https://doi.org/10.48047/AFJBS.6.4.2024.1171-1193

African Journal of Biological Sciences

Journal homepage: http://www.afjbs.com

Research Paper Open Access

Analysis of Factors Affecting Firm Value with Ownership Structure as A Moderating Variable in Companies Listed on the LQ45 Index and The Hang Seng Index

Ningrum Trija Kesuma[1], Iskandar Muda[2], Rina Br Bukit[3]

[1,2,3]Universitas Sumatera Utara

ntrijakesuma@gmail.com

Article History
Volume 6, Issue 4, 2024
Received: 07 March 2024
Accepted : 09 June 2024
doi:
10.48047/AFJBS.6.4.2024.1171-1193

ABSTRACT

This study was conducted to determine how profitability, liquidity, sustainable growth rate, and company size affect firm value in companies listed on the LQ45 and Hang Seng indexes and whether ownership structure can moderate this effect. The research is causal associative research conducted using a quantitative approach. The population in this study was companies listed on the LQ45 index, which totalled 45 companies, and the Hang Seng index, which totalled 85 companies, from 2020 to 2023. The results obtained in this study indicate that profitability has a positive and significant effect on firm value in companies listed on the LQ45 index but has no effect on companies listed on the Hang Seng index. A sustainable growth rate positively affects firm value in companies listed on the Hang Seng index but does not affect companies listed on the LQ45 index. Meanwhile, liquidity and firm size does positive significant affect firm value in companies listed on the LQ45 but does not affect on Hang Seng indexes. Other results in this study indicate that ownership structure can moderate the effect of profitability on firm value in companies listed on the Hang Seng index. However, it is not able to moderate the effect of profitability on companies listed on the LQ45 index. The effect of liquidity, sustainable growth rate, and company size on firm value cannot be moderated by ownership structure in companies listed on the LQ45 and the Hang Seng indexes.

Keywords: Profitability; Liquidity; Sustainable Growth Rate; Firm Size; Firm Value, Ownership Structure

Introduction

In recent years, stocks have become popular as an investment alternative that promises high returns. Investors tend to choose stocks because they can earn more profits than bonds. According to data from the Indonesian Central Securities Depository (KSEI), in 2022, there will be 10.31 million capital market investors. This number increased by 37.68% from 2021, which amounted to 7.49 million people, and jumped by 536.42% in the last five years, or since 2018. The increase in the number of stock investors cannot be separated from the efforts of the Indonesia Stock Exchange (IDX) in the form of the Yuk Nabung Saham (YNS) campaign to

encourage the public as potential investors to get involved in capital market investment through regular and sustainable stock purchases.

According to Taufani (2024), the LQ45 index is one of the stock indices containing 45 blue-chip stocks on the IDX. The blue-chip refers to large capitalization stocks that are often traded and have been on the exchange for a long time. LQ45 stock stands for Liquid 45, which refers to 45 highly liquid stocks that generate high profits; this LQ45 stock is an investment term that refers to the LQ45 index. Still on the Asian continent like Indonesia with its LQ45 index, Hong Kong is a very stable international financial centre, trading centre, and shipping centre. (Z. Lin, 2023). The Hang Seng Index with the symbol HSI, established in 1969, is the average market capitalization value of blue-chip stocks on the Hong Kong Stock Exchange, accounting for 70% of the overall market capitalization. The index covers a wide range of industry sectors and major companies in the Asia Pacific region, thus providing a more comprehensive perspective on economic and investment conditions in the region. It is the highest market capitalization company in Hong Kong.

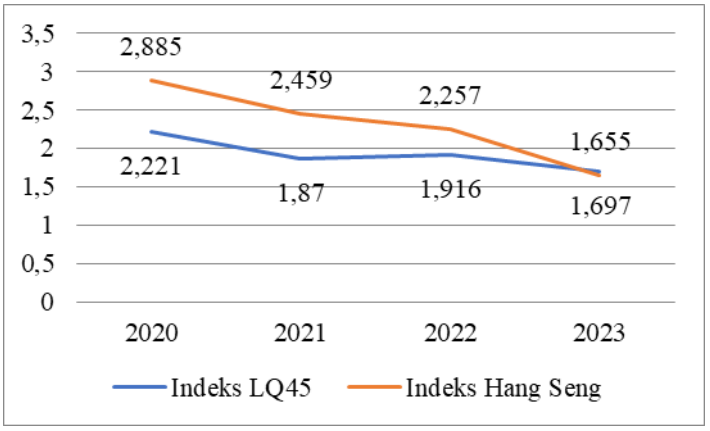

Figure 1. Firm Value Phenomenon of the LQ45 Index and the Hang Seng Index

The phenomenon of company value or Tobin's q listed on the LQ45 index and the Hang Seng index experienced significant fluctuations in 2020-2023. Starting in 2020, the average movement in the value of companies with the LQ45 index was 2.221. In 2021, it fell to 1.870; this reflects a decrease in the market value of companies in the LQ45 index compared to the book value or replacement cost of assets. In 2022, there was a small increase to 1.916; this indicates a recovery or increase in the market valuation of these companies. However, in 2023, there was another decline, with the lowest value for four consecutive years to 1.697. This shows the instability of the capital market that large companies in Indonesia still feel. Meanwhile, the average movement of firm value or Tobin's q in companies with the Hang Seng Index shows more significant fluctuations over the past four years. The firm value continues to decline; starting in 2020, it is 2.885; in 2021, it becomes 2.459; in 2022, it drops to 2.257; and in 2023, it rapidly declines to 1.665. This is a concern considering that Hong Kong is an international financial, trade, and stable shipping center. Although the average company value or Tobin's Q in companies listed on the LQ45 index is lower than that in companies listed on the Hang Seng Index, fluctuations in value tend to be stable within a certain period. From 2020 to 2023, companies in the Hang Seng Index continued to decline, while companies in the LQ45 Index showed a slight increase in 2022 before declining again in 2023.

Table 1. LQ45 Ratio 2019-2022

No	Firm Name	2020	2021	2022	2023
1	Adaro Energy Indonesia Tbk.	0,89	1,08	1,13	0,76
2	Bank Rakyat Indonesia (Persero) Tbk.	1,25	1,20	1,24	1,28
3	Indofood Sukses Makmur Tbk.	0,88	0,83	0,81	0,77
4	Sarana Menara Nusantara Tbk.	2,13	1,69	1,64	1,50
5	Unilever Indonesia Tbk.	14,41	9,00	10,57	8,88

The value of companies listed on the LQ45 index fluctuated from 2020 to 2023, as happened in the companies Adaro Energy Indonesia Tbk, Bank Rakyat Indonesia (Persero) Tbk, and Unilever Indonesia Tbk, which continue to experience fluctuations or ups and downs in company value every year. Meanwhile, the firm value of Indofood Sukses Makmur Tbk and Sarana Menara Nusantara Tbk continues to decline every year.

Table 2. Hang Seng Ratio 2019-2022

No	Firm Name	2020	2021	2022	2023
1	CLP Holdings Limited	1,25	1,30	1,13	1,19
2	WH Group Limited	5,38	3,95	3,59	3,53
3	China Petroleum & Chemical Corporation	0,75	0,78	0,53	0,77
4	Power Assets Holdings Limited	1,04	1,17	1,08	1,09
5	Tencent Holdings Limited	4,94	3,12	2,82	2,07

There are fluctuations in the firm value in companies listed on the Hang Seng index from 2020 to 2023, as occurs in companies CLP Holdings Limited, China Petroleum & Chemical Corporation, and Power Assets Holdings Limited continue to experience fluctuations or ups and downs in company value every year. Meanwhile, the firm value of WH Group Limited and Tencent Holdings Limited continues to decline every year.

Firm value is thought to be influenced by profitability, liquidity, sustainable growth rate, and company size with moderating ownership structure. profitability uses the Net Profit Margin (NPM) indicator. Furthermore, Liquidity uses the Current Ratio (CR) indicator. Company size is measured using the total assets indicator, and Blockholder Ownership as an indicator of the Ownership Structure. It is hoped that this research can be used as evaluation material for investors and related parties and provide guidance on company performance in making better investment decisions.

Literature Review

Signalling theory

Signalling theory by Michael Spence in 1973 states that company executives with a deep understanding of the company are motivated to communicate information to potential investors to increase the company's share price. According to Hartono (2013), signal theory highlights that it is very important for companies to disclose information to external parties when making investment decisions. Capital market investors need analytical tools to make investment decisions in the form of comprehensive, relevant, precise, and efficient information (Santoso, 2020). Hartono (2013) states that the information disseminated as an announcement serves as a signal to investors when making investment decisions. If the announcement contains positive value, it is expected to be able to get a response from the market after being received by investors. When all

market participants have received the information announcement, they interpret and analyze it first in the form of good news (good signal) or bad news (bad signal). Signalling theory underlies management actions to provide direction to investors regarding management's view of the company's future through financial reports.

Firm Value

According to Indrarini (2019), firm value is the investor's perception of the manager's success rate in managing the company's resources entrusted to him and is often associated with stock prices. Firm value summarizes investors' collective assessment of a company's performance, both current performance and future projections (Brealey et al., 2007). Firm value is reflected in the point of view of each investor and is closely related to the firm's value. When a company is highly valued, the value of the company also tends to be highly valued, indicating that the company has a high level of trust. The ratio that provides the best information is Tobin's Q or Q ratio because it can explain various phenomena in corporate activities, such as cross-sectional differences in investment decision-making and diversification (Claessens & Fan, 2002).

Profitability

Profitability ratios refer to the company's overall financial policies and operating decisions (Brigham & Houston, 2012). Owners and potential investors tend to pay attention to profitability because shareholders expect the company to provide higher dividends and increase the value of their investment. As a result, investors will be more confident in using their capital to get maximum results (Sinurat, 2021). Therefore, high profitability can increase company value and shareholder welfare so that firm value increases.

H1a. Profitability affects the firm value in companies listed on the LQ45 Index.

H1b. Profitability affects the firm value in companies listed on the Hang Seng Index.

Liquidity

Liquidity shows the ability of a company to fulfil its short-term obligations that are due immediately (Kasmir, 2010: 110). Companies that can pay and fulfil short-term obligations on time indicate that the company is in a liquid condition; this means that the smaller the company is experiencing financial difficulties. Therefore, companies always try to maintain their liquidity conditions to increase investor and creditor confidence that the company is always in a safe and stable condition (Suhendi & Firmansyah, 2022). This means that liquidity is related to firm value because investors pay attention to the company's ability to meet short-term obligations before deciding to invest. Signal theory explains that a company with a high liquidity ratio is a positive signal for investors. With high liquidity, it will increase investor confidence in the company so that the company's share price will increase.

H2a. Liquidity affects the firm value in companies listed on the LQ45 Index.

H2b. Liquidity affects the firm value in companies listed on the Hang Seng Index.

Sustainable Growth Rate

In signalling theory, the Sustainable Growth Rate (SGR) acts as a signal for external investors about the quality of management and growth prospects of the company. Sustainable Growth Rate is a concept based on signalling theory that shows the signal of the company's progress, whether the investor's decision can generate a return on the investment provided by the owner of the company or the depositor of funds to guarantee and as a tool to measure perceptions that unify the state of the company in the form of signals for investors between company management and

investors (Majdi et al., 2022, Rinaldo et al., 2022, Xiang et al., 2023, Zee et al., 2023). Sustainable growth must be achieved so the company can obtain strategic benefits from its growth (Raisch & von Krogh, 2007). Investors will appreciate companies with higher SGRs because companies with higher SGRs are better able to rely on internal funding sources to support their sales growth (Listiani & Supramono, 2020, Ponkratov et al., 2022). Companies with high SGR tend to be valued higher by the market, as they can grow using their internal resources without the high risks associated with additional debt.

H3a. Sustainable Growth Rate affects the firm value in companies listed on the LQ45 Index.

H3b. Sustainable Growth Rate affects the firm value in companies listed on the Hang Seng Index.

Firm Size

Large company size tends to increase investors' desire to invest in the company because it is believed to be more profitable than small companies. Firm size can convey signals to stakeholders. Generally, large-scale companies obtain more resources and more ability to meet stakeholder expectations. A company that significantly increases its size can signal its positive growth prospects to investors. According to Subroto (2014: 79), large companies are believed to be superior to small companies. Investors feel safer when investing by buying shares in large companies. Companies with larger sizes are considered to have a lower level of negative risk because they have greater access or reach to the capital market to obtain funds and increase company value (Sundarsih & Andriati, 2022).

H4a. Firm size affects the firm value in companies listed on the LQ45 Index.

H4b. Firm size affects the firm value in companies listed on the Hang Seng Index.

Ownership Structure

In low management (insider) ownership, the ability to equalize interests and the effectiveness of control between managers and owners have a significant impact on firm value. However, in high management (insider) ownership, the effectiveness will be reduced. Blockholder ownership is associated with increased information transparency such as higher response to stock market signals (Kau, Linck, and Rubin 2008). If management has substantial control, they can choose to retain earnings for investment or dividend distribution, which in turn affects firm value. In addition, a dominant ownership structure by institutional investors or large shareholders may influence the firm's decisions regarding liquidity management. A dominant ownership structure by institutional investors or large shareholders may affect a firm's investment decisions. These investors may have a preference for long-term sustainable growth strategies and may influence companies to adopt strategies that support a higher Sustainable Growth Ratio (SGR). Dominant shareholders or large institutional investors may influence a company's risk management policies. A concentrated ownership structure may influence a company's risk management more effectively. Large shareholders may have the ability to better monitor and manage operational, financial and strategic risks, which can reduce potential losses and increase firm value.

H5a. Ownership structure can moderate profitability on firm value in companies listed on the LQ45 Index.

H5b. Ownership structure can moderate profitability on firm value in companies listed on the Hang Seng Index.

H6a. Ownership structure can moderate liquidity on firm value in companies listed on the LQ45 Index.

H6b. Ownership structure can moderate liquidity on firm value in companies listed on the Hang Seng Index.
H7a. Ownership structure can moderate sustainable growth rate on firm value in companies listed on the LQ45 Index.
H7b. Ownership structure can moderate sustainable growth rate on firm value in companies listed on the Hang Seng Index.
H8a. Ownership structure can moderate firm size on firm value in companies listed on the LQ45 Index.
H8b. Ownership structure can moderate firm size on firm value in companies listed on the Hang Seng Index.

The conceptual framework of this study can be reviewed in the figure below.

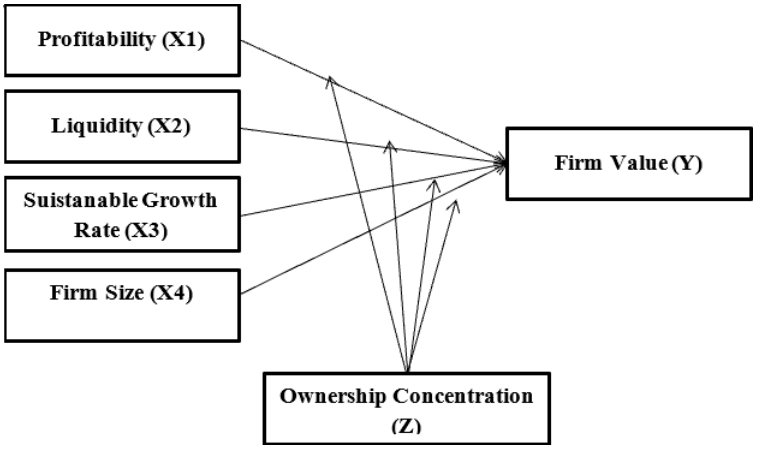

Figure 2. Conceptual Framework

Methods

This type of causal associative research (causal effect) aims to investigate the impact and relationship between facts and phenomena and find factual details about the factors that influence it (Sekaran, 2003: 124). This study examines the relationship between profitability, liquidity, sustainable growth rate, and firm size on firm value moderated by the ownership structure variable. The population used are all companies listed in each index, namely the LQ45 index, totalling 45 companies and the Hang Seng Index, totalling 76 companies during the 2019-2022 period. The sample of this study was determined using the purposive sampling method, namely, samples selected from special considerations (Sekaran & Bougie, 2016: 248). The sample selection criteria are all companies listed on the LQ45 index and Hang Seng index and companies listed on the LQ45 index and Hang Seng index from 2020-2023. Based on the sampling selection process that has been carried out, a sample of 22 of the 45 companies listed on the LQ45 Index and 37 of the 82 companies listed on the Hang Seng Index is obtained. The data used is secondary data using documentation studies in the form of information sourced from available reports, such as books, journals, the internet, and other materials related to research material. Data is obtained from the annual financial statements of companies listed in the LQ45 index and the Hang Seng index from 2019 to 2022 through the websites www.idx.co.id and www.hsi.com.hk.

Methodology

The technique used is Multiple Linear Regression analysis to measure the effect of two or more independent variables on the dependent variable. The data processing tool in the equation model in this study is the Eviews 13 application. The data analysis carried out includes research data analysis, classical assumption test, multiple linear regression analysis and hypothesis testing.

Data Analysis

The results of statistical data analysis of research on companies listed in LQ45 in 2020-2023, namely the value of the Company has an average value of 1,926 with a standard deviation of 2,143. The highest company value was at PT Unilever Indonesia Tbk. in 2020, amounting to 14.415, and the lowest was owned by PT Indah Kiat Pulp & Paper Tbk. in 2023, amounting to 0.645. Profitability has an average value of 0.191 with a standard deviation of 0.122. The highest profitability was at PT Bank Central Asia Tbk. in 2022, amounting to 0.564, and the lowest was owned by PT Indo Tambangraya Megah Tbk. in 2020, amounting to 0.032. Liquidity has an average value of 0.015 with a standard deviation of 0.011. The highest liquidity was at PT Kalbe Farma Tbk. in 2023, amounting to 0.049, and the lowest was owned by PT Sarana Menara Nusantara Tbk. in 2023, amounting to 0.002. Sustainable Growth Rate has an average value of 0.308 with a standard deviation of 2.386. The highest Sustainable Growth Rate was at PT United Tractors Tbk. in 2022, amounting to 16.683, and the lowest was owned by PT United Tractors Tbk. in 2023, amounting to -6.680. Firm Size has an average value of 32.431 with a standard deviation of 1.452. The largest firm size was at PT Bank Mandiri (Persero) Tbk. in 2023, amounting to 35.315, and the lowest was owned by PT Indo Tambangraya Megah Tbk. in 2020, amounting to 30.425. The ownership structure has an average value of 0.595 with a standard deviation 0.098. The highest ownership structure was at PT Unilever Indonesia Tbk. in 2020-2024, amounting to 0.850, and the lowest was owned by PT Indofood Sukses Makmur Tbk. in 2020-2023, amounting to 0.501.

The results of statistical data analysis of research on companies listed on Hang Seng in 2020-2023, namely the value of the Company has an average value of 2.320772 with a standard deviation of 3.755031. The highest Company Value was at Techtronic Industries Company Limited in 2020, amounting to 23.37893, and the lowest was owned by Sun Hung Kai Properties Limited in 2023, amounting to 0.424765. Profitability has an average value of 0.307945 with a standard deviation of 0.742461. The highest profitability was at Power Assets Holdings Limited in 2020 at 4.828400, and Link Real Estate Investment Trust owned the lowest in 2020 at -1.597500. Liquidity has an average value of 1.274284 with a standard deviation of 0.780948. The highest liquidity is in PT Kalbe Farma Tbk. in 2023, amounting to 4.545306, and the lowest is owned by PT Sarana Menara Nusantara Tbk. in 2023, amounting to 0.130447. Sustainable Growth Rate has an average value of 0.045872 with a standard deviation of 0.099684. The highest Sustainable Growth Rate was at PT United Tractors Tbk. in 2022, amounting to 0.281299, and the lowest was owned by PT United Tractors Tbk. in 2023, amounting to -0.941263. Firm Size has an average value of 34.89025 with a standard deviation of 1.936449. The highest firm size was at Industrial and Commercial Bank of China Limited in 2023, amounting to 39.14952, and the lowest was owned by Hengan International Group Company Limited in 2022, amounting to 31.55810. The ownership Structure has an average value of 0.642670 with a standard deviation of 0.212453. The highest ownership structure was in Hong Kong Exchanges and Clearing Limited in 2020-2024, amounting to 0.984219, and the lowest was owned by The Hong Kong and China Gas Company Limited in 2020, amounting to 0.113953.

Table 1. Descriptive Statistic Analysis Result for LQ45 Firms

	X1	X2	X3	X4	Y	Z
Mean	0.191089	0.015110	0.308137	32.43115	1.925865	0.594532
Median	0.147750	0.014850	0.067431	32.25282	1.316099	0.569129
Maximum	0.564200	0.049100	16.68309	35.31545	14.41466	0.849918
Minimum	0.031900	0.001822	-6.679921	30.42479	0.645210	0.500671
Std. Dev.	0.122240	0.011371	2.386117	1.452569	2.143635	0.098095
Skewness	1.061080	0.801745	4.308875	0.593078	4.017907	1.369508
Kurtosis	3.609966	3.294628	31.18317	2.158610	20.10260	4.089941
Jarque-Bera	17.06467	9.302959	3039.948	7.402167	1249.756	30.41564
Probability	0.000197	0.009547	0.000000	0.024697	0.000000	0.000000
Sum	16.05149	1.269203	25.88351	2724.216	161.7726	49.94068
Sum Sq. Dev.	1.240229	0.010732	472.5649	175.1264	381.3991	0.798671
Observations	84	84	84	84	84	84

Table 2. Descriptive Statistic Analysis Result for Hang Seng Firms

	X1	X2	X3	X4	Y	Z
Mean	0.307945	1.274284	0.045872	34.89025	2.320772	0.642679
Median	0.141450	1.091617	0.045127	34.72494	0.985858	0.656504
Maximum	4.828400	4.545306	0.281299	39.14952	23.37893	0.984219
Minimum	-1.597500	0.130447	-0.941263	31.55810	0.424765	0.113953
Std. Dev.	0.742461	0.780948	0.099684	1.936449	3.755031	0.212453
Skewness	4.855881	1.418983	-5.787272	0.479926	3.834967	-0.320540
Kurtosis	29.74344	5.475176	59.57422	2.449206	18.40087	2.442349
Jarque-Bera	5666.708	99.26382	23342.28	8.572819	2072.103	5.053708
Probability	0.000000	0.000000	0.000000	0.013754	0.000000	0.079910
Sum	51.73470	214.0797	7.706530	5861.561	389.8896	107.9702
Sum Sq. Dev.	92.05848	101.8499	1.659466	626.2227	2354.743	7.537779
Observations	168	168	168	168	168	168

REM analysis test results on companies listed on the LQ45 index as follows:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$$

Firm Value = 23.04861 + 2.215500 Profitability - 7.057584 Liquidity - 0.019832 Sustainable Growth Rate - 0.690231 Firm Size + 1.600614 Ownership Structure + ε

REM analysis test results on companies listed on the Hang Seng index as follows:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$$

Firm Value = 36.44741 - 0.255193 Profitability + 0.008849 Liquidity + 1.164818 Sustainable Growth Rate - 0.955399 Firm Size - 1.211588 Ownership Structure +

Table 3. LQ45 REM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.04861	8.478754	2.718396	0.0081
X1	2.215500	1.270190	1.744228	0.0851
X2	-0.070576	0.177956	-0.396592	0.6928
X3	-0.019832	0.031630	-0.627018	0.5325
X4	-0.690231	0.256863	-2.687159	0.0088
Z	1.600614	2.162367	0.740214	0.4614

Table 4. Hang Seng REM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36.44741	9.560265	3.812385	0.0002
X1	-0.255193	0.413245	-0.617533	0.5378
X2	0.008849	0.356313	0.024835	0.9802
X3	1.164818	1.199555	0.971042	0.3330
X4	-0.955399	0.274067	-3.485999	0.0006
Z	-1.211588	1.479082	-0.819148	0.4139

The results of the Chow test analysis on companies listed in LQ45 in 2020-2023 with the probability value obtained is 0.000, which means less than 0.05 (< 0.05), then H0 is rejected, and H1 is accepted. So, it can be concluded that the best model chosen is the Fixed Effect Model (FEM). The results of the Chow test analysis on companies listed on Hang Seng in 2020-2023 with the probability value obtained is 0.000, which means it is smaller than 0.05 (<0.05), then H0 is rejected, and H1 is accepted. So, it can be concluded that the best model chosen is the Fixed Effect Model (FEM).

Table 5. LQ45 Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	25.328204	(20,58)	0.0000
Cross-section Chi-square	191.151313	20	0.0000

Table 6. Hang Seng Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	32.577542	(41,121)	0.0000
Cross-section Chi-square	418.004844	41	0.0000

The results of the Hausman test analysis on companies listed in LQ45 in 2020-2023 with the probability value obtained is 0.0843, which means greater than 0.05 (>0.05), then H0 is accepted, and H1 is rejected. So, the best model chosen is the Random Effect Model (REM). The results of the Hausman test analysis on companies listed on Hang Seng in 2020-2023 with the probability value obtained is 0.0010, which means less than 0.05 (>0.05), then H0 is rejected, and H1 is accepted. So, it can be concluded that the best model chosen is the Fixed Effect Model (FEM)

Table 7. LQ45 Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.696836	5	0.0843

Table 8. Hang Seng Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	20.625098	5	0.0010

Lagrange Multiplier test above, it is known that the results of the LM test analysis on companies listed in LQ45 in 2020-2023 are that the Breusch-Pagan test value obtained is 0.000 which means it is smaller than 0.05 (<0.05), then H0 is rejected and H1 is accepted.

Table 9. LM LQ45 Test Result

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	76.06104 (0.0000)	1.282629 (0.2574)	77.34367 (0.0000)
Honda	8.721298 (0.0000)	-1.132532 (0.8713)	5.366068 (0.0000)
King-Wu	8.721298 (0.0000)	-1.132532 (0.8713)	2.093671 (0.0181)
Standardized Honda	9.889519 (0.0000)	-0.902419 (0.8166)	2.722035 (0.0032)
Standardized King-Wu	9.889519 (0.0000)	-0.902419 (0.8166)	-0.086480 (0.5345)
Gourieroux, et al.	--	--	76.06104 (0.0000)

The probability value is 0.076956, greater than the significance level of 0.05. Thus, the data of companies listed on the LQ45 index used in this study are normally distributed. A probability value of 0.054526 means that the significance level is greater than 0.05. Thus, the data of companies listed on the Hang Seng index used in this study are normally distributed.

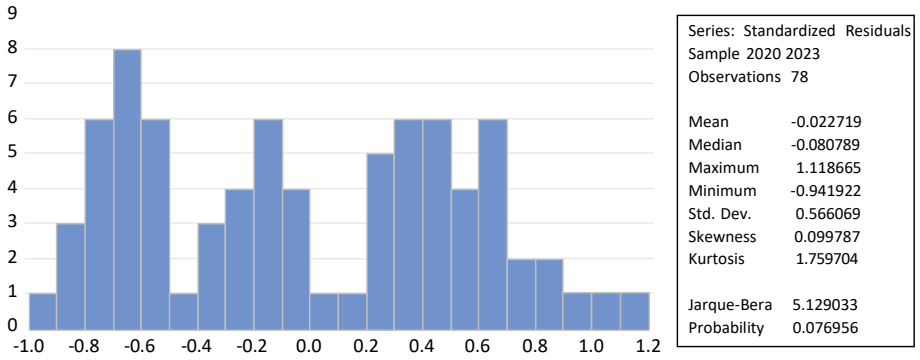

Figure 3. LQ45 Normality Test Result

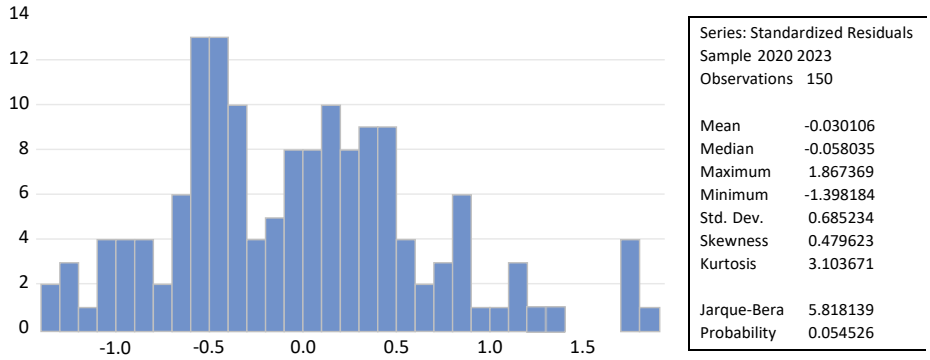

Figure 4. Hang Seng Normality Test Result

In LQ45, the Durbin-Watson value α = 5%, k = 4, n = 78, dL =, dU = 1.253281, where the value lies between the dU and (4-dU) values. So, it can be concluded that there is no autocorrelation in the regression model used in this study. Durbin-Watson value α = 5%, k = 4, n = 101, dL =, dU = 1.475513, where the value lies between the dU and (4-dU) values. So, there is no autocorrelation in the regression model used for Hang Seng companies in this study.

Table 10. LQ45 Autocorrelation Test Result

R-squared	0.328361	Mean dependent var	0.202837
Adjusted R-squared	0.281719	S.D. dependent var	0.195491
S.E. of regression	0.163134	Sum squared resid	1.916108
F-statistic	7.040078	Durbin-Watson stat	1.253281
Prob(F-statistic)	0.000021		

Table 11. Hang Seng Autocorrelation Test Result

R-squared	0.955103	Mean dependent var	0.858567
Adjusted R-squared	0.933975	S.D. dependent var	0.192932
S.E. of regression	0.049575	Akaike info criterion	-2.912823
Sum squared resid	0.167120	Schwarz criterion	-2.058378
Log likelihood	180.0976	Hannan-Quinn criter.	-2.566919
F-statistic	45.20540	Durbin-Watson stat	2.276511
Prob(F-statistic)	0.000000		

There is no correlation value greater than 0.8, so it can be concluded that the model used in this research on LQ45 companies and Hang Seng companies does not experience multicollinearity problems.

Table 12. LQ45 Multicollinearity Test Result

	Y	X1	X2	X3	X4	Z
Y	1.000000	-0.101142	0.257865	-0.058331	-0.473465	0.128725
X1	-0.101142	1.000000	-0.459053	-0.028799	0.507813	-0.027736
X2	0.257865	-0.459053	1.000000	0.055296	-0.599979	0.174690
X3	-0.058331	-0.028799	0.055296	1.000000	-0.016963	0.030178
X4	-0.473465	0.507813	-0.599979	-0.016963	1.000000	-0.232097
Z	0.128725	-0.027736	0.174690	0.030178	-0.232097	1.000000

Table 13. Hang Seng Multicollinearity Test Result

	Y	X1	X2	X3	X4	Z
Y	1.000000	0.262233	-0.439145	0.368011	0.442878	-0.280287
X1	0.262233	1.000000	0.043305	-0.193032	-0.305925	-0.233072
X2	-0.439145	0.043305	1.000000	0.002481	-0.267513	0.009059
X3	0.368011	-0.193032	0.002481	1.000000	0.501689	0.287316
X4	0.442878	-0.305925	-0.267513	0.501689	1.000000	0.300863
Z	-0.280287	-0.233072	0.009059	0.287316	0.300863	1.000000

Each variable has a probability value greater than 0.05, so it can be concluded that the model used in this research on LQ45 companies does not experience heteroscedasticity problems. In Hang Seng companies, each variable has a probability value greater than 0.05, so it can be concluded that the model used in this study does not experience heteroscedasticity problems.

Table 14. LQ45 Heteroscedasticity Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.987565	1.380267	0.715488	0.4766
X1	0.117452	0.266450	0.440802	0.6607
X2	0.059076	0.036448	1.620859	0.1094
X3	-0.002393	0.008061	-0.296894	0.7674
X4	-0.007424	0.040976	-0.181177	0.8567
Z	-0.665782	0.447051	-1.489276	0.1408

Table 15. Hang Seng Heteroscedasticity Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.906578	1.120114	-0.809362	0.4211
X1	-0.009265	0.012730	-0.727766	0.4693
X2	-0.005928	0.010830	-0.547378	0.5859
X3	-0.014065	0.129163	-0.108891	0.9136
X4	0.025992	0.031320	0.829876	0.4095
Z	0.024223	0.056651	0.427580	0.6703

The multiple linear regression equation for LQ45 companies is as follows: Y = α + β1X1 + β2X2 + β3X3 + β4X4 + ε. Firm Value = 15.02254 + 1.021889 Profitability + 3.339632 Liquidity - 0.005137 Sustainable Growth Rate - 0.390496 Firm Size - 1.896678 Ownership Structure + ε. While the multiple linear regression equation for Hang Seng companies is as follows: Y = α + β1X1 + β2X2 + β3X3 + β4X4 + ε. Firm Value = 2.193954 - 0.018135 Profitability - 0.022560 Liquidity + 0.833190 Sustainable Growth Rate - 0.035854 Firm Size - 0.074129 Ownership Structure + ε.

Table 16. LQ45 Multiple Regression Analysis Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.02254	2.645465	5.678600	0.0000
X1	1.021886	0.340386	3.002140	0.0037
X2	0.033396	0.049199	0.678803	0.4994
X3	-0.005137	0.008835	-0.581401	0.5628
X4	-0.390496	0.081902	-4.767833	0.0000
Z	-1.896678	0.609969	-3.109467	0.0027

Table 17. Hang Seng Multiple Regression Analysis Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.193954	2.467858	0.889011	0.3771
X1	-0.018135	0.028047	-0.646605	0.5201
X2	-0.022560	0.023861	-0.945443	0.3478
X3	0.833190	0.284574	2.927847	0.0046
X4	-0.035854	0.069005	-0.519579	0.6050
Z	-0.074129	0.124814	-0.593916	0.5545

The results through t-test, F-test, and moderating test that profitability has a positive and significant effect on firm value on companies that listed in the LQ45 index, but has no effect on companies that listed in the Hang Seng index. Sustainable growth rate has a positive effect on firm value on companies that listed in the Hang Seng index, but has no effect on companies that listed in the LQ45 index. Meanwhile, liquidity have no effect on firm value on companies that listed in the LQ45 index and Hang Seng index but firm size positive affect on Hang Seng. Meanwhile, other results in this study indicated that ownership structure is able to moderate the influence of profitability on firm value on companies that listed in the Hang Seng index. But it is unable to moderate the influence of profitability on companies that listed in the LQ45 index. Meanwhile, the influence of liquidity, sustainable growth rate and firm size on firm value cannot be moderated by the ownership structure on companies that listed in the LQ45 index and Hang Seng index. The R-Square (R2) value in this study is 0.328361, which means that 32.8% of the independent variables used in this study can explain the value of companies listed on the LQ45 index. While other variables outside this study explain the remaining 67.2%. The R-Square (R2) value in this study is 0.955103, which means that 95.5% of the independent variables used in this study can explain the value of companies listed on the Hang Seng index. While other variables outside this study explain the remaining 0.5%.

Table 18. LQ45 t-Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.02254	2.645465	5.678600	0.0000
X1	1.021886	0.340386	3.002140	0.0037
X2	0.033396	0.049199	0.678803	0.4994
X3	-0.005137	0.008835	-0.581401	0.5628
X4	-0.390496	0.081902	-4.767833	0.0000
Z	-1.896678	0.609969	-3.109467	0.0027
Effects Specification				
			S.D.	Rho
Cross-section random			0.562703	0.9272
Idiosyncratic random			0.157618	0.0728
Weighted Statistics				
R-squared	0.328361	Mean dependent var		0.202837
Adjusted R-squared	0.281719	S.D. dependent var		0.195491
S.E. of regression	0.163134	Sum squared resid		1.916108
F-statistic	7.040078	Durbin-Watson stat		1.253281
Prob(F-statistic)	0.000021			

Table 19. Hang Seng t-Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.193954	2.467858	0.889011	0.3771
X1	-0.018135	0.028047	-0.646605	0.5201
X2	-0.022560	0.023861	-0.945443	0.3478
X3	0.833190	0.284574	2.927847	0.0046
X4	-0.035854	0.069005	-0.519579	0.6050
Z	-0.074129	0.124814	-0.593916	0.5545
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.955103	Mean dependent var		0.858567
Adjusted R-squared	0.933975	S.D. dependent var		0.192932
S.E. of regression	0.049575	Akaike info criterion		-2.912823
Sum squared resid	0.167120	Schwarz criterion		-2.058378
Log likelihood	180.0976	Hannan-Quinn criter.		-2.566919
F-statistic	45.20540	Durbin-Watson stat		2.276511
Prob(F-statistic)	0.000000			

Table 20. LQ45 F Test Result

R-squared	0.328361	Mean dependent var	0.202837
Adjusted R-squared	0.281719	S.D. dependent var	0.195491
S.E. of regression	0.163134	Sum squared resid	1.916108
F-statistic	7.040078	Durbin-Watson stat	1.253281
Prob(F-statistic)	0.000021		

Table 21. Hang Seng F Test Result

R-squared	0.955103	Mean dependent var	0.858567
Adjusted R-squared	0.933975	S.D. dependent var	0.192932
S.E. of regression	0.049575	Akaike info criterion	-2.912823
Sum squared resid	0.167120	Schwarz criterion	-2.058378
Log likelihood	180.0976	Hannan-Quinn criter.	-2.566919
F-statistic	45.20540	Durbin-Watson stat	2.276511
Prob(F-statistic)	0.000000		

Table 22. LQ45 Determination Test Result

R-squared	0.328361	Mean dependent var	0.202837
Adjusted R-squared	0.281719	S.D. dependent var	0.195491
S.E. of regression	0.163134	Sum squared resid	1.916108
F-statistic	7.040078	Durbin-Watson stat	1.253281
Prob(F-statistic)	0.000021		

Table 23. Hang Seng Determination Test Result

R-squared	0.955103	Mean dependent var	0.858567
Adjusted R-squared	0.933975	S.D. dependent var	0.192932
S.E. of regression	0.049575	Akaike info criterion	-2.912823
Sum squared resid	0.167120	Schwarz criterion	-2.058378
Log likelihood	180.0976	Hannan-Quinn criter.	-2.566919
F-statistic	45.20540	Durbin-Watson stat	2.276511
Prob(F-statistic)	0.000000		

Table 24. LQ45 Moderating Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	33.01677	17.55167	1.881118	0.0642
X1	6.162541	3.008596	2.048311	0.0444
X2	0.485980	0.314390	1.545790	0.1268
X3	0.540317	1.350164	0.400186	0.6903
X4	-1.008577	0.561651	-1.795737	0.0770
Z	-35.29784	30.23485	-1.167456	0.2471
X1Z	-8.859450	5.120037	-1.730349	0.0881
X2Z	-0.722284	0.486460	-1.484777	0.1422
X3Z	-0.916723	2.269996	-0.403843	0.6876
X4Z	1.137957	0.970322	1.172763	0.2450

Table 25. Hang Seng Moderating Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.094251	5.621884	1.617652	0.1107
X1	-0.359317	0.147813	-2.430890	0.0179
X2	-0.058264	0.077547	-0.751337	0.4552
X3	0.537000	0.731339	0.734270	0.4655
X4	-0.224507	0.160118	-1.402137	0.1657

Z	-8.897361	6.578725	-1.352445	0.1810
X1Z	0.652439	0.272074	2.398023	0.0194
X2Z	0.044481	0.102765	0.432838	0.6666
X3Z	0.515078	1.146479	0.449269	0.6548
X4Z	0.239054	0.188124	1.270723	0.2084

Result and Discussions

Consistent and high profitability in LQ45 companies can increase investor confidence in the company's long-term performance. Investors tend to be more interested in investing or maintaining their investment in companies that can generate good profits. In contrast, the effect of profitability on Hang Seng companies is insignificant. This is because companies listed on the Hang Seng index, especially those operating in the technology sector or sectors with rapid growth. So, they focus more on market expansion or product development rather than optimizing current profitability. They reinvest their earnings into the business for long-term growth, leading to relatively low profitability in certain periods.

Investors are more likely to invest in companies with high liquidity because they can easily buy and sell their shares without significantly affecting the market price. On the other hand, companies with low liquidity may experience higher stock price volatility, hindering potential investors. Companies listed on the LQ45 index tend to adopt aggressive investment strategies for long-term growth. This makes liquidity on the LQ45 unaffected. Likewise, Hang Seng companies are listed on the Hang Seng Index because they are large, established companies with stable cash flows and strong market positions. These companies rely less on short-term funding and have access to a wide range of funding sources, so their liquidity levels are less important in determining overall firm value.

The sustainable growth rate partially does not affect the firm value of companies listed on the LQ45 index. The sustainable growth rate partially does not affect the firm value of companies listed on the LQ45 index. This is because too high sustainable growth without additional capital support can raise concerns about the company's operational, financial, or execution risks. Investors may see an SGR that is too high as a sign that the company is too aggressive in expansion without considering the associated risks, which may reduce the company's value. However, Hang Seng companies show that the Sustainable Growth Rate partially has a positive and significant effect on firm value because companies that can maintain stable and sustainable growth tend to be valued higher by the market. A good SGR indicates that the company can manage its growth well without causing instability or excessive risk.

Company size in LQ45 and Hang Seng companies is not significant. This is because larger companies tend to have more complex bureaucracy and slower decision-making processes than smaller ones. This may hinder the company's flexibility in responding to market changes or new business opportunities, which in turn may affect the company's value. In addition, firm value assessments are more likely to be influenced by strong financial performance, such as stable revenue, high-profit margins and consistent profit growth. While it may influence the scale of operations and cost efficiency, firm size is not the sole factor determining firm value.

Ownership structure cannot moderate the effect of profitability, liquidity, SGR and company size on firm value in companies listed on the LQ45 index. LQ45 companies have various ownership structures with different levels of ownership concentration, institutional, and public ownership. These different ownership structures can influence the moderation of these variables differently. A good ownership structure does not necessarily guarantee effective corporate governance. Weak corporate governance can minimize the effectiveness of ownership

structure in moderating firm value. External factors such as economic, political, and industry conditions can also affect the effect of profitability, liquidity, SGR, and firm size on firm value. These factors can dominate the influence of ownership structure. Although other variables cannot be moderated by the ownership structure of Hang Seng companies, the ownership structure can moderate profitability. Block shareholders significantly influence the company due to their large ownership. They can often influence the strategic and operational decisions of the company. In contrast, block shareholders can control the management in the supervision of profit management but also have a long-term interest in increasing the company's profitability to increase the value of their investment. This encourages management to adopt sustainable and innovative strategies that can improve the company's competitiveness and long-term growth rather than just focusing on short quarters to increase the company's value.

Conclusion, Limitations and Future Studies

The results obtained in this study indicate that profitability has a positive and significant effect on firm value in companies listed on the LQ45 index but has no effect on companies listed on the Hang Seng index. A sustainable growth rate positively affects firm value in companies listed on the Hang Seng index but does not affect companies listed on the LQ45 index. Meanwhile, liquidity and firm size do not affect firm value in companies listed on the LQ45 but firm size affect Hang Seng indexes. Other results in this study indicate that ownership structure can moderate the effect of profitability on firm value in companies listed on the Hang Seng index. However, it cannot moderate the effect of profitability on companies listed on the LQ45 index. The effect of liquidity, sustainable growth rate, and company size on firm value cannot be moderated by ownership structure in companies listed on the LQ45 and the Hang Seng indexes.

The limitation of this study is that the independent variables are limited to using the company's financial ratios, namely the Profitability ratio using the Net Profit Margin (NPM) indicator, liquidity using the Current Ratio (CR) indicator, Firm Size using the total assets indicator, and Ownership Structure using the Blockholder Ownership indicator. In addition, this research only focuses on companies listed on the LQ45 index and the Hang Seng index from 2020 to 2023.

This research implies that companies must focus on strategies and operations that increase profitability, liquidity, sustainable growth, and firm size to increase firm value. For example, improving operational efficiency, optimizing costs, or increasing profit margins, maintaining a healthy level of liquidity by managing cash flow and operational liquidity, identifying and implementing sustainable growth strategies by their SGR to support the achievement of optimal firm value, and large companies may need to maintain operational scale and benefits in increasing firm value. In contrast, small or medium-sized companies can focus on specialization and flexibility to compete. By considering ownership structure as a moderating variable, it is important to understand how it affects the relationship dynamics between firm value factors. For example, large managerial ownership may lead to greater long-term orientation, while family ownership may prioritize long-term sustainability over aggressive growth. In addition, as a theoretical implication of this research, it is important to test other variables that may impact Firm Value. The next test is hoped to complement and enrich our understanding of what impacts firm value.

Meanwhile, policy contributions are addressed to company management. It is recommended that company management maximize profitability, liquidity, sustainable growth rate, and firm value because these factors are the basis for value glimpsed by potential investors. Increasing these can attract more investors and strengthen the company's position in the market.

In addition, company management is also expected to remain focused on sustainability and corporate obligations to create a good image and build positive relationships with stakeholders.

References

[1] Alghifari, E. S., Solikin, I., Nugraha, N., Waspada, I., Sari, M., & Puspitawati, L. (2022). Capital structure, profitability, hedging policy, firm size, and firm value: mediation and moderation analysis. *Journal of eastern european and central asian research*, 9(5), 789–801. https://doi.org/10.15549/jeecar.v9i5.1063

[2] Amarudin, Adam, M., Hamdan, U., & Hanafi, A. (2019). Effect of growth opportunity, corporate tax, and profitability toward value of firm through capital structure (listed manufacturing companies of indonesia). *Finance: theory and practice*, 23(5), 18–29. https://doi.org/10.26794/2587-5671-2019-23-5-18-29

[3] https://ijbssnet.com/journals/Vol_2_No_23_Special_Issue_December_2011/30.pdf

[4] Andriani, N., & Hastuti, R. T. (2023). Faktor yang mempengaruhi return saham dengan moderator kebijakan dividen pada perusahaan manufaktur. *Jurnal paradigma akuntansi*, 5(1), 2261–2271. https://doi.org/10.24912/jpa.v5i1.22375

[5] Anton, Lorensa, S., Purnama, I., Eddy, P., & Andi. (2023). Net profit margin, earningsper share, return on asset, debt equity ratio, and current ratio on firm value in agricultural sector companies listed on indonesia stock exchange 2016-2021. *Journal of applied business and technology*, 4(2), 155–167. https://doi.org/:https://doi.org/10.35145/jabt.v4i2.131

[6] Ardini, L., Wahidahwati, & Adhitya, D. (2022). The effect of investment decisions, funding, and profitability on company value with corporate governance as moderating variables. *Quality - access to success*, 23(190), 1–10. https://doi.org/10.47750/QAS/23.190.01

[7] Ashta, A. (2008). Sustainable growth rates: refining a measure. Strategic change, 17(5–6), 207–214. https://doi.org/10.1002/jsc.827

[8] Babcock, G. C. (1970). The concept of sustainable growth. *Financial analysts journal*, 26(3), 108–114. https://doi.org/10.2469/faj.v26.n3.108

[9] Basuki. (2021). *Pengantar Metode Penelitian Kuantitatif* (A. R. Bask). CV. Media Sains Indonesia.

[10] Brigham, E. F., & Houston, J. F. (2011). *Financial Management*. Cengage learning asia.

[11] Brigham, E. F., & Houston, J. F. (2012). *Dasar-Dasar Manajemen Keuangan* (11th ed.). Salemba Empat.

[12] Chia, Y. E., Lim, K. P., & Goh, K. L. (2020). Liquidity and firm value in an emerging market: nonlinearity, political connections and corporate ownership. *North american journal of economics and finance*, 52(July 2019), 101169. Https://doi.org/10.1016/j.najef.2020.101169

[13] Claessens, S., & Fan, J. P. H. (2002). Corporate governance in asia: a survey. *International review of finance*, 3(2), 71–103. https://doi.org/10.1111/1468-2443.00034

[14] Cornett, M. M., Adair, T. A, & Nofsinger, J. (2012). *Finance: Application & Theory*. New York, NY: mcgraw-Hill.

[15] Damodar N, G. (2012). *Dasar-Dasar Ekonomitrik Terjemahan Mangunsong S.C* (Edisi 5). Salemba Empat.

[16] Effendi, E., & Ulhaq, R. D. (2021). *Pengaruh Audit Tenur, Reputasi Auditor, Ukuran Perusahaan Dan Komite Audit* (Abdul (ed.)). Penerbit Adab. https://books.google.co.id/books?Id=o3y-EAAAQBAJ

[17] Fama, E. F. dan M. C. Jensen, (1983). Separation of ownership and control. *Journal of law and economics*. Vol. 26, No. 2, pp. 301-325.
[18] Febry, T., & Teofilus. (2020). *SPSS: Aplikasi Pada Penelitian Manajemen Bisnis*. Media Sains Indonesia.
[19] Feng, Z., Price, S. M. K., & Sirmans, C. F. (2011). An overview of equity real estate investment trusts (reits): 1993-2009. *Journal of real estate literature*, 19(2), 307–343. https://doi.org/10.1080/10835547.2011.12090304
[20] Ghozali, I. (2013). Ap*likasi Analisis Multivariate dengan Program IBM SPSS 23* (P. P. Harto (ed.); 8th ed.). Badan Penerbit Universitas Diponegoro.
[21] Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (Edisi 9). Badan Penerbit Universitas Diponegoro.
[22] Harefa, O. V., Wijaya, C., & Simorangkir, E. N. (2022). Effect of return on assets, return on investment, debt to equity ratio, and current ratio on firm value (case study on manufacturing companies in the food and beverage sub-sector listed in the 2017-2021 period). *Journal of economics, finance and management studies*, 05(07), 1857–1868. https://doi.org/10.47191/jefms/v5-i7-03
[23] Hartono, J. (2013). *Metodologi Penelitian Bisnis Salah Kaprah dan Pengalaman-pengalaman* (5th ed.). BPFE-Yogyakarta.
[24] Hartwig, F., Hansson, E., Nielsen, L., & Sörqvist, P. (2023). The relation between auditing and accounting timeliness in Swedish private firms. *Journal of financial regulation and compliance*, 31(3), 379-396. https://doi.org/10.1108/JFRC-03-2022-0040
[25] Hermawan, A. (2005). *Penelitian Bisnis: Paragidma Kuantitatif* (A. Arif & Wibowo (eds.)). Grasindo. https://books.google.co.id/books?Id=xoytduwzbzac
[26] Hertina, D., Pardede, D. R. P., & Yesenia, D. (2021). Company value impact of liquidity, solvability and profitability. *Turkish journal of computer and mathematics education (turcomat)*, 12(4), 782–788. https://doi.org/10.17762/turcomat.v12i4.563
[27] Hery. (2017). *Riset Akuntansi* (A. Pramono (ed.)). Gramedia Widiasmara Indonesia.
[28] Hery. (2023). *Analisis Laporan Keuangan : Intergrated and Comperhesive Edition*. PT. Grasindo. Https://books.google.co.id/books?Id=cfkjeaaaqbaj
[29] Higgins, R. C. (1977). Much Growth Can Firm Afford ? Financial Management, 6(3), 7–16.
[30] Hirdinis, M. (2019). Capital structure and firm size on firm value moderated by profitability. *International journal of economics and business administration*, 7(1), 174–191. https://doi.org/10.35808/ijeba/204
[31] Horne V. James dan John M Wachowicz. 2005. *Prinsip-prinsip Manajemen Keuangan (Fundamental of Financial Management).* Edisi 12. Diterjemahkan oleh Dewi Fitriasari. Jakarta: Salemba Empat.
[32] Jensen, M. C., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. *The economic nature of the firm: a reader, third edition*, 283–303.
[33] Jihadi, M., Vilantika, E., Hashemi, S. M., Arifin, Z., Bachtiar, Y., & Sholichah, F. (2021). The effect of liquidity, leverage, and profitability on firm value: empirical evidence from indonesia. *Journal of asian finance, economics and business*, *8*(3), 423–431. https://doi.org/10.13106/jafeb.2021.vol8.no3.0423
[34] Kasmir. (2010). *Pengantar Manajemen Keuangan: Edisi Kedua*. Kencana Prenada Media Group. https://books.google.co.id/books?Id=lw9adwaaqbaj

[35] Kasmir. (2015). *Studi Kelayakan Bisnis: Edisi Revisi*. Prenada Media. https://books.google.co.id/books?Id=oqrbdwaaqbaj
[36] Kasmir. (2021). *Analisis Laporan Keuangan (Revisi)*. Rajawali Pers.
[37] Kurniawan, H. (2021). *Pengantar Praktis Penyusunan Instrumen Penelitian*. Deepublish. https://books.google.co.id/books?Id=flbyeaaaqbaj
[38] Kusumawati, E., & Setiawan, A. (2019). The effect of managerial ownership, institutional ownership, company growth, liquidity, and profitability on company value. *Riset akuntansi dan keuangan indonesia*, Vol 4, No 2 (2019), 136–146. https://doi.org/10.23917/reaksi.v4i2.8574
[39] Kusumawati, R., & Rosady, I. (2018). Pengaruh struktur modal dan profitabilitas terhadap nilai perusahaan dengan kepemilikan manajerial sebagai variabel moderasi. *Jurnal manajemen bisnis*, 9(2), 147–160. https://doi.org/10.18196/mb.9259
[40] Levina, S., & Dermawan, E. S. (2019). Pengaruh profitabilitas, likuiditas, solvabilitas, aktivitas, dan kebijakan dividen terhadap harga saham. *Jurnal paradigma akuntansi*, *1*(2), 381. https://doi.org/10.24912/jpa.v1i2.5100
[41] Lin, F. L., & Chang, T. (2011). Does debt affect firm value in Taiwan? A panel threshold regression analysis. *Applied economics*, 43(1), 117–128. https://doi.org/10.1080/00036840802360310
[42] Lin, Z. (2023). The positioning and future development of hong kong international financial center. *Atlantis press international bv*. https://doi.org/10.2991/978-94-6463-142-5_13
[43] Linawati, N., Moeljadi, Djumahir, & Aisjah, S. (2022). The effect of profitability and bank size on firm value sustainability: The mediating role of capital structure. *Investment management and financial innovations*, 19(2), 331–343. https://doi.org/10.21511/imfi.19(2).2022.29
[44] Listiani, N., & Supramono, S. (2020). Sustainable growth rate: between fixed asset growth and firm value. *Management and economics review*, *5*(1), 147–159. https://doi.org/10.24818/mer/2020.06-12
[45] Maheran N, Maksum A, Abubakar E. The influence of intellectual capital on firm value with profitability as moderating variables in real estate & property companies registered in indonesia stock exchange, 2008-2018. *Journal mantik*. 2021; 4(4):2395-2399
[46] Marjohan, M., Supratikta, H., & Hasanah, H. (2023). Analysis of the effect of liquidity, profitability, and debt to equity ratio (der) on firm value in mining companies listed on the indonesia stock exchange. *Applied information system and management (AISM)*, 6(2), 113–119. https://doi.org/10.15408/aism.v6i2.34423
[47] Majdi, A., Dwijendra, N. K. A., Chetthamrongchai, P., Sivaraman, R., & Hammid, A. T. (2022). A smart building with integrated energy management: Steps toward the creation of a smart city. *Sustainable Energy Technologies and Assessments*, 53, 102663. https://doi.org/10.1016/j.seta.2022.102663
[48] May, E. (2017). *Smart Traders Not Gamblers*. Gramedia Pustaka Utama.
[49] Michael Spence. (1973). Job market signaling. *The quarterly journal of economics*, 87(3), 355–374.
[50] Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: an empirical analysis. *Journal of financial economics*, *20*, 293–315.
[51] Mulyono. (2018). *Berprestasi melalui JFP Ayo Kumpulkan Angka Kreditmu* (1st ed.). Deepublish.
[52] Murhadi, W. R. (2013). *Analisis Laporan Keuangan: Proyeksi dan Valuasi Saham*.

Salemba Empat.
[53] Neldi, M., Hady, H., & Elfiswandi. (2023). *Nilai Perusahaan: Proce Earning Ratio (PER)*. CV. Gita Lentera. https://books.google.co.id/books?Id=8lleeaaaqbaj
[54] Pangesti, G., Imron, A., Mahmudi, B., & Hakim, L. (2020). Pengaruh ukuran perusahaan terhadap nilai perusahaan dengan struktur modal sebagai variabel intervening. *Sultanist: jurnal manajemen dan keuangan*, 8(2), 169–181. https://doi.org/10.36406/jemi.v29i01.338
[55] Prasetya Margono, F., & Gantino, R. (2021). Influence of firm size, leverage, profitability, and dividend policy on firm value of companies in indonesia stock exchange. *Copernican journal of finance & accounting*, 10(2), 45–61. https://doi.org/10.12775/cjfa.2021.007
[56] Prasitadewi, M. S., & Putra, I. N. W. A. (2020). Pengaruh faktor internal dan faktor eksternal terhadap nilai perusahaan. *E-jurnal akuntansi*, 30(6), 1397. https://doi.org/10.24843/eja.2020.v30.i06.p05
[57] Purba, N. P., & Hasyim, D. (2024). Pengaruh struktur modal, profitabilitas, growth dan kepemilikan manajerial terhadap nilai perusahaan consumer non-cyclical yang terdaftar pada bursa efek indonesia tahun 2018-2019. Cemerlang. *Jurnal manajemen dan ekonomi bisnis*, 4(3), 235–251.
[58] Ponkratov, V.V.; Kuznetsov, A.S.; Nasution, M.J.; Al-Bahrani, M.; Aybar, H.¸S. (2022). Investigating the Index of Sustainable Development and Reduction in Greenhouse Gases of Renewable Energies. *Sustainability* 2022, 14, 14829. https://doi.org/10.3390/su142214829 or https://www.mdpi.com/2071-1050/14/22/14829
[59] Rahayu, F. P., Sri Wahyuni, Hadi Pramono, & Nur Isna Inayati. (2023). The influence of profitability, firm size, and capital structure on firm value with managerial ownership as moderation variables (empirical study of basic material sector companies on the idx in 2019-2021). *Jurnal ekonomi dan bisnis digital*, 2(1), 157–174. https://doi.org/10.55927/ministal.v2i1.2335
[60] Ratnasari S, Tahwin M, Sari DA. Pengaruh keputusan investasi, keputusan pendanaan, kebijakan dividen dan profitabilitas terhadap nilai perusahaan manufaktur sektor industri barang konsumsi yang terdaftar di bursa efek indonesia. *Buletin bisnis & manajemen*. 2017; 3(1):80-94.
[61] Rinaldo, A., Bagus Wardianto, K., Agung, M., & Author, C. (2022). The effect of sustainable growth rate and intellectual capital on firm value: study on sri kehati index companies 2016-2020. *International journal of advanced multidisciplinary research and studies*, 2(3), 504–508.
[62] Riyanto, S., & Hatmawan, A. A. (2020). *Metode Riset Penelitian Kuantitatif Penelitian di Bidang Manajemen, Teknik, Pendidikan dan Eksperimen.* Deepublish.
[63] Rizal, V., Stefanny, S., Novianty, H., Angelieca, A., Tantowi, C., & Intan Purba, M. (2019). Pengaruh ukuran perusahaan, profitabilitas, keputusan investasi, dan kebijakan dividen pada nilai perusahaan. *E-jurnal akuntansi*, 29(3), 1181. https://doi.org/10.24843/eja.2019.v29.i03.p20
[64] Rohmah, F., & Ja, M. (2024). A conceptual paper of risk industry moderation : sustainable growth , intellectual capital , and firm value dynamics. *Proceedings of femfest international conference on economics, management, and business*, *2*, 554–560.
[65] Rukajat, A. (2018). *Pendekatan Penelitian Kuantitatif: Quantitative Research Approach* (1st ed.). Deepublish.
[66] Santoso, M. R., (2020). Shareholders and Firm Value for Manufacturing Companies

Listed in Indonesia Stock Exchange. *Journal of Economics, Business, & Accountancy Ventura*, *23*(1). 138-147.

[67] Sinurat, Y, Situmeang, C (2021). The Effect of Firm Size, Leverage and Profitability on Firm Value in Manufacturing Companies in the Pharmaceutical Industry Sector Listed on the Indonesia Stock Exchange and the Malaysia Stock Exchange for the 2007-2019. *International Journal of Disaster Recovery and Business Continuity*, *12*(1), 1759–1766. http://sersc.org/journals/index.php/IJDRBC/article/view/37036/20412https://journal.perbanas.ac.id/index.php/jebav/article/view/2171

[68] Sandi, K., Habibi, R., & Fauzan, M. N. (2020). *Tutorial PHP Machine Learning menggunakan Regresi Linier Berganda pada Aplikasi Bank Sampah Istimewa Versi 2.0 Berbasis Web* (R. M. Awangga (ed.)). Kreatif.

[69] Santoso, A., Kurniawati, E., Affandi, A., Ardani, W., & Sunarsi, D. (2023). Peran kepemilikan manajemen dalam memoderasi pengaruh likuiditas terhadap nilai perusahaan. *Jurnal ekonomi efektif*, 5(4), 581. https://doi.org/10.32493/jee.v5i4.26248

[70] Saputro AW, Purwanto A. Pengaruh hubungan kinerja, likuiditas dan return saham terhadap deviasi actual growth rate dari sustainable growth rate pada perusahaan manufaktur di bursa efek indonesia. *Diponegoro journal of accounting.* 2013; 2(1)

[71] Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th editio). Wiley.

[72] Septiana, A. (2019). *Analisis Laporan Keuangan Konsep Dasar dan Deskripsi Laporan Keuangan* (R. Hermawan (ed.)). Duta Media Publishing.

[73] Sherine, C., Wiyanto, H., & Budiono, H. (2022). The effect of investment decision, funding decision, and profitability on the firm value of consumer goods industry registered in indonesia stock exchange during 2017-2020. *Proceedings of the tenth international conference on entrepreneurship and business management 2021 (icebm 2021)*, 653(Icebm 2021), 552–559. https://doi.org/10.2991/aebmr.k.220501.084

[74] Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. In *the journal of finance* (Vol. 52, Issue 2, pp. 737–783).

[75] Siswoyo, G. J., & Yanti. (2023). Faktor-faktor yang mempengaruhi firm value dengan managerial sebagai variabel moderasi. *Jurnal multiparadigma akuntansi*, 5(1), 204–215.

[76] Sitoayu, L., Nuzrina, R., & Rumana, N. A. (2020). *Aplikasi SPSS untuk Analisis Data Kesehatan: Bonus Analisis Data dengan SEM* (M. Nasrudin (ed.)). Penerbit NEM. https://books.google.co.id/books?Id=lfgeeaaaqbaj

[77] Soewarno, N., & Ramadhan, A. H. A. (2020). The effect of ownership structure and intellectual capital on firm value with firm performance as an intervening variable. *International journal of innovation, creativity and change*, 10(12), 215–236.

[78] Subroto, B. (2014). *Pengungkapan Wajib Perusahaan Publik: Kajian Teori dan Empiris* (Tim UB Press (ed.)). Universitas Brawijaya Press.

[79] Sudana, I. (2011). *Manajemen Keuangan Perusahaan Teori dan Praktek*. Jakarta: Erlangga.

[80] Sudaryono. (2021). *Statistika Probabilitas: Bidang Teknik dan Komputer* (Giovanny (ed.); 1st ed.). Penerbit Andi. https://books.google.co.id/books?Id=54A-EAAAQBAJ

[81] Sugiyono. (2017). *Metodologi Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

[82] Suhendi, R., & Firmansyah, A. (2022). Kesulitan keuangan, proporsi hutang dan peluang investasi, audit delay: peran moderasi dewan komisaris independen. *Owner: riset dan jurnal akuntansi*, 6(2), 1373-1384. http://owner.polgan.ac.id/index.php/owner/article/view/746

[83] Sundarsih, D., & Andriati, Y. S. (2022). Analisis ukuran perusahaan dalam meningkatkan profitabilitas (survey pada pt sekar bumi tbk). *Banku: jurnal perbankan dan keuangan*, 3(Februari), 1–16.

[84] Thomsen, S., Pedersen, T., & Kvist, H. K. (2006). Blockholder ownership: effects on firm value in market and control based governance systems. *Journal of corporate finance*, 12(2), 246–269. https://doi.org/10.1016/j.jcorpfin.2005.03.001

[85] Trigunawan, A., Rahayu, W. I., & Andarsyah, R. (2020). *Regresi Linier untuk Prediksi Jumlah Penjualan terhadap Jumlah Permintaan* (R. M. Awangga (ed.)). Kreatif.

[86] Tumanggor, R. A., & Lubis, M. S. (2022). Pengaruh likuiditas, profitabilitas, solvabilitas dan ukuran perusahaan terhadap audit delay tahun 2017-2019. *Owner: riset dan jurnal akuntansi*, 6(2), 1208-1220. http://polgan.ac.id/owner/index.php/owner/article/view/736

[87] Vonkrogh, Georg & Raisch, Sebastian. (2007). *Navigating a Path to Smart Growth*. University of St.Gallen. 48.

[88] Wasista, I. P. P., & Asmara Putra, I. N. W. (2019). Pengaruh profitabilitas dan ukuran perusahaan pada nilai perusahaan dengan good corporate governance sebagai variabel pemoderasi. *E-jurnal akuntansi*, 29(3), 928. https://doi.org/10.24843/eja.2019.v29.i03.p02

[89] Wibowo, I. A., & Surjandari, D. A. (2023). Capital structure, company size and profitability influence on company value with managerial ownership as moderation variables. *International journal of social service and research*, 3(1), 1–14. https://doi.org/10.46799/ijssr.v3i1.212

[90] Widagdo, B., & Lestari, novi puji. (2018). M*anajemen Risiko dan Asuransi: Manajemeen*. Ummpress.

[91] Xiang, H.; Lu, J.; Kosov, M.E.; Volkova, M.V.; Ponkratov, V.V.; Masterov, A.I.; Elyakova, I.D.; Popkov, S.Y.; Taburov, D.Y.; Lazareva, N.V.; Vasiljeva, M.V.; Zekiy, A.O. (2023). Sustainable Development of Employee Lifecycle Management in the Age of Global Challenges: Evidence from China, Russia, and Indonesia. *Sustainability*, 15, 4987. https://doi.org/10.3390/su15064987

[92] Yamasitha, Mei Yudha, A., Citra Dewi, R., & Saputra, D. (2021). Pengaruh kepemilikan manajerial dan pertumbuhan perusahaan terhadap nilai perusahaan dengan kepemilikan institusional sebagai variabel moderasi journal of science education and management business. *Journal of science education and management business*, *1*(1), 21–29. https://rcf-indonesia.org/jurnal/index.php/

[93] Zulfikar. (2016). *Pengantar Pasar Modal dengan Pendekatan Statistika* (1st ed.). Deepublish.

[94] Ze, F., Wong, W. K., kamal Alhasan, T., Al Shraah, A., Ali, A., (2023). Economic development, natural resource utilization, GHG emissions and sustainable development: A case study of China. *Resources Policy*, 83, 103596. https://doi.org/10.1016/j.resourpol.2023.103596