NEXUS BETWEEN FINANCIAL LEVERAGE AND BOARD INDEPENDENCE OF PUBLIC-LISTED FIRMS: IS THERE ANY STYLISED FACT?

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ABSTRACT

Introduction/Main Objectives: This paper examines the relationship between financial leverage and board independence for firms listed on the Malaysian stock exchange. **Research Methods:** This research is conducted using sample of 265 non-financial firms listed on Bursa Malaysia from 2014 to 2018. **Finding/Results:** Our results show: first, board independence is essential in reducing firm leverage. However, board independence does not affect all firms equally. In particular, board independence has insignificant influences on the financial leverage of young or small firms. In contrast, the financial leverage of old or large firms is negatively associated with board independence. Second, the financial leverage of firms with low profitability is adversely affected by the presence of independent directors. However, the negative impact diminishes as the firms' profitability increases. **Conclusion:** These results indicate the importance of having independent directors for old, large, or low-profitability firms to reduce their financial leverage. These findings contribute to the stylised facts of the nexus between financial leverage and board independence.

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INTRODUCTION

The relationship between corporate governance mechanisms, in particular board independence and firm leverage, has been a long-debated issue in the corporate finance literature. From the agency theory's perspective, independent directors are more likely to align with the shareholders' interests. Therefore, it may require the use of more debt in the capital structure to reduce the number of free cash flows made available to managers for discretionary spending (Jensen, 1986). Conversely, the study by Wen et al. (2012) posits that independent directors would monitor managers more actively, causing them to pursue lower debt levels to avoid the financial risk associated with high leverage. Financial leverage is widely perceived to affect a firm's performance (Dao and Ta, 2020). Given that the leverage decision is closely related to corporate governance practices, the study of board independence is of great interest to corporate decision-makers in determining a board's composition to prevent financial trouble and promote firm performance.

Similar to the theoretical arguments, empirical findings on the association between board independence and firm leverage remain inconclusive. Among those who find independent directors are associated with lower financial leverage are Wen et al. (2012) for Chinese listed firms, Dimitropoulos (2013) for European soccer clubs, and Thakolwiroj and Sithipolvanichgul (2021) for Thai listed companies. Almania (2017) found a significant negative relationship between the presence of independent directors and capital structure; independent directors appeared to play a significant role in motivating managers to pursue a low level of leverage among Saudi-listed firms.

In contrast, the positive relationship between board independence and leverage is documented among non-financial listed companies in the United States (Berger et al., 1997), Ghana (Abor, 2007), Kenya (Tarus and Ayabei, 2015), and Palestine (Zaid et al., 2020). Meanwhile, another study group found that board independence does not affect firms' financial leverage (see Uddin et al., 2019; Vijayakumaran and Vijayakumaran, 2019). Despite using a similar research methodology and model specification, there is no clear consensus on the association between board independence and firm leverage across the study. Accordingly, it is still an open empirical question whether board independence benefits or harms a firm's capital structure.

Malaysia first issued its Code of Corporate Governance in 2000. It was released by the High-Level Finance Committee of Corporate Governance. The code originated from the Cadbury Committee Report in the UK (Securities Commission, 2000). The Malaysian Code on Corporate Governance (MCCG) aims to mitigate the agency problem between corporate managers and shareholders (Al-Hiyari, 2017). One of these initiatives was the Malaysian Code on Corporate Governance (MCCG). The code was derived from the approach applied by the British Hampel Committee, which attempts to mitigate the agency the problem between corporate managers and outside owners

Malaysian listed companies use a single-tier board system. The board is permitted to delegate certain functions to committees established by the board. [1]A single-tier model means a unitary board that monitors, oversees and supervises the governance of the corporation. This model contrasts with a dual board model, a non-Anglo-Saxon model adopted by continental European countries and Japan. A dual board has a

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[1] https://www.lexology.com/library/detail.aspx?g=23d40f4e-f5ef-4b4e-abae-460ddd12073d

monitoring board above the supervisory overseer board (Ungureanu, 2012).

In light of the literature review, four research gaps have been identified. First, the association between board independence and firm leverage for Malaysian publicly listed firms is an interesting issue to study after the Securities Commission (SC) of Malaysia launched the revised Malaysian Code of Corporate Governance (MCCG) in 2012 and 2017 to promote greater board independence in Malaysian publicly listed firms[2]. Accordingly, it is essential to provide an empirical assessment of whether this policy move benefits the firms.

Second, findings from other countries might not apply to Malaysia due to differences in the institutional settings. In this respect, Malaysia is unique as about 33 government-linked companies (GLCs) are listed on the stock exchange, based on the data released in 2013[3]. The same study by Menon and Ng (2013) also finds that investment by private firms is significantly impacted when GLCs dominate the industry. In this respect, the finding from Malaysia can be generalised to other ASEAN countries with GLCs, like Singapore and Indonesia.

Third, international evidence on the governance of financial matters varies across countries. Hence, more studies from different countries will contribute to the literature. Generally, corporate financing decisions are likely to vary across countries due to the differences in institutional settings (Cam and Ozer, 2021). A country with strong institutional qualities enables firms to increase their reliance on equity financing, lowering financial leverage. Hence, the role of independent directors in influencing firm leverage is limited in robust

institutional settings. Therefore, findings from one country can be generalised to another if there are common characteristics between the countries' institutional backgrounds.

Aras (2015) investigates the major emerging markets, namely Brazil, Russia, India, China and South Africa (BRICS countries), in terms of their governance practices, which differ in many ways, including in their board structures, board procedures, disclosures, ownership structures and minority shareholder rights and attempts to highlight the effects of governance practices on financial structures in terms of financial profitability and financial leverage.

In another study, Clarke (2015) focuses on the continuing tension among the international movement for corporate governance reforms throughout emerging economies and the insistent capital market pressure for the convergence of emerging economies' corporate governance towards international standards. He finds that, except for South Africa, the BRICS economies stand in contrast to the Anglo-American model of developed legal and regulatory structures and market-oriented corporate governance.

Fourth, the previous literature considers board independence to be a 'one size fits all' measure to mitigate firms' financial leverage. However, corporate governance mechanisms might not fit firms with different firm-specific characteristics. For instance, the role of independent directors in affecting leverage for older firms is rather limited. Older firms are more likely to accumulate more significant reserves and retained earnings as an alternative to debt financing (Petersen and Rajan, 1994; Pfaffermayr et al., 2013). Likewise, a firm with high profitability tends to have higher retained earnings and less reliance on debt financing, lowering its financial leverage (Hall et al., 2004; Sogorb-Mira, 2005; Abor and Biekpe, 2007). Based on the above, it can be postulated that firm-specific characteristics might affect the

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https://www.nst.com.my/business/2017/05/239507/enhancing-boardroom-diversity-independence

[3] Refer to Menon and Ng (2013; p.7) retrieved from https://www.adb.org/sites/default/files/publication/30235/ewp-345.pdf

independent directors' role in influencing their leverage decisions.

In order to close the research gaps in the literature, this study examines the relationship between firm leverage and board independence for Malaysian publicly listed firms. More importantly, this study assesses whether board independence fits firms with different firm-specific characteristics. Based on a sample of 265 non-financial firms listed on Bursa Malaysia from 2014 to 2018, the result shows that board independence is essential for reducing firm leverage. However, board independence does not affect all firms equally. In particular, board independence has an insignificant influence on the financial leverage of young or small firms. Conversely, the financial leverage of old or large firms is negatively associated with board independence.

Furthermore, the results found that the financial leverage of firms with low profitability is adversely affected by the presence of independent directors. However, the negative impact diminishes as firms' profitability increases. These results indicate the importance of independent directors for old, large, or low-profitability firms in reducing their financial leverage.

This study contributes to the existing literature based on the finding. First, this study expands the corporate governance literature in the context of Malaysia. The association between board independence and leverage for Malaysian publicly listed firms has received little attention in the literature. A previous study by Goh et al. (2018) only focuses on 174 manufacturing companies from 2011 to 2014. Their study shows that firm profitability and non-debt tax shields negatively relate to firm leverage. In addition, several corporate governance mechanisms are not related to firm leverage. This study differs from Goh et al.

(2018) as our sample period and size differ. In addition, this study has been conducted with more thorough econometric methods compared to the earlier studies.

Moreover, existing findings from other countries might not apply to Malaysia due to the difference in institutional backgrounds. This study assesses the implication of independent directors on financial leverage for Malaysian publicly listed firms, thereby enriching the understanding and analysis of corporate governance in Malaysia. Second, this study provides a more comprehensive look at the relationship between firm leverage and board independence. In particular, this study argues that the impact of board independence on firm leverage is conditional on various firm-specific characteristics, such as firm age, profitability, and size. Independent directors are essential for monitoring financial leverage for old, large, or low-profitability firms. Hence, board independence is not a 'one size fits all' measure to mitigate firms' financial leverage.

This study is arranged as follows. Section II describes the data and empirical model. Then, it is followed by a discussion of the results. Finally, the last section concludes the study and makes policy recommendations.

DATA AND METHODOLOGY

This study utilises unbalanced panel data of 265 non-financial firms listed on Bursa Malaysia from 2014 to 2018. The sample period chosen coincides with the MCCG's issuance (2012) and its implementation (2017). These new Codes of Corporate Governance focus on strengthening the boards' structure and composition, while also recognising the role of directors as active and responsible fiduciaries. The behaviour of the directors in attending board meetings for the five-year sample period is more representative than any short-term studies have found. The

non-financial firms represent firms from all sectors of the economy. Hence, their existence is important from the perspective of corporate decision-making.

All the data were collected from companies' annual reports. Financial firms were excluded due to the difference in their regulatory framework. The sampled period selected was based on the data available in the companies annual reports. Table 1 shows the sample's distribution among industries

Table 1. Sample distribution among industries

Industry classification	Sample	%
Consumer Products	38	14.33
Construction	17	6.42
Industrial Products	83	31.32
Property	30	11.32
Plantations	17	6.42
Trading/Services	62	23.40
Technology	18	6.79
Total	265	100.00

Empirical model

The following empirical model examines the association between firm leverage and board independence.

$$LEV_{it} = \beta_0 + \beta_1 BI_{it-1} + \beta_2 LnBDSIZE_{it-1} + \beta_3 LnFREQUENCY_{it-1} + \beta_4 FS_{it-1} + \beta_5 GDP_t + \beta_6 INFLATION_t + \beta_7 YEAR_t + v_i + \varepsilon_{it} \quad (1)$$

Where LEV represents the firm's leverage ratio, proxied by the debt-to-asset ratio, the ratio of outside independent directors to the total number of directors on the board (BI) is a measure of board independence. In addition, other corporate governance indicators are included, namely the total number of directors on the board (BDSIZE) and the total number of board meetings in a year (FREQUENCY). Next, FS is a vector of firm-specific variables, namely profitability growth

(PROFIT), total assets (ASSET), and firm age (AGE). The corporate governance indicators and firm-specific variables (except for firm age) enter Equation 1 as lagged 1-year values to alleviate endogeneity concerns.

Furthermore, macroeconomic variables such as the real GDP growth rate (GDP) and the inflation rate (INFLATION) are included to capture the business cycle's effect on firm leverage. The firm's financial leverage is unlikely to affect the firm's age and macroeconomic variables. Therefore, the three variables enter Equation 1 contemporaneously. Next, the time dummy (YEAR) is included to control the year effect, and Ln denotes the natural logarithm.

The critical coefficient in Equation (1) is β_1, which measures the impact of board independence on firm leverage. Next, to examine whether the impact of board independence on leverage varies with firm-specific characteristics, Equation (1) is extended to include the interaction term as follows:

$$LEV_{it} = \beta_0 + \beta_1 BI_{it-1} + \beta_2 LnBDSIZE_{it-1} + \beta_3 LnFREQUENCY_{it-1} + \beta_4 FS_{it-1} + \beta_5 BI_{it-1} * FS_{it-1} + \beta_6 GDP_{it} + \beta_7 INFLATION_t + \beta_8 YEAR_t + v_i + \varepsilon_{it} \quad (2)$$

From Equation 2, the marginal effect of board independence on firm leverage depends on β_5 that is:

$$\frac{\partial LEV_{it}}{\partial BI_{it-1}} = \beta_1 + \beta_5 FS_{it-1} \quad (3)$$

Cook's distance outlier test was applied to equations 1 and 2 to control for the outlier inherent in the data. Both equations were estimated by using the static panel estimator, namely pooled ordinary least square (POLS), random effect (RE), and fixed effect (FE). Before the estimation, the Breusch-Pagan Lagrangian multiplier test, the poolability F-test

and the Hausman test were conducted to select the appropriate estimator. Subsequently, the robust standard error was computed for the selected estimator. This step overcomes the problems of heteroscedasticity and autocorrelation in the error terms.

RESULT AND DISCUSSION

Table 2 shows the descriptive statistics for all the variables used in this study. The average leverage size of the sampled companies is 39.94 per cent. This means the debt level is about 40 per cent. Meanwhile, independent directors constitute 48.96 per cent of the sampled companies' total board members. The percentage is slightly lower than the benchmark value of 50 per cent set by the Securities Commission (SC)

of Malaysia under the Malaysian Code of Corporate Governance (MCCG) 2017.

The median value is often used in the literature as a benchmark to split a sample into two groups. For instance, Ibrahim (2019) divided a sample into small and large banks using median bank assets. In its application to this study, the median age is 34. Therefore, firms below age 34 are considered young, while firms aged 34 and above are considered old. As of 2018, out of the 265 firms, 119 are classified as young firms, constituting 44.9 per cent of the total sample.

Next, Table 3 presents the correlation matrix for the independent variables. As observed, all the variables correlate at less than 0.8 and have a VIF value lower than 5. Therefore multicollinearity issues did not prevail in the model.

Table 2. Descriptive statistics

Variables	Mean	Std dev	25th percentile	Median	75th percentile	Obs
LEV	0.3994	0.3853	0.2324	0.3735	0.5337	1,325
BI	0.4896	0.1324	0.4000	0.5000	0.5714	1,325
LnBDSIZE	1.9591	0.2492	1.7917	1.9459	2.0794	1,324
LnFREQUENCY	1.6634	0.2568	1.6090	1.9094	1.7918	1,325
PROFIT	7.3597	11.2738	2.7434	6.6359	10.8519	1,325
LnASSET	13.1278	1.4494	12.1473	13.0466	14.0893	1,324
AGE	37.7683	22.7289	23	34	45	1,325
GDP	5.1880	0.6856	4.72	5.09	5.90	1,325
INFLATION	2.4200	0.9583	2.09	2.10	3.10	1,325

Table 3. Correlation matrix

Variables	BI	LnBDSIZE	LnFREQUENCY	PROFIT	VIF
BI	1.0000				1.14
LnBDSIZE	-0.2830	1.0000			1.30
LnFREQUENCY	0.1023	0.1443	1.0000		1.07
PROFIT	-0.0962	0.1243	-0.1013	1.0000	1.04
LnASSET	-0.0726	0.3773	0.1489	0.0679	1.28
AGE	0.1278	0.0174	0.0380	0.0584	1.11
GDP	-0.0140	0.0081	-0.0015	0.0450	2.51
INFLATION	-0.0064	0.0146	0.0100	0.0554	2.52
	LnASSET	**AGE**	**GDP**	**INFLATION**	
LnASSET	1.0000				
AGE	0.2655	1.0000			
GDP	-0.0228	-0.0203	1.0000		

INFLATION	-0.0175	-0.0228	0.7760	1.0000

Note: VIF denotes Variance Inflation Vector

Table 4 shows the panel estimation results. Based on the model selection tests, the fixed effect (FE) estimator estimates equations 1 and 2. Column 1 presents the estimation result for Equation 1. The estimated coefficient of board independence (BI) is negative and significant at a 1 per cent level. This finding implies that board independence is imperative in reducing financial leverage for Malaysian publicly listed companies. The result concurs with the finding by Wen et al. (2012), Dimitropoulos, 2013 and Thakolwiroj and Sithipolvanichgul (2021), who argue that independent directors should actively monitor managers, causing them to pursue low debt operations to avoid the risk associated with high leverage. Furthermore, the finding supports the policy measure undertaken by the Securities Commission (SC) of Malaysia under the Malaysian Code of Corporate Governance (MCCG) 2017 to increase the proportion of independent directors in Malaysian publicly listed companies[4] .

Next, columns 2 to 4 show the estimation results for the model with an interaction term (Equation 2). Column 2 shows the model's estimation result with the interaction between board independence and firm profitability (BI*PROFIT). According to Brambor et al. (2006), it is inappropriate to interpret the coefficients of board independence (BI) and firm profitability (PROFIT) if the model contains an interaction term, as the former captures the impact of board independence on firm leverage when firm profitability is equal to zero. Likewise, the latter shows the association between firm profitability and leverage when board independence equals zero. Therefore, the estimated coefficient for board independence and firm profitability will not be highlighted in the interaction terms in the model. Furthermore, it is also inappropriate to interpret the estimated coefficients of the interaction term, as this would result in misstating the bias, as Kingsley et al. (2017) indicated. This study follows the suggestion of Brambor et al. (2006) and Kingsley et al. (2017) by computing the marginal effect of board independence on firm leverage at firm levels of firm profitability.

Increasing the proportion of independent directors for low-profitability firms would help reduce financial leverage. However, the negative impact of board independence diminishes as profitability increases. This finding implies that board independence is crucial for low-profitability firms to monitor their capital structure decisions. The pecking order theory can explain this finding. The theory posits that firms favour equity financing over debt financing due to information asymmetry in the financial markets (Tang and Jang, 2007; Nadaraja et al., 2011). Hence, firms with high profitability tend to utilise internal funding (such as retained earnings). In contrast, low-profitability firms tend to use external financing (such as debt) to support their operations. Accordingly, it can be expected that the degree of leverage is higher for low-profitability firms, providing room for independent directors to monitor their leverage decisions.

Column 3 presents the estimation result for the model containing the interaction between board independence and firm asset (BI*LnASSET). The marginal effect estimates show that the role of board independence in affecting capital structure decisions becomes increasingly essential as firm size increases. In particular, independent directors have an

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[4] https://www.nst.com.my/business/2017/05/239507/enhancing-boardroom-diversity-independence

insignificant influence on financial leverage for small firms. However, the relationship becomes significant as the firm size increases. Moreover, the negative impact of board independence on leverage becomes more vital at a higher level of firm size. The result can be explained by the relationship between firm size and leverage. Generally, the ability to borrow increases as the firm grows in size. The increased ability is because large firms can commit to interest payments (Pandey, 2004) and disclose a higher degree of information (Rajan and Zingales, 1995). Conversely, small firms are less likely to secure external financing due to the risk of bankruptcy and loss of ownership. Hence, large firms are more likely to have a higher degree of debt and leverage level than small firms, allowing independent directors to monitor the capital structure decisions for large firms.

In Column 4, it can be observed from the marginal effect estimates that board independence helps old firms reduce their financial leverage. However, it does not help their young counterparts. In particular, board independence has an insignificant impact on leverage for the younger firms. However, the relationship becomes significant as the firms' ages increase. Likewise, the negative impact of board independence on firms' leverage is higher for old-age firms.

Generally, old-age firms have a long track record and a more substantial reputation than their younger counterparts. As a result, older firms are more likely to obtain credit due to fewer adverse selections, moral hazard problems, and lower costs of debt (Myers, 2001; Akhtar and Oliver, 2009; Nico and Van Hulle, 2010; Sakai et al., 2010). Hence, old-age firms are expected to commit to higher debt and leverage levels than their young counterparts. In this context, it can be argued that board independence plays a more significant role in monitoring the capital structure decisions of old-age firms, thereby reducing their financial leverage.

CONCLUSION

The Securities Commission (SC) of Malaysia has been actively revising the Malaysian Code of Corporate Governance (MCCG) to promote greater board independence in Malaysian publicly listed firms. This policy aims to monitor the companies' capital structure decisions, thereby avoiding the risk associated with excessive financial leverage. However, there is limited evidence quantifying the impact of board independence on firm leverage in Malaysia. Accordingly, this study empirically evaluates the association between firm leverage and board independence. More importantly, this study examines whether board independence fits firms with different firm-specific characteristics.

Based on a sample of 265 non-financial firms listed on Bursa Malaysia from 2014 to 2018, our results show that board independence is vital for reducing firm leverage. However, board independence does not affect all firms equally.

Specifically, financial leverage for old or large firms is negatively affected by board independence. In addition, the financial leverage of firms with low profitability is adversely affected by the presence of independent directors. However, the negative impact diminishes as the firms' profitability increases.

The policy implication of the result is clear. Board independence is essential for Malaysia's publicly listed companies to monitor their financial leverage. These results indicate the importance of independent directors for old, large, or low-profitability firms to reduce their financial leverage. In other words, the presence of independent directors will reduce the

dependence on financial leverage in old, large   firms and firms with low profitability.

Table 4: Panel estimation results

Specification	1	2	3	4
BI_{it-1}	-0.0911**	-0.1219***	0.5670*	-0.0875
	(0.0426)	(0.0451)	(0.3271)	(0.0699)
$LnBDSIZE_{it-1}$	-0.0001	-0.0021	0.0079	-0.0009
	(0.0239)	(0.0239)	(0.0252)	(0.0239)
$LnFREQUENCY_{it-1}$	-0.0172	-0.0169	-0.0183	-0.0172
	(0.0198)	(0.0197)	(0.0199)	(0.0199)
$PROFIT_{it-1}$	-0.0017***	-0.0036***	-0.0014**	-0.0017***
	(0.0006)	(0.0013)	(0.0006)	(0.0006)
$LnASSET_{it-1}$	0.0089	0.0085	0.0294	0.0088
	(0.0178)	(0.0177)	(0.0200)	(0.0177)
AGE_{it}	0.0006	0.0007	0.0006	0.0006
	(0.0008)	(0.0008)	(0.0009)	(0.0010)
GDP_t	-0.0030	-0.0037	-0.0010	-0.0030
	(0.0092)	(0.0093)	(0.0094)	(0.0093)
$INFLATION_t$	-0.0003	0.0001	-0.0022	-0.0003
	(0.0057)	(0.0057)	(0.0059)	(0.0057)
$BI_{it-1}*PROFIT_{it-1}$	-	0.0040	-	-
		(0.0025)		
$BI_{it-1}*LnASSET_{it-1}$	-	-	-0.0504*	-
			(0.0258)	
$BI_{it-1}*AGE_{it}$	-	-	-	-0.0001
				(0.0013)
Constant	0.3440	0.3635	0.0540	0.3434
	(0.2374)	(0.2375)	(0.2661)	(0.2408)
Model selection test				
BP-LM test: p-value	0.0000	0.0000	0.0000	0.0000
Hausman test: p-value	0.0001	0.0001	0.0003	0.0001
Poolability F test: p-value	0.0000	0.0000	0.0000	0.0000
Marginal effect				
Minimum	-	-0.4725**	0.0786	-0.0876
25th percentile	-	-0.1329***	-0.0454	-0.0897*
Mean	-	-0.0924**	-0.0948**	-0.0910**
75th percentile	-	-0.0784*	-0.1432**	-0.0917**
Maximum	-	0.3103	-0.3594**	-0.1048
No. firms	1,048	1,047	1,049	1,045
No. observations	265	265	265	265
Time dummy	Yes	Yes	Yes	Yes

Note:
1. ***, ** and * denote statistical significant at 1%, 5% and 10% level, respectively.
2. Value in parenthesis indicates robust standard error.
3. The standard error for the marginal effect estimate is not reported to conserve space.
4. Ln denotes the natural logarithm.

5. The Cook distance outlier test is used to control for outliers, resulting in different observations across the four specifications.

REFERENCE

Abor, J. (2007). Corporate governance and financing decisions of Ghanaian listed firms. *Corporate Governance*, 7(1), 83-92.

Abo, J. and Biekpe, N. (2007). How do we explain the capital structure of SMEs in sub-Saharan Africa? Evidence from Ghana. *Journal of Economic Studies*, 36(1), 83-97.

Akhtar, S. and Oliver, B. (2009). Determinants of capital structure for Japanese multinational and domestic corporations. *International Review of Finance*, 9(1-2), 1-26.

Al-Hiyari, A. (2017). A Critical Review of Corporate Governance Reforms in Malaysia. *Journal of Governance and Regulation*, 6(1), 38-44.
http://dx.doi.org/10.22495/jgr_v6_i1_p4
Almania, O. (2017). Board of Directo Independence and Financial Leverage in the Absence of Taxes *International Journal of Economics and Finance*; Vol. 9, No. 4. DOI:10.5539/ijef.v9n4p90

Aras, G. (2015) The Effect of Corporate Governance Practices on Financial Structure in Emerging Markets: Evidence from BRICK Countries and Lessons for Turkey, *Emerging Markets Finance and Trade*, 51:sup2, S5-S24, DOI: 10.1080/1540496X.2014.998940

Berger, P.G., Ofek, E. and Yermack, D.L. (1997). Managerial entrenchment and capital structure decisions. *The Journal of Finance*, 52(4), 1411-1438.

Brambor, T., Clark, W.R. and Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, 14(1), 63-82.

Cam, I. and Ozer, G. (2021). Institutional quality and corporate financing decisions around the world. *North American Journal of Economics and Finance*, 57, DOI: https://doi.org/10.1016/j.najef.2021.101401

Clarke, T. (2015) The Transformation of Corporate Governance in Emerging Markets: Reform, Convergence, and Diversity, *Emerging Markets Finance and Trade*, 51:sup2, S25-S46,
DOI:10.1080/1540496X.2014.998941

Dao, B.T.T. and Ta, T.D.N. (2020). A meta-analysis: capital structure and firm performance. *Journal of Economics and Development*, 22(1), 111-129.

Dimitropoulos, P. (2013). Capital structure and corporate governance of soccer clubs. *Management Research Review*, 37(7), 658-678.

Goh, C. F., Tai, W. Y., Rasli, A., Tan, O. K., & Zakuan, N. (2018). The determinants of capital structure: evidence from Malaysian companies. *International Journal of Supply Chain Management*, 7(3), 225-230.

Hall, G.C., Hutchinson, P.J. and Michaelas, N. (2004). Determinants of the capital structures of European SMEs. Journal of Business Finance & Accounting, 31(5-6), 711-728.

Ibrahim, M.H. (2019). Oil and macro-financial linkages: Evidence from GCC countries. *The Quarterly Review of Economics and Finance*. Volume 72, 1-13.

Jensen, M.C. (1986). Agency costs of free cash flows, corporate finance, and takeovers. *American Economic Review*, 76(2), 323-329.

Jiraporn, P., Kim, J-C., Kim, Y.S. and Kitsabunnarat, P. (2012). Capital structure and corporate governance quality: Evidence from the Institutional Shareholder Services (ISS). *International Review of Economics & Finance*, 22(1), 208-221.

Kingsley, A.F., Noordewier, T.G. and Bergh, R.G.V. (2017). Overstating and understating interaction results in international business research. *Journal of World Business*, 52(2), 286-295.

Menon, J. and T.H. Ng (2013). Are Government-Linked Corporations crowding out Private Investment in Malaysia? Working paper no. 345, *Asian Development Bank*. https://www.adb.org/sites/default/files/publi cation/30235/ewp-345.pdf)

Myers, S.C. (2001). Capital structure. *The Journal of Economic Perspectives*, 15(2), 81-102.

Nadaraja, P., Zulkafli, A.H. and Masron, T.A. (2011). Family ownership, firm's financial characteristics and capital structure: Evidence from public listed companies in Malaysia. Economia. *Seria Management*, 14(1), 141-156.

Nico, D. and Van Hulle, C. (2010). Internal capital markets and capital structure: Bank versus internal debt. *European Financial Management*, 16(3), 346-373.

Pandey, M. (2004). Capital structure, profitability, and market structure: Evidence from Malaysia. *Asia Pacific Journal of Economics and Business*, 8(2), 78-91.

Petersen, M.A. and Rajan, R.G. (1994). The benefits of lending relationships: Evidence from small business data. *The Journal of Finance*, 49(1), 3-37.

Pfaffermayr, M., Stockl, M. and Winner, H. (2013). Capital structure, corporate taxation, and firm age. *Fiscal Studies*, 34(1), 109-135.

Rajan, G.R. and Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50, 1421-1460.

Sakai, K., Uesugi, I. and Watanabe, T. (2010). Firm age and the evolution of borrowing costs: Evidence from Japanese small firms. *Journal of Banking and Finance*, 34, 1970-1981.

Sogorb-Mira, F. (2005). How SME uniqueness affects capital structure: Evidence from a 1994-1998 Spanish data panel. *Small Business Economics*, 25, 447-457.

Tang, C.H.H. and Jang, S.S. (2007). Revisit to the determinants of capital structure: A comparison between lodging and software firms. *International Journal of Hospitality Management*, 26(1), 175-187.

Tarus, D.K. and Ayabei, E. (2015). Board composition and capital structure: Evidence from Kenya. *Management Research Review*, 39(9), 1056-1079.

Thakolwiroj, C. and Sithipolvanichgul, J. (2021). Board characteristics and capital structure: Evidence from Thai listed companies. *Journal of Asian Finance, Economics, and Business*, 8(2), 861-872.

Uddin, M.N., Khan, M.S.U. and Hosen, M. (2019). Does corporate governance influence leverage structure in Bangladesh? *International Journal of Financial Studies*, 7(3), DOI: https://doi.org/10.3390/ijfs7030050

Ungureanu, M. (2012). Models and practices of corporate governance worldwide. *CES Working Papers*, *4*(3a), 625-635.

Securities Commission, M. (2007). Malaysian code on corporate governance. *Securities Commission, Kuala Lumpur*. https://ecgi.global/download/file/fid/9303

Vijayakumaran, S. and Vijayakumaran, R. (2019). Corporate governance and capital structure decisions: Evidence from Chinese listed companies. *Journal of Asian Finance, Economics and Business*, 6(3), 67-79.

Wen, Y., Rwegasira, K., & Bilderbeek, J. (2002). Corporate governance and capital structure decisions of the Chinese listed firms. *Corporate Governance: An International Review*, *10*(2), 75-83.

Zaid, M.A.A., Wang, M., Abuhijleh, S.T.F., Issa, A., Saleh, M.W.A. and Ali, F. (2020). Corporate governance practices and capital structure decisions: The moderating effect of gender diversity. *Corporate Governance*, 20(5), 939-964.