International Journal of Accounting & Finance in Asia Pasific (IJAFAP)
Vol. 5 No. 2, pp. 40-47, June, 2022
E-ISSN: 2655-6502 P-ISSN: 2684-9763
https://ejournal.aibpmjournals.com/index.php/IJAFAP

The Effect of Cash Flow on External Financing, Debt Issuance, and Equity Issuance: The Moderation Role of Board Gender Diversity

Muhammad Faisal Sihite, Dony Abdul Chalid [1,2,]
Magister Management, Faculty of Economics & Business University of Indonesia[1]
Kampus UI, Depok, 16424, Indonesia
Correspondence email: faisalmuhamaad@gmail.com

ARTICLE INFORMATION

Publication information
Research article

HOW TO CITE

Chalid, D., & Sihite, M. (2022). The Effect of Cash Flow on External Financing, Debt Issuance, and Equity Issuance: The Moderation Role of Board Gender Diversity. *International Journal of Accounting & Finance in Asia Pasific, 5*(2),40-47.

DOI:
https://doi.org/10.32535/ijafap.v5i2.1592

Received: 14,APRIL,2022
Accepted: 11,MAY,2022
Published: 20,JUNE,2022

ABSTRACT

This paper investigates the relationship between cash flow and external financing and the moderating effect of board gender diversity. It aims to explain how cash flow affects external financing with three proxies of Equity Issuance, Debt Issuance, and External Financing. This study explains how Board Gender Diversity influences Cash Flow and External Financing. This study took a sample of a company listed in the Indonesia Stock Exchange from 2014 until 2019 and used Ordinary Least Square (OLS) for the regression method. The findings indicate a negative correlation between Cash Flow and External Financing. Addedly, Board Gender Diversity insignificantly affects the moderation between Cash Flow and External Financing.

Keywords: Board Gender Diversity, Cash Flow, Debt Issuance, Equity Issuance, External Financing

INTRODUCTION

Capital structure comes to be the most important issue especially for companies to finance their activities. Two alternatives are available, internal financing and external financing. Internal financing requires companies to use their operating cash flow or retained earnings. External financing acquires external financing activities such as issuing debt or equity. Two capital structure theories are commonly used to describe the financing resources for the company. First, Modigliani-Miller (MM) theory and The Pecking Order theory proposed by Myers.

Although companies are likely to opt for internal financing derived from cash flow, retained earnings, & depreciation (Riyanti & Suhartono, 2018), choosing the right composition of internal financing and external financing becomes an important issue to get the optimum capital structure for companies. There are several theories of determining optimum financing alternatives. According to Park (2019), if there are no tax expenses or financial costs, the issue of external or internal financing can be ignored. Modigliani & Miller (1958) examined the benefit of paying tax to pay interest if a company decides to issue debt for financing. In contrast, Myers & Majluf (1984) in Pecking Order Theory featured that companies should use internal financing first before external financing with the lowest risk. Choosing internal or external financing can affect company cash flow. The differences theory for using internal financing or external financing become interesting topics to discuss.

LITERATURE REVIEW

Several studies underlined a negative correlation between cash flow and external financing (e.g., Almeida & Campello, 2010; Park, 2019). Park (2019) also argued that internal financing gives a tremendous advantage to external financing. Debt and equity are alternatives. Issuing debt is advantageous and preferable when companies face agency and imperfect information problems (Almeida & Campello, 2010). However, Almeida & Campello (2010) argued that a company has financial constraints from its ability to contract debt when cash flows fall short, while Park (2019) underlined that external financing resources, debt, and equity show a negative correlation with cash flow.

Company decision is determined by the board of directors that have the responsibility for making decisions on corporate actions. The characteristics of the ranks and commissioners may include gender, educational background, and age. The presence of women in the ranks has become a topic frequently discussed in the business world, especially in Indonesia due to the Women's Liberation Movement. It is assumed that it is men who are responsible for earning a living. It is women who must take care of the family and avoid working too much (Hochschild, 1997). This is expected to be a glass ceiling phenomenon in which women will only be able to achieve certain positions due to their domestic obligation to take care of the family and dissatisfactory performance.

The presence of women's characteristics that are considered less profitable leads to the assumption that female employees are considered to reduce the company's healthy competitiveness. This is evidenced by research conducted by (Rigg & Sparrow, 1994) contending that having a follower trait is the opposite trait of a leader who must have a trait. However, the stigma about women's capability as a company leader should not be commonly attributed, and, in relation to elections, be objectively conducted based on the candidate's capacity. Furthermore, by looking at the generally accepted characters in women, there are traits needed in one of the guards, for example, prioritizing ethics in

decision making and avoiding risks as women are more ethical in decision-making (Betz, O'Connell, & Shepard, 1989; Khazanchi, 1995). Women have the nature to avoid risk (Gul, Fung, & Jaggi, 2009). The women's qualities are beneficial for companies in making decisions, especially for a wise capital structure. Thus, both men and women must have

equal opportunities as the highest stakeholder in the corporate context. Based on a study conducted by IFC (2018), the presence of women in Indonesian company ranks is 15%, suggesting that the line remains highly dominated by men.

The increase in the composition of women on the board of directors has encouraged more research to determine whether their presence affects the composition of the company's capital funding. The characteristics board of directors influences the decisions that the company will take. Schopohl, Urquhart, and Zhan (2021) stated that the presence of women on the board of directors can reduce the amount of leverage for the company. This is because women tend to avoid risk compared to men. The results of the research are very beneficial for the company, especially in choosing alternatives, because the more diverse board of directors, especially in terms of gender, the more careful decisions will be made.

This study aims to investigate the correlation between cash flow and external financing in Indonesia. External financing consists of debt, equity, and the sum of debt and equity. This research also aims to find the effect of moderating variables, board gender diversity among the correlation between cash flow and external financing. The selection of this research period does not include the period of 2020, which is the period of the Covid 19 pandemic, an unexpected extraordinary event and was not the scope of this study.

RESEARCH METHOD

This study conducts quantitative research with the Ordinary Least Square method. The analysis is based on a sample of publicly listed firms on the Indonesia Stock Exchange from 2014 to 2019. All the data were obtained from the company's financial reports and Thomson Reuters. The population is all companies listed on the Indonesia Stock Exchange engaged in sectors other than financial services. The sampling method used is non-probability sampling, where the elements to use were selected in accordance with research needs. The non-probability sampling technique used is purposive sampling, where the sampling criteria were adjusted to the needs of the study. The sample criteria are:

- Companies of sectors other than financial services that have all the data in the research period of 2014-2019
- Companies listed on the Indonesia Stock Exchange
- Companies with a book value of equity of more than zero
- Companies with less than 100% asset growth

The purpose of this study is to examine the negative relation between cash flow and external financing in Indonesia, and the influence of board gender diversity on cash flow and external financing. To examine the negative relation between cash flow and external financing, we adopted the methodology from Park (2019). We employed three indicators for external financing, the sum of equity issuance in the prior year, the sum of debt issuance in the prior year, and the sum of equity issuance and debt issuance. We denote each of them as equity issuance, debt issuance, and external financing as dependent variables. In addition, we use cash flow as the independent variable. For controlling the research, we use size as the size of the firm, Tobin's Q, and Net Profit Margin.

To examine the influence of board gender diversity on cash flow and external financing, we adopted the methodology from Schopohl et al (2021). Board gender diversity is described as the number of women in the board of directors.

RESULTS AND DISCUSSION

Before conducting further research, we checked for outliers in the research model. Handling of outliers is to avoid errors in testing the results of research interpretation (Nachrowi & Usman, 2006). Testing on outliers is conducted by finding the values of all variables in the data in the upper and lower limits. The determination of the upper and lower limit values was obtained by finding the average value of ±3*standard deviation.

The upper limit value is determined by calculating the mean + (3*standard deviation), while the lower limit value is determined by calculating the average – (3*standard deviation). The 3* standard deviation is used since in practice all areas are under the standard normal curve which has a value at 3* standard deviation from the average value (Lindt, Marcha, & Wathen, 2012).

In overcoming outliers, the winterization method was used by equating the upper and lower outlier values with the nearest percentile value. This is to avoid errors in data interpretation due to outliers in the research model. We analyzed 1,614 samples from 2014 to 2019 to verify a negative relationship between internal and external financing. Table 1 provides the descriptive statistics.

Table 1 shows that the independent variable cash flow has an average value of 0.0545812 with a data distribution of 0.0802714. The lowest value of cash flow is -0.284111 and the highest value is 0.7747167. The average value for the dependent variables of equity, debt issue, and exfinance is 0.0048271, 0.0189606, and 0.0237877 respectively with the data distribution of 0.0280076, 0.0960596, and 0.0987425 respectively. The average value for controlling variables such as Q, Size, and Profit has a value of 1.391422, 6.32857, and 0.0566092, respectively, with a data distribution of 1.013648, 0.7277348, and 0.1547746. The lowest value of each variable is 0.2838449, 4.197731, and -0.863422 and the highest value is 8.918168, 8.37877, and 0.7553425 respectively. The moderating variable of the gender diversity board has an average value of 0.0083024 with a distribution of values of 0.0435538. The lowest and highest values of the gender diversity board are 0 and 0.43 respectively.

Table 1. Descriptive Statistics Example (N =1,614)

Construct	Min.	Max.	*M*	*SD*
EQTISSUE	-0.1564657	0.4790458	0.0048271	0.0280076
DEBT ISSUE	-0.7952211	0.6107743	0.0189606	0.0960596
EXFINANCE	-0.7678185	0.6107743	0.0237877	0.0987425
CASH FLOW	-0.284111	0.7747167	0.0545812	0.0802714
BOARD GENDER	0	0.43	0.0083024	0.0435538
Q	0.2838449	8.918168	1.391422	1.013648
SIZE	4.197731	8.37877	6.32857	0.7277348

PROFIT	-0.863422	0.7553425	0.0566092	0.1547746
EQTISSUE	-0.1564657	0.4790458	0.0048271	0.0280076

Note. M = Mean, *SD* = Standard Deviation.

For determining a fit model for research, it is necessary to test the model first. The type of test was the Chow test, to compare the test with the Pooled Least Square model with the Fixed-Effect Model by comparing the Prob > F value, the Fixed-Effect Model. Subsequently, the Hausman test type was conducted by looking at the parameters Prob > chi2 and p-value. Based on the Hausman test, the value of Prob > chi2 and the p-value of all research models is 0.000 and less than 5%. Thus, the entire research model used is the Fixed-Effect Model.

Table 2 presenting the regression results shows a negative relation between cash flow and external financing with debt issue and exfinance proxy. This result aligns with Park (2019) contending negative relation between cash flow and external financing, especially debt issue and exfinance. However, there is insignificant relation between cash flow and external financing with eqtissue proxy. Based on Agency Theory of Jensen & Mackling (1976), there are contracts between principal and agent, in which agent action must align with principal interest. If a company faces cash-flow shortage, it does not issue new equity for financing its business activity due to shareholder authorization, and it must easier to issue debt to solve cash flow shortage (Almeida & Capello, 2010).

Table 2. Regression Results Between Cash Flow & External Financing

Construct	EQTISSUE	DEBT ISSUE	EXFINANCE
Intercept	0.0079146	-0.0816547***	-0.0737403***
CASH FLOW	0.0116361	-0.1260075 ***	-0.1143713***
BOARD GENDER	-0.0114577	-0.0330785	-0.0445365
CASH FLOW* BOARD GENDER			
Q	0.0002059	0.0004208	0.0006267
SIZE	-0.0003983	0.016228***	0.0158297***
PROFIT	-0.0246176 ***	0.0791786 ***	0.054561***
F-Stat	24.12	35.63	25.45
Prob>F	0.0002	0.000	0.0001

*Note. *** Significance level α = 1%, ** Significance level α = 5%, * Significance level α = 10%.*

The regression is already robust and free from multicollinearity, autocorrelation, and heteroscedasticity, which means the regression already fulfills BLUE criteria (Best Linear Unbiased Estimators) (Gujarati & Porter, 2009) and the result show the real condition of study.

Table 3 shows the influence of the moderating variable, board gender diversity on cash flow and external financing. The result shows there is an insignificant influence between board gender diversity on cash flow and external financing. Based on

descriptive data, the mean value of women on the board of directors is too minor. Based on Schopohl, Urquhart, and Zhan (2021), more women on the board of directors influence the cash flow and external financing variable.

Table 3. Regression Results Between Cash Flow & External Financing and Board Gender as Moderating Variable

Construct	EQTISSUE	DEBT ISSUE	EXFINANCE
Intercept	0.0079146	-0.0816547***	-0.0737403***
CASH FLOW	0.0116361	-0.1260075 ***	-0.1143713***
BOARD GENDER	-0.0114577	-0.0330785	-0.0445365
CASH FLOW* BOARD GENDER			
Q	0.0002059	0.0004208	0.0006267
SIZE	-0.0003983	0.016228***	0.0158297***
PROFIT	-0.0246176 ***	0.0791786 ***	0.054561***
F-Stat	24.12	35.63	25.45
Prob>F	0.0002	0.000	0.0001

*Note. *** Significance level α = 1%, ** Significance level α = 5%, * Significance level α = 10%.*

CONCLUSION

Based on the analysis, cash flow has a negative correlation with external financing, debt issue, and external financing proxy. This implies that a company tends to issue debt more to solve cash flow shortages. This is in line with Park (2019) concluding cash flow has a negative correlation with external financing especially debt issue as its proxy. Differentially, this study does not examine the terms of debts and the correlation between cash flow and each of the debt terms. In addition, it does not include financial constraints to examine such as increasing (decreasing) cash flow, positive (negative) cash flow, and firm rating. This study includes the influence of board gender diversity on cash flow and external financing on which limited researches were conducted.

A company with good cash flow tends to use its internal financing rather than issuing debt which allows it to have lower leverage. Board gender diversity does not affect the correlation between cash flow and external financing. It is important to distinguish external financing, debt, or equity. Companies with good cash flow less to issue debt for financing, in contrast, those with bad cash flow are more likely to apply debt issuance. This corroborates Park (2019). The result about the correlation between cash flow and external financing, especially equity issuance, needs further investigation since there are complicated things. Park (2019) argued that a company tends to issue more equity if it is profitable. Faff, Kwok, Podolski, & Wong (2016) and Dierkens (1991) highlighted the inconsistency of the firm's issuing behavior. This study shows board gender diversity does not influence cash flow and external financing. The low mean value of women in the board of directors shows their minor existence on the board of directors and the chance inequality. This suggests the regulators provide appropriate solutions.

This study did not include financial constraints such as firm rating and firm capital expenditure to examine the effect of cash flow on external financing and the influence of board gender diversity on cash flow and external financing. This study also did not examine the term on loan in external financings such as long-term debt and short term. The period of research does not include the year 2020 due to the Covid-19 pandemics.

For further research, the subject such as the firm rating, firm capital expenditure, and female CEO can be added as new variables to conduct the research. Classifying loan terms to examine the correlation between cash flow and external financing can be further examined, especially long-term debt and short-term debt to enhance the knowledge

about company preferences for long-term and short-term debts based on its cash flow aspects.

REFERENCES

Almeida, H., Campello, M. (2010). Financing frictions and the substitution between internal and external funds. *Journal of Financial and Quantitative Analysis, 45,* 589–622

Betz, M., O'Connell, L., & Shepard, J. (1989). Gender differences in proclivity for unethical behaviour. *Journal of business ethics, 8*(5), 321-324.

Dierkens, N., (1991). Information asymmetry and equity issues*. Journal of Financial and Quantitative Analysis, 26*, 181–199.

Eagly, A. H., Carli, L. L. (2003). The female leadership advantage: An evaluation of the evidence. The Leadership Quarterly, 14 (2003), 807–834

Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. Corporate Governance: An International Review, 11(2), 102–111.

Faff, R., Kwok, W. C., Podolski, E. J., & Wong, G. (2016). Do corporate policies follow a life-cycle?. *Journal of Banking and Finance, 69*, 95–107.

Farrell, K. A., & Hersch, P. L. (2005). Additions to corporate boards: The effect of gender. Journal of Corporate Finance, 11(1–2), 85–106.

Fondas, N. & Sassalos, S. (2000). A different voice in the boardroom: How the presence of women directors affects board influence over management. Global Focus, 12, 13–22

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics*. Boston: McGraw-Hill Irwin

Gul, F. A., Fung, S. Y. K., & Jaggi, B. (2009). Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. *Journal of Accounting and Economics, 47*(3), 265–287.

Hochschild, A. R. (1997). *The time bind: When work becomes home and home becomes work.* New York: Metropolitan Books

International Finance Corporation. (2018). *Board gender diversity in Asean*. Retrieved from https://www.ifc.org/wps/wcm/connect/21f19cfe-9cce-4089-bfc1-e4c38767394e/Board_Gender_Diversity_in_ASEAN.pdf?MOD=AJPERES

Jensen, M., & Meckling, W. H. (1976). Theory of the firm: managerial behaviour,agency costs and ownership structure. *Journal of Financial Economics, 3*, 305-360

Khazanchi, D. (1995). Unethical behavior in information systems: The gender factor. *Journal of Business Ethics, 14*(9), 741–749.

Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The Journal of Finance, 28*(4), 911–922.

Lindt, D. A., Marcha, W. G., & Wathen, S. A (2012). *Statistical techniques in bussiness & economics.* New York: Mc-Graw-Hill Irwin.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporate finance and the theory of investment. *American Economic Review, 48*, 261–297.

Myers, S. C., & Majluf, N. S. (1984). The cost of capital, corporate finance and the theory of investment. *Journal of Financial Economics, 13*, 187–221.

Nachrowi, N. D., & Usman, H. (2006). *Ekonometrika untuk analisis ekonomi dan keuangan*. Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.

Park, J. (2019). Financial constraints and the cash flow sensitivities of external financing: Evidence from Korea. *Research in International Business and Finance 49*, 241-250.

Rigg, C., & Sparrow, J. (1994). Gender, diversity, and working style. *Women in Management Review, 9*, 9−16.

Riyanti, B. P. D., & Suwartono, C. (2018). Psychometric evaluation of newly developed self-assessment of entrepreneurial competencies. *International Journal of Applied Business and International Management, 3*(1), 5-13.

Schopohl, L., Urquhart, A., & Zhang, H. (2020). Female CFOs, leverage and the moderating role of board diversity and CEO power. *Journal of Corporate Finance Forthcoming*, 1-53. doi:10.2139/ssrn.3751332