

# Profitability, Firm Size, and Capital Structure As A Determinant on the Firm Value

<sup>1\*</sup>Dian Primanita Oktasari,

<sup>1</sup>Departement of Management, Universitas Mercu Buana, Indonesia

**Abstract:** This study aims to analyze profitability, company size and capital structure on firm value. The population in this study is the food and beverage sub-sector companies listed on the main board on the Indonesia Stock Exchange. The sample used is as many as 60 samples based on 10 companies for the 2014-2019 period. The sampling method used was purposive sampling. The data analysis method used descriptive method and panel data regression.

The results of the research on profitability and firm value do not have a significant effect on capital structure. Profitability and capital structure have a significant positive effect on firm value. Firm size has no positive effect on firm value.

**Keywords:** Profitability, company size, capital structure, firm value.

## I. INTRODUCTION

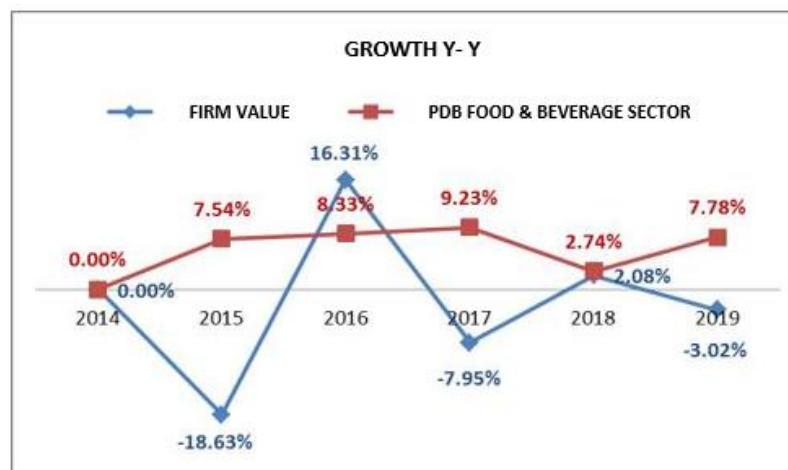
The main goal of maintaining the management of the management is often defined is to increase the degree of integrity of the handlers of sadism (Sharia, 2014). Firm value is very important because of the high firm value will be followed by the high level of stock holders (Bringham&Ganckis, 2019).

Investors in making investment breakdowns in the capital market require information about the same value. The higher the price of the friend is the higher the value of damage. A high firm value reflects the desire of the owner of the company because high values indicate the wealth of the same holders.

Firm value can be increased from the price of a problem, the price of high shares is that the firm value is also high and the price is high. Price shares the source of information for investors.

The growth of the management value of the food and drink sub-sector is not yet fully defined. The reason is that the rate varies while the firm value change from the primary to the primary level still hasn't been able to achieve a high level of gross drinking and a fairly high growth rate.

Figure 1.1  
GRAPHIC OF ADVANCED STAGE OF GROWTH GROWTH OF GDP SECTOR MANAGING AND DRINKING WITH FIRM VALUE YEAR 2014-2019



*Source: Processed Data (2020)*

From the phenomenon of showing that the sub-sector's destruction of food and drink in 2014-2019 has fluctuated quite drastically. In line with this, practice of the firm value perception is not easy and requires a long enough time to maintain a real firm value.

The distraction will affect the balance of its power such as dividend disruptions, investment disruptions and loss of control over the modality structure. In fact, from the distribution of funding, there are always too many issues related to the choice and combination of funding.

A decline in firm value followed by a debt equity ratio (DER) is predicted to have an impact, as the previous research carried out by Ganjang (2019), Hirdinis (2019) and Dahar (2019) that the capital structure has a strong influence on firm value. In accordance with the capital structure theory, which shows how the capital structure affects the firm value. The capital structure theory used in this research is by testing the hypothetical pecking order theory and balancing theory.

Profitability, which is measured by ROA, is often referred to as economic stability, which supplies information to a certain degree of efficiency.

The existence of fluctuating rates of profitability is not comparable to the decrease in the capital structure. Chen (2019) and Chandra (2014) reveal that profitability has a positive influence on the capital structure, while Oino (2019) revealed that the profitability of the modality structure varies.

Dewi (2013) reveals that the size of the damage is determined from the total assets that are owned by the company, which can be used for the operation of the operations. It was revealed by Chandra (2019) that the size of the destruction has a detrimental effect on the capital structure. While Dhatar (2019) differed that the size of the damage did not affect the value of the damage.

## II. LITERATUR REVIEW

### Agency Theory

According to Ulum (2015), Signaling Theory is basically concerned with the decrease in information asymmetry between two parties. A signal can be an action that can be observed and can provide beneficial information for the signaler, the purpose of this is to convince investors about the value of the company. A good signal is one that no other company with a low value can imitate, because of the cost factor.

According to Cahyani (2018), information published as an announcement will provide a signal for investors in making investment decisions. When information is announced, market participants first interpret and analyze the information as a good signal (good news) or a bad signal (bad news). If the announcement of this information is considered a good signal, investors will be interested in trading shares, thus the market will react as reflected by changes in the trading volume of shares.

### Capital Structure Theory

#### a) Trade off Theory

It is a capital structure theory which states that companies exchange tax benefits from debt financing with problems caused by the potential for bankruptcy (Brigham and Houston, 2019).

#### b) Pecking Order Theory

It is a theory that describes a level in the search for company funds which shows that companies prefer to use internal equity in financing investment and implement it as a growth opportunity. This theory states that companies prefer internal funding to external funding, secure debt compared to risky debt and the last is common stock (Myers & Majluf, 1984 in Sugiarto 2009). It can be said in this theory that companies with high levels of profitability are in fact low levels of debt because companies with high profitability have abundant internal sources of funds.

### Firm Value

According to Suad (2015) Firm Value Is The Price A Prospective Buyer Is Willing To Pay If The Company Is Sold. Firm Value Can Be Reflected In The Company's Stock Price, A High Stock Price Indicates A High Firm Value. Firm Value Can Provide Maximum Prosperity For Shareholders If The Company's Share Price Continues To Increase.

### Firm Size

Firm size describes the size of a company which can be expressed by total assets or total net sales. The greater the total assets and sales, the greater the size of a company. The bigger the assets, the greater the invested capital (Mardiyati et al., 2014).

Firm size has an important effect on the relationship in every part of the company, because the size of a large company has a larger source of supporting funding than a small company. In a small company. Total assets are considered to most reflect the size of the company in relation to shares which will later be related to profits which will affect the company's debt policy (Pradhana et al., 2014).

According to Sugiyono (2013), the hypothesis is a temporary answer to the research problem formulation. The purpose of doing a hypothesis is to find out how much will be done in solving certain problems. Based on the analysis framework above:

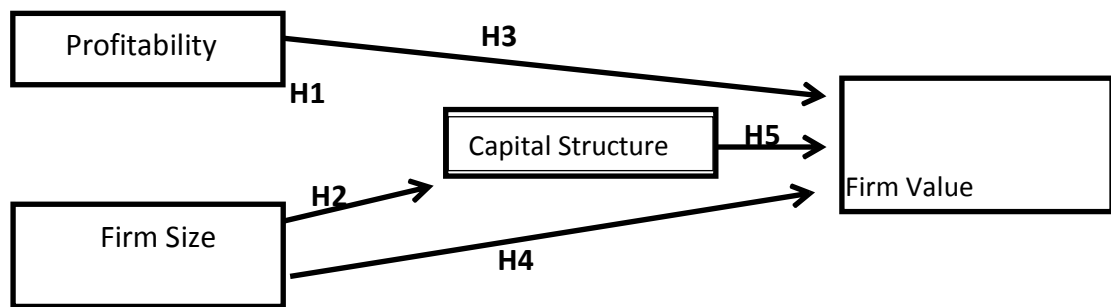


Figure 1. Research Conceptual Framework

H1: Profitability affects the capital structure

H2: Firm size affects the capital structure

H3: Profitability affects firm value

H4 :Firm size has an effect on firm value

H5 :Capital structure affects firm value

### III . RESEARCH METHODE

This research is a quantitative study which aims to determine the pattern of the causal relationship between the independent variable and the dependent variable. The use of this causal explanatory method is in accordance with the research objectives to test the hypothesis that tests the relationship and influence between the variables studied. The choice of this type of research is in accordance with the research objectives to determine whether profitability, firm size, and capital structure affect firm value.

### IV. RESULT

#### Descriptive Statistics

The type of data used in this research is panel data, which is a combination of time series and cross section data. Annual time series data for the period 2014 to 2019. The cross section includes ten food and beverage sub-sector companies that publish complete financial reports. Based on the availability of data from the annual report of the food and beverage sub-sector companies, as many as 40 data, the data is considered to be representative.

Table 4.1 Descriptive Statistics

	Y1 (Tobin's Q)	X1 (ROA)	X2 (Size)	Y2 (DER)
Mean	3.250310	0.118620	29.24328	0.972337
Median	2.907203	0.100019	28.71940	0.978818
Maximum	12.41954	0.526704	32.20096	3.028644
Minimum	0.373119	-0,056653	27.62294	0.163544
Std. Dev.	3.104371	0.120419	1.414235	0.620740
Skewness	1.961088	1.451192	0.810838	0.593981
Kurtosis	6.115219	5.110185	2.445040	3.252353
Sum	195.0186	7.117229	1754.597	58.34019
Sum Sq. Dev.	568.5900	0.855545	118.0036	22.73379
Observations	60	60	60	60

Source: Output Eviews 11, 2020

Based on the results of the statistical description table, it is known that the number of observations in this study was 60. The average value of the firm value proxied by Tobin's Q score in this study was 3,250310. The average value of the DER in this study amounted to 97.2337%. The average value of ROA in this study is 11.8620%. Firm size represented by the highest ln assets in this study amounted to 32,20096.

Model Selection Test

a) Chow test

Table 4.2 Chow test model 1

Effects Test	Statistic	d.f.	Prob.
Cross-section F	23.248013	(9,48)	0.0000
Cross-section Chi-square	100.726671	9	0.0000

Source: Output Eviews 11, 2020

Based on table 4.2, the probability in Cross-section F shows that the P-value is smaller than 0.05, so H1 is accepted and H0 is rejected, which means that it can be concluded that the Fixed effect model is more appropriate for model 1.

Table 4.3 Chow test model 2

Effects Test	Statistic	d.f.	Prob.
Cross-section F	17.030173	(9,37)	0.0000
Cross-section Chi-square	81.876718	9	0.0000

Source: Output Eviews 11, 2020

Based on table 4.3 above, the probability in Cross-section F shows that the p-value is smaller than 0.05, so H1 is accepted and H0 is rejected, which means that a temporary conclusion can be drawn that the Fixed effect is more appropriate for model 2.

b) **Hausman test**

**Table 4.4 Hausman test model 1**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.373689	2	0.5032

Source: *Output Eviews 11, 2020*

The results of the Hausman test show that the probability of chi square is  $0.5032 > 0.05$ , so that H0 is accepted and H1 is rejected. The provisional conclusion is that the random effect model is more appropriate for model 1.

**Table 4.5 Hausman test model 2**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	14.032564	3	0.0029

Source: *Output Eviews 11, 2020*

The results of the Hausman test show that the probability of chi square is  $0.0029 < 0.05$ , so that H0 is rejected and H1 is accepted. The conclusion is that the Fixed effect model is more appropriate for model 2.

c) **Lagrange Multiplier (LM)**

**Table 4.6 LM Model 1**

Test Hypothesis			
	Cross-section	Time	Both
Breusch-Pagan	55.74256	0.333217	56.07578
	(0.0000)	(0.5638)	(0.0000)

Source: *Output Eviews 11, 2020*

The output results above show the Breush-Pagan Probability (BP) value of 0.0000. The hypothesis is that if the Breush-Pagan Probability (BP) is smaller than alpha ( $0.0000 < 0.05$ ) then H0 is rejected and H1 is accepted, so the correct model 1 in the above result is random effects.

**Panel Data Regression Analysis Results**

Based on the previous model selection test, the Random Effect Model has been selected 2 (two) times in model 1 (one), namely the Hausman test and the Lagrange Multiplier (LM) test, while the Fix Effect Model was only selected in the Chow test. In model 2 (two) the Fixed Effect Model has been selected 2 (two) times, namely the Chou test and the Hausman test. Meanwhile, the Common Effect Model in the test was not selected at all. Thus it can be concluded that of the three models (Common Effect Model, Fix Effect Model and Random Effect Model), the Random Effect Model is better at interpreting panel data regression in model 1 (one) while the Fix Effect Model is better at interpreting panel data regression in the model. 2 (two) to answer this research.

**Table 4.7 Results of panel data regression Model 1**

Dependen Variable: LOGY2				
Method: Panel EGLS (Cross-section random effects)				
Date: 04/03/20 Time: 14:57				
Sample: 2014 2019				
Periods included: 6				
Cross-sections included: 10				
Total panel (balanced) observations: 60				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.585211	4.046466	1.874527	0.0660
X1	-1.596592	0.945471	-1.688673	0.0967
X2	-0.262856	0.137991	-1.904883	0.0618
Effects Specification				
			S.D.	Rho
Cross-section random			0.864152	0.8951
Idiosyncratic random			0.295866	0.1049
Weighted Statistics				
Root MSE	0.293341	R-squared		0.098847
Mean dependen var	-0.040277	Adjusted R-squared		0.067228
S.D. dependen var	0.311619	S.E. of regression		0.300962
Sum squared resid	5.162948	F-statistic		3.126165
Durbin-Watson stat	0.627880	Prob(F-statistic)		0,051493
Unweighted Statistics				
R-squared	-0.206565	Mean dependen var		-0.290957
Sum squared resid	45.87585	Durbin-Watson stat		0.070663

Source: Output Eviews 11, 2020

the panel data regression equation is obtained as follows:

$$\log Y_2 = 7,585211 - 1,596592X_1 - 0,262856X_2 + \varepsilon$$

**Table 4.8 Results of panel data regression Model 2**

Dependen Variable: Y1				
Method: Panel Least Squares				
Date: 04/03/20 Time: 13:56				
Sample: 2014 2019				
Periods included: 6				
Cross-sections included: 10				
Total panel (balanced) observations: 60				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19.16285	9.744818	1.966466	0,0552
X1	11.82876	1.799551	6.573171	0.0000
X2	-0.616086	0.331009	-1.861237	0.0690
Y2	0.720644	0.242793	2.968138	0.0047
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE	0.438111	R-squared	0.979746	
Mean dependen var	3.250310	Adjusted R-squared	0.974574	
S.D. dependen var	3.104371	S.E. of regression	0.495006	
Akaike info criterion	1.620642	Sum squared resid	11.51645	
Schwarz criterion	2.074417	Log likelihood	-35.61927	
Hannan-Quinn criter.	1.798138	F-statistic	189.4570	
Durbin-Watson stat	1.788988	Prob(F-statistic)	0.000000	

Source: *Output Eviews 11, 2020*

the panel data regression equation is obtained as follows:

$$Y1 = 19.16285 + 11.82876X_1 - 0.616086X_2 + 0.720644Y_2 + \varepsilon$$

**Table 4.9 Test Result Table**

Kode	Hubunganantarvariabel	T Statistik	P Value	Keterangan
H <sub>1</sub>	Profitability→capital structure	-1,6886	0,0967	Not significant
H <sub>2</sub>	Firm size → capital structure	-1,9048	0,0618	Not significant
H <sub>3</sub>	Profitability → firm value	6,5731	0,00000	<b>Positif Signifcant</b>
H <sub>4</sub>	Firm size → firm value	-1,8612	0,0690	Not significant

H <sub>5</sub>	capital structure → firm value	2,9681	0,0047	Positif significant
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### Adjusted R Square

Based on the test, it shows that the Adjusted R Square shows the level of the model's explanation for the dependent variable of 0.067228 or 6.7228%.  $100\% - 1.3433\% = 93.2772\%$ . So the rest is 0.932772 or 93.2772% influenced by other variables outside the model. Thus the independent variables, namely company size and profitability, have an influence on the capital structure of 6.7228%.

### Discussion

#### 1. The Effect of Profitability on Capital Structure

From the test results it can be seen that the significance level (p-value) of profitability is 0.0967 ( $> 0.05$ ). The test results show that the first hypothesis (H1) which states that there is no effect of profitability on the capital structure (H1) is rejected, so profitability has no effect on capital structure.

The results of the study are not in line with Fei (2019) and Bilgin (2019) which concluded that profitability has a significant negative effect on capital structure. Based on the analysis in this study, it can be stated that the company does not consider the amount of profitability obtained in determining its capital structure policy because the company has determined the capital structure according to the amount of withdrawals and capital issued due to the use of profits to support the company's operations.

#### 2. The Effect of Firm Size on Capital Structure

From the research results, it can be seen that the level of significance (p-value) of the firm size is 0.0618 ( $> 0.05$ ). The test results indicate that the second hypothesis (H2) which states that there is an effect of company size on capital structure (H2) is rejected. The results of the study are in line with Sethiadarma (2017) which states that there is no influence of company size variables on capital structure.

The results of this study indicate that a large firm size will not affect the capital structure of the company because a large firm size indicates that the firm has a large internal source of funds or retained earnings, so that the firm is able to finance the investment with the funds it collects.

#### 3. The Effect of Profitability on Firm Value

From the test result, it can be seen that the level of significance (p-value) of profitability to firm value as proxied by Tobin's Q Score is 0.0000 ( $< 0.05$ ). The test results show that the third hypothesis (H3) which states that there is an effect of profitability on firm value (H3) is accepted, then profitability has a positive effect on firm value. The results of the study are in line with previous research conducted by Ganang (2019) and Dahar (2019) and Dewi (2013) which show that the profitability variable has a positive effect on firm value.

If the company gets a high level of profit, it will attract investors' interest in investing in the company, this kind of thing is also a positive signal received by investors that a company that gets a high profit rate means that the company has good prospects in the future. will come which will affect the rate of return on investment. The more investors who are attracted to the company, the more the company's stock price will increase, which reflects the company's high value. In this study it can also be concluded that profitability is one of the things that investors pay attention to in determining the value of a company, therefore company managers should further improve company performance to get a high level of profitability.

#### 4. The Effect of Firm Size on Firm Value

From the research results, it can be seen that the level of significance (p-value) of the firm size is 0.0690 ( $> 0.05$ ). The test results indicate that the fourth hypothesis (H4) which states that there is an effect of firm size on firm value (H4) is rejected. The results of this study are in line with Hirdinis (2019) which states that there is no effect of company size on firm value.

In this case, investors in the food and beverage sub-sector company do not really care about the size of the company whether it has large assets or small assets as long as the company is generating profits, where the main objective of a company is to make a profit. These investors will look more at various other aspects such as paying attention to the company's performance, which can be seen in the company's financial statements, which can be in the form of profitability or the capital structure used. Based on the research results, firm size large or small will not be able to influence firm value.



### **5. The Effect of Capital Structure on Firm Value**

From the test results, it can be seen that the level of significance (p-value) of the capital structure on firm value is 0.0047 (<0.05). The test results show that the fifth hypothesis (H5) which states that there is an effect of profitability on firm value (H5) is accepted, then the capital structure has a positive influence on firm value. The results of the study are in line with previous research conducted by Hirdinis (2019), Ganang (2019) and Dahar (2019) and Mujdidah (2019) which show that capital structure variables have a positive effect on firm value.

This shows that if the company increasingly uses long-term debt to finance its assets, it can increase company value. This is in accordance with the Trade off theory where companies can take advantage of debt while the benefits (tax savings and other costs) are compared with the sacrifice (paying interest). In addition, it is also in accordance with the Signaling theory which states that when a company uses internal funds to fund its business it will be seen by investors as a significant positive signal because investors' perceptions when a company uses debt mean that the company has the ability to increase capacity and pay off debt.

## **V. CONCLUSION**

Based on the results of the research and discussion that has been done, it can be concluded as follows: profitability has no significant effect on the capital structure of the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2014-2019 period; Firm size a significant effect on the capital structure of the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2014-2019; Profitability has a positive and significant effect on firm size in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2014-2019; Firm size has no significant effect on firm value in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2014-2019; The capital structure has a positive and significant effect on firm value in the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2014-2019. These results indicate that each increase in capital structure increases firm value.

## **REFERENCES**

- [1] Bilgin, R. & Dinc, Y. (2019). Factoring as a determinant of capital structure for large firms: Theoretical and empirical analysis. *Journal of Management*. Borsa Istanbul, DOI:10.1016/j.bir.2019.05.001
- [2] Bringham, E. F. & Huston, J. F. (2019). *Fundamentals of Financial Management*, Edisi Kelima Belas, Cengage, Boston.
- [3] Badan Pusat Statistik, Produk Domestik Bruto tahun 2010-2018. (diakses di <http://www.bps.go.id>)
- [4] Bursa Efek Indonesia, Laporan keuangan Tahunan 2014, 2015, 2016, 2017 dan 2018. (diakses di <http://www.idx.co.id>)
- [5] Chandra, T. (2019). The effect of capital structure on profitability and stock returns Empirical analysis of firms listed in Kompas 100, DOI:10.1108/JCEFTS-11-2018-0042
- [6] CNN Indonesia. 2015 Investasi Anjlok, Industri Makanan Menaruh Asa pada 2016. (diakses di <http://www.CNN>).
- [7] Dahar, R., Yanti, N.S.P. & Rahmi, F. (2019). Pengaruh Struktur modal, Ukuran Perusahaan dan Equity Terhadap Nilai perusahaan Property and Real Estate yang Terdaftar di Bursa Efek Indonesia. *Jurnal Manajemen Keuangan*, 21.
- [8] Erawat, L. & Dewi, A.S. (2018). Peran Profitabilitas sebagai Variabel Intervening dan pengaruh Struktur Modal Terhadap Nilai Perusahaan. *Jurnal Manajemen keuangan*.
- [9] Ganang D. P., (2019). The Effect of Leverage and Capital Structure on Company Value With Profitability As Mediation Variable. *Journal of Financial Management*.
- [10] Ghozali, I., & Ratmono, D. (2018). *Analisis Multivariant dan Ekonometrika: Teori, Konsep dan Aplikasi dengan Eviews 10*. Cetakan II, Bdan Penerbit- Undip, Semarang.
- [11] Goh, C.F., Tai, W.Y., Rasli, A., Tan, O.K. & Zakoan, N. (2018). The Determinants of Capital Structure: Evidence from Malaysian Companies. *Journal of Financial management*, 7(3). ISSN: 2050-7399.
- [12] Hamidah (2019). *Manajemen keuangan*, Edisi Asli, Mitra Wacana Media, Jakarta.
- [13] Hartono, J. (2015). *Teori Portifolio dan Analisis Investasi*, BPFE, Yogyakarta
- [14] Hirdinis, M. (2019). Capital Structure and Firm Size on Firm Value Moderated by Profitability, 7.
- [15] Husnan, Suad, (2015). *Dasar-dasar Manajemen Keuangan*, Edisi ketujuh, UPP STIM YKPN, Yogyakarta.
- [16] Irham F. (2017). *Analisis laporan Keuangan*, Alfabeta, Bandung.
- [17] Kasmir (2019). *Pengantar manajemen Keuangan*, Edisi Kedua, Kencana, Jakarta.

- [18] Mudjija, S., Khalid, Z. & Astuti, D.A.S. (2019). Pengaruh Kinerja Keuangan dan Struktur Modal Terhadap Nilai Perusahaan yang Dimoderasi Variabel Ukuran Perusahaan. 8(1).
- [19] Riny, (2018). Analisis Faktor-faktor yang Mempengaruhi Nilai Perusahaan Pada perusahaan Consumer Goods yang Terdaftar di Bursa Efek Indonesia. 8(2). ISSN 2622-6421
- [20] Sarinah & Mardalena (2017), Pengantar Manajemen, Edisi Pertama, Deepublish, Yogyakarta.
- [21] Sartono, A., (2012). Manajemen Keuangan Teori dan Aplikasi. Edisi 4. BPFE. Yogyakarta.
- [22] Setiadharna S. & Machali M. (2017). The Effect of Asset Structure and Firm Size on Firm Value with Capital Structure as Intervening Variable, 6, DOI: 10.4172/2167-0234.1000298
- [23] Sriyana, J. (2014). Metode regresi Data Panel, Edisi Pertama, Ekonisia, Yogyakarta.
- [24] Sugiono, A., & Untung, E. (2016). Panduan Praktis Dasar Analisa Laporan Keuangan,, Grasindo, Jakarta.
- [25] Sugiyono, (2017). Metode Penelitian Kualitatif, Kuantitatif dan R&D, Alfabeta, Bandung.
- [26] Sujarweni Wiratna, V. (2019). Metodologi Penelitian, Pustakabarupress, Yogyakarta.
- [27] Suprihanto, J., (2014). Manajemen, Gajah Mada University Press, Yogyakarta.