DETERMINANTS OF FIRM VALUE FOR WHOLESALE SUB-SECTOR COMPANIES IN 2016-2019 WITH BEHAVIORAL ACCOUNTING APPROACH

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Abstract
Stock returns which are decreasing every year are a problem for investors who want to get benefit from capital gains. The purpose of this study is to determine the factors that affect firm value. The sample in this study were 15 companies in the wholesale sub-sector. The sample selection method is purposive sampling with criteria listed on the Indonesia Stock Exchange in 2015-2019 and the data to be processed does not have outliers. The results showed that the PER and EPS had a significant effect on Stock Returns, while DER, Size, and Growth had no significant effect on Stock Returns. Recommendations that can be given for this research are that companies maintain consistent profits so that investors are still interested in investing, maintain capital structure, create stable equity growth and maintain company size so as not to be overvalued by investors and potential investors.

Keywords: Stock Returns, DER, Size, PER, EPS, Growth, Behavioral Accounting

1.0 INTRODUCTION

Now, investing for profit is commonplace for investors, especially stock traders. Stock traders can benefit from buying shares at a certain price, then selling them when the stock price is good, resulting in a capital gain on these shares. One of the interesting business sectors on the Indonesia Stock Exchange is the Wholesale sub-sector.

A company in the wholesale sub-sector is a company whose business activities are to sell products on a large scale or wholesale, from basic necessities to selling heavy equipment. The types of products being sold are those that are durable and also not durable or the terms are durable and non-durable goods. Companies in this business are a type of business that is almost identical to the stock list of retail trade or selling retail, its performance is also influenced by macroeconomic conditions. This type of business is a business that has good and promising prospects so it is suitable to be used as a trading instrument or an investment instrument.

The data tabulation is based on the IDX Annually Report, in 2016, the arithmetic average of the annual stock returns of the wholesale sub-sector was 15.20%; in 2017 amounted to 64.35%; in 2018 amounting to -4.55%; and in 2019 amounted to -0.15%. There has been a decline in stock returns in the last two years. This decline was also followed by a decrease in the average market capitalization. It is feared that this decline will become a problem in Indonesia's investment climate and will affect the confidence of investors and traders in carrying out their investment activities.

About fundamental analysis, there are several financial ratios that can measure the company's financial condition and its Stock Returns. Debt to Equity Ratio (DER) describes the position of debt to equity. The effect of DER on Stock Returns is significant in the study (Dita & Murtaqi, 2014) but not significant in research (J. A. Wijaya, 2015). Firm Size can measure Stock Returns. Research (Samimi & Oskuee, 2016) shows significant results but contradicts research (Chemmanur & Yan, 2019).

Leading the research, Price Earnings Ratio (PER) is used to see how long it will take for investors to pay back their investment. This is an indicator of an investment decision. The effect of PER on Stock Returns is significant in the study (Arslan & Zaman, 2014), but not significant in the study (Stefano, 2015). Earnings per Share (EPS) is used to view earnings per share when investors want to invest. The effect of EPS on Stock Returns is significant in the study (Anwaar, 2016) but contradicts research (Salamat & Mustafa, 2016). Growth is also an important indicator because investors want a growing company so that their investment can be long term. The

effect of growth on Stock Returns is significant in the study (Chemmanur & Yan, 2019) but not significant in the study (Salamat & Mustafa, 2016).

In Market-Based Accounting Research (MABAR), is a trend that is quite interesting to discuss because this research can use data in company financial reports and then apply it to the needs of stock investors. The development of accounting science to the development of the stock market is very important.

Accounting in behavioral accounting and its application will strengthen the results of this study, which integrates the dimensions of human behavior based on behavioral concepts from psychology and social psychology (Khomsiyah, 2001). This study aims to determine the effect of Debt to Equity Ratio, Size, Price Earnings Ratio, Earnings per Share, and Growth on the Stock Returns of Wholesale companies on the Indonesia Stock Exchange 2016-2019.

2.0 LITERATURE REVIEW

Financial Information and Efficient Capital Market

The presence of information contained in an event can certainly influence investors' decisions. Investors often study the same events with the impact of share prices so that investors can make decisions quickly. However, if the event (information) that occurs is an event that has never been encountered, it is necessary to test the information content of the event to determine the negative and positive impacts of an event. (Chandra, Renaldo, & Putra, 2018).

A capital market is a meeting place between the supply and demand for securities. So in this place market players, namely individuals and business entities that have excess funds, invest in business capital in the form of securities offered by the issuer. The capital market consists of two words, namely market and capital. So, the capital market can be interpreted as a meeting place between the supply and demand for capital, both in the form of equity, namely the owner's rights to company assets which are net assets (total assets minus liabilities) and long-term (Ibrahim & Panjaitan, 2020).

An efficient market is a condition where investors can easily obtain relevant and reliable information that is reflected in share prices. The efficient market hypothesis means that the price of securities in financial markets reflects all available information. There are three types of efficient market hypotheses, namely the weak form hypothesis, the semi-strong form hypothesis, and the strong form hypothesis (Clara & Firli, 2017).

Following the portfolio selection theory by Markowitz (1952), investors are considered rational. Rational means they react quickly and objectively to new information to seek the best return on their investment. This will lead to a theory called the Efficient Market Hypothesis developed by Eugene Fama in the 1960s, in which the theory explains the nature of the "perfectly efficient" market. However, not all investors follow the idea of the Efficient Market Hypothesis proposed by Eugene Fama (1960). Some investors find it valuable to find overvalued and undervalued share prices and benefit from market inefficiencies. In short, the behavior of investors who often try to find mispriced stocks causes losses or capital gains by the investors themselves (Stefano, 2015).

The Theory of Financial Ratio and Financial Statement

There are two concepts that need to be understood in MABAR research. The first concept is about the theory of financial ratios which explains the variables of financial ratios. The second concept is about the stock returns theory which explains the mechanism for calculating the stock returns. Financial reports are a collection of accounting reports, consisting of collected information that is presented to users. The income statement focuses on describing the company's revenue and expenses in a specific time period that resulted in a net profit or loss. On the other hand, interested parties can understand changes in owner's equity for a certain period of time by understanding the owner's equity statement. The balance sheet shows the condition of the company's assets, liabilities, and owner's equity for a certain period of time. Finally, interested parties can view the company's cash inflow and outflow information within a certain period of time by reading the company's cash flow statement. The benefit of financial reports is to measure the performance of managers for reward purposes, to measure the performance of departments in multi-level companies, to project the future by providing historical information to existing or potential investors, to provide information to creditors and suppliers, to evaluate competitive positions rivals, and to evaluate the financial performance of acquisitions. Financial ratios are grouped into liquidity, activity, debt, profitability, and market ratios (J. A. Wijaya, 2015).

A detailed explanation of each of these ratios is as follows (Stefano, 2015):

1. Profitability ratios are used to evaluate a company's profit considering the number of assets and investments of its owners.
2. The liquidity ratio measures the company's ability to meet its short-term obligations as they mature.
3. The debt ratio is the amount of other people's money that is used to make a profit.
4. The activity ratio is a measure of a company's efficiency by considering its assets, disbursements, accounts receivable collection, and inventory.

5. The last financial ratio is the market ratio, which is used to compare the market value of a company with its accounting value. This ratio can provide an overview of how the company's performance, both in terms of risk and return, is perceived by investors.

Signaling Theory

Developed by Ross (1977) which states that the release of company information provides a signal to investors. If the signal increases with information disparity between investors and managers, the organization with higher information discrepancies will have to pay higher costs. Outside investors do not know the exact distribution of internal company earnings, but only inner management does (Rehman, 2016).

Firm Value

Value determinants are variables that can affect the value creation of a company. The determinants of value are broadly categorized into two dimensions. The first is based on an inner and outer perspective. Inner determinants are variables that identify with the firm's performance characteristics, while external determinants are variables that identify with the large-scale monetary environment. The second measure is the type of qualitative and quantitative components that determine value. Quantitative value determinants are variables related to the collection and analysis of data in numerical form, while qualitative value determinants create images based on several qualities or company characteristics. Qualitative determinants of value do have an important influence on firm value but unfortunately, information about these qualitative determinants is naturally absent and if available, their effect on value is difficult to measure because of their unquantifiable nature (Ramadan, 2016).

Firm value is the present value of the expected future cash flows now. Firm value can also be estimated even after current earnings have been paid to shareholders in the form of dividends. Firm value can be defined by five different measures: book value, market value, capitalization value, deductive judgment, and net worth adjustment (Ayako & Wamalwa, 2015).

Stock Returns is defined as the gain or loss of capital as a result of investing in a stock portfolio. The concept of selecting a stock portfolio must be preceded by the Markowitz Portfolio Selection theory. Investors should always aim to maximize the expected return from their portfolio, subject to an acceptable level of risk. The more stocks that are added to the investor's portfolio, the higher the risk represented by the standard deviation. However, investors will always try to maximize their profits by staying within the efficient frontier in terms of standard deviation (Stefano, 2015).

Fama and French (1993) analyzed the average stock returns on market risk, firm size, financial leverage, bond value, shareholder salary to market value, shareholder salary, and earnings to price ratio with regression. The results of the study concluded that market risk and firm size have no relationship with average stock returns, but the average stock returns have an indirect relationship with the value of financial leveraged bonds and have a direct relationship with market financial leverage (Anwaar, 2016).

Capital Structure

Capital structure is the number of funds that can be used for allocation by the company. Funding is obtained from long-term debt and company equity. The capital structure or company capitalization is permanent funding consisting of long-term debt, preferred stock, and shareholder stock. In addition, the capital structure can also be interpreted as a consideration or comparison between the amount of long-term debt and equity. The financial structure describes the overall composition in addition to the credit balance which consists of short-term debt, long-term debt, share capital, and reinvested profits (Siahaan, Suhadak, Handayani, & Solimun, 2014).

The debt ratio is the amount of other people's money that is used to generate profits (Stefano, 2015). Debt is a liability that is expected to be paid after one year and equity is a claim of ownership of total assets (J. A. Wijaya, 2015). Debt is usually owned by companies that have or are having difficulty dealing with financial problems (Dimaranty, Junaedi, & Panjaitan, 2019).

Modigliani and Miller stated that the market value of a company does not depend on its capital structure and if the company does not provide the required returns, individuals can obtain the desired return by creating a synthetic portfolio. Walter argues that an optimal capital structure exists with a certain level of debt where the marginal cost of adding debt must be greater than or equal to the average cost of capital. During the 1980s, criticism of the irrelevance theory of capital structure diverged in two areas. One is trade-off theory (TOT) and others incorporate management behavior models such as signaling and market timing in the capital structure. According to the TOT, the optimal capital structure can be determined by maintaining a balance between the cost of financial hardship and the tax benefits of debt (Aggarwal & Padhan, 2017).

This model (TOT) is the optimal capital structure that can be found by balancing the benefits of using debt with the costs of bankruptcy and agency problems. This model cannot determine the optimal capital structure precisely because it is difficult to determine precisely the Present Value of bankruptcy costs and the Present Value of agency costs (Irman, Okalesa, & Hadi, 2018).

A review of capital structure theory shows that apart from TOT, capital structure theory diverges into two other dimensions, namely agency theory and information asymmetry arising from conflicts of interest in

asset ownership. Tracing developments in financial theory, we have identified three root causes of agency problems caused by shareholders receiving fees from debt holders, managers, or agents who take undue advantage of corporate facilities with fractional ownership and information asymmetry. Agency theory states that there is an optimal capital structure for a company with a tradeoff between debt agency costs and the benefits of debt. Jensen & Meckling uses this explanation to justify why loan agreements have covenants to protect lenders from the risk of asset substitution by shareholders. Information asymmetry led to the development of the pecking order theory by Myers in which company managers use personal information to issue securities and have a preference first for internal funds, then debt, and finally equity. Hence the use of debt, equity, or retained earnings also signals the company's operations and has an impact on firm value (Aggarwal & Padhan, 2017).

Size
Size states the number and dimensions of the company's activities. An increase in company size indicates a lack of opportunities for growth in the company (Samimi & Oskuee, 2016). (Ramadan, 2016) states that company size is the nature logarithm of total assets of the firm. Company size is a symbol of company size. This factor explains that a large company has easier access to the capital market, while a small company does not (E. Wijaya & Jessica, 2017). The size of the company reflects the company's financial capacity, the size of the company's wealth, and the level of ease of the company in obtaining funds (E. Wijaya, 2016).

Price Earnings Ratio (PER)
PER ratio, which assesses the owner's assessment of the value of the shares. The PER ratio indicator consists of market price per common share and earnings per share (Stefano, 2015). Many researchers argue that PER represents future market returns. So it can easily be assessed that someone can predict future stock returns through the PER ratio (Arslan & Zaman, 2014).

Basu (1977) reveals that PER ratio information does not reflect stock prices and investment performance very quickly, and in general, it seems that the equations of shares at different earnings coefficients have been mispriced compared to other price types, and other opportunities are obtained for "abnormal return" which has been provided for investors (Anwaar, 2016).

Price Earnings Ratio (PER) is a ratio that is widely used in making investment decisions because PER is one of the most commonly used ways to measure the performance of ordinary shares on the stock exchange. According to investors, a low PER will give its own contribution, because besides being able to buy shares at relatively cheap prices (Hafni & Anggraini, 2018).

Earnings per Share (EPS)
Earnings per share can be calculated by dividing net income by the number of shares outstanding (Salamat & Mustafa, 2016). Earnings per Share is the amount of money that will be received by each share if all profits are distributed to outstanding shares at the end of the year (Ramadan, 2016).

Growth
A high growth rate should be reflected in a reduction in dividend payments, because managers must finance growth, preferably with their own funds (Forti, Peixoto, & Alves, 2015). Growth is a signal to shareholders that the company has high growth opportunities (Hosain, 2016). Growth is the increase and decreases in the companies compared to the previous year. One of the benefits of profit is to predict the company's growth in the coming year (Suyono, Andi, Utari, & Hairudin, 2019; Suyono, Chandra, & Irawati, 2017; Suyono, Yusrizal, & Solekhatun, 2019).

Behavioral Accounting
Several classifications of behavioral accounting research such as auditing show a strong emphasis on judgment and decision making; finance in the development of capital markets which requires humans to use psychological aspects in decision making. Application in managerial fields related to budget control and cost behavior; accounting system in alternative forms of presenting information for effective and efficient communication; the taxation that focuses on tax payment compliance; and other accounting fields (Khomsiyah, 2001).

The development of behavioral accounting surely depends on the results of the researches conducted. Therefore, information about the direction of research and development in behavioral accounting is extremely useful for accountants who have an interest in completing researches during this field (Se Tin, Lidya, & Meyliana, 2017).

Hypotheses Formulation
The Relationship between Debt to Equity Ratio and Stock Returns
An increase in debt that can be managed properly will increase the Stock Returns. Research (Dita & Murtaqi, 2014) shows positive and significant results, research (Siahaan et al., 2014) shows negative and significant results, and research (Stefano, 2015) shows insignificant results. The first hypothesis of this study is:

H1 : Debt to Equity Ratio has a significant effect on Stock Returns

The Relationship between Size and Stock Returns

The bigger a company, the more investors will have confidence in the management of the company. The more people believe, it will be reflected in the increasing share price. Research (Dang, Nguyen, & Tran, 2020) and (Chandra, Junaedi, Wijaya, Chandra, & Priyono, 2019) show positive and significant results on Stock Returns, research (Samimi & Oskuee, 2016) shows negative and significant results, research (Chemmanur & Yan, 2019) showed insignificant results. The second hypothesis of this study is:

H2 : Firm size has a significant effect on Stock Returns

The Relationship between Price Earnings Ratio and Stock Returns

The higher the PER value, the greater the Stock Returns because PER itself is calculated using a stock price proxy. Research (Arslan & Zaman, 2014) and (Irfani, 2012) show positive and significant results but contradict research (Stefano, 2015) and (Hutauruk, Mintarti, & Paminto, 2014). The third hypothesis of this study is:

H3 : Price Earnings Ratio has a significant effect on Stock Returns

The Relationship between Earnings per Share and Stock Returns

If the company's profit increases, of course, it will make investors happy and will increase their investment. Thus, the share price can still increase again. Research (Ramadan, 2016) and (Rehman, 2016) show positive and significant results, research (Anwaar, 2016) shows negative and significant results, and research (Salamat & Mustafa, 2016) shows insignificant results. The fourth hypothesis of this study is:

H4 : Earnings per Share has a significant effect on Stock Returns

The Relationship between Growth and Stock Returns

The more a company develops, an increase in its Stock Returns will be followed because long-term investors really like an increase in their investment. Research on the influence of growth on firm value varies in research (Dang et al., 2020), research (Chemmanur & Yan, 2019) shows positive and significant results, research (Aggarwal & Padhan, 2017) shows negative and significant results on the random effect, and research (Chandra et al., 2019; Salamat & Mustafa, 2016) showed insignificant results. The fifth hypothesis of this study is:

H5 : Growth has a significant effect on Stock Returns

Conceptual Framework
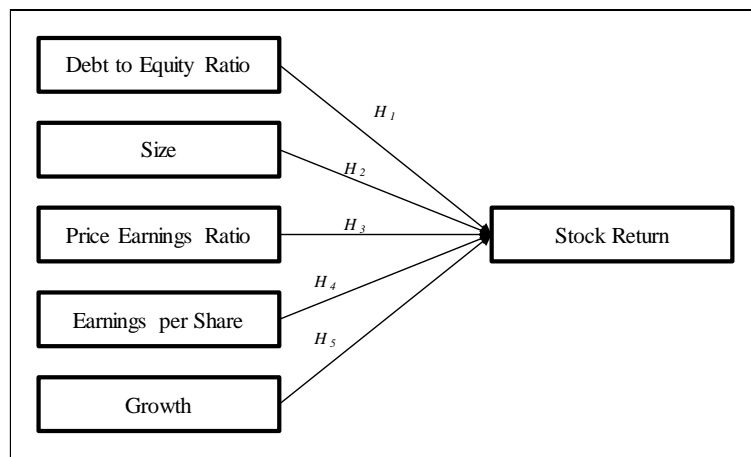
Figure 1 shows the conceptual framework in this study.

Figure 1. Conceptual Research Framework

3.0 METHODOLOGY

Place and Time of Research

This research was conducted by taking secondary data from the Indonesia Stock Exchange which was published and obtained through the official website IDX.co.id for the period 2015-2019 which published financial reports, namely the annual reports published on the Indonesia Stock Exchange for each company.

Population and Sample

The population is a generalization consisting of objects or subjects that have certain qualities and characteristics determined by the researcher to be studied in order to draw conclusions. The population in this study were wholesale sub-sector companies listed as issuers on the Indonesia Stock Exchange in 2019. The sample selection used purposive sampling with the criteria in accordance with table 1.

Table 1. Criteria and Number of Company Samples

No	Criteria	Total
1	The company registered in the Wholesale sub-sector in 2019	47
2	The company was registered during the 2015-2019 period	(19)
	Number of companies that meet the criteria	**28**
3	Data of companies that have outliers	(13)
	Number of companies whose data can be processed	**15**
	Number of observation periods	**4 years**
	The amount of data processed	**15 x 4 = 60**

Source: Self, 2021

Based on (Bujang, Sa'at, & Sidik, 2017), a minimum sample size of 57 for R2 is 0.1 for the tested variable. Meanwhile, the amount of data to be processed is 60 and it has met the minimum sample size.

Operational Defenition
Based on the previous literature review, the dependent variable in this study is stock returns, followed by independent variables, namely Debt to Equity Ratio (DER), Company Size (Size), Price Earnings Ratio (PER), Earnings per Share (EPS), and Firm Growth (Growth). The proxies for each variable are in accordance with table 2.

Table 2. Operational Definition of Research Variables

No	Variable	Formula	Scale	Sources
1	Firm Value	$Stock\ Return = \dfrac{Price_t + Dividends_t - Price_{t-1}}{Price_{t-1}} x100\%$	Ratio	(Salamat & Mustafa, 2016)
2	Capital Structure	$DER = \dfrac{Short\ Term\ Debt + Long\ Term\ Debt}{Total\ Equity}$	Ratio	(Kusiyah & Arief, 2017; J. A. Wijaya, 2015)
3	Firm Size	$Size = ln(Assets)$	Ratio	(Samimi & Oskuee, 2016)
4	Investment Decision	$PER = \dfrac{Stock\ Price}{EPS}$	Ratio	(Kusiyah & Arief, 2017)
5	Earnings per Share	$EPS = \dfrac{Net\ Income - Dividend\ on\ Preferred\ Stock}{Average\ Outstanding\ Shares}$	Ratio	(Anwaar, 2016)
6	Firm Growth	$Growth = \dfrac{Equity_t - Equity_{t-1}}{Equity_{t-1}} x100\%$	Ratio	(Samimi & Oskuee, 2016)

Source: Journals summary, 2021

Data Analysis Technique
Descriptive Analysis
The descriptive analysis of this research includes a discussion of variables related to average, maximum, minimum, and other statistical elements (Hafni, Renaldo, Chandra, & Thaief, 2020; Lind, Marchal, & Wathen, 2018; Renaldo, Sudarno, & Hutahuruk, 2020).

Classical Assumption of Multiple Linear Regression
There are several assumptions from multiple linear regression (Lind et al., 2018), namely: there is a linear relationship, the variation in the residuals is the same for both large and small values of ŷ (homoscedasticity), the residuals follow the traditional normal probability distribution, the independent variables should not be correlated (no multicollinearity), and therefore the residuals are independent (no autocorrelation). All tests in this analysis use Microsoft Excel and SPSS applications (Hafni et al., 2020; Renaldo et al., 2020).

Multiple Linear Regression Analysis
This data analysis was used in this study to show the relationship between the dependent variable and the independent variables by using multiple linear regression analysis, namely:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

information:
Y : Stock Returns
X1 : Debt to Equity Ratio
X2 : Size
X3 : Price Earnings Ratio
X4 : Earnings per Share
X5 : Growth

a   : Constant
b   : Regression Coefficient
e   : Error

Determination Coefficient Test

The coefficient of determination is used in this study to see or measure the impact of the independent variable on the dependent variable from multiple regression analysis. The multiple linear regression equation will look better if the coefficient of determination approaches 1 and the value tends to increase in line with the increase in the number of independent variables.

Hypothesis Test

Hypothesis testing used the SPSS program. If the value of Sig < α, there is the independent variables significantly influence the dependent variable (Renaldo et al., 2020). All the tests that have been defined above, will be strengthened by bootstrap and Monte Carlo simulation if necessary. Bootstrap experiments generate samples by resampling the observed data multiple times. The sample is treated as an unknown population from which the sample can be drawn using replacement. The bootstrap method is used when the distribution of the underlying data is unknown. Monte Carlo experiments are an alternative method of generating new samples from historical data. The main difference is that the samples are generated in a Monte Carlo simulation by drawing from a hypothetical analytic distribution (Pažický, 2017).

4.0 RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics used in this study are the mean, standard deviation, minimum and maximum values.

Table 3. Descriptive Statistics Summary

Descriptive Statistics	Stock Return	DER	Assets (Billion IDR)	PER	EPS (IDR)	Equity Growth
Mean	-2,358	0,637	3.107,900	131,527	68,788	11,146
Stdev	27,096	2,160	4.645,821	491,728	125,091	72,367
Min	-57,740	-7,980	94,000	-306,090	-231,000	-138,753
Max	59,968	6,390	20.580,000	2.101,120	456,100	375,000

Source: Processed data, 2020

Based on table 3, the arithmetic average of Stock Returns is -2.358%, which means that the wholesale sub-sector Stock Returns tends to fall with a fairly large standard deviation, so this means that the data is quite diverse, with a large range. The average DER shows that in general, the wholesale sub-sector companies use equity more than loans for corporate activities, with quite various standard deviations and a very large range. There are even some companies that have negative equity values (capital deficiency). The size of the company, which is proxied by total assets, shows an average asset size of 3.1 trillion, the standard deviation of which varies greatly with a very large range. The average PER indicates that it takes quite a long time to get a return on investment in the wholesale sub-sector considering that this sector is filled with large wholesale companies and heavy equipment, the standard deviation shows various data and a wide range. The average EPS shows a positive value, which means that the company's profits still increase each year even though the value of its shares decreases. Fundamental analysis is quite good in the wholesale sub-sector, with a large diversity of data and a large range. Equity growth shows an increase (at least retained earnings) which is better with a large diversity of data and a large range.

Classical Assumption of Multiple Linear Regression

Testing the classical assumption of multiple linear regression is required to obtain good analysis results. All tests were assisted by Microsoft Excel and SPSS programs. Some tests use resampling with Monte Carlo and Bootstrap techniques when needed.

Table 4. Summary of Test Results

Model	B	t	Sig.1ª	VIF	Sig.2ª
(Constant)	127,439	1,590	0,126		0,593
Debt to Equity Ratio	-1,025	-0,632	0,581	1,118	0,237
Size	-4,933	-1,696	0,107	1,532	0,354

Model	B	t	Sig.1[a]	VIF	Sig.2[a]
Price Earnings Ratio	0,014	2,064	0,066	1,036	0,058
Earnings per Share	0,086	2,558	0,041	1,598	0,432
Growth	0,047	0,982	0,610	1,073	0,081
F Test	2,593		OSKS Test[b]	0,952	
Sig. of F Test	0,036		Run Test[b]	0,609	
Adjusted R Square	0,119				

Sig.1 is t-test, Sig.2 is Glejser Test
a. Monte Carlo based on 1000 bootstrap samples
b. Bootstrap based on 10000 sampled tables

Source: Processed data, 2020

The F test in table 4 shows that the regression model is linear (Renaldo et al., 2020). The highest VIF value is 1.598 and is still below 5, which means it fulfills the assumption of the absence of multicollinearity (Daoud, 2017). The lowest value of Sig. 2 is 0.058, which is still above 0.05, which means it fulfills the homoscedasticity assumption (Nwakuya & Nwabueze, 2018). One-Sample Kolmogorov-Smirnov test shows the Sig. 0.952 which means that the residuals are normally distributed (Razali & Wah, 2011). The run test shows the Sig. 0.609 which means there is no autocorrelation (Uyanto, 2020).

Multiple Linear Regression Analysis
Based on this data, a linear regression equation can be formed, namely:

$$Y = 127{,}439 - 1{,}025 \, X1 - 4{,}933 \, X2 + 0{,}014 \, X3 + 0{,}086 \, X4 + 0{,}047 \, X5 + e$$

The variable DER (X1) has a negative effect on Stock Returns where an increase in one DER unit will decrease 1.025 units of Stock Returns. Variable Size (X2) has a negative effect on Stock Returns where an increase in one unit of company size (in the form of a natural logarithm) will decrease 4,933 Stock Returns. The PER (X3) variable has a positive effect on Stock Returns where an increase of one PER unit will increase 0.014 Stock Returns. The EPS variable (X4) has a positive effect on Stock Returns where each increase of one EPS unit will increase 0.086 units of Stock Returns. The Growth variable (X5) has a positive effect on Stock Returns where each increase of one unit of Growth will increase 0.047 units of Stock Returns.

Determination Coefficient Test
Adjusted R Square is used if the number of independent variables is more than 2. The coefficient of determination is 0.119 which means that 11.9% change in Stock Returns can be predicted by DER, Size, PER, EPS, and Growth, while the rest is influenced by other factors. The low coefficient of determination is because these five variables are not strong enough to influence the Stock Returns.

Hypothesis Test
The first hypothesis says that the Debt to Equity Ratio has a significant effect on Stock Returns, not significant, so the first hypothesis is rejected. The second hypothesis states that Firm Size has a significant effect on Stock Returns, not significant, so the second hypothesis is rejected. The third hypothesis states that Price Earnings Ratio has a significant effect on Stock Returns, significant at 10%, so the third hypothesis is accepted. The fourth hypothesis says Earnings per Share has a significant effect on Stock Returns, significant at 5%, so the fourth hypothesis is accepted. The fifth hypothesis says that growth has a significant effect on Stock Returns, not significant, so the fifth hypothesis is rejected.

The Effect of Debt to Equity Ratio on Stock Returns
The effect of the Debt to Equity Ratio on stock returns is not significant and in line with research (J. A. Wijaya, 2015) but not in line with research (Dita & Murtaqi, 2014; Machdar, M, & Murwaningsari, 2017; Siahaan et al., 2014). The negative effect of DER on stock returns shows that the increase in corporate debt is less favorable for investors. In the wholesale sub-sector, it does require a large amount of capital and investors prefer companies that rely on their own capital because if they go into debt, it will also cause a high cost of debt, which results in a smaller profit.

The capital structure in wholesale sub-sector companies is dominated by equity rather than debt owed to banks or third parties. The increase in the debt which results in a decrease in the value of the company needs

to be considered by the company even though it is not significant. The ideal capital structure has yet to be determined, but in this sector, the capital structure that is more attractive to investors is one that does not use much debt.

The application of behavioral accounting to this capital structure indicates that the more aggressive the company is in using debt, the less good is the valuation of shares by investors so that the stock price falls. Likewise, vice versa, which means the company should not be aggressive, but simply carry out a passive strategy. According to (Khomsiyah, 2001), financial accounting is a direct input in making bank credit decisions, which will clarify the relationship between behavioral variables and knowledge in the context of decision making.

The Effect of Size on Stock Returns

The effect of Size on Stock Returns is not significant and is in line with research (Chemmanur & Yan, 2019; Samimi & Oskuee, 2016; Siahaan et al., 2014) but not in line with research (Aggarwal & Padhan, 2017; Arslan & Zaman, 2014; Ramadan, 2016). The negative effect of Firm Size on Stock Returns shows that the bigger the company, in this case, the number of assets, is feared it will increase the company's debt as well. Sig value without bootstrap is 0.096 which should be significant at 10%, but the use of bootstrap to help get more accurate results because of the small number of samples it is feared that it will cause bias even though all classical assumptions are met.

Based on (Siahaan et al., 2014), this means that there are anxiety and sarcasm between market players and investors in the capital market. Especially in 2019, there was a decrease in the total assets of most companies in the Wholesale sub-sector. This could be a sign that the COVID-19 pandemic is starting to disrupt the Indonesian economy even though it is still not significant in 2019.

The application of behavioral accounting to company size arises from investors' concerns about increasing their debt. Investors who are worried about being followed by previous discussions about increasing debt are bad news for investors.

The Effect of Price Earnings Ratio on Stock Returns

The effect of Price Earnings Ratio on Stock Returns is significant and in line with research (Irfani, 2012) and (Arslan & Zaman, 2014) but contrary to (Hutauruk et al., 2014; Stefano, 2015). This positive effect of PER on Stock Returns indicates that investors increase their investment along with company profits and share prices. The movement of PER and Stock Returns reflects good stock price growth on the stock exchange. The relationship between variables is moderated by movements in market share prices and fundamental earnings stability. If the issuer's earnings are stable, then positive price growth will lead to an increase in PER and Stock Returns.

PER can be used as an indicator of investment decisions because this ratio is another term for the investment payback period. By paying attention to the PER value, it can be seen an estimate of how long investment in shares will return on investment.

When the firm's price and profit (the PER component) increase, it leads to an increase in the company's growth. Furthermore, due to increased growth, investors invest in companies that have high growth. The increase in demand for shares for these companies causes an increase in the market price of a company (Arslan & Zaman, 2014).

The application of behavioral accounting to the Price Earnings Ratio, namely in investor psychology. PER is an indicator of investment decisions, where if the value is attractive, investors will dare to buy the shares. Accumulated purchases will increase the share price according to the law of demand.

The Effect of Earnings per Share on Stock Returns

The effect of Earnings per Share on Stock Returns is significant and in line with research (Ramadan, 2016) but contrary to research (Hutauruk et al., 2014; Salamat & Mustafa, 2016). When company profits increase, investor perceptions will also be good (behavioral accounting and finance), which will lead to positive sentiment for the company (good news). This good news will increase share prices (Chandra et al., 2018).

Investment increases in line with company profits and share prices, where EPS and Stock Returns reflect good stock price growth on the stock exchange. Stable issuers' earnings will increase positive price growth (Irfani, 2012).

The application of behavioral accounting to Earnings per Share is similar to the Price Earnings Ratio because these two ratios have the same calculation basis. If the company sends a positive profit signal, investors will be happy and will invest in the company.

The Effect of Growth on Stock Returns

The effect of Growth on Stock Returns is not significant and in line with (Salamat & Mustafa, 2016) but not in line with (Aggarwal & Padhan, 2017; Chemmanur & Yan, 2019). Increasing equity growth has not been able to significantly increase share prices. This is because wholesale subsector stock investors only focus on company profits without thinking about other equity components. However, this equity growth was followed by good stock price movements. Equity growth proxies can be said to be more accurate for measuring company growth because if the assets increase, but it is not known that the assets will increase because debt or earnings are held. Equity is the book value of a company if investors read financial reports carefully.

The application of behavioral accounting to company growth is the same as under-five growth for new old people or plant growth for farmers. Of course, investors will be happy with the consistent growth, which indicates that the company can grow even bigger. However, in the wholesale sub-sector, which is already a large company, there is little doubt from investors because raising a company in this sector requires large capital, including the use of debt. This is what causes company growth to have a positive effect but does not provide strong tangible evidence on stock prices.

5.0 CONCLUSION

Based on the research results, several conclusions from this study are: (1) Debt to Equity Ratio has a negative and insignificant effect on Stock Returns; (2) Size has a negative and insignificant effect on Stock Returns; (3) Price Earnings Ratio has a positive and significant effect on Stock Returns; (4) Earnings per Share has a positive and significant effect on Stock Returns; and (5) Growth has a positive and insignificant effect on Stock Returns.

Earnings per Share has the greatest impact on Stock Returns. This means that wholesale sub-sector companies must declare honest profits without modification so that investor confidence in the company's performance will be better. Recommendations that can be given for this research are that the company maintains consistent profits so that investors are still interested in investing. Companies also need to find the most appropriate capital structure in order to increase company value, create stable equity growth and maintain company size so as not to be overvalued by investors and potential investors. Meanwhile, the recommendation for the next researcher is to increase the factors that influence stock returns with better variables so that it can become better research.

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References

Aggarwal, D., & Padhan, P. C. (2017). Impact of Capital Structure on Firm Value: Evidence from Indian Hospitality Industry. *Theoretical Economics Letters*, *07*(04), 982–1000. https://doi.org/10.4236/tel.2017.74067

Anwaar, M. (2016). Impact of Firms' Performance on Stock Returns (Evidence from Listed Companies of Ftse-100 Index London, UK), *16*(1).

Arslan, M., & Zaman, R. (2014). Impact of Dividend Yield and Price Earnings Ratio on Stock Returns: A Study Non-Financial listed Firms of Pakistan. *Research Journal of Finance and Accounting*, *5*(19), 2222–2847.

Ayako, A., & Wamalwa, F. (2015). Determinants of Firm Value in Kenya : Case of Commercial Banks Listed at the Nairobi Securities Exchange, *1*(2), 129–142. https://doi.org/10.11114/afa.v1i2.934

Bujang, M. A., Sa'at, N., & Sidik, T. M. I. T. A. B. (2017). Determination of Minimum Sample Size Requirement for Multiple Linear Regression and Analysis of Covariance Based on Experimental and Non-experimental Studies. *Epidemiology Biostatistics and Public Health*, *14*(3), e12117-1-e12117-9. https://doi.org/10.2427/12117

Chandra, T., Junaedi, A. T., Wijaya, E., Chandra, S., & Priyono. (2019). The Co-Determinant of Capital Structure and Profitability Based on the Supply Chain Strategy: Evidence from Manufacturing Sector in Indonesia. *International Journal of Supply Chain Management*, *8*(6), 705–717.

Chandra, T., Renaldo, N., & Putra, L. C. (2018). Stock Market Reaction towards SPECT Events using CAPM Adjusted Return. *Opción*, *Año 34*(Especial No.15), 338–374.

Chemmanur, T. J., & Yan, A. (2019). Advertising, Attention, and Stock Returns. *Quarterly Journal of Finance*, *9*(3), 1–51. https://doi.org/10.1142/S2010139219500095

Clara, Z. N., & Firli, A. (2017). Terrorism Event Study: The Analysis of Abnormal Return And Trading Volume Activity Before, During and After Terrorism Act (A Case Study on Indonesia Terrorism Acts in 2005-2015). *International Journal of Economics, Commerce and Management*, *V*(2), 177–185.

Dang, H. N., Nguyen, T. T. C., & Tran, D. M. (2020). The Impact of Earnings Quality on Firm Value: The Case of Vietnam. *Journal of Asian Finance, Economics and Business*, *7*(3), 63–72. https://doi.org/10.13106/jafeb.2020.vol7.no3.63

Daoud, J. I. (2017). Multicollinearity and Regression Analysis. In *Journal of Physics: Conference Series* (Vol. 949, pp. 1–6).

https://doi.org/10.1088/1742-6596/949/1/012009

Dimaranty, O., Junaedi, A. T., & Panjaitan, H. P. (2019). ANALYSIS OF THE EFFECT OF CURRENCY EXCHANGE, PROFITABILITY, DEBT, AND COMPANY SIZE ON STOCK RETURNS (CASE STUDY OF COMPANIES LISTED ON IDX INPLANTATION SUB SECTOR). *Procuratio: Jurnal Ilmiah Manajemen*, *7*(2), 165–173.

Dita, A. H., & Murtaqi, I. (2014). The Effect of Net Profit Margin, Price To Book Value and Debt To Equity Ratio to Stock Return In The Indonesian Consumer Goods Industry. *JOURNAL OF BUSINESS AND MANAGEMENT*, *3*(3), 305–315. Retrieved from http://journal.sbm.itb.ac.id/index.php/jbm/article/view/1214

Forti, C. A. B., Peixoto, F. M., & Alves, D. L. e. (2015). Determinant Factors of Dividend Payments in Brazil. *Revista Contabilidade e Financas*, 1–14. https://doi.org/10.1590/1808-057x201512260

Hafni, L., & Anggraini, S. V. (2018). Pengaruh Current Ratio (CR), Debt Equity Ratio (DER), Earning Per Share (EPS), Return on Equity, dan Price Earning Ratio (PER) Terhadap return Saham Pada Perusahaan Food and Beverage yang Terdaftar Di Bursa Efek Indonesia. *Bilancia: Jurnal Ilmiah Akuntansi*, *2*(2), 137–149.

Hafni, L., Renaldo, N., Chandra, T., & Thaief, I. (2020). The Use of Regression Models with Supply Chain Management to Increase Financial Satisfaction of Generation Z. *International Journal of Supply Chain Management*, *9*(5), 1641–1650.

Hosain, M. Z. (2016). Determinants of the Dividend Payout Policy : A Study on Listed Private Commercial Banks of Dhaka Stock Exchange Limited in Bangladesh. *IOSR Journal of Economics and Finance (IOSR-JEF)*, *7*(5), 1–10. https://doi.org/10.9790/5933-0705040110

Hutauruk, M. R., Mintarti, H. S., & Paminto, H. A. (2014). Influence of Fundamental Ratio, Market Ratio and Business Performance to The Systematic Risk and Their Impacts to The Return on Shares at The Agricultural Sector Companies at The Indonesia Stock Exchange for The Period of 2010 -2013. *Academic Research International*, *5*(September), 149–168.

Ibrahim, D. C., & Panjaitan, H. P. (2020). Influence of NPM, PBV, DER, TATO, and EPS on Stock Prices of Automotive Sub Sector Companies and Its Components Listed on IDX in 2014-2018. *Journal of Applied Business and Technology*, *1*(3), 151–162.

Irfani, A. (2012). A Study of Financial Performance and Stock Return in IPO Underpricing Phenomenon on the Indonesia Stock Exchange (IDX). *INDONESIAN CAPITAL MARKET REVIEW*, *IV*(2), 101–116.

Irman, M., Okalesa, & Hadi, S. (2018). Analisis Pengaruh Return on Equity, Debt To Equity Ratio, Current Ratio Dan Earning Per Share Terhadap Harga Saham Pada Perusahaan Infrastruktur, Utilitas Dan Transportasi Yang Terdaftar Di Bursa Efek Indonesia Periode 2014 – 2017. *Bilancia: Jurnal Ilmiah Akuntansi*, *2*(4), 451–464.

Khomsiyah. (2001). PERKEMBANGAN AKUNTANSI KEPERILAKUAN DAN DAMPAKNYA PADA PENELITIAN AKUNTANSI DI INDONESIA. *Media Riset Akuntansi, Auditing Dan Informasi*, *1*(1), 73–80. https://doi.org/10.25105/mraai.v1i1.1761

Kusiyah, & Arief. (2017). The determinants of firm value on commercial banks in Indonesia. *Journal of Engineering and Applied Sciences*. https://doi.org/10.3923/jeasci.2017.171.175

Lind, D. A., Marchal, W. G., & Wathen, S. A. (2018). *Statistical Techniques in Business & Economics*. *Economics* (Seventeent). New York: McGraw-Hill Education.

Machdar, N. M, M, A. H. M. D. R., & Murwaningsari, E. (2017). The Effects of Earnings Quality, Conservatism, and Real Earnings Management on the Company's Performance and Information Asymmetry as a Moderating Variable. *International Journal of Economics and Financial Issues*, *7*(2), 309–318.

Nwakuya, M. T., & Nwabueze, J. C. (2018). Application of Box-Cox Transformation as a Corrective Measure to Heteroscedasticity Using an Economic Data. *American Journal of Mathematics and Statistics*, *8*(1), 8–12. https://doi.org/10.5923/j.ajms.20180801.02

Pažický, M. (2017). Stock Price Simulation Using Bootstrap and Monte Carlo. *Scientific Annals of Economics and Business*, *64*(2), 155–170. https://doi.org/10.1515/saeb-2017-0010

Ramadan, I. Z. (2016). Panel Data Approach of the Firm's Value Determinants: Evidence from the Jordanian Industrial Firms. *Modern Applied Science*, *10*(5), 163–169. https://doi.org/10.5539/mas.v10n5p163

Razali, N. M., & Wah, Y. B. (2011). Power Comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors, and Anderson-Darling Tests. *Journal of Statistical Modeling and Analysis*, *2*(1), 21–33.

Rehman, O. U. (2016). Impact of Capital Structure and Dividend Policy on Firm Value. *Journal of Poverty, Investment and Development*, *21*(2006), 40–57. Retrieved from https://iiste.org/Journals/index.php/JPID/article/view/28887

Renaldo, N., Sudarno, & Hutahuruk, M. B. (2020). THE IMPROVEMENT OF GENERATION Z FINANCIAL WELL-BEING IN PEKANBARU. *JURNAL MANAJEMEN DAN KEWIRAUSAHAAN*, *22*(2), 142–151. https://doi.org/10.9744/jmk.22.2.142

Salamat, W. A. Al, & Mustafa, H. H. H. (2016). The Impact of Capital Structure on Stock Return: Empirical Evidence from Amman Stock Exchange. *International Journal of Business and Social Science*, *7*(9), 183–196. Retrieved from http://ijbssnet.com/journals/Vol_7_No_9_September_2016/19.pdf

Samimi, S., & Oskuee, S. A. P. (2016). Investigating The Effect of Corporate Sovereignty Mechanisms on The Stock Return of Listed Companies of Tehran Stock Exchange. *International Business Management*, *10*(5), 6638–6644.

Se Tin, S. T., Lidya, A., & Meyliana, M. (2017). A new classification of topics in behavioral accounting: current research direction from BRIA journal in the past 10 years. *Journal of Business and Retail Management Research (JBRMR)*, *11*(3), 47–58.

Siahaan, U. M., Suhadak, Handayani, S. R., & Solimun. (2014). The Influence of Company Size and Capital Structure towards Liquidity, Corporate Performance and Firm Value, for Large and Small Group Companies. *European Journal of Business and Management*, *6*(18), 148–157.

Stefano, K. (2015). The Impact of Financial Ratio toward Stock Return of Property Industry in Indonesia. *IBuss Management*, *3*(2), 222–231.

Suyono, Andi, Utari, D., & Hairudin. (2019). DETERMINANT OF COMPANY'S GROWTH: STUDY ON CONVENTIONAL BANKS IN INDONESIA PERIOD 2013-2017. *Bilancia: Jurnal Ilmiah Akuntansi*, *3*(3), 335–347. Retrieved from www.ejournal.pelitaindonesia.ac.id/ojs32/index.php/BILANCIA/index

Suyono, Chandra, T., & Irawati. (2017). Analisis Faktor-Faktor Yang Mempengaruhi Profitabilitas Perbankan (Studi Bank Umum Di Indonesia Priode 2006-2010). *Procuratio: Jurnal Ilmiah Manajemen*, *5*(2), 262–275.

Suyono, Yusrizal, & Solekhatun, S. (2019). Analisis Pengaruh Current Ratio, Total Debt To Equity Ratio, Inventory Turnover, Total Assets Turnover, Receivable Turnover Dan Size Perusahaan Terhadap Pertumbuhan Laba Pada Perusahaan Food And Beverage Yang Terdaftar Di Bursa Efek Indonesia Periode 2013. *Bilancia: Jurnal Ilmiah Akuntansi*, *3*(4), 389–405.

Uyanto, S. S. (2020). Power Comparisons of Five Most Commonly Used Autocorrelation Tests. *Pakistan Journal of Statistics and Operation Research*, *16*(1), 119–130. https://doi.org/10.18187/pjsor.v16i1.2691

Wijaya, E. (2016). Dinamika Ukuran Perusahaan, Tangibilitas, Likuiditas, Dan Profitabilitas Terhadap Struktur Modal Industri Sektor Perdagangan Periode Krisis Global (2008-2009) Dan Periode Pasca Krisis Global (2010-2011). *Kurs: Jurnal Akuntansi, Kewirausahaan Dan Bisnis*, *1*(1), 34–50.

Wijaya, E., & Jessica. (2017). ANALYSIS OF EFFECT OF STRUCTURE OF ASSETS, ITS SIZE, PROFITABIILTY, GROWTH OPPORTUNITIES, TANGIBILITY, BUSINESS RISKS AND CAPITAL STRUCTURE LIQUIDITY AGAINST SECTOR COMPANIES IN THE PROPERTY & REAL ESTATE LISTED IN INDONESIA STOCK EXCHANGE IN 2011-2015. *Procuratio: Jurnal Ilmiah Manajemen*, *5*(4), 440–451.

Wijaya, J. A. (2015). The Effect of Financial Ratios toward Stock Returns among Indonesian Manufacturing Companies. *IBuss Management*, *3*(2), 261–271.