Year 2021} &= -4,16\% \times 0,24 = -1\%\end{aligned}$$

Table 9 Data Earning After Tax (EAT), Revenue, Total Assets, Net Profit Margin (NPM), Total Asset Turnover (TATO) and Return On Investment (ROI) (Du Pont) at PT. Smartfren Tbk 2016-2021

YEAR	EARNING AFTER TAX (EAT) (IDR)	INCOME (IDR)	TOTAL ASSETS (IDR)	NPM	THIS	ROI (DU PONT)
2016	-1.974.434.427.311	3.637.385.751.473	22.807.139.288.268	-54,28%	0.16 TIMES	-8,68%
2017	-3.022.735.742.456	4.668.495.942.494	24.114.499.676.408	-64,75%	0.19 TIMES	-12,30%
2018	-3.552.834.007.240	5.490.311.128.559	25.213.595.077.036	-64,71%	0.22 TIMES	-14,24%
2019	-2.187.771.846.923	6.987.804.620.572	27.650.462.178.339	-31,31%	0.25 TIMES	-7,83%
2020	-1.523.602.951.388	9.407.882.876.396	38.684.276.546.076	-16,19%	0.24 TIMES	-3,88%
2021	-435.325.081.365	10.456.828.821.565	43.357.849.742.875	-4,16%	0.24 TIMES	-1%
INDUSTRY AVERAGE				-39,23%	0.22 TIMES	-7,99%

Source: IDX Annual Report (Data processed), 2022

## DISCUSSION

### a. PT. XL Axiata Tbk (EXCL)

#### 1. Net Profit Margin (NPM)

Based on table 5, the calculation results Net Profit Margin (NPM) PT. XL Axiata Tbk during the fluctuating 2016-2021 period. Increases occurred in 2019 and 2021 while in 2017, 2018 and 2020 the NPM value decreased. NPM tends to decrease due to income and Earning After Tax (EAT) in several years of research has also decreased. This can be proven by looking at table 5, namely income and Earning After Tax (EAT) which decreases resulting in value Net Profit Margin (NPM) also decreased. Then we can see in table 5, the average value Net Profit Margin (NPM) PT. XL Axiata Tbk during the 2016-2021 period was -0.32%. In 2016, 2017, 2019, 2020 and 2021 value Net Profit Margin (NPM) above average, on the contrary in 2018 Net Profit Margin (NPM) below average. If ratio Net Profit Margin (NPM) is negative, meaning that the company suffers losses. This shows that the financial performance of PT. XL Axiata Tbk in obtaining net profit from revenue is said to be not good. But behind the losses of PT. XL Axiata Tbk in 2018, PT. XL Axiata Tbk managed to increase the number Net Profit Margin (NPM) which can be interpreted as income and Earning After Tax (EAT) PT. XL Axiata Tbk also increased in the following year. During the 2016-2021 period only in 2018 grades Net Profit Margin (NPM) below average.

#### 2. Total Asset Turnover (THIS)

Based on table 5, the calculation results Total Assets Turnover (TATO) PT XL Axiata Tbk during the 2016-2021 period tends to experience a decline. Total Assets Turnover (TATO) decreased in 2018, 2020 and 2021. Only in 2017 and 2019 Total Asset Turnover (TATO) has increased. Total Assets Turnover (TATO) which decreased due to a decrease in the value of revenue and total asset value. Average Total Assets Turnover (TATO) of PT XL Axiata Tbk during the 2016-2021 period of 0.39. In 2020, and 2021 values Total Assets Turnover (TATO) is below the industry average. In other years, namely 2017, 2018, and 2019 values Total Assets Turnover (TATO) above average. The fluctuating turnover of total assets over the past 6 years indicates that the company is getting worse at managing total assets in generating income. In 2016-2017 the company can manage total assets to generate income well, because of value Total Assets Turnover (TATO) tends to increase.

#### 3. Return On Investment (ROI) (Du Pont)

Based on table 5, the calculation results Return On Investment (ROI) (Du Pont) PT XL Axiata Tbk during the fluctuating 2016-2021 period. In 2017, 2018 and 2020 it decreased while in 2019 and 2021 it experienced an increase. The fluctuation in the ROI value was influenced by NPM and TATO during 2016-2021 which experienced fluctuations. This indicates that the company is not good at managing funds embedded in assets to generate profits. Average Return On Investment (ROI) (Du Pont) PT XL Axiata Tbk during the 2016-2021 period was -0.15%. In 2017, 2019, 2020 and 2021 grades Return On Investment (ROI) (Du Pont) above average. Only in 2018 values Return On Investment (ROI) (Du Pont) below average.

### b. PT. Indosat Tbk (ISAT)

#### 1. Net Profit Margin (NPM)

Based on table 6, the calculation results Net Profit Margin (NPM) PT. Indosat Tbk during the fluctuating 2016-2021 period. Increases occurred in 2019 and 2021 while in 2017, 2018 and 2020 the NPM value decreased. Even though the NPM value of PT. Indosat Tbk is quite good, it can be seen from the positive NPM value. However, operating income increased compared to the previous year but was not followed by a significant increase in net profit after tax. Mark Net Profit Margin (NPM) also tends to decrease due to income and Earning After Tax (EAT) in several years of research has also decreased. This can be proven by looking at table 6, namely income and Earning After Tax (EAT) which fluctuates in value Net Profit Margin (NPM) also experienced fluctuations. Then we can see in table 6,

the average value Net Profit Margin (NPM) PT. Indosat Tbk during the 2016-2021 period was 3.47%. In 2016, 2017, 2019 and 2021 grades Net Profit Margin (NPM) above average, on the contrary in 2018 and 2020 Net Profit Margin (NPM) below average. Ratio value Net Profit Margin (NPM) at each turn of the research year experiences instability, sometimes having a negative value, sometimes having a positive value. Even though the overall NPM value in the study is positive, the change in NPM value from year to year illustrates that PT. Indosat Tbk that the financial performance in obtaining net profit from revenue is said to be quite good, even though there have been shocks in several years because the npm value has fluctuated from year to year, due to possible income factors and Earning After Tax (EAT) PT. Indosat Tbk also experienced fluctuations. During the 2016-2021 period only in 2018 and 2020 values Net Profit Margin (NPM) below average.

## **2. Total Asset Turnover (THIS)**

Based on table 6, the calculation results Total Assets Turnover (TATO) PT. Indosat Tbk during the 2016-2021 period tends to experience a decline. Total Assets Turnover (TATO) decreased in 2018, 2019 and 2021. Only in 2017 and 2020 Total Assets Turnover (TATO) has increased. Total Assets Turnover (TATO) which decreased due to a decrease in the value of revenue and total asset value. Average Total Assets Turnover (TATO) PT. Indosat Tbk during the 2016-2021 period of 0.49. In 2018, 2019 and 2021 grades Total Assets Turnover (TATO) is below the industry average. In other years, namely 2017 and 2020 values Total Assets Turnover (TATO) above average. The fluctuating turnover of total assets over the past 6 years indicates that the company is getting worse at managing total assets in generating income. In 2016-2017 the company can manage total assets to generate income well, because of value Total Assets Turnover (TATO) tends to increase.

## **3. Return On Investment (ROI) (Du Pont)**

Based on table 6, the calculation results Return On Investment (ROI) (Du Pont) PT. Indosat Tbk during the fluctuating 2016-2021 period. In 2018 and 2020 it decreased while in 2017, 2019 and 2021 it experienced an increase. The fluctuation in the ROI value was influenced by NPM and TATO during 2016-2021 which experienced fluctuations. This indicates that the company is not good at managing funds embedded in assets to generate profits. Average Return On Investment (ROI) (Du Pont) PT. Indosat Tbk during the 2016-2021 period was 2.23%. In 2017, 2019, and 2021 grades Return On Investment (ROI) above average. Only in 2018 and 2020 values Return On Investment (ROI) (Du Pont) below average.

## **c. PT. Telekomunikasi Indonesia Tbk (TLKM)**

### **1. Net Profit Margin (NPM)**

Based on table 7, the calculation results Net Profit Margin (NPM) PT. Telekomunikasi Indonesia Tbk during the fluctuating 2016-2021 period. Increases occurred in 2017, 2020 and 2021 while in 2018 and 2019 the NPM value decreased. NPM decreased at the beginning, but at the end of the study it increased, this was due to income and Earning After Tax (EAT) in several years of research also increased in the last few years of research. This can be proven by looking at table 7, namely income and Earning After Tax (EAT) which initially decreased slowly increased in value Net Profit Margin (NPM) also increased. Then we can see in table 7, the average value Net Profit Margin (NPM) PT. Telekomunikasi Indonesia Tbk during the 2016-2021 period was 22.82%. In 2016, 2017 and 2021 grades Net Profit Margin (NPM) above average, on the contrary in 2018, 2019 and 2020 Net Profit Margin (NPM) below average. Ratio value Net Profit Margin (NPM) is positive, meaning that the company is making a profit. This shows that the financial performance of PT. Telekomunikasi Indonesia Tbk in obtaining net profit from revenue is said to be quite good. But behind the profits of PT. Telekomunikasi Indonesia Tbk, PT. Telekomunikasi Indonesia Tbk must pay attention to the value of revenue and Earning After Tax (EAT) PT. Telekomunikasi Indonesia Tbk to increase NPM value.

## 2. Total Asset Turnover (TATO)

Based on table 7, the calculation results Total Assets Turnover (TATO) PT. Telekomunikasi Indonesia Tbk during the 2016-2021 period tends to experience a decline. Total Assets Turnover (TATO) experienced a decline in 2018-2021. 2017 only Total Assets Turnover (TATO) has increased, but the value of TATO is positive. Average Total Assets Turnover (TATO) PT. Telekomunikasi Indonesia Tbk during the 2016-2021 period was 0.60. In 2020 and 2021 values Total Assets Turnover (TATO) is below the industry average. In other years, namely 2016, 2017, 2018 and 2019 the value Total Assets Turnover (TATO) above average. The total asset turnover that has decreased over the past 6 years indicates that the company is getting worse at managing total assets in generating income.

## 3. Return On Investment (ROI)(Du Pont)

Based on table 7, the calculation results Return On Investment (ROI) (Du Pont) PT. Telekomunikasi Indonesia Tbk during the fluctuating 2016-2021 period. In 2018, 2019 and 2020 it decreased while in 2017 and 2021 it experienced an increase. The fluctuation in the ROI value was influenced by NPM and TATO during 2016-2021 which experienced fluctuations. This indicates that the company is not good at managing funds embedded in assets to generate profits. Average Return On Investment (ROI) (Du Pont) PT. Telekomunikasi Indonesia Tbk during the 2016-2021 period is 13.75%. In 2016 and 2017 grades Return On Investment (ROI) (Du Pont) above average. Whereas in 2018, 2019, 2020 and 2021 values Return On Investment (ROI) (Du Pont) below average.

## d. PT. Bakrie Telecom Tbk (BTCL)

### 1. Net Profit Margin (NPM)

Based on table 8, the calculation results Net Profit Margin (NPM) PT. Bakrie Telecom Tbk during the fluctuating 2016-2021 period. Increases occurred in 2018, 2019, 2020 and 2021, while only in 2017 the NPM value decreased. It can be seen in table 8, even though the NPM value is negative, the NPM value tends to increase due to income and Earning After Tax (EAT) in several years of research has also decreased. Then we can see in table 8, the average Net Profit Margin (NPM) value of PT. Bakrie Telecom Tbk during the 2016-2021 period was -5530.89%. In 2016, 2019, 2020 and 2021 grades Net Profit Margin (NPM) above average, on the contrary in 2017 and 2018 Net Profit Margin (NPM) below average. If ratio Net Profit Margin (NPM) is negative, meaning that the company suffers losses. This shows that the financial performance of PT. Bakrie Telecom Tbk in obtaining net profit from revenue is said to be not good. But behind the losses of PT. Bakrie Telecom Tbk in 2018 and 2020, PT. Bakrie Telecom Tbk managed to increase the number Net Profit Margin (NPM) which can be interpreted as income and Earning After Tax (EAT) PT. Bakrie Telecom Tbk also increased. During the 2016-2021 period only in 2017 and 2018 values Net Profit Margin (NPM) below average.

### 2. Total Asset Turnover (TATO)

Based on table 8, the calculation results Total Assets Turnover (TATO) PT. Bakrie Telecom Tbk during the 2016-2021 period experienced fluctuations. Total Assets Turnover (TATO) decreased in 2017 and 2021. Meanwhile in 2018, 2019 and 2020 Total Assets Turnover (TATO) has increased. Total Assets Turnover (TATO) which experienced fluctuations because the value of income and total asset values also experienced fluctuations. Average Total Assets Turnover (TATO) PT. Bakrie Telecom Tbk during the 2016-2021 period of 1.08. In 2016, 2017, 2018 and 2019 grades Total Assets Turnover (TATO) is below the industry average. In another year, namely 2020, and 2021 values Total Assets Turnover (TATO) above average. The fluctuating turnover of total assets over the past 6 years indicates that the company is getting worse at managing total assets in generating income. In 2019-2020 the company can manage total assets to generate income well, because of value Total Assets Turnover (TATO) tends to increase.



### 3. Return On Investment (ROI) (Du Pont)

Based on table 8, the calculation results Return On Investment (ROI) (Du Pont) PT. Bakrie Telecom Tbk during the fluctuating 2016-2021 period. In 2017, 2019 and 2020 it decreased while in 2018 and 2021 it experienced an increase. The fluctuation in the ROI value was influenced by NPM and TATO during 2016-2021 which experienced fluctuations. This indicates that the company is not good at managing funds embedded in assets to generate profits. Average Return On Investment (ROI) (Du Pont) PT. Bakrie Telecom Tbk during the 2016-2021 period was -1075.59%. In 2017, 2018 and 2021 grades Return On Investment (ROI) (Du Pont) above average. Only in 2019 and 2020 values Return On Investment (ROI) (Du Pont) below average.

#### e. PT. Smartfren Tbk (FREN)

##### 1. Net Profit Margin (NPM)

Based on table 9, the calculation results Net Profit Margin (NPM) PT. Smartfren Tbk during the 2016-2021 period tends to increase. Increases occurred in 2018, 2019, 2020 and 2021, while only in 2017 the NPM value decreased. NPM tends to increase due to income and Earning After Tax (EAT) in several years of research has also increased. This can be proven by looking at table 9, namely income and Earning After Tax (EAT) which increases resulting in valueNet Profit Margin (NPM) also increased. Then we can see in table 9, the average valueNet Profit Margin (NPM) PT. Smartfren Tbk during the 2016-2021 period was -39.23%. In 2019, 2020 and 2021 values Net Profit Margin (NPM) above average, on the contrary in 2016, 2017 and 2018 Net Profit Margin (NPM) below average. If ratioNet Profit Margin (NPM) is negative, meaning that the company suffers losses. This shows that the financial performance of PT. Indosat Tbk in obtaining net profit from revenue is said to be not good. But behind the losses of PT. Smartfren Tbk, PT. Smartfren Tbk managed to increase the numberNet Profit Margin (NPM) which can be interpreted as income and Earning After Tax (EAT) PT. Smartfren Tbk also increased. During the 2016-2021 period only in 2017 valueNet Profit Margin (NPM) below average.

##### 2. Total Asset Turnover (TATO)

Based on table 9, the calculation results Total Assets Turnover (TATO) PT. Smartfren Tbk during the 2016-2021 period tends to experience an increase. Total Assets Turnover (TATO) experienced an increase in 2017, 2018, 2019 and 2021. Only in 2020 Total Assets Turnover (TATO) has decreased. This is due to an increase in the value of income and the value of total assets. AverageTotal Assets Turnover (TATO) PT. Smartfren Tbk during the 2016-2021 period was 0.22. In 2016 and 2017 grades Total Assets Turnover (TATO) is below the industry average. In other years, namely 2018, 2019, 2020 and 2021 the valueTotal Assets Turnover (TATO) above average. The increase in total asset turnover over the past 6 years indicates that the company is getting better at managing total assets in generating income.

##### 3. Return On Investment (ROI) (Du Pont)

Based on table 9, results Return On Investment (ROI) (Du Pont) PT. Smartfren Tbk during the fluctuating 2016-2021 period. In 2017 and 2018 it decreased while in 2019, 2020 and 2021 it experienced an increase. The fluctuation in the ROI value was influenced by NPM and TATO during 2016-2021 which experienced fluctuations. This indicates that the company is not good at managing funds embedded in assets to generate profits. AverageReturn On Investment (ROI) (Du Pont) PT. Smartfren Tbk during the 2016-2021 period was -7.99%. In 2019, 2020 and 2021 Return On Investment (ROI) (Du Pont) above average. Only in 2016, 2017 and 2018 values Return On Investment (ROI) (Du Pont) rate by rate.

## 5. CONCLUSION

Based on the analysis and discussion that has been discussed, it can be concluded as follows:

- a. Net Profit Margin (NPM) in telecommunications companies listed on the Indonesia Stock Exchange tend to experience a decline. This is due to income and Earning After Tax (EAT) which has decreased. As well as Total Assets Turnover (TATO) which experienced a decline, this was due to a decrease in the value of revenue and total asset value. ROI (Du Pont) owned by telecommunications companies listed on the Indonesia Stock Exchange during the 2016-2021 period has decreased. This is due to a decrease in value Net Profit Margin (NPM) and Total Assets Turnover (TATO) in that period. Return On Investment with approach Dupont system shows that the average value Return On Investment produced by telecommunications companies in Indonesia can be said to be not good, the company's financial performance has an overall average value that is not good because it has a negative average value, meaning that the company as a whole suffers a loss.
- b. From calculations using analysis Dupont system there are various value changes Net Profit Margin (NPM) and Total Asset Turnover (TATO) which makes ROI value (Du Pont) also underwent changes. These changes are caused by company expenses and inefficient use of assets from year to year so that the company is still less effective in increasing sales and returns on the assets owned by the company. This can be seen from year to year value Earning After Tax (EAT), sales and total assets that have fluctuated or changed. This condition reflects that the company is not good at managing its investment to generate profits. Of the five companies studied, namely PT Bakrie Telekom Tbk, PT Indosat Tbk, PT Smartfren Tbk, PT XL Axiata Tbk, and PT Telekomunikasi Indonesia Tbk, the ROI value (Du Pont) only PT XL Axiata Tbk whose financial performance is quite good because the ROI value (Du Pont) has a dominant value above the company's industry average. So PT XL Axiata Tbk is included in the company whose financial performance is in good criteria.

## 6. SUGGESTION

Based on the conclusions above, it is suggested for each Telecommunications Company listed on the Indonesia Stock Exchange as follows:

- a. Companies are expected to carry out performance evaluations, improve their ability to manage their assets, pay attention to the financial performance of company activities so that the company's financial performance becomes better. Financial performance is not only influenced by the company's internal conditions but also the company's external conditions. Companies must be more aware of social, economic and political conditions because they will have a direct impact on the company's financial performance.
- b. For investors, it is suggested that the results of this research will be an illustration in making decisions in choosing which companies are good for investing, so that investors who want to invest in telecommunications companies are encouraged to invest.
- c. For further researchers it is suggested to expand the research object other than telecommunications companies listed on the Indonesia Stock Exchange, and it is advisable for researchers to add a wider period and sample period so that the research results are maximized. In addition, further research is recommended to use other analytical methods that can be used in measuring the company's financial performance.

## BIBLIOGRAPHY

- [1] Ananda. 2021. "Understanding the Definition, History, Types, and Duties of the Indonesian Stock Exchange". [https://www.gramedia.com/literasi/bursa-effect-indonesia/#What\\_That\\_Bursa\\_Efek](https://www.gramedia.com/literasi/bursa-effect-indonesia/#What_That_Bursa_Efek), accessed on January 13, 2023
- [2] Anwar, M. 2019. Fundamentals of Company Financial Management. golden.
- [3] Arif Rahman Hakim. 2011. "Profile and Role of the Telecommunications Sector in Indonesia". [https://www.academia.edu/7826920/Profil\\_dan\\_Peran\\_Sector\\_Telekomunikasi\\_di\\_Indonesia](https://www.academia.edu/7826920/Profil_dan_Peran_Sector_Telekomunikasi_di_Indonesia), accessed on 2 January 2023

- [4] Arikunto S. 2014. Research Procedures A Practice Approach. Publisher Rineka Cipta. Jakarta
- [5] Bong, V., Panjaitan, F., & Astuti, N. 2020. Analysis of Company Financial Performance Using the Du Pont System Method at Pt Indosat Tbk (2014–2018 Period). *Journal of Business & Financial Accounting*, 7(1), 56-63.
- [6] Cashmere 2013. Analysis of Financial Statements, Fifth Edition, first printing. Jakarta: PT. King of Grafindo Persada.
- [7] Cashmere. 2012. Analysis of Financial Statements. PT. King of Grafindo Persada. Jakarta
- [8] Central Bureau of Statistics. 2021. Indonesia Telecommunication Statistics 2020. <https://www.bps.go.id/>, accessed on 13 January 2023
- [9] Central Bureau of Statistics. 2022. Indonesia Telecommunication Statistics 2021. <https://www.bps.go.id/>, accessed on 13 January 2023
- [10] Dewi, M. 2018. Analysis of the company's financial performance using the du pont system at PT. Indosat, Tbk. *Journal of Accounting Economic Research (JESI)*, 2(2), 117-126.
- [11] Dwiningsih, S. 2018. Analysis of the Du Pont System for Assessing Company Financial Performance (Study of LQ45 Property & Real Estate Companies Listed on the Indonesian Stock Exchange for the 2013-2015 Period). *INOBIIS: Indonesian Journal of Business and Management Innovation*, 1(2), 105-117.
- [12] Fahmi, Irham. 2013. Introduction to Financial Management. Bandung: ALPHABETA
- [13] Fahmi, Irham. 2015. Financial Performance Analysis. London: ALPHABETA.
- [14] Fahmi, Irham. 2017. Financial Performance Analysis. London: ALPHABETA.
- [15] M. Fauzan and D. Rusdiyanti, "ANALYSIS OF FINANCIAL RATIOS TO ASSESS THE FLOW OF FINANCIAL PERFORMANCE VILLAGE-OWNED ENTERPRISES (BUMDES) BERKAH AMANAH (Case Study in Pekan Kamis Village, Tembilahan Hulu District)," *J. Anal. Manage.*, vol. 8, no. 2, pp. 102–117, 2022, Accessed: May 25, 2023. [Online]. Available: <https://ejournal.unisi.ac.id/index.php/jam/article/view/2419>
- [16] Hidayat, Y., Aminah, I., & Novitasari, N. 2019. Assessment of Company Financial Performance Using Du Pont System Analysis Case Studies on Four Telecommunication Companies Listed on the Indonesia Stock Exchange for the 2014-2018 Period. *ACCOUNT: Journal of Financial Accounting and Banking*, 6(2).
- [17] Indonesia Stock Exchange (IDX), <http://www.idx.co.id>, accessed on 10 January 2023.
- [18] Indonesian Accountants Association. 2012. Financial Accounting Standards. Salemba Four. Jakarta
- [19] Listyani, N. N. E., Darmayasa, I. M., & Pradnyani, N. L. S. P. 2022. Analysis of Financial Performance of Manufacturing Companies Using the Du Pont System Analysis Method Case Study of PT. Indofood Sukses Makmur and PT. Mayora Indah Tbk 2016–2020. *JAKADARA: JOURNAL OF ECONOMICS, BUSINESS, AND HUMANIORA*, 1(1).
- [20] Lyn, M. F., & Aileen, O. 2008. Understanding Financial Statements. Index.
- [21] Munawir. 2010. Analysis of Financial Statements. Yogyakarta: Liberty
- [22] Noor, Juliansyah. 2014. Economic & Management Research Data Analysis. Jakarta: PT Gramedia Widia Sarana Indonesia.
- [23] Please, Sofyan Syafri. 2013. Critical Analysis of Financial Statements. First Edition. PT. King of Grafindo Persada. Jakarta.
- [24] Sartono, Agus. 2012. Financial Management Theory and Applications. 4th Edition, Yogyakarta: BPFE Yogyakarta
- [25] Sipahutar, R. P., & Sanjaya, S. 2019. The Effect of Current Ratio and Total Asset Turnover on Return On Assets in Restaurant, Hotel and Tourism Companies Listed on the Indonesia Stock Exchange. *Journal of Accounting And Business Research*, 19(2), 200–211.
- [26] Sudana, I. M. 2015. Theory and Practice of Corporate Financial Management. Erlangga.
- [27] Sugiyono, 2016. Quantitative qualitative research methods and R&D. Bandung : ALPHABETA.

- [28] Sunardi, N. 2018. Analysis of the Du Pont System with the Time Series Approach (TSA) and Cross Sectional Approach (CSA) in assessing company financial performance (studies in the construction industry (BUMN) in Indonesia listed on the IDX in 2013-2017). *Journal of Securities (Stocks, Economics, Finance And Investments)*, 1(4), 1–15.
- [29] Surono, S., Aziz, M. T., & Fitriyah, I. N. 2019. Analysis of the Du Pont System in Measuring the Financial Performance of Companies Listed on the Indonesian Stock Exchange (IDX). *Al-Amwal: Journal of Sharia Economics and Banking*, 11(1), 15-32.
- [30] Utari, D., Purwanti, A., & Prawironegoro, D. 2016. *Management Accounting*. Media Discourse Partners
- [31] Warsono. 2003. *Company Financial Management*. Volume One, Third Edition. Malang: Bayumedia Publishing.
- [32] Weston. J.F., E.F. Brigham. 2004. *Fundamentals of Financial Management I and II* Edition 10. Jakarta: Erlangga
- [33] Zutri, P. A. 2021. *Analysis of the Du Pont System in Measuring Financial Performance in Telecommunication Companies Listed on the Indonesia Stock Exchange in 2013-2019* (Doctoral dissertation)