

ANALYSIS OF THE RELATIONSHIP BETWEEN CASH FLOW VOLATILITY WITH CAPITAL STRUCTURE DECISIONS IN FOOD AND BEVERAGE COMPANIES IN 5 ASEAN COUNTRIES

Kania Chandra Riani

Universitas Indonesia, Depok, West Java, Indonesia
Email: kania.riani@gmail.com

Abstract

This study aims to evaluate the impact of cash flow volatility on capital structure. This study uses a sample taken from Thomson Reuters for the period 2018 - 2022. This sample consists of companies from 5 countries in Southeast Asia, namely the Philippines, Vietnam, Thailand, Malaysia and Indonesia, in the food and beverage manufacturing subsector. The data used is a combination of cross-section data and time series data. The results showed that overall the cash flow volatility variable had a negative and significant impact on long-term debt while the short-term debt variable gave positive and significant results at the 1% level. In addition, this journal also analyzes cash flow volatility in companies that have different levels of cash flow. Based on previous research, the effect of cash flow volatility on capital structure decisions has not been examined in manufacturing companies, especially in Southeast Asian countries. Given the results, the academics should prove that the measurement of cash flow volatility will have an impact on the significance and direction of influence of a company's capital structure decisions. For managerial and food and beverage companies, can use the results of research as a role in determining the level of debt to be used in corporate funding.

Keywords: ASEAN, Capital Structure, Cash Flow Volatility, Manufacturing, Operating Cash Flow

Introduction

Companies in the food and beverage industry still have to produce healthy and quality food to support public health even though the economy is sluggish due to the covid-19 pandemic. Therefore, this is the reason why the manufacturing industry in Indonesia is very attractive. Not a few investors have begun to analyze the development of the manufacturing industry, so information is needed that can be used as an indicator to determine the condition of the companies in the industry.

One important component used by internal and external parties to obtain information related to the company's condition is the company's financial statements. Interested parties related to information from financial statements are company owners, management, creditors, investors, and the government. Based on PSAK No. 1 (IAI, 2015) states that there are five types of financial statements produced, namely the balance sheet, income statement, capital change statement, cash flow statement, and notes to financial statements. One of the most important financial statements is the company's cash flow statement. The cash flow statement provides information about the company's ability to generate and manage cash flow, which is a critical aspect of the company's business continuity and liquidity (Dechow, P. M., and Dichev, I. D., 2002).

Analysis of The Relationship Between Cash Flow Volatility with Capital Structure Decisions in Food and Beverage Companies in 5 Asean Countries

Companies are formed to achieve the main goal of increasing company profits by keeping company performance in an optimal position. Company performance is the result of the company's ability to provide benefits in terms of assets, debt, and equity (Burton, Mike & Hardwick, 1998). Companies conduct business activities to generate profits for the company itself as well as for shareholders (Friedman, 1970). The performance of a company can reach an optimal point if the company is able to make the right decisions. One of the most important is in determining funding. The company is categorized as having good performance if the company has a sufficient proportion of funding seen from the optimal capital structure (Modigliani and Miller, 1958). Funding sources are divided into two, namely funds obtained from external parties in the form of bank loans and capital markets, and funds from internal parties in the form of issuing shares and retained earnings (Jensen and Meckling, 1976).

As with Huang and Ritter (2016) in his research, he shows that companies if they have a low operational cash flow situation will prefer to do funding through debt to be able to increase company profitability. Therefore, it is known that if the company has negative cash flow, external funding will be stronger. This is also proven by Bates, et al. (2009) which shows that there is a significant relationship between the determination of the company's capital structure decision which is influenced by the condition of the company's cash flow volatility.

Based on the research that has been done, it is known that the results of the relationship between cash flow volatility and capital structure are still very different. This is also supported by research that focuses more on developed countries. It is known that the use of funding from each country will vary, especially on the use of debt. As is known, the use of the company's capital structure is used for funding related to the survival of the company. Therefore, the use of a maximum or adequate capital structure is very necessary, especially for companies that are still developing. Countries in Asia are one of the regions that are experiencing significant growth.

Countries in Asia rank well based on the Financial Development Index. The Financial Development Index is a measurement used to assess the level of development and stability of a country's financial system. The index provides an overview of the quality and efficiency of a country's financial system, which includes financial institutions, financial markets, and the infrastructure and regulations that support them. The Financial Development Index is used to understand the extent to which a country's financial system has developed and can contribute to economic growth and efficient resource allocation. There are several measurement indicators such as depth, access, efficiency, and stability. Foreign Direct Investment (FDI) towards countries in Southeast Asia or those included in the Association Southeast Asian Nations (ASEAN) group has relatively increased every year. This is evidenced by the results of Aseanstats.org which shows that the total FDI into ASEAN increased by more than 100% from 2010 of US\$ 108.4 billion to US\$ 224.2 billion in 2022. In 2022, the countries that dominate FDI are Indonesia and Vietnam. Where it is known that the two countries have very different economic structures and different strengths. Based on IMF data, 3 categories of the 100 highest ranking Financial Development Index were formed. It is known that there are 5 developing countries in these 3 categories that have the same growth and conditions. The five countries are the Philippines, Vietnam, Thailand, Malaysia, and Indonesia.

It is known that the highest GDP from 2016 to 2020 was in 2017, reaching 5.4%, which is higher than the world GDP of 3.9%. However, in 2020 it experienced a very drastic decline, namely to -3.1% due to the co-19 pandemic (IMF, 2023). In addition, it

is also known that countries in Southeast Asia have high potential to be part of world growth, especially in Asia. The Philippines, Vietnam, Thailand, Malaysia, and Indonesia, these five developing countries are known to have the highest GDP levels in Southeast Asia. Based on IMF data, the GDP growth of Thailand by 2020 is -6.2%, Malaysia is -5.5%, and Indonesia is -2.1%. Where Indonesia is known to have a GDP growth value above GDP growth in Asia which is -3.1%. Likewise, the Philippines and Vietnam, these countries also have growth that tends to be stable every year and tend to have fairly similar economic conditions. So, with the rapid growth that occurs, making Southeast Asia interesting to be the object of research.

Literature Review and Hypotheses Development

Capital is the most important thing a company needs to be able to run its company operations. Jensen and Meckling (1976) said that the capital structure affects the company. The capital structure in a company explains the source of funding owned by the company which comes from equity and debt. Therefore, to be able to carry out the company's operational activities optimally, the company needs to pay attention to the optimal composition between the use of funding through equity and debt. The optimal use of funds will be reflected in the value of the company's shares and the dividends distributed by Ross, Westerfield, Jaffe, & Jordan (2022).

The theory developed by Myers (1958) is Pecking order which states that funding is divided into two, namely internal and external. The first funding that can be used is by using internal funds, namely retained earnings. Retained earnings are the first source of funding because they have the smallest risk compared to the issuance of shares or debt. In addition, the use of retained earnings does not require interest payments because all funds are company profits.

Modigliani and Miller (1958) developed Trade off theory which explains the capital structure. This theory shows, if a company uses more debt, the opportunity to benefit from tax savings due to debt interest will be higher (Modigliani Miller Theory). Then, the theory is further developed by adding risk so that there is a risk of default (Modigliani Miller II).

In 1958, this theory was developed by Modigliani and Miller, commonly known as MM theory. Through the article "The Cost of Capital, Corporation Finance, and The Theory of Investment" Modigliani and Miller have a convincing argument that the total value of securities outstanding does not affect the capital structure. In other words, when the company has a different capital structure, it will still provide the same company value. This indicates that there is no capital structure that is worse or better than other capital structures for the shareholders of the company. This theory is also called MM Proposition I where this condition occurs only in a perfectly competitive market that is no tax, agency problem, and information asymmetry.

Cash flow is one of the important elements in the financial statements. Based on PSAK No. 2 (IAI, 2007), cash flow is a report that explains a change from the company's cash and cash equivalents in a certain period. The cash flow statement provides information on the use and sources of cash owned by the company along with cash outflows and inflows. Cash flow can provide two results, namely positive and negative. Cash flow that can provide positive results is when the cash received provides a value greater than the cash outflow. Conversely, when the cash flow received by the company shows smaller results than the outgoing cash flow, it will give a negative result. So it is important for companies to be able to generate positive cash flow to be able to continue their operations. Operating cash flow is an important role for

shareholders as well as for the company. It is known that cash flow has its own power to predict related to company failure compared to other data in the company (Rujoub, Cook & Hay, 1995). In addition, cash flow is also said to be important because cash flow plays a role with the market and is used to determine future cash flows (Dawar, 2015).

Cash flow volatility is a fluctuation in the company's operating cash flow over a certain period. Cash flow volatility is known to describe the distribution level of operational cash flow (Elzy & Chusnah, 2020). Cash flow volatility is also influenced by several external factors such as political factors, government regulations, the economy which is the uncertainty of the company's operating environment. In addition, from the internal side it is also known that managerial decisions are also related to cash flow volatility (Njuguna et al., 2022).

As previously researched, cash flow volatility is an important decision related to capital structure funding policies, especially debt (Lee et al., 2018). The use of debt provides benefits for the company if the use of debt does not exceed the optimum point. The use of debt can be used to reduce company profits from reducing loan interest that must be paid so that it will provide tax benefits or overcome bankruptcy (Dudley and James, 2015).

Other research shows that when companies have high financial difficulties and poor cash flow, they tend to be more risky. When the company has a high enough risk, the company tends to fund using relatively low debt according to trade-off theory. In his research, it is known that when the company has higher debt than the availability of cash flow, the company will experience bankruptcy. This is because there is a possibility for the company to default related to the value of existing debt (Zulfiqar et al., 2017). Based on the trade-off theory, it is also explained that the company will get tax benefits if the company can use debt not exceeding the optimal point. When the company is no longer able to utilize tax benefits, the company tends to have a high level of volatility. So it is known if the capital structure measured by debt and cash flow volatility of the company has a negative relationship. This happens because, when the volatility of cash flow increases, it can be said that it will cause the company's financial difficulties so that the relationship with debt becomes negative. When companies have a high level of cash flow volatility, they tend to finance using internal funding (Memon et al., 2018 and Keefe and Yaghoubi, 2016). Meanwhile, on the contrary, when the company has a high level of volatility when the company has a low level of cash flow volatility, it tends to use external funding in the form of debt (Minton & Schrand, 1999).

As explained, companies that have lower operating cash flow will tend to use additional external funding through debt so that it can cause cash flow volatility. Several studies have found that when companies have higher cash flow, there is a positive relationship between debt and the level of volatility of the company's cash flow (Nitya & Naseem, 2021). This is also stated by Santosuosso (2015) in his research that companies with high levels of cash flow volatility tend to finance using debt. However, Santosuosso (2015) states that debt funding will use lower long-term debt. This indicates that when the company's cash flow volatility is high, the company will tend to fund with debt but use short-term debt compared to long-term debt.

H1: Cash flow volatility has a significant effect on capital structure.

Harris and Roark (2019) in their research showed the relationship between the effect of cash flow volatility on the capital structure of the company. In addition, in their research, Harris and Roark (2019) also tested the level of cash flow of each company

whether it has an influence on capital structure decisions as measured by the use of debt. In this study, Harris and Roark (2019) divided the company's operating cash flow into 4 curates based on the level of operating cash flow that had been previously determined. In his research, it was found that if the company's operational cash flow is high, the company will not use debt as its corporate funding. Meanwhile, if the company has a low operational cash flow condition, the company tends to use debt funding compared to equity. However, Santosuosso (2015) stated in his research that companies will continue to fund using debt regardless of their cash flow conditions. So based on the description above and previous research, the hypothesis built in this study related to the effect of cash flow volatility on capital structure, namely:

H2: Different levels of operating cash flow have different effects on the company's capital structure decision as measured by debt.

Method

The object of this research uses industries engaged in the Manufacturing sector and has been listed on the Indonesia Stock Exchange (IDX), Stock Exchange of Thailand, and National Stock Exchange of India Limited. Manufacturing companies were chosen as the material for this study because the manufacturing industry is the largest industry that is the foundation of the economy in Indonesia. The purpose of this study is to prove previous studies related to the relationship of cash flow volatility to capital structure. The assessment of cash flow volatility index and capital structure will use secondary financial data. The population of the data used in the study is manufacturing companies listed on the three exchanges in the period 2016 to 2020. The company's cash flow and corporate debt and other supporting data will be the indicators of this research.

The type of data in this study is to use panel data, which is a combination of time series and cross section data. Data from the company's financial statements are obtained from Thomson Reuters, the IDX website, and the company's website. Other supporting data is obtained from audited financial statements in 2018 - 2022. As well as other supporting sources will be obtained from journals, textbooks, websites, articles that become the author's reference in hypothesis testing and data processing.

The research model that will be used for research is a multiple linear regression model because this study has more than one independent variable. This model will be used to test the research hypothesis, namely the effect of cash flow volatility on capital structure in manufacturing companies in Thailand, Malaysia, and Indonesia. The capital structure variable in this study is measured using the ratio of Long-Term Debt (LTD) and Short-Term Debt (STD) as the dependent variable which is proxied into DEBT.

Result and Discussion

Descriptive Statistics

Table 1. Statistical Results of Research Variables

Variable	Obs	Mean	Std. Dev	Min.	Max.
LTD	1,490	0,1776	0,0828	0,0023	1,0831
STD	1,490	0,2843	1,1289	0,0034	26,3123
CFV	1,490	0,0867	0,1383	0,0016	2,9778
GROW	1,490	0,0911	0,3982	-0,1281	108.0131
CR	1,490	2,5309	8,8582	0,0181	311,2252
TANG	1,490	0,3771	0,2077	0.0162	0.9726

Source: Processed Data

Description: DEBT = capital structure consisting of two proxies namely short-term debt (STD), long-term debt (LTD), CFV = cash flow volatility, GROW = company growth, CR = liquidity, and TANG = asset tangibility,

Table 1 explains the statistical data results of each variable in this study. Based on the table above, this study uses observation data from 2018 to 2022. Overall, it is known that the total companies used in this study are 298 companies with a total of 1,490 observations used in this study for 5 years. The country with the largest sample of companies is Vietnam with 94 companies. While the country with the smallest sample of manufacturing companies is the Philippines with 49 companies.

The dependent variable of capital structure consists of two proxies, the first one is long-term debt (LTD) consisting of 1,490 observations. This proxy explains liabilities that have a period of more than one year. Table 4.1 shows that the LTD variable has an average value of 0.1776. This indicates that the average proportion of long-term debt is 17.76% of total assets. Based on table 4.1, it is known that the minimum value of the LTD proxy comes from Taokaenoi Food & Marketing PCL (Ticker: TKN.BK) of 0.023 in 2020. The low LTD ratio in that year was due to the low use of long-term debt by the company. On the other hand, the maximum value of the LTD variable is 1.0831 in 2018 which comes from FKS Food Sejahtera Tbk PT (Ticker: ASIA.JK). The high value is due to an increase in long-term debt compared to the previous year and is supported by a decrease in the total assets of a company. Increased long-term debt and accompanied by a decrease in total assets indicate that the company needs a higher proportion of debt to meet its company's needs. This can have a bad impact on the company because the higher the proportion of long-term debt, it can cause an increase in interest expense, causing the risk of default.

The number of observations of the dependent variable of capital structure with the second proxy is short-term debt (STD) which is debt with maturity less than one year. Based on table 4.1, the STD proxy has a total observation of 1,490 observations. Where based on the table of descriptive statistical results, the average owned by the STD proxy is 0.2843. This average value explains that the research sample data has a proportion of short-term debt of 28.43% of total assets. From the table, it is also known that the minimum value of 0.0034 came from United Plantations Bhd (Ticker: UTPS.KL) in 2018 and the maximum value from PT Cadovimex Seafood Import Export and Processing JSC (Ticker: CAD.HNO) in 2018 which amounted to 26.3123. The large value of the ratio of short-term debt is due to CAD.HNO relying on its short-term debt to finance its assets. The higher the ratio, it can be said that CAD.HNO has a large risk associated with the company's operations when compared to all companies in this data sample.

Based on the results of descriptive statistics on the independent variable measured by cash flow volatility (CFV) has a value of 0.0867. The average value explains that the research sample data has a proportion of cash flow volatility of 8.67% of total assets. From the table, it is also known that the minimum value of 0.0016 comes from Ntaco Corp (Ticker: ATA.HNO) in 2022 and the maximum value from daVictus plc (Ticker: DVTD.L) in 2018, which is 2.9778. Where the lowest cash flow volatility value is owned by Vietnam and the highest is owned by Malaysia.

The growth variable (GROW) in this study is measured by growth in total assets where the previous year is used as the basis for measuring the total assets of the following year. The number of research observations on the GROW variable is 1,490.

Judging from table 4.1, the GROW variable has an average of 0.0911. This value can indicate that the companies studied have an average total asset growth of 9.1% higher than the total assets of the previous year. It can also be seen, the GROW variable has a minimum value of 0.8847 which comes from Anvifish JSC (Ticker: AVF.HNO) in 2022 and a maximum value of 108.0131 which comes from Figaro Coffee Group Inc (Ticker: FCG.PS) Philippines in 2021.

The descriptive statistical results of liquidity (CR) in this study have a total of 1,490 observations. Where this liquidity variable has an average value of 0.3771. Where the lowest value of liquidity is owned by Malaysia, namely the company Synergy Empire Ltd (Ticker: SHMY.PK) with a value of 0.0181. Meanwhile, the largest liquidity value is owned by the Green Ocean Corporation Bhd company (Ticker: GOCE.KL) with a value of 311.2251.

And for the last control variable is tangible assets (TANG) used to determine the company's guarantee when making loans as measured by total fixed assets to total assets. Judging from table 4.1, the TANG variable has a total of 1,490 observations and an average value of 0.3771. It is also known that there is a minimum value of 0.0162 from Sai Gon Vegetable Oil JSC (Ticker: SGO.HNO) in 2021 and a maximum value of 0.9726 from Jhonlin Agro Raya PT Tbk (Ticker: JARR.JK) in 2018.

Analysis of Hypothesis Test Results

Table 2. Research Results

Model	Significance	Harapan	Results
LTD:			
Model 1 -> LTD	Yes	LTD -> Negative	LTD -> Significant
Quartiles 1 -> LTD	No	LTD -> Positive	LTD -> Not significant
Quartiles 2 -> LTD	No	LTD -> Positive	LTD -> Not significant
Quartiles 3 -> LTD	Yes	LTD -> Negative	LTD -> Significant
Quartiles 4 -> LTD	Yes	LTD -> Negative	LTD -> Significant
STD:			
Model 2 -> STD	Yes	STD -> Positive	LTD -> Significant
Quartiles 1 -> STD	Yes	STD -> Positive	LTD -> Not significant
Quartiles 2 -> STD	Yes	STD -> Positive	LTD -> Not significant
Quartiles 3 -> STD	No	STD -> Positive	LTD -> Significant
Quartiles 4 -> STD	No	STD -> Positive	LTD -> Significant

Effect of Cash Flow Volatility on Capital Structure (Hypothesis 1)

Hypothesis one is testing the effect of the relationship between cash flow volatility and capital structure. This study uses capital structure as the dependent variable which is divided into two different proxies, namely short-term debt (STD) and long-term debt (LTD). Meanwhile, cash flow volatility is measured by cash flow volatility using the company's 5-year standard deviation (CFV).

The research results that show negative results indicate that when there is an increase in the company's cash flow volatility, there tends to be a decrease in the use of long-term debt. This is in accordance with the pecking order theory where when there is an increase in cash flow volatility it will cause a decrease in the use of the company's

long-term debt. This is because when the proportion of debt used by the company increases, it can cause an increase in interest costs and the emergence of information asymmetry problems between internal and external parties so as to pose a greater risk to the company. Therefore, it can be concluded that internal funding using retained earnings stored in cash is preferable to external funding in the form of debt.

Based on the research results shown, cash flow volatility is positively and significantly related to short-term debt. This indicates that if there is an increase in cash flow volatility, it causes an increase in funding using debt but with a shorter period of time. This is in accordance with research conducted by Harris and Roark (2019) which proves that companies with high cash flow volatility choose to fund with short-term debt. Where the use of short-term debt tends to be safer when companies have high cash flow volatility. This is due to the availability of thinning cash, so it is hoped that the assistance of debt with interest that is not so high can help maintain the company's business operations. With the use of this debt, which is known to be in accordance with the trade off theory which states that companies that use debt optimally are expected to have an impact and finance investment decisions to the maximum and can provide maximum returns to shareholders which have an impact on improving company performance. In addition, the use of debt can also provide benefits, namely tax savings obtained from debt interest (Modigliani Miller (1958)). So it can be concluded that if the company conducts funding through debt, it will have an impact on improving the company's performance so that it can help the company again maintain its cash availability.

Effect of Cash Flow Volatility on Capital Structure based on Operating Cash Flow Level (Hypothesis 2)

In the second hypothesis is testing the influence of the relationship between cash flow volatility and capital structure. This study uses capital structure as the dependent variable which is divided into two different proxies, namely short-term debt (STD) and long-term debt (LTD). Meanwhile, cash flow volatility is measured by cash flow volatility using the company's 5-year standard deviation (CFV). In this study, the relationship between cash flow volatility and the two dependent variables is determined based on the condition of the company's operating cash flow. Where operating cash flow is divided into four quartiles based on the level of cash flow of each company in each year. In the research associated with the dependent variable long-term debt, it is seen that it is negative and significant in quartile 3 and quartile 4. This supports research on hypothesis 1 which states that there is a negative and significant relationship between the impact of cash flow volatility on the use of debt. In this hypothesis 2 research shows that companies that have the highest level of operational cash flow choose to fund with internal funds due to the company's adequate cash flow conditions. So that the use of debt will decrease.

In the relationship between cash flow volatility and short-term debt as measured by the company's cash flow conditions, proving that when companies do funding with short-term debt only if the company has low operating cash flow conditions or in quartile 1 and quartile 2. This supports the results of hypothesis 1 which states that when the company has an operating cash flow condition that tends to be low, the company will choose to fund with debt but with short-term debt. This is because the company needs additional funding quickly if the company has a less stable cash flow level. Where this is in accordance with research conducted by Harris and Roark (2019).

Conclusion

In conducting the research, there are a total of 298 samples from 5 countries namely Malaysia, Thailand, Indonesia, Vietnam, and the Philippines, with samples covering 2018 to 2022 (5 years). This study uses panel data, with two estimation methods, namely fixed effect and random effect. The results of the research on the effect of cash flow volatility on capital structure decisions as measured by the use of corporate debt during 2016-2022 are: 1) Cash flow volatility (CFV) in the company as an independent variable, has a significant influence on the level of debt of food and beverage companies in the samples in this study, 2) Cash flow volatility (CFV) which is divided based on the terms of the company's cash flow conditions into 4 quartiles has a significant relationship to the terms of the company's income using debt. Based on the research it is shown that companies with cash flow levels in low quartiles have a positive relationship to the use of short-term debt while companies with cash flow levels in high quartiles have a negative relationship to the use of long-term debt. The positive effect shows that the greater the fluctuation of cash flow in the manufacturing industry, the higher the tendency to use debt by the company.

BIBLIOGRAFI

- Bates, T., Kahle, K., & Stulz, R. (2006). Why Do U.S. Firms Hold So Much More Cash Than They Used To? *The Journal of Finance*.
- Burton, B., Mike, A., & Hardwick, P. (1998). The Determinants of Credit Ratings in United Kingdom Insurance Industry.
- Dawar, V. (2015). The Relative Predictive Ability of Earnings and Cash Flows. *Management Research Review*, 38(4), 367-380.
- Dechow, P. M., & Dichev, I. D. (2002). The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors. *The Accounting Review*, 77(S-1), 35-59.
- Dudley, E., & James, C. M. (2015). Cash Flow Volatility and Capital Structure Choice.
- Elzy, I. J. N., & Chusnah, F. N. (2020). Analysis Of Factors Affecting the Persistence of Earnings in Property and Real Estate Companies Listed on The Indonesia Stock Exchange. Indonesian College of Economics.
- Friedman M. (1970). The Social Responsibility of Business Is To Increase Its Profits. *The New York Times Magazine*, September 13.
- Harris, C., & Roark, S. (2019). Cash Flow Risk and Capital Structure Decisions. *Finance Research Letters*.
- Huang, R., & Ritter, J. R. (2016). Corporate Cash Shortfalls and Financing Decisions. *SSRN Electronic Journal*.
- IAI. (2007). *Pernyataan Standar Akutansi Keuangan (PSAK)* Jakarta: Salemba Empat.
- IMF. (2023). Report For Selected Countries and Subjects. (N.D.). Retrieved From <https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/weorept.aspx?>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Journal of Financial Economics*, 3, 305–360.
- Keefe, M. O. C., & Yaghoubi, M. (2016). The Influence of Cash Flow Volatility on Capital Structure and The Use of Debt of Different Maturities. *Journal of Corporate Finance*, 38. 18-36.

- Lee, et al. (2018). Analisis Volatilitas Arus Kas, Tingkat Hutang dan Siklus Operasi Terhadap Persistensi Laba. *Jurnal Ilmiah Akuntansi Bisnis & Keuangan (JIABK)* 13(1).
- Memon, Z. A., Chen, Y., Tauni, M. Z., & Ali, H. (2018). The Impact of Cash Flow Volatility on Firm Leverage and Debt Maturity Structure: Evidence from China, *China Finance Review International*, 8(1) 69-91. <https://doi.org/10.1108/CFRI-06-2017-0106>.
- Miller, M. & Modigliani, F. (1958). The Cost of Capital, Corporation Finance, And the Theory of Investment. *American Economic Review*, 261-297.
- Minton, B. A., & Schrand, C. (1999). The Impact of Cash Flow Volatility on Discretionary Investment and The Costs of Debt and Equity Financing. *Journal of Financial Economics*, 54(3), 423-460. [https://doi.org/10.1016/S0304-405X\(99\)00042-2](https://doi.org/10.1016/S0304-405X(99)00042-2)
- Modigliani, F. & Miller, M.H. (1963). Corporate Income Taxes and The Cost of Capital: A Correction. *The American Economic Review*, 53(3), 433-443.
- Myers, Stewart C. (1984). The Capital Structure Puzzle. *Journal of Finance*, 39, 575-592.
- Njuguna, T. W., Iraya, C., Nyamute, W., & Kiiru, J. (2022). Cashflow Volatility, Corporate Investments and Value of Nonfinancial Firms Listed In Kenya. *European Journal of Business and Management Research*, 7(4), 182–191. <https://doi.org/10.24018/Ejbm.2022.7.4.1552>
- Ross, S. A., Drew, M., Walk, A., Westerfield, R., & Jordan, B. D. (2022). *Fundamentals of Corporate Finance*. North Ryde, N.S.W.: Mcgraw-Hill Education.
- Rujoub, M. A., Cook, D. M., & Hay, L. E. (1995). Using Cash Flow Ratios to Predict Business Failures. *Journal of Managerial Issues*, 7(1), 75-90.
- Santoso, P. (2015). How Cash Flow Volatility Affects Debt Financing and Accounts Payable. *International Journal of Economics and Finance*, 7, 138-145.
- Zulfiqar, A., & Sun, Hongyi & Ali, Murad. (2017). The Impact of Managerial and Adaptive Capabilities to Stimulate Organizational Innovation in Smes: A Complementary PLS-SEM Approach. *Sustainability*. 9. 2157. [10.3390/Su9122157](https://doi.org/10.3390/Su9122157).

Copyright holder:

Kania Chandra Riani (2024)

First publication right:

Syntax Literate: Jurnal Ilmiah Indonesia

This article is licensed under:

