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Internal or External Financing: New Evidence on Investor Reaction in Indonesian Manufacturing Firms

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Abstract:

Research aims: This study aims to examine investor reaction to financing sources due to its pecking order theory hierarchy.

Design/Methodology/Approach: This research used a purposive sampling method of manufacturing listed firms on the Indonesia Stock Exchange, which were tested utilizing Ordinary Least Square and SPSS software.

Research findings: The results showed that the investor reacted negatively to internal financing measured by the firm's retained earnings. Conversely, this research found that investors reacted positively to external financing in measurement, leverage, and equity issuance. Furthermore, the results revealed that leverage had a more positive reaction than equity issuance.

Theoretical contribution/Originality: This research contributes to the pecking order theory literature to test how investor reacts to which source of financing is chosen due to its hierarchy. There is evidence that Indonesian manufacturing firms had inadequate internal financing, which made investors react negatively, and investors tended to choose leverage over equity as external financing.

Practitioner/Policy implication: Our study contributes to the firm's management to carefully choose financing sources to fulfill the investor interest. This research also suggests that the firm produces more profit to provide adequate internal source financing as the research results showed that investors preferred internal than external financing. Furthermore, when there is inadequate internal financing, the firm's management should use leverage over equity.

Research limitation/Implication: First, our study employed total liability rather than debt to leverage measurement. Second, our study only provided evidence of negative reactions to show that the firm failed to provide adequate internal financing sources rather than examined the level of adequate internal financing sources.

Keywords: Pecking Order Theory; Retained Earnings; Leverage; Equity Issuance; Investor Reaction

Introduction

In 2018, the Indonesian Ministry of Industry launched "Making Indonesia 4.0" as an integrated roadmap that contains some strategies for entering the 4th generation of the industrial revolution. "Making Indonesia 4.0" poses a challenge to the manufacturing sector to revive and make a high contribution to the country, even the manufacturing GDP's (Gross Domestic Product) contribution in 2030 is expected to exceed 25%.

The manufacturing sector appears to be under high pressure to meet its targets. It means being profitable is a must for manufacturing firms (Susilo, Wahyudi, & Pangestuti, 2020). Moreover, this pressure rises a highly competitive market, which drives business development. Additional funds are always required for business development (Sutomo, 2020). There are two funding source options to choose from, internal or external.

The decision on which funding source to choose is not simple because it needs to evaluate how many sources available and how much funds are needed and added to cover the firm's finances with a low bankruptcy risk; at the same time, it needs to evaluate which funds are appropriate to rise firm performance and make firm grow more robust in the complexity and competitive environment (Ghozali, Handriani, & Hersungodo, 2020). In other words, establishing an optimized capital structure is not a simple matter. Several judgments need to be made, such as how firm characteristics can affect which fund resources are the right choice or how these fund resources impact the firm before making the final decision.

Pecking order theory explains recommendation for choosing which fund resources should be chosen by the hierarchy of funding sources, wherein the first place is internal funding (retained earnings), before external funding (leverage and equity) (Myers, 1984; Myers & Majluf, 1984). The hierarchy of funding resources is generated from asymmetric information between managers and investors, which encourages investors to be more inclined to internal fund resources, then debt and the additional funds from new shareholders are the last options.

Various studies have tried to validate the pecking order theory in several ways. Some studies have found that more profitable firms were more likely to use internal funding (Agyei, Sun, & Abrokwah, 2020; Allen, 1993; Ghozali et al., 2020; Qureshi, 2009; Sutomo, 2020; Tong & Green, 2005). Meanwhile, firms that paid more dividends were more likely to use external financing than loans (Adedeji, 1998; Baskin, 1989; Qureshi, 2009; Tong & Green, 2005). Moreover, when information asymmetry was low, firms tended to issue equity (Autore & Kovacs, 2010; Sony & Bhaduri, 2018), or when firms were over-levered and experienced severe financial distress, issuing equity was the best choice for restructuring and adjusting their optimum leverage (Asad, Gulzar, Bangassa, & Khan, 2020; Kim, Ko, & Wang, 2019). However, some studies had provided evidence that high-growth and younger firms tended to choose equity over debt, switching to debt when they reached maturity (Fulghieri, Garcia, & Hackbarth, 2020). These studies investigated how management should choose their optimal capital structure sources based on firm characteristics and conditions.

Some studies have tried to investigate the impact of choosing a financial source. These studies provided evidence that external financing through leverage had a negative effect on firm performance (Ibhagui & Olokoyo, 2018; Salawu, 2007; Zeitun & Tian, 2007). It signified that investors preferred more to debt-free firms to leveraged firms. However, a study uncovered that leverage had a positive influence on firm performance, while equity finance had a negative impact on firm performance (Aripin & Abdulmumuni,

2020). It suggested that investor's preference for external funding is leverage over equity.

Manufacturing firms need to create adequate values for the firms and their shareholders to stay competitive. It means that management should make decisions about optimizing capital structure after considering investors' preferences regarding funding resources. The decision on funding resources is not only about management's judgment but also about how investor preference matters.

Several studies have researched how investors reacted to capital structure sources. Investors gave no reaction to retained earnings of the firm (Khan, Zulfiqar, & Shah, 2012). Meanwhile, investors gave a positive reaction to the debt-free firm because shareholders believed that managerial had certain qualities in making a decision of financial sources and reserving more cash (Deb & Banerjee, 2015; Lee & Moon, 2011); moreover, because zero leveraged firms reserved high debt capacity but chose to stay debt-free (Moon, Lee, & Waggle, 2015). Another study has proven that investors reacted negatively to firm decisions to issue equity (Botta & Colombo, 2019), but they reacted positively when the issuance was approved by shareholders (Holderness, 2018).

This current study used pecking order theory to determine which investors' financing source was chosen and impacted investor's decision-making. Unlike the previous studies, which investigated how investors reacted to financial funding choice separately, this study aimed to test which source financing was chosen due to its hierarchy based on the pecking order theory. First, we investigated the investors' reactions to retained earnings as an internal source, as pecking order theory states that it is the first option for financial resources that should be chosen among other sources. After determining the investors' responses to the retained earnings, we tested the investors' reactions to external financing, namely leverage and equity.

This study contributes to exploring which level sources of financing investors prefer. Furthermore, this study attempts to explain the complete steps for selecting financial resources based on the pecking order theory hierarchy. Theoretically, this study contributes to pecking order theory literature. Practically, this study provides information to management to determine investors' perceptions of internal or external financing. This study provides new evidence that when investors think that retained earnings are inadequate, they prefer leverage over equity. Therefore, it means that investors prefer the level of financing sources to external financing with lower costs and risks.

Literature Review and Hypotheses Development

Internal financing and investor reaction

Pecking order theory gives a hierarchy concept about financing sources resulting from asymmetry information between manager and outside investor (Myers, 1984; Myers &

Majluf, 1984). This theory explains that management who owns more information about firm value than outside investors should push asymmetry information level to avoid equity issues. Therefore, internally generated financing is the first option that should be chosen by the firm. Retained earnings are less costly than external financing because, as an internal source, retained earnings do not create asymmetry information anymore. Previous research has provided evidence that profitability had a negative effect on leverage (Agyei et al., 2020; Allen, 1993; Ghozali et al., 2020; Qureshi, 2009; Sutomo, 2020; Tong & Green, 2005). It means that a more profitable firm creates a reduced tendency for external financing because it produces adequate internal financing. Other research found that investors reacted positively to debt-free firms (Deb & Banerjee, 2015; Moon et al., 2015). Thus, investors are supposed to react positively to the firm's retained earnings capacity, which can cover the funding needed by the firm.

Based on the pecking order theory, dividends are rigid, and firms have to adjust their dividend payment to investment opportunities (Myers, 1984; Myers & Majluf, 1984). Therefore, dividends have the capacity to reduce free cash flow from retained earnings. A firm's future cash needs will increase to the point where retained earnings are not sufficient to cover it anymore (Baskin, 1989). It means that investors should react negatively when they feel that the firm's retained earnings cannot cover the firm's funding needs, and it is time to consider other financing sources. Previous research has shown that firms with high payout ratios and high-growth tended to use external financing (Adedeji, 1998; Baskin, 1989; Fulghieri et al., 2020; Ghozali et al., 2020; Qureshi, 2009; Tong & Green, 2005). It indicates that more dividend payments and faster growth firms create more funding from other resources because retained earnings are no longer enough. Thus, investors are supposed to react negatively when they judge that the firm's retained earnings cannot cover the funding needed by the firm. Therefore, the research hypothesis about investor reaction and internal financing depends on the sufficiency of retained earnings.

H₁: Investor reacts positively (negatively) to internal financing.

External financing and investor reaction

The pecking order theory suggests that sometimes, internally generated financing will be inadequate due to rigid dividend policies, while firms face unpredictable profitability fluctuations. Hence, where else should firms look for financing sources? As the pecking order theory suggests, the answer is external financing. The firms should choose leverage as the preferred source with lower information costs than equity (Myers, 1984; Myers & Majluf, 1984).

Previous studies have found that investor reacted positively to the debt-free firms driven by shareholder's beliefs that debt-free firms more were profitable, reserved more cash, and even had more growth opportunities (Deb & Banerjee, 2015; Graham, 2000; Lee & Moon, 2011; Mikkelsen & Partch, 2003; Myers, 2001). Therefore, previous research is consistent with the pecking order theory that investors are more likely to

prefer internal financing over external financing as long as internal financing is available and that their profitability generates adequate cash flows to cover up all the firm’s funding needs. What if they have inadequate profitability to produce adequate retained earnings to reserve cash flow and grow faster? It means that firm has reached the point where they need external sources to fulfill their funding needs.

Other previous studies provide evidence that high leverage improves firm performance, whereas equity is otherwise (Aripin & Abdulmumuni, 2020). However, when a firm is over-levered, they have to restructure and adjust their optimum leverage through equity issuance (Asad et al., 2020; Kim et al., 2019). Therefore, investors reacted negatively to an increase in the size of equity issues and reacted positively to reducing leverage (Botta & Colombo, 2019). Thus, based on pecking order theory, when retained earnings cannot cover the funding needed by the firm and make the firm look for other sources, investors are supposed to react more positively to leverage over equity. Therefore, the research hypothesis is stated as follows:

H₂: Investor tends to choose leverage over equity when external financing is needed.

Research Method

This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2016 to 2017. The research model requires data from year t+1, so the sample criteria in this research were manufacturing companies listed during 2016-2018 consistently. There were 313 manufacturing listed companies during 2016-2017, but only 294 companies were consistently listed during 2016-2018, and there were nine companies with less than 12 monthly stock price data. Thus, the final samples were 285 firm-years (see Table 1).

Table 1 Research Sample Selection Process

Description	Number of Observations
Firm-year observations in the manufacturing sector were listed on the Indonesia Stock Exchange for 2016-2017.	313
Less:	
Number of firms with inconsistencies listed 2016-2018	(19)
Number of firms with monthly stock price data less than 12 month	(9)
Number of final firm-years observations	285

In this research, the dependent variable was investor reaction, which reflected with Buy and Holds Abnormal Return (BHAR) by Barber and Lyon (1997). The calculation formula is as follows.

$$BHAR_t [k, K] = \prod_{s=k}^K (1 + R_{is}) - \prod_{s=k}^K (1 + R_{ms}) \quad (1)$$

Note :

BHAR_t : monthly buy and hold abnormal return for one year

R_{is} : monthly return company i on month s , calculated by the closing price of company stock i on month s minus the offer price company stock i on month s divided by offer price company stock i on month s

R_{ms} : monthly return JCI (Jakarta Composite Index) on month s , calculated by the closing price of IHSI on month s minus offer price of IHSI on month s divided by offer price of IHSI on month s

Period s started with the fourth month of the fiscal year after the annual report deadline was published and ended three months after the end of the fiscal year.

The independent variables in this research were retained earnings, leverage, and equity issuance. In this study, retained earnings were measured using total retained earnings divided by total assets, leverage was calculated by total liabilities divided by total assets, and equity used indicator variable 1 for the firm with a seasoned equity offering and 0 for otherwise. The calculation formula for retained earnings and leverage is as follows.

$$\text{Retained earnings} = \frac{\text{Retained Earnings}}{\text{Total Assets}} \quad (2)$$

$$\text{Leverage} = \frac{\text{Total Liabilities}}{\text{Total Assets}} \quad (3)$$

The authors considered many factors that might affect the investor reaction. Then, in the existence of a firm-level leverage testing, this study's control variables were financial performance and size. Financial performance was measured using the change of return on assets (ROA) from $t-1$ to t . Firm size was determined employing a log natural logarithm of the market value of equity. The calculation formula is as follows.

$$\text{Performance} = \Delta \left(\frac{\text{Net Income Before Tax}}{\text{Total Assets}} \right) \quad (4)$$

$$\text{Size} = \text{Ln} (\text{Market Value of Equity}) \quad (5)$$

Performance : Financial performance was measured by Δ ROA, in which ROA was calculated by net income before tax divided by total assets.

Ln : Natural Logarithm

Multiple linear regression analysis, used in this study to determine the effect of independent variables on the hypothesis's dependent variables, was made. The research model used in this study for internal financing on investor reaction testing is as follows.

$$\text{BHAR}_{it+1} = \alpha + \beta_1 \text{Retained Earnings}_{it} + \beta_2 \text{Performance}_{it} + \beta_3 \text{Size}_{it} + \varepsilon_{it} \quad (6)$$

Note:

BHAR_{it+1} : long-run equity performance year $t+1$ using Buy and Hold Abnormal Return (BHAR)

$\text{Retained Earnings}_{it}$: retained earnings on year t divided by total assets

Performance_{it} : change of return on assets year t

Size_{it} : firm size year t using the natural logarithm of the market value of equity

The research model employed in this study for external financing on investor reaction testing is as follows.

$$BHAR_{it+1} = \alpha + \beta_1 Leverage_{it} + \beta_2 Equity_{it+1} + \beta_3 Performance_{it} + \beta_4 Size_{it} + \epsilon_{it} \quad (7)$$

Note:

BHAR_{it+1} : long-run equity performance year t+1 using Buy and Hold Abnormal Return (BHAR)

Leverage_{it} : internal financing using leverage year t using total debt divided by total assets

Equity_{it} : indicator variable 1 for a firm with a seasoned equity offering, 0 otherwise

Performance_{it} : change of return on assets year t

Size_{it} : firm size year t using the natural logarithm of the market value of equity

Result and Discussion

Table 2 shows descriptive statistics results that the dependent variable (BHAR) had a mean of 0.0834. It indicated that firms on the sample produced a positive abnormal return on average. Retained earnings revealed a negative mean. It could be concluded that firms on the sample mostly had a low capacity to produce adequate profitability to increase retained earnings. Mean of leverage showed that most of the firms in the sample preferred leverage to funding their assets because 0, 5454 represented that more than a half of their assets were funded by their liability. Meanwhile, the mean of equity displayed just a little firm on the sample who decided to issue equity. The mean of performance exhibited that firms in the sample were dominated by low-performance firms. The mean of size was also almost around the middle of minimum and maximum. It was concluded that firms in the sample had almost equal distribution.

Table 2 Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
BHAR	285	-0.0493	1.1248	0.0834	0.1238
Retained earnings	285	-9.5247	0.8245	-0.0080	0.9985
Leverage	285	0.0769	5.0733	0.5454	0.5187
Equity	285	0.0000	1.0000	0.0175	0.1315
Performance	285	-5.2255	5.2731	0.0071	0.4496
Size	285	15.2192	33.9413	26.3641	4.0425

Table 3 displays the first hypothesis (Model 6) testing results, where retained earnings (internal financing) were the independent variable, performance and size were as control variables on the investor reaction (BHAR) as a dependent variable. The research

model had an F-value of 27.77, showing that all the variables in the model, independent and control, had a simultaneously significant positive effect on the dependent variable, with a degree of confidence of 1%. R Square showed that the independent and control variables could explain the dependent variable at 23%, while the rest should be explained by another variable outside the research model. The hypothesis testing result presented a negative coefficient of -0.216 with a P-Value of 0.0023. It signified that retained earnings negatively affected BHAR (with the degree of confidence of 1%). Thus, the H1 hypothesis was accepted.

Table 3 Regression Analysis Result of Internal Financing on Investor Reaction

Variable	Coefficient	t-Statistic	P-Value
(Constanta's)	0.3073	6.6571	0.0000
Retained earnings	-0.0216***	-3.0760	0.0023
Performance	-0.0823***	-5.7084	0.0000
Size	-0.0085***	-4.8918	0.0000
R Square			0.2287
F Statistic			27.7706***
F Significance			0.0000

***, **, * indicate significance at the 0.01, 0.05, and 0.10 respectively

Table 4 illustrates the second hypothesis (Model 7) testing results, where leverage and equity (External financing) as the independent variables, performance and size as control variables on the investor reaction (BHAR) as the dependent variable. The research model had an F-value of 22.04, indicating that all the model variables, independent and control, had a simultaneously significant positive effect on the dependent variable, with a degree of confidence of 1%. R Square revealed that the independent and control variables could explain the dependent variable at 24%, while the rest should be explained by another variable outside the research model. Hypothesis testing results showed a positive coefficient for both external financing sources, 0.042 for leverage and 0.087 for equity, with P-Values of 0.0014 and 0.0954, respectively. The results disclosed that not only leverage had a significant positive effect (with the degree of confidence of 1%), but also equity had a significant positive effect (with the degree of confidence of 10%) on BHAR. However, leverage had a higher degree of confidence than equity. Thus, the H2 hypothesis was accepted.

Table 4 Regression Analysis Result of External Financing on Investor Reaction

Variable	Coefficient	t-Statistic	P-Value
(Constanta's)	0.2928	6.2463	0.0000
Leverage	0.0419***	3.2302	0.0014
Equity	0.0867*	1.6734	0.0954
Performance	-0.0903***	-5.9619	0.0000
Size	-0.0088***	-5.3107	0.0000
R Square			0.2394
F Statistic			22.0367
F Significance			0.0000

***, **, * indicate significance at the 0.01, 0.05, and 0.10 respectively

Internal financing and investor reaction

The regression testing results in Table 3 show that retained earnings had a significant negative effect on long-run equity performance. Investors should react positively to the retained earnings if they can produce sufficient cash flow for their funding. However, the result sign was negative. This negative effect implied that the firm's retained earnings could not cover up the firm's funding needed. Furthermore, it signified that most sample firms reached the level of external financing of funding resources hierarchy.

This study exposed that Indonesian manufacturing firms appear to have to work hard to fulfill the purpose of "Making Indonesia 4.0". Indonesian manufacturing firms still provide insufficient profitability to generate sufficient retained earnings for the firm. Meanwhile, the government gives a high expectation to the Indonesian manufacturing sector to being profitable. However, internal financing sources are not the only sources of funding. Indonesian manufacturing firms can still use their external financing to produce more profitability in the future.

Ghozali et al. (2020) found that Indonesian manufacturing firm growth positively affected the debt ratio. First, in line with Ghozali et al. (2020), this research result showed that the Indonesian manufacturing firm needs more funding from external resources (particularly debt) for faster growth. Second, it indicated that Indonesian manufacturing firms' retained earnings had inadequate profitability to produce sufficient retained earnings (internal resource). Third, insufficient internal financing sources led the firm to use external financing sources. These conditions made investors give an adverse reaction to the firm's retained earnings. Moreover, this research's results fully support the pecking order theory; external financing is required if there is inadequate internal financing (Myers, 1984; Myers & Majluf, 1984).

External financing and investor reaction

The regression testing results in Table 4 exhibit that leverage and equity issuance significantly affected long-run equity performance. The hypothesis 1 result showed that the firm did not have adequate internal financing resources, so investor reaction to the leverage and equity issuance should be positive. Moreover, leverage had a more positive reaction than equity issuance. It means that if investors have to choose external financing resources, they tend to choose leverage over equity.

This study indicated that Indonesian manufacturing firms relied on external financing sources to cover up their funding needed. It was caused by insufficient internal financing and inadequate profitability. Meanwhile, the Indonesian government expects a high contribution from manufacturing firms. However, external financing sources lead to more profitability in the future. The results of this study revealed that investors tended to choose leverage over equity. It means leverage is a key to make Indonesian manufacturing firms being profitable in the future. Thus, "Making Indonesia 4.0" will work.

Botta and Colombo (2019) uncovered that investors reacted negatively to the increase in equity size and reacted positively to the reduction leverage. This research's results align with Botta and Colombo (2019), where investors tended to avoid equity issuance as external financing sources. Moreover, this research results, in accordance with Kim et al. (2019) and Asad et al. (2020), found that equity issuances were more likely used to restructure and adjust their optimum leverage than spent it on R & D. Issuing equity shows that firms are in severe financial distress and overleveraged. Thus, investors should avoid issuing equity. This research results also align with Aripin and Abdulmumuni (2020), which stated that leverage is supposed to have the capacity to produce better performance. Indeed, investors should choose leverage over equity. Furthermore, this research results fully support the pecking order theory that when external financing is required, leverage should be chosen before equity issuance by the firm (Myers, 1984; Myers & Majluf, 1984).

Conclusion

This research aimed to examine the pecking order theory about financing sources hierarchy whose sources were chosen by investors, internal or external. The statistical test results showed that investors reacted negatively to the firm's retained earnings, while investors reacted positively to leverage and equity issuance. Furthermore, leverage had a more positive reaction than equity issuance. It signifies that pecking order theory is still relevant to explain how firms choose their source of financing.

This research contributes to the firm's management to know how investors react to the firm's capital structure, especially how investors choose internal or external financing. It means that firms should choose the source of financing carefully to fulfill the investor interest. This research also suggests that the firm produces more profit to provide adequate retained earnings (internal source financing), as the research result revealed that investors preferred internal than external financing. However, most sample firms failed to provide it.

Current research has some limitations. First, this research used total liability to leverage measurement. Future studies hopefully consider using total debt as leverage measurement. Second, this research only showed investors' reactions negatively to the retained earnings, which indicated that the firm failed to provide adequate retained earnings. Future studies may explore the level of adequate and inadequate retained earnings before testing the external financing source. Third, this research only revealed investors' reactions more positively to leverage than equity issuance. It denoted that investors preferred leverage over equity. Furthermore, future studies may explore where the level of leverage failed to produce a positive reaction, so the investor should choose equity issuance.

References

- Adedeji, A. (1998). Does the pecking order hypothesis explain the dividend payout ratios of firms in the UK? *Journal of Business Finance & Accounting*, 25(9-10), 1127-1155. <https://doi.org/10.1111/1468-5957.00230>
- Agyei, J., Sun, S., & Abrokwah, E. (2020). Trade-off theory versus pecking order theory: Ghanaian evidence. *SAGE Open*, 10(3), 1-20. <https://doi.org/10.1177/2158244020940987>
- Allen, D. E. (1993). The pecking order hypothesis. *Applied Financial Economics*, 3(2), 101-112. <https://doi.org/10.1080/758532828>
- Aripin, N., & Abdulmumuni, O. (2020). Financial leverage and financial performance of Nigerian manufacturing firms. *International Journal of Supply Chain Management*, 9(4), 607-614. Retrieved from <https://ojs.excelingtech.co.uk/index.php/IJSCM/article/view/5131>
- Asad, F., Gulzar, S., Bangassa, K., & Khan, M. J. (2019). Capital structure adjustment and market reaction following seasoned equity offerings. *International Journal of Finance & Economics*, 25(3), 388-411. <https://doi.org/10.1002/ijfe.1758>
- Autore, D. M., & Kovacs, T. (2010). Equity issues and temporal variation in information asymmetry. *Journal of Banking & Finance*, 34(1), 12-23. <https://doi.org/10.1016/j.jbankfin.2009.06.016>
- Barber, B. M., & Lyon, J. D. (1997). Detecting long-run abnormal stock returns: The empirical power and specification of test statistics. *Journal of Financial Economics*, 43(3), 341-372. [https://doi.org/10.1016/S0304-405X\(96\)00890-2](https://doi.org/10.1016/S0304-405X(96)00890-2)
- Baskin, J. (1989). An empirical investigation of the pecking order hypothesis. *Financial Management*, 18(1), 26-35. <https://doi.org/10.2307/3665695>
- Botta, M., & Colombo, L. (2019). Seasoned equity offering announcements and the returns on European bank stocks and bonds. *Applied Economics*, 51(13), 1339-1359. <https://doi.org/10.1080/00036846.2018.1527450>
- Deb, S. G., & Banerjee, P. (2015). Equity performance of zero-debt firms vis-à-vis their leveraged counterparts. *Global Business Review*, 16(5), 800-811. <https://doi.org/10.1177/0972150915591458>
- Fulgieri, P., Garcia, D., & Hackbarth, D. (2020). Asymmetric information and the pecking (Dis) order. *Review of Finance*, 24(5), 961-996. <https://doi.org/10.1093/rof/rfaa005>
- Ghozali, I., Handriani, E., & Hersungodo. (2020). Leverage determinants of manufacturing firms: Evidence from Indonesia. *International Journal of Scientific & Technology Research*, 9(4), 2734-2744. Retrieved from <https://www.ijstr.org/final-print/apr2020/Lever-Age-Determinants-Of-Manufacturing-Firms-Evidence-From-Indonesia.pdf>
- Graham, J. R. (2000). How big are the tax benefits of debt? *The Journal of Finance*, 55(5), 1901-1941. <https://doi.org/10.1111/0022-1082.00277>
- Holderness, C. G. (2018). Equity issuances and agency costs: The telling story of shareholder approval around the world. *Journal of Financial Economics*, 129(3), 415-439. <https://doi.org/10.1016/j.jfineco.2018.06.006>
- Ibhagui, O. W., & Olokoyo, F. O. (2018). Leverage and firm performance: New evidence on the role of firm size. *The North American Journal of Economics and Finance*, 45, 57-82. <https://doi.org/10.1016/j.najef.2018.02.002>
- Khan, A. B., Zulfiqar, A. S., & Shah, S. Z. A. (2012). The impact of retained and distributed earnings on future profitability and stock returns in Pakistan. *International Research Journal of Finance and Economics*, 84, 141-148. Retrieved from http://www.internationalresearchjournaloffinanceandeconomics.com/ISSUES/IRJFE_Issue_84.htm

- Kim, W., Ko, Y., & Wang, S.-F. (2019). Debt restructuring through equity issues. *Journal of Banking & Finance*, 106, 341-356. <https://doi.org/10.1016/j.jbankfin.2019.07.002>
- Lee, H., & Moon, G. (2011). The long-run equity performance of zero-leverage firms. *Managerial Finance*, 37(10), 872-889. <https://doi.org/10.1108/03074351111161565>
- Mikkelson, W. H., & Partch, M. M. (2003). Do persistent large cash reserves hinder performance? *Journal Of Financial and Quantitative Analysis*, 275-294. <https://doi.org/10.2307/4126751>
- Moon, G., Lee, H., & Waggle, D. (2015). The effect of debt capacity on the long-term stock returns of debt-free firms. *Applied economics*, 47(4), 333-345. <https://doi.org/10.1080/00036846.2014.959655>
- Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 574-592. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Myers, S. C. (2001). Capital structure. *Journal of Economic Perspectives*, 15(2), 81-102. Retrieved from <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.15.2.81>
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Qureshi, M. A. (2009). Does pecking order theory explain leverage behaviour in Pakistan? *Applied Financial Economics*, 19(17), 1365-1370. <https://doi.org/10.1080/09603100902817592>
- Salawu, R. O. (2007). An empirical analysis of the capital structure of selected quoted companies in Nigeria. *The International Journal of Applied economics and Finance*, 1(1), 16-28. <https://dx.doi.org/10.3923/ijae.2007.16.28>
- Sony, B., & Bhaduri, S. (2018). Information asymmetry and equity issue decision of low-leverage firms. *Managerial Finance*, 44(11), 1330-1346. <https://doi.org/10.1108/MF-04-2018-0158>
- Susilo, D., Wahyudi, S., & Pangestuti, I. R. D. (2020). Profitability determinants of manufacturing firms in Indonesia. *International Journal of Economics and Business Administration*, 8(2), 53-64. <http://doi.org/10.35808/ijeba/443>
- Sutomo, S. (2020). The determinants of capital structure in coal mining industry on the Indonesia Stock Exchange. *Investment Management & Financial Innovations*, 17(1), 165. [http://dx.doi.org/10.21511/imfi.17\(1\).2020.15](http://dx.doi.org/10.21511/imfi.17(1).2020.15)
- Tong, G., & Green, C. J. (2005). Pecking order or trade-off hypothesis? Evidence on the capital structure of chinese companies. *Applied Economics*, 37(19), 2179-2189. <https://doi.org/10.1080/00036840500319873>
- Zeitun, R., & Tian, G. G. (2007). Capital structure and corporate performance: Evidence from Jordan. *Australasian Accounting Business & Finance Journal*, 1(4), 40-61. <https://dx.doi.org/10.2139/ssrn.2496174>