

# The Influence of Asset Structure and Capital Structure on Firm Value with Asset Productivity and Operating Activities as Mediating Variables

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## Abstract

Investment decisions and funding decisions taken by the company's management are directly related to the objective of financial management, namely maximizing the value of the company. The value of the company is reflected in the price of the company's shares in the capital market. Many studies analyze the effect of investment decisions and funding decisions on firm value. Research results vary. In this study, the authors examine the effect of investment decisions and funding decisions on firm value. The difference between the author's research and previous research is that the author includes the variables of asset productivity and operating activities as mediating variables. The object of research is the consumer goods sector companies listed on the Indonesia Stock Exchange. The form of this research is causality associative research. The research data uses secondary data published by the sample companies. Based on the established criteria, 29 companies representing the consumer goods sector were screened. The results showed that the variables of capital structure, asset productivity, and operating activities can mediate the relationship between investment decisions and funding decisions on firm value.

**Keywords:** Investment Decisions, Funding Decisions, Productivity, Firm Value

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## Introduction

The company's goal is to maximize net income from a set price. Maximizing profit has an effect on the optimal combination of output (product) and input (factors that affect the process of product creation) (Cyert & March, 1963).

Companies that are successful in running their business cannot be separated from three main factors that are required, namely: having quality human resources in all lines or sections, having a broad and good influence with organizations outside the scope of the company, such as suppliers, and having good resources. sufficient funding resources to support successful planning and support operational activities (Brigham & Ehrhardt, 2008).

The quality of human resources directly affects the management of the company, with the ultimate goal of maximizing the value of the company. Problems that are very sensitive in the management of the company are matters that affect the company's financial management. Funding sources can be utilized optimally, if planned and implemented properly. Therefore, decisions in financial management are very important.

The goal of the company is to create value for shareholders Ross et al. (2015). In line with the company's goal to create value for shareholders, there are three questions that must be considered (Ross et al., 2015), namely: (1) How should the company choose the long-term asset investment needed? This question relates to investment and capital budgeting. (2) How

should the company obtain sources of funds to finance its investment? This question relates to the company's capital structure. (3) How should the company manage the short-term cash flow for the company's operations? This question relates to net working capital management.

In its operations, the owner of the company appoints a manager to manage the company. As the appointed agent, the manager should work and be responsible for maximizing shareholder wealth. Maximizing shareholder wealth can be interpreted as maximizing the price of the company's common stock (Brigham & Houston, 2006; Sartono, 2000). Martono & Harjito (2003) say that the company's goals must be viewed comprehensively. The company's goal is to obtain maximum profit for the prosperity of the company owner, maintain the company's survival, and achieve community welfare as a corporate social responsibility. To achieve this goal, the financial management function must be carried out properly. According to Sartono (2000) the function of financial management consists of investment decisions, decisions to fulfill funding needs or spending decisions and dividend policies. Martono & Harjito (2003) say that the financial management function consists of investment decisions, funding decisions, and asset management decisions. Lako (2014) has almost the same opinion, namely investment decisions, financial decisions (financing) and operational decisions.

Much of the research dealing with value creation is linked to investment decisions, funding decisions and dividend policies. The results showed different results. Research on the effect of investment decisions as seen from the company's asset structure on firm value was conducted by Solichah et al. (2019); Al Slehat(2020); Ukhriyawati et al. (2017); Nyamasege et.al. (2014). The results of their research found that asset structure has a positive effect on firm value. Different results were found by Setiadharna & Machali (2017). The effect of capital structure on firm value as studied by Hirdimis (2019); Asif & Aziz (2016); Yundari and Sedana(2020); Chen (2002); Chowdhury (2010) produced a positive influence, but research conducted by Tri (Putri & Rahyunda, 2020; Kodongo et al. 2014; Setiadharna & Machali, 2017).

The results of these different studies are interesting to be researched again. This research examines the effect of asset structure and capital structure on firm value with asset productivity and operating activities as mediating variables. This paper is divided into several segments with the first segment discussing the introduction, the second segment theoretical studies, the third segment research methods, the fourth segment data analysis and discussion, and the fifth segment closing.

### **Theoretical Studies**

Capital structure is basically a mix of debt and capital resulting from funding decisions (Brigham & Gapenski, 1997). The company's sources of funds are divided into two major groups, namely internal sources and external sources of funds such as loans. If the sources of funds are compared with the assets and equity owned by the company, it can be seen the proportion of each source of funds invested in assets. In this study, the capital structure variable is measured by the Total Debt ratio (TDR), which is the ratio of total debt to total assets, the aim is to measure how much assets owned by the company, especially tangible fixed assets, are financed by external sources of funds in the form of debt.

Tradeoff theory explains that as long as the capital structure is still below the optimal capital structure limit, any additional debt will increase the company's performance and value. On the other hand, if the capital structure is already above the optimal capital structure limit, any additional debt will reduce the performance and firm value of Atiyet (2012). From the explanation above, it can be concluded that according to the tradeoff theory, there is a non-

linear influence between the company's capital structure and the company's performance and value.

The free cash flow theory proposed by Jensen (1986) says that managers who have free cash flow tend to seek security by investing excess cash flow in projects with a negative net present value rather than paying it to shareholders. Managers will invest to maintain the company's growth even though the growth does not increase the value of the company. Free cash flow theory also explains that the use of debt in company operations can force managers to work more efficiently in utilizing their assets, so that asset productivity can increase. Thus, it can be said that free cash flow theory predicts a positive influence between capital structure and asset structure and asset productivity.

Asset structure discusses the composition of assets acquired by the company as a result of the policy of allocation of sources of funds. The company's asset structure is divided into two major groups, namely current assets which are the company's working capital for operational activities, and fixed assets which are long-term investments of the company. Riyanto (2013). The purpose of investing in fixed assets is to produce a product that can be sold and sold. support operational activities.

Fixed assets have a very important role for the smooth operation of the company. Companies need to pay extra attention to investment in fixed assets, because the investment value is large and requires a long payback period. Investment in fixed assets carries the risk of uncertainty, because it is related to the future Riyanto (2013). Companies whose business is growing tend to expand by adding fixed assets Riyanto (2013). When the company decides to expand, the company is faced with choosing a funding policy, Harjito and Martono (2013), Riyanto (2013). On the other hand, fixed assets owned by the company can be used as collateral to obtain additional loans. Thus the capital structure and asset structure have a very close relationship with Sudjana et al (2013). In this study, the asset structure variable was measured by fixed assets to total assets (FATA). This indicator shows how big the proportion of the source of funds invested by the company in fixed assets from the company's overall investment. Thus it can be said that the asset structure has a positive influence on the company's capital structure.

The company's funding decisions cannot be separated from the company's life cycle, in addition to the size of the company itself. Closed companies are more likely to use internal sources of funds to fund their operations because obtaining external funding is more difficult and there is a risk of losing control of the company (Damodaran, 2014). But internal funding has its limitations. When internal funding is not sufficient, the company seeks external financing, for example debt financing. The combination of the use of external funding sources and internal funding sources forms the company's capital structure.

Asset productivity is related to the company's ability to produce products with the aim of meeting consumer demand by using various resources owned by the company (Heyzer and Render (2006: 4) The more effective and efficient the company uses available resources, the higher the productivity of these resources.

Assets are an important component of company operations because they support smooth operations. Fixed assets are very important, because they produce products or services that are used to meet consumer needs Harjito & Martono (2013). Investment in fixed assets requires a large source of funds. With limited internal funding sources, the company needs external funding support Harjito & Martono (2013). The use of external sources of funds that are too large can burden the company's finances. For this reason, the effectiveness of fixed asset

investment really needs to be maintained. The effectiveness of the use of fixed assets can be measured using the activity ratio, namely the ratio of fixed assets to total assets (FATO).

The company's business operations are the responsibility of company management. Management is required to be able to run the company's operations effectively and efficiently. If operating activities can be carried out effectively and efficiently, it will directly affect the achievement of the company's operating profit. The effect of the policy on business operating activities is marked by an increase in profit margins. High profit margins indicate that the company is efficient in using its assets and sources of funds. The increase in profit margin will increase the rate of return on investment. Good business operating activities show good company performance Riyanto (2013).

Capital structure is basically a mix of debt and capital resulting from funding decisions (Brigham and Gapenski, 1997: 587). The capital structure describes the company's source of funding for operational activities. In this research, the capital structure is measured by the total debt ratio (TDR) which measures how much the company's debt is borne by the company's assets. The tradeoff theory which discusses the capital structure explains that as long as the use of the company has not reached the optimal point, any additional use of company debt will increase the company's performance and value, on the contrary if the use of debt has exceeded the optimal limit, then any additional debt will actually reduce the financial performance of Atiyet (2012). From this explanation, it is known that there is a relationship between capital structure and financial performance and firm value. The free cash flow theory proposed by Jensen (1986) explains that the use of debt in company operations forces managers to work more efficiently in utilizing their assets. Free cash flow theory predicts a positive relationship between the use of debt and an increase in the productivity of company assets.

The asset structure describes the combination of assets owned by the company, namely current assets and fixed assets. Fixed assets are important assets for companies, because they require large amounts of funds and involve an uncertain future. Riyanto (2013). Companies that are growing rapidly tend to increase their investment in fixed assets. and faced with the policy of selecting funding sources for expansion Harjito and Martono (2013), Riyanto (2013). On the other hand, fixed assets owned by the company can be used as collateral to obtain additional loans. Thus the capital structure and asset structure have a very close relationship with Sudjana et al (2013). Research conducted by Harris & Raviv (1990), Bandyopadhyay & Barua (2016), Byoun (2002), Jaramillo & Schiantarelli (2002), Zare et al. (2013), Khrawish and Khraiweh (2010), and Harc (2015). support this argument, where the results of their research show a positive relationship between asset structure and capital structure.

The main goal of the company is to maximize the value of the business or company. For this reason, every financial decision taken must have an impact on value creation for the company (Damodaran, 2014). Investments in fixed assets aim to generate income and profit for the company. If the investment choice is right, and is efficient in its use, the results obtained will be optimal. Companies that get positive returns from their investments will get a positive response from investors, and can increase the value of the company. This argument is in line with the results of research conducted by Solichah et al. (2019); Al Slehat (2020); Ukhriyawati et al. (2017); Nyamasege et.al. (2014) which shows that there is a positive influence of asset structure on firm value. Therefore, the hypothesis of this research is:

H1: Asset structure has a positive effect on firm value

Companies in operations need external funding sources in the form of debt. This is due to the limited internal sources of funds owned (Damodaran, 2014). In accordance with the

explanation of the tradeoff theory, as long as the use of external funds (debt) has not reached the optimal point, then any additional debt will still provide greater additional benefits, namely between tax savings and financial costs on the other hand. Companies that are developing are more likely to use external funding in the form of debt than external funding in the form of issuing new shares. This is because the cost of using debt is cheaper than issuing shares. This action is a positive signal for investors. Research conducted by Hirdimis (2019); Asif and Aziz (2016); Yundari and Sedana(2020); Chen (2002); Chowdhury (2010) found that capital structure has a positive effect on firm value. Based on this argument, the research hypothesis is:

H2: Capital structure has a positive effect on firm value

Companies that have real fixed assets have a wider opportunity to obtain additional external funding in the form of debt. This is due to the ownership of real fixed assets that can be used as collateral to obtain external funding in the form of debt Gapenski (1999: 641). Companies that are growing fast and adding fixed assets to increase production capacity also need additional external funding in the form of debt. Additional external funding is required due to the limited capacity of internal funding. This argument shows that there is a positive relationship between the increase in asset structure and capital structure. This argument is supported by the results of research conducted by Antoniou et al. (2002), Bandyopadhyay & Barua (2013), Jaramillo & Schiantarelli (2002). Based on this argument, the third research hypothesis is:

H3: Asset structure has a positive effect on capital structure.

Increasing market demand and open market opportunities encourage companies to expand by adding production facilities or expanding the production area. Sartono (2000). Limited capital is an obstacle for the company to expand. To overcome this, companies must seek additional funding using debt financing. The increase in additional debt is in line with the explanation of the free cash flow theory forcing managers to work faster, more effectively and more efficiently to increase the company's income (Harjito and Martono, 2013). Research conducted by Filbeck & Gorman (2001), Jaramillo & Schiantarelli (2002) found a positive effect of increasing capital structure on asset productivity. Therefore, the research hypothesis is:

H4: Capital structure has a positive effect on asset productivity.

Investments in assets aim to increase sales and meet growing demand. The company expands and adds assets when market demand increases and there are opportunities Damodaran (2014). Asset productivity measures how much sales the company's assets can generate. The higher the level of asset productivity, the greater the sales generated by Ross et al. (2015). Thus, increased investment is expected to increase asset productivity which is higher than the percentage increase in investment. Therefore, the hypothesis of this research is

H5: Asset structure has a positive effect on asset productivity.

The increase in product demand forced the company to increase production capacity. The ability of the production equipment owned is limited. For that the company needs to add or expand the production area. The goal is to produce more products to meet demand and maintain a controlled market share. This is the first financial decision, namely an investment decision (Sartono, 2000). Adding and or expanding the production area means that the company adds to the asset structure (Harjito & Martono, 2013). The increase in sales due to additional investment in production facilities will increase operating income. If the additional investment in production facilities is managed effectively and efficiently, each additional sale will increase

the operating profit earned by the company (Brigham and Houston, 2006: 97). This argument shows that there is a positive relationship between the increase in fixed assets and the increase in the company's operating profit. The results of research conducted by Muritala (2012), Olatunji and Adegbite (2014), . Mursalim et al. (2015) proves that there is a positive relationship between asset structure and operating profit. Therefore, the research hypothesis is:

H6: Asset structure has a positive effect on operating activities.

Additional investment in fixed assets with the availability of insufficient internal funding sources, forcing the company to seek additional funds from outside. As long as additional funds from outside parties do not burden the company's finances, external funding is still allowed by Harjito & Martono (2013). The tradeoff theory states that before the use of funds in the form of debt reaches the optimal point, then any additional debt will still provide greater benefits than the costs incurred due to using debt (Harjito and Martono (2013). An increase in the debt ratio in the capital structure will increase the profit earned by the company until the limit for the increase in profits is completely eroded by an increase in debt costs and agency costs. Ross et al. (2015). The results of research by Boroujeni et al. (2013), Chaganti et al. (1997), Mursalim et al. (2015) shows that there is a positive influence between capital structure and operating activities. Therefore, the hypothesis of this study is:

H7: Capital structure has a positive effect on operating activities

Asset productivity describes the company's effectiveness in utilizing its assets to generate sales. If the selection of the type of investment in fixed assets is good, and can be managed effectively and efficiently, the effect will be to increase the sales of the company Sartono (2000). High asset productivity, coupled with efficiency in management, will increase the operating profit of the company Harjito & Martono (2013). Research conducted by Warrad & Al Omari (2015), Muritala (2012) shows the results that asset productivity (FATO) has a positive effect on firm value. Therefore this hypothesis is:

H8: asset productivity has a positive effect on operating activities.

Asset productivity that tends to increase is a positive signal for investors that the company has made good use of its assets. Investors who received a positive signal considered the company to have good prospects for future developments. Thus the company is worth investing in. The more investors who decide to invest in the company's shares will increase the value of the company in the capital market. Research by Bhullar (2017), Chowdhury (2010) shows a positive influence between asset productivity and firm value. Therefore, the research hypotheses formed are:

H9: Asset productivity has a positive effect on firm value.

The value of the company is very dependent on the expectations of investors (the market) on the company's performance. The company's performance is reflected in the final results of operating activities. The final results of operating activities can be traced in the company's financial statements. The financial statements issued by the company become the basis for assessment for investors. If the published financial statements show the company's financial performance is very good, which is characterized by increasing company profits, and bright future prospects for the company, investors will respond by investing in company shares. Investors will react positively to the good performance of the company, thus the value of the company will increase. Research conducted by Bhullar (2017), Sudiyatno et al. (2012), Mursalim et al. (2015) found a positive effect of operating activities on firm value. For this reason, the research hypothesis is:

H10: Operating activity has a positive effect on firm value.

### Methods

The form of this research is causality associative research, the research method is quantitative method by utilizing secondary data in the form of company financial report data published by the company. The place of research is on the Indonesia Stock Exchange with a period of 2010-2018. The population of this study are all consumer goods sector companies listed on the Indonesia Stock Exchange. The sampling technique used was purposive sampling with the criteria of never being delisted or relisting during the analysis period, never changing sectors. Based on the established criteria, the number of samples selected was 29 companies with a study period of 8 years.

To measure variables; In this research, the indicators used are: asset structure using fixed assets to total assets (FATA) ratio, capital structure using total debt ratio (TDR), asset productivity using fixed assets to total assets (FATO) ratio, operating activities using return on investment ratio (ROI). Firm value variable using Tobin's q. The data analysis tool uses path analysis.

### Results and Discussion

Analysis of the direct influence of asset structure, capital structure, asset productivity, and operating activities, company value.

The following table 1 data shows the results of data on the direct influence of asset structure, capital structure, asset productivity, and operating activities and company values in consumer goods sector companies processed using the help of stata software.

Table 1. Test the Direct Influence of Asset Structure, Capital Structure, Asset Productivity, Operating Activity and Company Value on Consumer Goods Sub-Sector Companies

| Hypothesis   | Line              | Standardized Coefficients | Sd. Error         | Z     | p value   |
|--------------|-------------------|---------------------------|-------------------|-------|-----------|
| H1           | FATA → TQ         | 0,3836                    | 1,3600            | 6,19  | 0,000***) |
| H2           | TDR → TQ          | 0,2608                    | 0,7995            | 4,53  | 0,000***) |
| H3           | FATA → TDR        | 0,4085                    | 0,0894            | 7,23  | 0,000)    |
| H4           | TDR → FATO        | 0,1564                    | 2,1994            | 2,66  | 0,008)    |
| H5           | FATA → FATO       | -0,5419                   | 3,4795            | -9,22 | 0,000)    |
| H6           | FATA → ROI        | -0,2070                   | 0,0824            | -3,05 | 0,002)    |
| H7           | TDR → ROI         | -0,3818                   | 0,0458            | -6,38 | 0,000)    |
| H8           | FATO → ROI        | -0,0545                   | 0,0013            | -0,88 | 0,381     |
| H9           | FATO → TQ         | 0,1606                    | 0,0207            | 2,88  | 0,004***) |
| H10          | ROI → TQ          | 0,6756                    | 1,0945            | 12,18 | 0,000)    |
| R21 = 0.1668 | Adj. R21 = 0.1636 | R23 = 0.2489              | Adj. R23 = 0.2431 |       |           |
| R22 = 0.2427 | Adj. R22 = 0.2339 | R24 = 0.3920              | Adj. R24 = 0.3825 |       |           |

Significance level: 10% (\*), 5% (\*\*), 1% (\*\*\*)

Structure 1: TDR = 0.4085 FATA

Structure 2: FATO = -0.5419 FATA + 0.1564 TDR

structure 3: ROI = - 0.2070 FATA - 0.3818 TDR – 0.0545 FATO

Structure 4: TQ = 0.3836 FATA + 0.2608 TDR + 0.1606 FATO + 0.6756 ROI

Table 1 data shows that hypothesis 1 can be accepted, because the coefficient of direct influence of asset structure on firm value is 0.3836 and P value is 0.00 < from a significant value of 0.1. The number 0.386 means that every 1 increase in the asset structure will increase the value of the company by 0.386. The results of the analysis of the second hypothesis, which states that

there is a direct relationship between capital structure and firm value, shows that with a coefficient of 0.2608, a p value of 0.000 indicates a positive influence with a p value below 0.01. The third hypothesis is that the direct effect of asset structure on capital structure is also accepted because the p value is below 0.01. The fourth hypothesis that the effect of capital structure on asset productivity can be accepted with a p value below 0.01. The fifth hypothesis of the effect of asset structure on asset productivity is rejected because the resulting regression coefficient is -0.5419 with a p value below 0.01, which means that every time there is a decrease in asset structure by one unit, it will increase asset productivity by 0.5419. The sixth hypothesis is also not accepted because the regression coefficient shows -0.207 with a p value below 0.01. Hypothesis seven is also unacceptable with a regression coefficient of -0.3818 and a p value of 0.000. Hypothesis eight is also unacceptable because the regression coefficient is -0.0545 even though the p value is above 0.1. Hypothesis Nine is accepted, where the regression coefficient of the relationship between asset productivity and firm value is 0.1606 with a p value of 0.004. And finally, the relationship between operating activities and firm value is acceptable because the coefficient is 0.6756 with a p value less than 0.001.

Adj R21 shows that in the first equation the ability of the asset structure variable to explain the capital structure variable is 16.36 percent, while 83.36% is explained by other variables. adj. The second R2 of 0.2339 shows the ability of the asset structure and capital structure variables of 23.39% while 76.61% is explained by other variables not examined in this article. Adj R23 0.2431 explains that the ability to explain the variables of asset structure, capital structure and asset productivity is 24.31%, while 75.69% is explained by other variables. Adj R24 of 0.3825 indicates that the ability of the variable asset structure, capital structure, asset productivity, and operating activities to explain the firm value variable is 38.25% while the remaining 61.75% is explained by other variables.

Analysis of Indirect Influence Path of Asset Structure, Capital Structure to Company Value With Variable Asset Productivity And Operating Activity As Mediation Variables.

Table 2. Indirect Influence Test Variable Asset Structure and Capital Structure On Company Value With Asset Productivity And Operating Activity As Mediation

| Line                 | Stand.Coef. | Z     | p value   |
|----------------------|-------------|-------|-----------|
| FATA→ROI→TQ          | -0,1399     | 2,958 | 0,012**)  |
| FATA→FATO→TQ         | -0,0871     | 2,749 | 0,005***) |
| FATA→FATO→ROI→TQ     | 0,02        | 0,873 | 0,382     |
| FATA→TDR→ROI→TQ      | -0,1054     | 4,452 | 0,000***) |
| FATA→TDR→FATO→TQ     | 0,0103      | 1,886 | 0,059*)   |
| FATA→TDR→FATO→ROI→TQ | -0,0024     | 0,827 | 0,407     |
| FATA→TDR→FATO        | 0,0639      | 2,496 | 0,012**)  |
| FATA→TDR→ROI         | -0,1560     | 4,783 | 0,000***) |
| FATA→FATO→ROI        | 0,0295      | 0,876 | 0,381     |
| FATA→TDR→FATO→ROI    | -0,0035     | 0,829 | 0,406     |
| TDR→FATO→ROI         | -0,0085     | 0,835 | 0,403     |
| TDR→FATO→TQ          | 0,0251      | 1,954 | 0,051*)   |
| TDR→ROI→TQ           | -0,258      | 5,651 | 0,000***) |
| TDR→FATO→ROI→TQ      | -0,0058     | 0,833 | 0,404     |
| FATO→ROI→TQ          | -0,0368     | 0,877 | 0,380     |

Significance level: 10%\*), 5%\*\*), 1%\*\*\*)

Table 2 data shows that in the first path, the operating activity variable (ROI) can mediate the effect of asset structure (FATA) on firm value (Tobin's q) with a Sobel test value (Z) 2,958 > 1.96. The second path of asset productivity is able to mediate the effect of FATA on Tobin's q with a Sobel test value of 2.749. The third way is the effect of FATA on tobins'q, FATO and ROI variables. Together they are not able to mediate the relationship between FATA and Tobin's q, with the results of the Sobel test only 0.873.

The fourth path of TDR and ROI variables together was able to mediate the relationship between FATA and Tobin's q with a z test score of 0.00. The fifth path of TDR and FATO variables was able to mediate the relationship between FATO and Tobin's q. The results of the Sobel test of 1,886 stated that the TDR and FATO variables were not able to become mediating variables. The sixth path equation with TDR, FATO, and ROI variables as mediating variables for the relationship between FATA and Tobin's q shows no mediating effect where the results of the sixth path equation Sobel test are only 0.827. In path 7, the capital structure variable (TDR) can mediate the relationship between asset structure (FATA) and asset productivity (FATO). The results of the Sobel 2.496 test confirm the role of the capital structure variable as a mediating variable. The 8th row of TDR variables with Sobel test results of 4.783 were able to mediate the relationship between FATA and ROI. Path to 9 FATO variables with Sobel test results of 0.876 were not able to mediate the relationship between FATA and ROI. The 10th path for TDR and FATO variables with Sobel test results of 0.829 were not able to mediate the relationship between FATA and ROI. Path to 11 FATO variables with Sobel test results of 0.835 were not able to mediate the relationship between TDR and ROI variables. Pathway 12 FATO variables with Sobel test results of 1,954 were not able to mediate the relationship between TDR and Tobin's q, although with a significance level of 10%, the p value showed that the FATO variable could be a mediating variable. Path to 13 ROI variables with Sobel test results of 5.651 can be a mediating variable for the relationship between TDR variables and Tobin's q. The 14th path test with FATO and ROI variables as mediating variables was declared unable to mediate the relationship between TDR and Tobin's q, because the results of the Sobel test were only 0.833. The path test to 15 ROI variables with Sobel test results of 0.877 was not able to mediate the relationship between FATO variables and Tobin's q.

What is interesting from the results of this path test is the effect of the FATA variable both on the Tobin's q variable with the TDR, FATO, and ROI variables as mediating variables. Of the several relationship paths tested, although there are 2 paths that show no mediating effect, the results of the regression coefficients show negative results, which means that additional investment in fixed assets is not matched by more effective and efficient utilization so that it is not able to increase operational results and increase value. company. Likewise with the results of the test of the effect of the TDR variable on Tobin's q with FATO and ROI variables as mediating variables, although there are only 2 paths that state there is a mediating effect, but the regression coefficient shows that the use of debt to fund investment in fixed assets in consumer goods sub-sector companies has shows results that are not optimal because the regression coefficient shows negative results, meaning that the additional debt used actually reduces operational results and firm value.

Table 3. Total Indirect Effect & Total Effect

| Line                     | Indirect Effect |       |         | Total Effect |       |         |
|--------------------------|-----------------|-------|---------|--------------|-------|---------|
|                          | Std. Coef.      | Z     | P value | Std. Coef.   | Z     | P value |
| <b>FATA → TDR → FATO</b> | 0,0639          | 2,5   | 0,0130  | -0,4780      | -8,79 | 0,0000  |
| <b>TDR → FATO → ROI</b>  | -0,0085         | -2,66 | 0,0080  | -0,3904      | -6,52 | 0,0000  |

|                                  |         |       |        |        |       |        |
|----------------------------------|---------|-------|--------|--------|-------|--------|
| <b>FATA→TDR→FATO→ROI</b>         | -0,1299 | -2,76 | 0,0060 | -0,337 | -5,78 | 0,0000 |
| <b>TDR → FATO → ROI → TQ</b>     | -0,2386 | -5,81 | 0,0000 | 0,0223 | 0,31  | 0,753  |
| <b>FATO → ROI → TQ</b>           | -0,0368 | -0,88 | 0,3810 | 0,1238 | 1,77  | 0,0760 |
| <b>FATA<br/>→TDR→FATO→ROI→TQ</b> | -0,1979 | -3,69 | 0,0000 | 0,1857 | 3,05  | 0,0010 |

Table 3 shows the results of data processing on the total indirect effect and the total effect of asset structure variables on firm value with capital structure, asset productivity, and operating activities as mediating variables.

In the first path, the effect of asset structure (FATA) on asset productivity (FATO) with capital structure (TDR) as a mediating variable in the indirect effect test shows a mediating effect with a P value of 0.013. A positive regression coefficient of 0.0639 indicates that an increase in asset structure will have a positive impact on asset productivity, but if you look at the total effect of the influence of FATA on FATO with the TDR variable as a mediating variable, it produces a negative effect. This is explained by the total effect coefficient which is -0.478 with a P value of 0.00.

In the results of the second path test, the indirect effect of the TDR variable on ROI with the FATO variable as the mediating variable resulted in a P value of 0.008, which means that the FATO variable was able to mediate the relationship between TDR and ROI. The total effect test results confirm the total indirect effect test results, where the P value of the total effect test results is 0.00 with a regression coefficient of -0.3904. The negative regression coefficient indicates that the use of debt in the consumer goods sector is already high and does not provide additional benefits, so that increasing debt actually reduces ROI. Asset productivity that is not maximized makes the negative effect of increasing debt higher.

The third path test of the indirect effect of FATA on ROI with TDR and FATO as mediating variables resulted in a regression coefficient of -0.1299 and a P value of 0.006 indicating that the TDR and FATO variables together were able to mediate the effect of FATA on ROI. The measurement of the effect of the total effect confirms the results of the indirect effect measurement, because the resulting regression coefficient is -0.337 with a P value of 0.00. The regression coefficient which is negative indicates that investment in fixed assets in the consumer goods sector is already at the over-investment level, so that an increase in fixed asset structure actually reduces operating results (ROI). The high debt burden and suboptimal asset productivity further reduce the operating results (ROI).

The fourth path measurement of the indirect effect of total TDR on Tobin's q with FATO and ROI variables as mediating variables resulted in a coefficient of -0.2386 and a P value of 0.00 which means FATO and ROI were able to mediate the effect of TDR on Tobin's q. The negative regression coefficient shows that consumer goods sector company debt is quite high, coupled with non-optimal asset productivity and less than optimal ROI, which causes the value of the company to decline. Measurement of the total effect of TDR on Tobin's q with FATO and ROI as mediating variables resulted in a P value of 0.753 which means that in total FATO and ROI were not able to mediate the effect of TDR on Tobin's q. The positive total effect regression coefficient indicates that the effect of the use of debt can still have a positive impact on the increase in firm value even though it is not significant.

Testing the 5th path of the indirect effect of FATO on Tobin's q with ROI as the mediating variable resulted in a regression coefficient of -0.0368 with a P value of 0.3810, which means that the ROI variable was not able to mediate the effect of FATO on Tobin's q. A negative coefficient indicates that an increase in FATO will reduce firm value. This can happen if to

achieve an increase in sales the company incurs very large operating costs, so it does not increase the company's profits, and this is a bad signal for the market. In testing the effect, the total coefficient produced is 0.1238 with a p value of 0.076, which means at a significance level of 10%, the ROI variable can still be a mediating variable for the effect of FATO on ROI. The total effect regression coefficient, which is positive, indicates that the productivity produced by the consumer goods sector is still able to give a positive signal to investors and can still increase the value of the company.

The final path test of the indirect effect of FATA on Tobin's q with TDR, FATO, and ROI as mediating variables resulted in a regression coefficient of -0.1979 and a P value of 0.00, which means that TDR, FATO, and ROI variables were able to mediate the effect of FATA on Tobin's q. . The regression coefficient which is negative indicates that the company's investment in fixed assets has reached a large amount, then the use of debt which is high enough to fund investment in fixed assets, as well as productivity that is not optimal, reduces the company's performance, so that the value of the company does not increase. In the total effect test, the resulting regression coefficient is 0.1857 with a P value of 0.001 which means that in total the TDR, FATO, and ROI variables are able to become mediating variables for the effect of FATA on Tobin's q.

Investment decisions and funding decisions taken by management are in line with the explanation of signaling theory, will be a positive signal for investors if managed properly and correctly. The results of testing data with samples of consumer goods sector companies listed on the Indonesia Stock Exchange show that there is a mediating effect of TDR, FATO, and ROI variables in the relationship between FATA and Tobin's q. Companies that are developing due to increasing consumer demand will try to add fixed assets to increase production capacity. In accordance with the explanation of the pecking order theory which says that if internal funding sources are insufficient, the company will seek external funding, namely increasing debt. In the consumer goods sector, the increase in the company's fixed assets was followed by an increase in the company's debt ratio.

The increase in the company's debt ratio (TDR) is in accordance with the explanation of the free cash flow theory which says that additional debt in the company's operations will force management to work harder and more efficiently in order to generate greater income. In testing using data from companies in the consumer goods sector, it shows that the effect of capital structure on asset productivity produces a coefficient of 0.2564 with a P value of 0.008 which indicates there is a positive effect of increasing capital structure on asset productivity. The effect of all this is to increase the company's financial performance which then becomes a positive signal for investors.

## **Conclusion**

From the results of data processing using a sample of manufacturing companies in the consumer goods sector, it is known that investment decisions in fixed assets as reflected by FATA affect the creation of company value. Investors pay attention to the company's fixed asset investment associated with the selection of funding sources used to fund the investment.

In addition to the accuracy of investment decision making, and the selection of funding sources, productivity is also the key to obtaining maximum performance. Companies that can utilize

their assets well and utilize funding sources optimally, their financial performance will be good and be a positive signal for investors. mediating variable for firm value (tobin's q).

### Limitations

The limitations of this research are the variables of this study, which are only limited to fixed asset investment decisions, without highlighting the use of working capital assets in the company's operations. Another limitation is the object of research, where the author only uses data from the manufacturing sector of the consumer goods sector, so that the results of the study cannot describe the general condition of the industry.

### Recommendation

To produce a better research, the authors can consider the replacement of variables in the study. Further researchers can examine from the point of view of working capital, and expand the object of research

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