Analysis of Value Drivers on Company Value
(A Case in Manufacture Industry Sector which Performs Hedging in Foreign Currency Derivative during COVID-19 Pandemic)

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Abstract
This research aimed to establish and analyze influence of value drivers (sales growth, operation profit, fixed asset investment, work capital investment, and capital cost) partially and simultaneously on company value which performed hedging in foreign currency derivative during COVID-19 pandemic.
Population in this research was manufacture industry sector registered in Indonesian Stock Exchange, in total of 693 companies with 11 company samples. The samples were taken using purposive sampling method. Moreover, technique of analysis used was panel data regression analysis. T Test and F Test were used to test hypothesis.
Results of this research were (1) Sales Growth partially had positive and significant influences on Company Value. (2) Operation Profit partially had positive and significant influences on Company Value. (3) Fixed Asset Investment partially have insignificant and negative influences to the Company. (4) Work Capital Investment partially had positive and significant influences on Company Value. (5) Capital Cost partially have insignificant and negative influences to Company Value. (6) Sales Growth, Operation Profit, Fixed Asset Investment, Work Capital Investment, and Capital Cost as value drivers model simultaneously had positive and significant influences on Company Value.
Key Word :   Value drivers, Sales Growth, Operation Profit, Fixed Asset Investment, Work Capital Investment, Capital Cost, Company Value.

I.   Introduction

1.1. Background

Company value optimization is company's objective which can be achieved through financial management function, where the financial decision taken will affect other financial decisions and influence company value. Van Home and James (1995) argue that company value indicated by company shares price which represented investment decision, financing, and dividend. The higher shares price, the higher company value. Otherwise, the lower shares price, the lower company value. Company value is closely related to shares price in market, company's liability, and all company's assets which can be represented with Tobin's Q.

Companies which runs in manufacture industry within economy world are the companies which perform many international trades, where a company does an export to buy raw material with low price from another company in another state or does an import to sale their products to another state as well as expand their business. Therefore, in order to protect their products or assets from foreign currency exposure, manufacture companies tend to do hedging strategy. In this global condition, manufacture companies experience the impacts of COVID-19. Impacts experienced by manufacture companies in Indonesia are the limited access to import raw material supply from overseas and the decrease of purchasing index during COVID-19 pandemic. Minister of Industry, Agus Gumiwang Kartasasmita, admits that Purchasing Managers' Index/PMI) of Indonesian companies decreases in the first quarter of 2020. It is influenced by COVID-19 which spread in many regions and brings on inevitably utility decrease of manufacture industry in many sectors. Several industries experience production decrease up to 50 percent, except for medical equipment and medicine industries.

The importance of company's capability to create company value in this free market era during current pandemic is relating to various information, such as information to depict company's performance and used as assessment for their competency or success in creating additional value. In order to create company value, it needs variables, which give effect to the company value itself, can be controlled and affected by management party or known as value drivers. Hando, et al (2012) defines value drivers as variables which have significant impact on value creation. Value drivers can help to focus attention to certain variable which affect value improvement. Based on Rappaport model (1998) and Winarto research (2014), several financial value drivers

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models used in this research are sales growth, operation profit, fixed asset investment, capital work investment, and capital cost.

In Winarto Aditama research (2014), it is found that sales growth, operational profit, and capital cost are positively and significantly influence company value; meanwhile, fixed assets investment and work capital investment have no influence on company value. The research result is different with research by Fitriasari (2011) who finds that sales growth, operational profit, fixed assets investment, and work capital investment partially influence shares price. Thus, these variables can increase shareholders value along with company value since shareholders gain satisfaction. Yet, capital cost is not capable to increase shareholders value. Research by Fitriasari and Aditma also shows different result with research by Anita Kiss (2015), it is found that EBIT, Reinvestment, Invested Capital, The return on invested capital, The net margin Sales growth rates have positive influence on company value, while tax rate and MROA have negative influence on company value.

Paying attention to many Indonesian manufacture companies which have foreign currency exposure due to foreign currency obligation during COVID-19 pandemic, and inspired by research gap between Anita Kiss (2015), Winarto Aditama (2014) and Fitriasari (2011), the researcher feels urgent to do a research about "Analysis of Value Driver on Value of Manufacture Industry Company which Performs Hedging in Foreign Currency Derivative during COVID-19 Pandemic".

1.2. Research Objective
Based on the above questions, this research aims to: establish and analyze value drivers influence (sales growth, operation profit, fixed assets investment, work capital investment, and capital cost) partially and simultaneously on value of company which performs hedging in foreign currency derivative during COVID-19 pandemic

II. Literary Review and Hypothesis
2.1. Literary Review
1. Company Value
Company value is price which willingly to be paid by prospective buyer if a company sold (Husnan, 2000). The following methods are used to measure company value according to Weston and Copeland (2008): *Price to Book Value* (PBV), *Market to Book Assets Ratio*, *Price Earning Ratio* (PER), and *Tobin's Q*.
This research uses *Tobin's Q* as measure instrument of company value. *Tobin's Q* is chosen as measurement instrument of company value. *Tobin's Q* is deemed appropriate since calculation instrument of *Tobin's Q* is performance measurement by comparing two assessment of the same asset. *Tobin's Q* is ratio of company asset market value which measured by market value of circulated shares and obligation (enterprise value) on replacement cost of company assets (Fiakas, 2005).

2. Hedging in Foreign Currency with Derivative Instrument
Hedging can be done by using derivative instrument. Derivative is agreement contract between two parties to sell and buy certain number of goods (either commodity or security) on the certain date in the future with the agreed price today.

3. *Value Drivers*
Value drivers can be defined as variables which have influence on value of a company (Kazlauskienki & Christauskas, 2008). Moreover, Knight (1998) defines *value drivers* as operation factors which have great influence on financial or operational result that greatly affect operational and financial success.

Alfred Rappaport [1987] suggests financial value driver as answer of question on how to improve value in business. Financial value driver is defined as a method to improve value of element that need to be known for calculating value. According to Rappaport (1998), "Business value depends on financial *Value Driver* which has been determined, such as: sales growth, operation profit margin, fixed asset investment, capital work investment, tax rate, capital cost, and growth duration value.

2.2 Hypothesis
It is assumed partially and simultaneously that value drivers (Sales Growth, Operational Profit, Fixed Asset Investment, Work Capital Investment, and Capital Cost) positively influence Company Value.

III. Research Method

3.1 Research Design

Research method used in this research was quantitative analysis method, in which a research emphasized its analysis on numerical data obtained by statistics method and inferential research performed in order to test hypothesis. Therefore, significance of variables relationship was obtained.

3.2 Population and Sample

Population in this research is all manufacture companies registered in Indonesian Stock Exchange with total of 693 companies. Samples are taken with purposive sampling technique, in which technique to determine sample with specific consideration. Based on purposive sampling technique applied, it obtains 11 samples of company.

3.3 Operational Definition

Table 3.1
Operational Definition

Variable	Indicator	Formula	Measurement Scale
Sales Growth (X1)	Sales Growth Rate of Home and Machowicz (2005)	$g = \dfrac{S1 - S0}{S0} x\ 100\%$	Ratio
Operation Profit Margin (X2)	Ratio of Operating Profit Margin Lukman Syamsuddin (2009)	$OPM = \dfrac{(EBIT)}{Net\ Sales}$	Ratio
Fixed Asset Investment (X3)	Fixed Assets Growth Manullang (2005)	$FAG = \dfrac{FA_t - FA_{t-1}}{FA_{t-1}}$	Ratio
Work Capital Investment (X4)	Current Ratio Djwarwanto (2011)	$Current\ Ratio = \dfrac{Current\ Asset}{Current\ Liabilities} x100\%$	Ratio
Capital Cost (X5)	Weighted average cost of capital or WACC I Made Sudana (2013)	$WACC = \text{Wd} \times \text{Kd} (1 - \text{T}) + \text{Wp} \times \text{Kp} + \text{Ws} \times (\text{Ks or Ke})$	Ratio
Company Value (Y)	*Tobin's Q* Allayannis and Weston (2001)	$Q = \dfrac{(EMV + D)}{(EBV + D)}$	Ratio

3.4 Data Analysis Technique

Analysis method used was Panel Data Regression Analysis with the following model:
$$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + e$$

where :
Y = *Tobin's Q*
a   = constant
b1, b2, b3 = regression coefficient
X1 = Sales Growth
X2 = Operation Profit Margin
X3 = Fixed Assets Growth
X4 = Current Ratio
X5 = Weighted Average Cost of Capital
e   = Error

IV. Result and Discussion

4.1 Panel Data Regression Result

Data Panel Linier Regression Analysis on this research uses Random Effects method. Random Effect selection as data panel analysis method was previously tested through chow and hausman tests. Thus, it was found that Random Effect method is the best match to test data panel in this research.

Dependent Variable: Y
Method: Panel EGLS (Cross-section random effects)
Date: 07/19/20   Time: 20:37
Sample: 2019Q4 2020Q2
Periods included: 3
Cross-sections included: 11
Total panel (balanced) observations: 33
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.938728	1.874678	3.567591	0.1286
X1	2.224563	2.548120	2.873021	0.0303
X2	3.660026	3.713088	2.985709	0.0030
X3	-0.005813	0.035127	-0.165480	0.8698
X4	0.948053	0.547699	2.087736	0.1207
X5	-0.074149	0.250443	-0.296072	0.7694

Effects Specification

			S.D.	Rho
Cross-section random			3.655346	0.8244
Idiosyncratic random			1.687248	0.1756

Weighted Statistics

R-squared	0.944311	Mean dependent var	0.522601
Adjusted R-squared	0.814150	S.D. dependent var	1.690344
S.E. of regression	1.702261	Sum squared resid	78.23774
F-statistic	6. 910705	Durbin-Watson stat	1.558442
Prob(F-statistic)	0.000251		

Unweighted Statistics

R-squared	0.009970	Mean dependent var	2.029455
Sum squared resid	459.1947	Durbin-Watson stat	0.265528

It is obtained panel regression formula as follows:
$$Y_{It} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + U_{it}$$
Tobins'Q = 2.938728 + 2.224563PP + 3.660026OPM - 0.005813FAT + 0.948053 - 0.074149WACC + 0

1. Influence of Sales Growth on Company Value

Result of partial test or t test in table 4.10 shows that t calculation > t tabel: Sales Growth on Tobins'Q = 2,873 > 2,052 has significant influence, and the sales growth significance value is 0,030, smaller than significance rate, in which 0,05 with coefficient value of 2,225. Consequently, H0 is rejected and Ha is accepted. It means H1 which states sales growth partially has positive and significant influence on company value can be accepted. Positive and significant result indicate that sales growth has positive and significant influence on value (Tobins' Q) of companies in manufacture industry which perform hedging in foreign currency derivative. It also means that each sales growth may increase value (Tobin's Q) of companies of manufacture industry which perform hedging in foreign currency derivative during COVID-19 pandemic.

2. Influence of Operation Profit on Company Value

Result of partial test or t test in table 4.10 shows that t calculation > t table: OPM on Tobins'Q = 2,986 > 2,052 has significant influence, and OPM significance value is 0,003, smaller than significant rate in which 0,05 with coefficient value of 3,660. Therefore, H0 is rejected and Ha is accepted. It means H2, which states Operation Profit partially has positive and significant influence on company value, can be accepted. Positive and significant result indicates Operation Profit represented by *Operating Profit Margin* (OPM) has positive and significant influences on value (Tobins'Q) of manufacture industry companies which perform hedging in foreign currency derivative. It also means that each operation profit increase (OPM) may increase as well the value (Tobins'Q) of manufacture industry companies which performs hedging in foreign currency derivative during COVID-19 pandemic.

3. Influence of Fixed Asset Investment on Company Value

Result of partial or t test in table 4.10 shows t calculation < t table: FAT on Tobins'Q = -0,165 < 2,052 has no significant influence, and FAT significant value of 0,870 is bigger than significant rate of 0,05 with coefficient value -0.006. Thus, Ha is rejected and H0 is accepted. It means H3 which states Fixed Asset Investment partially has positive and significant influence on company value is rejected. Negative and insignificant results means Fixed Asset Investment represent by *Fixed Assets Growth* (FAT) partially has

negative and insignificant influences on value (Tobins'Q) of manufacture industry companies which perform hedging in foreign currency derivative. It also means that if each Fixed Asset Investment (FAT) increase, value of manufacture industry companies which perform hedging in foreign currency derivative (Tobins' Q) decrease. Insignificant result shows that each increase or decrease of FAT will not influence value (Tobins'Q) of manufacture industry companies which perform hedging in foreign currency derivative.

4. Influence of Work Capital Investment on Company Value

Result of partial test or t test in table 4.10 shows that t calculation > t table : *Current Ratio* (CR) on Tobins'Q = 2,080 > 2,052 has significant influence, and significant value of *Current Ratio* (CR) of 0,020 is smaller than significant rate of 0,05 with coefficient value of 0,948. In consequences, H0 is rejected and Ha is accepted. It means that H4 which states Fixed Asset Investment represented by *Current Ratio* (CR) partially has positive and significant influence on company value can be accepted. Result of positive and significant influences means *Current Ratio* (CR) has positive and significant influences on value (Tobins'Q) of manufacture industry companies which perform hedging in foreign currency derivative. It also means that each increase of Current Ratio can also increase value (Tobins'Q) of manufacture companies which perform hedging in foreign currency derivative.

5. Influence of Capital Cost on Company Value

Result of partial test or t test in table 4.10 shows that t calculation < t table: *Weighted Average Cost Of Capital* (WACC) on Tobins'Q = -0,296 < 2,052 has insignificant influence, and Fixed Assets Growth significant value of 0,769 is bigger than significant rate of 0,05 with coefficient value of -0.074. Therefore, H0 is rejected and Ha is accepted. It means H5 which states Capital Cost partially has positive and significant influences on company value is rejected. Negative and insignificant results indicate Capital Cost represented by *Weighted Average Cost Of Capital* (WACC) partially has negative and insignificant influences on value (Tobins'Q) of manufacture companies which perform hedging in foreign currency derivative. It means as well that each increase of WACC will result in decrease value of manufacture companies which perform hedging in foreign currency derivative (Tobins' Q). Insignificant result indicates each increase or decrease of WACC will not affect value of manufacture companies which perform hedging in foreign currency derivative (Tobins'Q).

6. Influence of *Value Driver* (Sales Growth, Operational Profit, Fixed Asset Investment, Work Capital Investment, and Capital Cost) Simultaneously on Company Value

From F test in table 4.11, it can be known that simultaneously independent variables have positive and significant influences on dependent variables. It is proven by F value of 6,911 with value of F calculation > F *table* (6,91 > 2,57) or significance 0,000 < 0,05. Due to value of F calculation > F *table* and significant value smaller than significant rate used, in which 0,05, it can be said that H0 is rejected and Ha is accepted. It means H6 which states *value driver* (sales growth, operation profit, fixed asset investment, work capital investment, and capital cost) simultaneously influence company value can be accepted. Negative and insignificant result indicates each value driver increase (sales growth, operation profit, fixed asset investment, work capital investment, and capital cost) may increase value of manufacture company which performs hedging in foreign currency derivative.

7. Condition comparison of Manufacture Companies which Performs Hedging in Foreign Currency Derivative Before and During COVID-19 Pandemic.

Commonly, manufacture companies perform hedging in foreign currency derivative in order to anticipate and suppress negative effect of foreign currency risk on company value. Based on calculation of company value average ratio represented by Tobins'Q of manufacture companies which perform hedging in foreign currency derivative before COVID-19 was 3.226 with maximum value of 22.996, and minimum value of 0.235. Meanwhile, Tobins' Q growth rate average during COVID-19 pandemic is 2.036 with maximum value of 19.331, and minimum value of 0.028. Based on this result, it can be seen that before pandemic, value of companies which perform hedging in foreign currency derivative is better than during pandemic.

V. Conclusion

Based on the result of research about Analysis of Value Driver on Value of Manufacture Companies which Perform Hedging in Foreign Currency Derivative During COVID-19 Pandemic (Empirical Study on Indonesian Stock Exchange), it could be concluded that Sales Growth, Operation Profit, Work Capital Investment as value drivers partially had positive and significant influences on Companies Value. Meanwhile, Fixed Asset Investment and Capital Cost as value drivers partially had insignificant and negative influences on companies' value. And simultaneously, Sales Growth, Operation Profit, Fixed Asset Investment, Work Capital

Investment, and Capital Cost as value drivers model had positive and significant influence on Company Value represented with Tobins' Q.

References

[1].   Fiakas, D, 2005. Tobin's Q: Valuing Small Capitalization Companies, Crystal Equity Research, April.
[2].   Fika Fitriasari. 2011. Value Drivers Terhadap Nilai Pemegang Saham Perusahaan Yang Hedging Di Derivatif Valuta Asing. Jurnal Manajemen Bisnis. Vol. 1 No. 01. Edisi. April.
[3].   Husnan, Suad. 2000. Manajemen Keuangan Teori dan Penerapan. Edisi Ketiga. UPP AMP YPKN. Yogyakarta.
[4].   Kazlauskienė, V., & Christauskas, C. (2008). Business valuation model based on the analysis of business value drivers. Engineering Economics, 57(2), 23-31.
[5].   Kiss, Anita. 2015. Empirical Analysis Of The Role Of The Firms' Value Drivers. Institute of Accounting and Finance, Faculty of Economincs and Business, University Of Debrecen. Network Intelligence Studies. Volume III, Issue 2(6).
[6].   Rappaport, Alfred. 1987. "Linking Competitive Strategy and Shareholder Value Analysis". The Journal of Business Strategy. Spring. Vol. 7, Issue 58-67.
[7].   Rappaport, Alfred. 1998. Creating Shareholder Value : A Guide For Managers and Investors. Revised Edition. Free Press.
[8].   Van Horne, James C. 1995. Financial Management and Policy, Prentice-Hall International., Inc., New Jersey.
[9].   Weston, J. Fred dan Copeland, Thomas E. 2001. Manajemen Keuangan Jilid I, Edisi ke-9. Jakarta: Binarupa Aksara.
[10]. Winarto, Aditama. 2014. Analisis Pengaruh mekanisme Corporate Govermence dan Value Driver Terhadap Nilai Perusaaan. Surabaya.