Global Business and Management Research: An International Journal
Vol. 16, No. 2s (2024)

Dynamic Capital Structure Adjustment: Does Digital Transformation Matter?

Lewis Liew Teo Piaw *; Baizura Binti Tiai; Emy Marina Binti Hassan
Commerce Department, Politeknik Kuching Sarawak
Email: lewis@poliku.edu.my

** Corresponding Author*

Abstract
Purpose: This study intends to investigate the dynamism of capital structure in Malaysia. We add to the literature on the determinants of dynamic capital structure adjustment by testing how digital transformation impacts the firms' speed of adjustments towards optimal capital structure.
Design/methodology/approach: The one-step dynamic partial adjustment capital structure model is adopted. We measure the estimator by using the two-step method with robust standard errors in both Difference GMM and System GMM (Windmeijer, 2005). The sample selection is based on the convenience sampling method, which depends on the availability of at least three consecutive years of data. The final sample consists of 214 listed companies in Bursa Malaysia from 2010 to 2019.
Findings: The results indicate the dynamism of capital structure in Malaysia, where firms have an optimal capital structure that they partially adjust to. Both organizational factors and environmental factors are reported to have significant explanatory powers for optimal capital structure adjustment. It is to highlight that the digital transformation of firms speeds up their capital structure adjustments.
Research limitations/implications: This study employs data from listed firms in Malaysia. It will be more conclusive to test the impact of digital transformation if firms from other countries are included.
Practical implications: The findings provide practitioners with insights into the adaptation strategy towards an optimal capital structure. Finance managers could employ digital transformation strategies to accelerate the speed of adjustment towards the optimal capital structure, while public policy makers could formulate a regulatory and institutional setting that would facilitate firms in developing digital transformation. It is our hope that the findings of this study will facilitate the transition of firms to the implementation of Industry 4.0.
Originality/value: This study highlights the impact of digital transformation on dynamic capital structure adjustment in Malaysia. The disclosure of the role of digital transformation contributes to the literature on the determinants of dynamic capital structure adjustment.

Keywords: Dynamic capital structure; Speed of adjustment; Optimal Capital Structure; Digital transformation

Introduction

Capital structure is one of the pertinent factors that affect a firm's value. Past literature has proven a significant relationship between capital structure and firm performance (Chaleeda et al., 2019; Yuan et al., 2020; En & Malek, 2021; Ramli et al., 2022; Olusola et al., 2022). Liew and Babak (2021) suggested that capital structure decisions are vital for long-term survival, stability and sustainability. This is further supported by Hernawati et al. (2023) who illustrated

how significant the capital structure decision is in explaining the company's future growth variations. Hence, an optimal capital structure that balances the utilization of both internal and external funds is crucial to maximizing firm value (Salam & Shourkashti, 2019).

The ability of firms to adjust rapidly towards an optimal capital structure is vital, as the implications are ample. First, an optimal capital structure incurs a lower cost of capitalization and exhibits a firm's financial flexibility that fosters the overall cost of funds and hence maximizes the firm's value and shareholder's wealth (Ayaz et al., 2021). Second, the ability of a firm to convert to an optimal capital structure is dependent on the state of the macroeconomic environment and the institutional settings in which it operates (Bajaj et al., 2020; Julkid et al., 2020), especially in the era of IR4.0 which triggers an inevitable revolution and radical change in all sectors. The speed of adjustment of firms towards optimal capital structures in different environmental settings has emerged as a significant factor in avoiding bankruptcy and managing agency problems. Firms are therefore obliged to adopt an optimizing behaviour in their financing mode by targeting their capital structure at the optimal level rapidly. However, even though firms are able to act rationally by striving towards the optimal level, there are costs that impede them from converging towards the optimal level, which depend on both the firms' factors and the environmental factors.

Literature Review

In the era of IR4.0, digital transformation has emerged as a competitive advantage for firms (Hanelt et al., 2021) as it promotes the continuous advancement of network infrastructure, information tools, and information technologies such as the Internet, Cloud Computing, Blockchain, and the Internet of Things (Wang & Zhu, 2023). Recently, a new strand of study has focused on the relationship between digital transformation and financing costs. Chen et al. (2021) demonstrated that the digital transformation of firms will improve the quality of information disclosure significantly and lead to a reduction in equity capital costs. In addition, digital transformation has been found to enhance corporate resilience (Gurumurthy et al., 2020; Jiang et al., 2022) and corporate performance (Bekkhus, 2016; Chouaibi et al., 2022; Peng & Tao, 2022). In a rapidly changing market landscape driven by evolving customer and stakeholder demands, digital transformation enables firms to develop the resilience required to succeed in the future. These lead to greater borrowing capacity and lower financing costs (Hong et al., 2023). In support, Wang and Zhu (2023) further postulated that firms can actively implement digital transformation to lessen the cost of debt financing.

Chen et al. (2023) indicated that digital transformation exerts a significant positive effect on speeding up capital structure adjustment in China. Hence, this study intends to investigate the impact of digital transformation on the speed of adjustments towards optimal capital structures in Malaysia. We consider the capital structure theories as complementary rather than mutually exclusive and conditional upon the environment (Liew & Mohd, 2014; Wendy & Salim, 2019; Julkid et al., 2020; Iyoha et al., 2022). The model developed thus gains benefits from the organizational-environmental fit and also the synergy of various capital structure theories. To our knowledge, this is the first study to highlight the impact of digital transformation on dynamic capital structure adjustment in Malaysia. The disclosure of the role of digital transformation contributes to the literature on the determinants of dynamic capital structure adjustment. It also provides practitioners with insights into the adaptation strategy towards optimal capital structure. The finance managers could employ digital transformation strategies to accelerate the speed of adjustment towards the optimal capital structure, while public policy makers could formulate a regulatory and institutional setting that would facilitate firms in

developing digital transformation. It is our hope that the findings of this study will facilitate the transition of firms to the implementation of Industry 4.0.

Method

This study employed the one-step dynamic partial adjustment capital structure model that had been widely used in prior studies (Bajaj et al., 2020; Zhang et al., 2020). The model substitutes the optimal capital structure ($CS_{i,t}$) as the fitted value from a regression on a set of lagged organizational factors and lagged environmental factors. All the variables used in estimating the optimal capital structure adjustment are lagged by 1 year to facilitate the finance managers' comprehension of the factors when making the capital structure decision. This does not only allow for non-contemporaneous effects but also serves to mitigate endogeneity concerns (Lucey & Zhang, 2011). As seen in equation (1), this model enables the testing of the existence of an optimal capital structure and the speed of adjustment towards the optimal level.

$$CS_{i,t} = (1-\alpha)\, CS_{i,t-1} + \alpha\, \lambda_k\, X_{k,i,t-1} + \alpha\beta_k\, Y_{k,t-1} + \varepsilon_{i,t} \quad (1)$$

Assuming $\delta = 1- \alpha$, $g = \alpha\lambda_k$, $h = \alpha\beta_k$, the equation (1) is transformed into equation (2) as follow:

$$CS_{i,t} = \delta CS_{i,t-1} + gX_{k,i,t-1} + hY_{k,t-1} + \varepsilon_{i,t} \quad (2)$$

The speed of adjustment can be estimated by (1-δ), as in equation 2. The value of δ also reveals the period required by firms to adjust about half of the deviation agitated by the exogenous leverage shocks. By employing the half-life formula $\ln(0.5)/\ln(\delta)$, the duration required to adjust towards capital structure can be determined. The degree of impact of organizational factors and environmental factors is indicated by g and h, respectively. These reveal which factors are significant in accelerating the adjustment speed towards an optimal capital structure.

Besides the variables proposed by Trade-off Theory and Pecking Order Theory as in Table 1, we propositioned digital transformation as one of the organizational factors that contributes to the optimal capital structure adjustment speed in Malaysia. As for the environmental factors, we include GDP growth and lending rates that have been recognized in empirical works (Ramli & Haron, 2017; Wendy & Salim, 2019; Julkid & Lau, 2020).

Table 1: The determinants of capital structure

Variables	**Signs by theories**	
	Trade-off	Pecking Order
Tangibility	+	-
Profitability	+	-
Size	+	-
Non Debt Tax Shield	-	n/a

As for the estimator, this study employs two-step with robust standard errors in both Difference GMM and System GMM with the procedure advocated by Windmeijer (2005) to correct the standard errors of the two-step GMM estimates. This allows for a comprehensive estimation, as both methods are reported to encompass respective strengths and weaknesses (Blundell et al., 2000; Bun and Windmeijer, 2010). Hence, a better understanding of the capital structure adjustment and the robustness of the findings can be derived. We test the efficiency of the GMM estimator by using three tests, namely the Sargan test (Arellano and Bond, 1991), the

first-order serial correlation test (AR1) and the second-order serial correlation (AR2). (Arellano and Bover, 1995; Blundell and Bond, 1998).

Based on past empirical works (Chan et al., 2017; Saif-Alyousfi, et al., 2020; Orlova et al., 2020; Iyoha et al., 2022), the proxies for the variables are adopted as in Table 2. It is to highlight that the measurement of digital transformation is lacking in the literature. We follow Jiang et al. (2022), Wu, et al. (2022) and Chen et al. (2023) in expressing the digital transformation as the logarithmic form of the sum of the occurrence frequency of digital transformation-related keywords in the company's annual report. The keywords include "big data", "artificial intelligence", "digital finance", "digital economy", "mobile Internet", "Internet of Things", "cloud computing", "multi-party security computing", "business intelligence" and "virtual reality". The belief is that the degree of a firm's digital transformation can be reflected in the frequency of announcements made.

Table 2: The proxies for variables

Variable	**Proxy**
Capital Structure	Book value of total debt / book value of total assets
Tangibility	Non-current assets / total assets
Profitability	Earnings before interest / taxes to the total assets
Size	The logarithm of total assets
Non Debt Tax Shield	Annual depreciation expense / total assets
Digital Transformation	The logarithmic form of the sum of occurrence frequency of digital transformation-related keywords in the annual report
GDP growth	Yearly changes in GDP
The Lending Rate	The lending rate charged by banks on loans

The sample selection is based on the convenience sampling method, which depends on the availability of the data. Financial companies are excluded as they have specific regulations to adhere with in formulating their capital structure. In order to meet the minimum requirement of the Generalized Method of Moments (GMM) methodology, we only include firms with at least three consecutive years of data in our sample. The data of the listed firms were collected from Datastream, while the macroeconomic data were sourced from the World Bank Database and the official website of Bank Negara Malaysia. These secondary data are reliable as they are official published data. In order to maximize the use of all available data, we employ the unbalanced panel data setting. The final sample consists of 214 listed companies in Bursa Malaysia from 2010 to 2019.

Findings

In order to test the validity of the instruments and whether the model is correctly specified, we conduct the Sargan test as proposed by Arellano and Bond (1991). The results are exhibited in Table 3, revealing the failure to reject the null hypotheses and indicating that the instruments are valid and the model is correctly specified. This is followed by the test of the first-order serial correlation test (AR1) and the second-order serial correlation (AR2) (Arellano and Bover, 1995; Blundell and Bond, 1998).

Table 3: Sargan test for two steps estimator

Sargan test of overidentifying restrictions
H0: overidentifying restrictions are valid

	GMM System	GMM Difference
chi^2	72.2548	55.5107
Prob > chi^2	0.0000	0.0021

Table 4 exhibits the estimation of equation (2). The serial correlation tests when the models are estimated using the two-step with robust standard errors in both Difference GMM and System GMM reveal that the null of the absence of the first-order serial correlation (AR1) is rejected while the absence of the second-order serial correlation (AR2) is not rejected. It is thus concluded that the two-step with robust standard errors in both Difference GMM and System GMM are efficient as the lagged values of the dependent variable and the other explanatory variables are valid instruments and that the error terms do not exhibit serial correlation.

Table 4: The regression results

	Two step Difference GMM with Robust SE	Two step System GMM with Robust SE
Constant	-0.5014 (0.6003)	-0.9250 (0.004)
$CS_{i, t-1}$	0.6853 (0.0417)**	0.6385 (0.0343)**
Tangibility	0.0980 (0.0436)**	0.1436 (0.04863)**
Profitability	-0.0093 (0.1537)	-0.1348 (0.1816)
Size	0.0090 (0.0358)**	0.0882 (0.0447)**
Non-Debt Tax Shield	-0.0652 (0.7412)	-0.0666 (0.7447)
Digital Transformation	-0.0065 (0.0211)**	-0.0051 (0.0112)**
GDP Growth	0.0165 (0.0352)**	0.1671 (0.0352)**
Lending Rate	-0.0005 (0.0471)**	-0.0017 (0.1100)
AR (1)	-3.034 (0.0387)**	-4.0796 (0.0421)**
AR (2)	-0.0933 (0.2358)	-0.0572 (0.3358)

Note: The regression is performed using Two-step Difference GMM with Robust SE and Two-step System GMM with Robust SE. The figures stated are the coefficient values, except numbers in parentheses, which are standard errors. ** and * indicate significant at 5 and 10 per cent respectively.

It is important to note that the coefficient of the lagged capital structure is statistically significant. The coefficient, $(1-\lambda)$, where λ measures the firms' speed of adjustment, is estimated to be 0.6853 and 0.6385 in Difference GMM and System GMM respectively. This ascertains the dynamism of capital structure decisions in Malaysian firms, where the firms' adjustment speed ranged from 31.47% (1–0.6853) to 36.15% (1–0.6385). This indicates that

Malaysian firms were capable of eliminating 31.47%–36.15% of the deviations from the optimal level within a year. Assuming a constant adjustment rate, this result reveals that the Malaysian firms were capable of adjusting towards the optimal capital structure within 1.54–1.83 years.

Three organizational variables are significant in explaining the optimal capital structure adjustment. Firstly, we reported that firm size exerted a positive impact, revealing that as firms grow bigger, their debt capacity increases as they gain greater access to finance and more sources of financing options due to higher efficiencies in operations and relatively greater diversification that lead to a lower risk of bankruptcy (Chan et al., 2017; Saleh et al., 2018; Chua et al., 2019; Ibrahim & Zulkafli, 2023; Iyoha et al., 2023). Our view is that larger firms in Malaysia tend to have a leading position in the market that provides them with greater financial flexibility and a lower cost of funds. This enables the firms to speed up the adjustment towards an optimal capital structure.

Secondly, in line with past empirical works (Saleh et al., 2018; Rehana, 2019; Wendy & Salam, 2019), tangibility is reported to have a positive force, indicating that firms with greater tangibility are capable of adjusting faster towards an optimal capital structure. The more tangible assets possessed, the greater the firm's borrowing capacity, as tangible assets have a higher collateral value and a higher liquidation value. These allow firms to raise debts at a lower rate and reduce the agency cost of debt. We propose that when the cost is lower, it is easier for firms to make readjustments to their capital structure.

Thirdly, the digital transformation is reported to exert a significant positive effect on capital structure adjustment speed. This is in line with Chen et al. (2023), who revealed a similar relationship by using a dataset of Chinese firms. This finding is encouraging as it reveals the importance of digital transformation in Malaysia. Chen et al. (2021) showed that digital transformation can significantly reduce the equity capital cost, while Wang & Zhu (2023) proved that digital transformation exerts a significant negative effect on the cost of debt financing. Chen & Xu (2023) further exhibited that digital transformation impedes cost stickiness by lowering the adjustment cost. All these contribute to the financial flexibility that accelerates the optimal capital structure adjustment speed.

The environmental factors are also reported to be significant for optimal capital structure adjustment. GDP growth has significant positive effects on adjustment speed. An economy with GDP growth indicates economic expansion that fosters positive market sentiment (Chen et al., 2021). The fund providers are more willing to finance expansionary and investment activities. The increase in fund supply lowers the cost of financing, which allows firms that deviate from their optimal capital structure to adjust quicker. Meanwhile, under positive market sentiment, firms are more willing to increase investment and adopt debt financing. This inculcates the adjustment behaviour and, hence, speeds up the adjustment speed.

The lending rate exhibits a negative force as a higher rate discourages firms from employing debt. When the interest rate increases, firms not only bear a higher cost of financing but also the possibility of financial distress. This contributes to the deceleration of the adjustment speed. On the contrary, a decrease in the interest rate increases the debt capacity and encourages the use of debt by firms (Orlova et al., 2020). Firms with greater debt capacity will have easy access to funds that favour the adjustment of their capital structure towards the optimal level.

Discussion and Conclusion

This study shows the dynamism of capital structures in Malaysia, where firms have an optimal capital structure that they partially adjust to. Both organizational factors and environmental factors are reported to have significant explanatory powers for optimal capital structure adjustment. The findings indicate that digital transformation speeds up the adjustment towards an optimal capital structure. This can be explained by the fact that digital transformation reduces information asymmetry, enhances enterprise value, and reduces equity capital costs (Hong et al., 2023). Tran (2014) proposed that firms with a higher degree of financial transparency face lower equity capital costs. As digital transformation improves information disclosure quality significantly (Chen et al., 2021), it helps reduce the equity capital cost. The lower equity cost breaks the barriers that prevent firms from making rapid adjustments towards optimal capital structures. Wang and Zhu (2023) further suggested that firms should accomplish digital transformation dynamically in order to reduce the cost of debt financing. All these improve the financial flexibility of firms, thereby speeding up capital structure adjustment. The findings of this study offer some policy implications.

By embedding digital technologies across their businesses, firms not only benefit from increased efficiency and fostered innovation (Peng & Tao, 2022), greater business agility and enhanced value for employees and customers, but also from the acceleration of adjustment speed towards an optimal capital structure that will ultimately increase the firms' value and shareholders' wealth. In the era of IR 4.0, the pace of digital transformation leaves very little time for firms to react. Therefore, it is suggested that firms need to accelerate and embark on their digital transformation. As for policymakers, initiatives aiming at amplifying the digital transformation among firms should be given priority. The formulation of new measures in regulatory and institutional settings is imperative to providing a more supportive ecosystem that encompasses digital technology infrastructure and a future-ready workforce.

This study has several limitations that promise avenues for future research. Firstly, by incorporating firms from various countries, it will be more conclusive to reveal the impact of digital transformation on the speed of capital structure adjustment. It is also momentous to look at the impact of digital transformation on small and medium-sized companies, where this study can be broadened. Besides, there is room for improvement in measuring digital transformation, which warrants a meaningful direction for future research.

References

Arellano, M. & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58, 277-97.

Arellano, M. & Bover, O. (1995). Another look at the instrumental variable estimation of error components models. Journal of Econometrics, 68, 29-51.

Ayaz, M., Zabri, S. M. & Ahmad, K. (2021); An empirical investigation on the impact of capital structure on firm performance: Evidence from Malaysia. *Managerial Finance*, 47(8), 1107-1127.

Bajaj, Y., Kashiramka, S., & Singh, S. (2020). Capital structure dynamics: China and India (Chindia) perspective. *European Business Review*, 32(5), 845–868.

Blundell, R. W. & Bond, S. R. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87, 115-143.

Chaleeda, Islam, M. A., Ahmad, T. S. T. & Ghazalat, A. N. M. (2019). The effects of corporate financing decisions on firm value in Bursa Malaysia. *International Journal of Economics and Finance,* 11 (3).

Chan, J. P. M., Rahman, M. & Sannacy, S. (2017). The determinants of capital structure: Evidence from public listed companies in Malaysia, Singapore and Thailand. *Cogent Economics & Finance,* 5(1), 1418609.

Chen, W., Zhang, L., Jiang, P., Meng, F. and Sun, Q. (2021). Can digital transformation improve the information environment of the capital market? Evidence from the analysts' prediction behavior. *Account & Finance,* 62, 2543–2578.

Chen, Y., Shen, L., Bian, Y., Zhang, X. (2023). Effects of digital transformation on dynamic capital structure adjustment: Evidence from China. *Systems 11,* 330.

Chen, Y. F. & Xu, J. (2023). Digital transformation and firm cost stickiness: Evidence from China. *Finance Research Letters,* 52, 103510.

Chen, Z. X., Lien, D. & Lin, Y. H. (2021). Sentiment: The bridge between financial markets and macroeconomy. *Journal of Economic Behavior & Organization,* 188, 1177-1190.

Chouaibi, S., Festa, G., Quaglia, R. & Rossi, M. (2022). The risky impact of digital transformation on organizational performance – evidence from Tunisia. *Technological Forecasting and Social Change,* 178, 121571.

Chua, M. S., Razak, N. H. A., Nassir, A. M. & Yahya, M. H. (2019). Ceo age and the dynamic capital structure: Evidence from Malaysia. *MJBE Special Edition,* 2, 13-28.

En, J. N. J., & Malek, N. I. A. (2021). Capital structure and firm performance of technology sector in Malaysia. *International Journal of Academic Research in Accounting Finance and Management Sciences,* 11(3), 601-628.

Gurumurthy, R., Schatsky, D. & Camhi, J. (2020). Uncovering the connection between digital maturity and financial performance. *Deloitte Insights*. https://www.deloitte.com/insights.

Hanelt, A., Bohnsack, R., Marz, D., & Antunes, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies,* 58(5), 1159-1197.

Hernawati, E., Hadi, A. R. A & Nawir, J. (2023). Agency cost, dividend policy, capital structure, size and company's future growth: Evidence from top 20 shariah-compliant companies at Bursa Malaysia. *Cuadernos de Economía,* 46(130), 115-121.

Hong, M., He, J. J., Zhang, K. X. & Guo, Z. D. (2023). Does digital transformation of enterprises help reduce the cost of equity capital. *Mathematical Biosciences and Engineering,* 20(4), 6498–6516.

Ibrahim, H. A. & Zulkafli, A. H. (2023). The speed of adjustment towards optimal capital structure: Do ownership concentration and board diversity matter? *International Journal of Business and Society,* 24(1), 440-458.

Iyoha, A. I., Ohiokha, G., Umoru, D., Akhor, S. O. & Igele, G. A. (2022). Target capital structure for managerial decision making: Dynamics and determinants. *Investment Management and Financial Innovations,* 19(3), 322-334.

Jiang, K., Du, X. & Chen, Z. (2022). Firms' digitalization and stock price crash risk. *Int. Rev. Financ. Anal*., 82, 102196.

Julkid, N. F. B. & Lau, W. T. (2020). Capital structure decision: Micro and macroeconomic determinants in Malaysia. *International Journal of Academic Research in Accounting, Finance and Management Sciences,* 10(2), 76-86.

Liew, Z. W. & Babak, N. (2021). An empirical analysis of liquidity, solvency, capital structure and financial health of small and medium enterprises in Malaysia. *Journal of Business and Social Sciences,* 5.

Orlova, S., Harper, J. T. & Sun, L. (2020). Determinants of capital structure complexity. *Journal of Economics and Business,* 110, 105905.

Peng, Y. Z. & Tao, C. Q. (2022). Can digital transformation promote enterprise performance? - From the perspective of public policy and innovation. *Journal of Innovation & Knowledge,* 7, 100198.

Ramli, N. A., Nartea, G., Rasedee, A. F. N. & Baharum, A. (2022). The mediation effects of capital structure: Evidence from Malaysian and Indonesian economic sectors. *Mathematical Statistician and Engineering Applications,* 71(2), 234 – 256.

Ramli, N. E. & Haron, R. (2017). Target capital structure and speed of adjustment: A dynamic evidence from shariah approved firms in Malaysia. *JMFIR,* 14(2), 65-91.

Rehana, R., Hadib, A. R. A & Hussain, H. I. (2019). Sectorial-specific capital structure determinants - Evidence from Bursa Malaysia. *International Journal of Innovation, Creativity and Change,* 6(8), 346-357.

Saif-Alyousfi, A. Y. H., Md-Rus, R., Taufil-Mohd, K. N., Mohd Taib, H. & Shahar, H. K. (2020). Determinants of capital structure: Evidence from Malaysian firms. *Asia-Pacific Journal of Business Administration, 12(3/4),* 283-326.

Salam, Z. A. & Shourkashti, R. (2019). Capital structure and firm performance in emerging market: An empirical analysis of Malaysian companies. *International Journal of Academic Research in Accounting, Finance and Management Sciences,* 9(3), 70–82.

Saleh, M. S. A. H, Shahar, H. K. & Ibrahim, Y. (2018). The determinant of capital structure of Malaysian firms: Test of pecking order and trade-off theories under different corporate ownership identities. *IOSR Journal of Economics and Finance,* 9(4), 61-70.

Wang, J. & Zhu, C. W. (2023). The impact of digital transformation on the debt financing costs of firms. *SHS Web of Conferences 163,* 03036.

Wendy & Salim, K. C. (2019). The speed of adjustment towards optimal capital structure: A test of dynamic trade-off model. *Jurnal Ekonomi Malaysia,* 53(3), 91–102.

Windmeijer, F. (2005). A finite sample correction for the variance of linear efficient two-sstep gmm estimators. *Journal of Econometrics*, 128, 26-51.

Wu, K., Fu, Y. & Kong, D. (2022). Does the digital transformation of enterprises affect stock price crash risk. *Finance Res. Lett*., 48, 102888.

Yuan, Y., Azam, S. M. F. & Tham, J. (2020). Small and medium size enterprises (SMEs) in Malaysia: A conceptual underpinning of capital structure decisions and firm performance. *European Journal of Social Sciences Studies,* 4(5), 219-233.

Zhang, J., Zhao, Z. & Jian, W. (2020). Do cash flow imbalances facilitate leverage adjustments of Chinese listed firms? Evidence from a dynamic panel threshold model. *Economic Modelling,* 89, 201–214.