THE PUZZLE OF BLOCKHOLDER SHAREHOLDINGS AND STOCK MARKET LIQUIDITY: EVIDENCE FROM MALAYSIA

AHMED HUSSEIN AL-RASSAS*

University of Hafr Al Batin, Hafr Al Batin, Saudi Arabia

*Corresponding Author: drahmedhr@uhb.edu.sa

Abstract: This study examines whether insider and outsider blockholder shareholdings affect firms' stock market liquidity. The study utilises 2,020 yearly firm observations of Malaysian firms throughout 2009-2012. The findings indicate that insider blockholders hamper the stock market liquidity while the outsider blockholders enhance the stock market liquidity. Furthermore, the results show that institutional blockholders are perceived as monitoring bodies as their existence is strengthening the stock market liquidity. However, if the outsider blockholders are individuals, the association is not supported. This study contributes to the literature by providing empirical evidence from an ownership concentrated equity market, namely Bursa Malaysia. This study offers implications for regulators, traders, and firms.

Keywords: Blockholder, Institutional, Insider, Shareholdings, Stock market liquidity, Malaysia.

1. Introduction

Having a liquid stock market is a critical requirement as it brings efficient allocation and contributes to firms' value, and lessens its cost of capital. In the literature, the ownership concentration is one of the pillars of corporate governance mechanisms. It has been argued that in countries outside the US, the concentration of ownership is controlled by major shareholders (La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R, 2000). Several studies have stated that the conflict between major and minor shareholders is critical in emerging nations (Claessens, Djankov, & Lang, 2000; Enriques, & Volpin, 2007; Lei, Lin, & Wei, 2013). In the financial markets, institutional investors play crucial roles because they hold a significant portion of the outstanding equity shares, and a greater fraction of the trading volume across developed, and developing countries (Vo, T. T. A., Dang, T. L., Dang, M., & Hoang, V. A., 2021). It is disclosed in the International Monetary Fund report (2015) that the financial assets managed by institutional investors are about US$ 76 trillion, representing 40% of the global financial assets. Due to this rapid growth of institutional ownership globally, it is crucial to examine the impacts of the blockholders on the stock market liquidity.

Theoretically, it has been argued that institutional ownership is more likely to strengthen the investor protection and the transparency of firms as one of the corporate governance mechanisms. It is also stated that due to the existence of institutional investors, firms tend to improve their internal corporate governance mechanisms to avoid the unfavorable actions of institutional investors such as selling or taking over the stocks (Qian,

2011; Bharath, S. T., Pasquariello, P., & Wu, G, 2013). Due to the significant stake that institutional investors hold, they are closely monitoring the management team and hence reducing the agency problems (Shleifer & Vishny, 1997; Callen & Fang, 2013; Boone & White, 2015). Hence, such monitoring roles are attracting investors to trade the stocks of these firms, hence it is considered as having a governance impact (Lang & Maffett, 2011; Ng, 2011; Karolyi, Lee, & Dijk, 2012). Furthermore, blockholders such as institutional investors are more likely to engage in more numerous trading activities compared to individuals to ensure diversifying their risks and to maintain a high level of liquidity (Chordia, Roll, & Subrahmanyam, 2000; Kamara, Lou, & Sadka, 2008; Karolyi et al., 2012; Koch, Ruenzi, & Starks, 2016). This effect is called the trading effect. In line with the theories of liquidity, it can be argued that stock market liquidity is lower due to the existence of information asymmetry (Bagehot, 1971; Copeland & Galai, 1983; Glosten & Milgrom, 1985). At the extreme level, the high information asymmetry would cause a market breakdown (Akerlof, 1970). Generally, this issue of less trading might be a symptom that any listed firm could experience. In other words, a large number of firms are more likely to experience less stock market liquidity. Several studies focused on different ownership structure determinants (Amihud & Mendelson 1986; Morck, Shleifer, & Vishny, 1988; Rubin 2007).

In the Malaysian context, it has been found that major shareholders concentrate on ownership, and the shareholders might be government, family members, or individuals (Gul, 2006). Malaysia is among the developing nations where endeavours to improve liquidity in the capital market were increased with a progression of procedures brought by the government, for example, the divestment of government shareholding to expand the free float of stocks and the reduction in the requirements to attract more foreign shareholdings. In Malaysia, concentrated ownership remains an issue in most firms (Tam & Tan, 2007; Al-Rassas, & Kamardin, 2016). The minority investors' interests will be antagonistically influenced, and the advantage of getting insider information for the major shareholders may offset their duty as monitoring bodies, and this will cause inconsistency among investors. In the literature, Liu and Xu (2016) supported that informed ownership, and concentrated ownership have a significantly negative influence on a stock's liquidity in China.

The focus on the Malaysian context is because of the uniqueness of Malaysia as it has immature equity markets with high insider trading (Ali, Ahmad, & Anusakumar, 2011). The information environment is also poor with high earnings management practices (Ball, Robin, & Wu, 2003; Abdul Rahman, & Haneem Mohamed Ali, 2006). Moreover, since Malaysia is highly ownership concentrated, the blockholders have superior information. This ownership style implies that the persistent conflict is between the blockholder and minor shareholders. This conflict refers to Type II of the agency problem compared to Type I, between managers and shareholders. Therefore, this study contributes to the literature by providing empirical evidence about the effect of blockholder shareholdings and stock market liquidity.

The study examines whether insider and outsider blockholder shareholdings affect firms' stock market liquidity in the Malaysian context. The findings supported the negative impact of insider blockholders on the stock market liquidity while the outsider blockholders positively affect the stock market liquidity. Furthermore, the results show that the existence of institutional blockholders is enhancing the stock market liquidity. However, if the outsider blockholders are individual, the association has no significant relationship with the stock

market liquidity. The study utilises 2,020 yearly firm observations of Malaysian firms throughout 2009-2012. The results of this study provide several implications for several parties, such as regulators, where restrictions of the shareholdings might be imposed to widen the free float of stocks. The findings also give implications for investors by shedding light on the major shareholding concerns. For firms, an implication is provided to assist them in knowing how their stock market liquidity responds due to the existence of blockholders. The structure of this paper is as follows; the literature review is presented in the following section followed by the methodology. Subsequently, the findings and discussions are elaborated in the fourth section, and section five concludes the paper by presenting the limitations and implications of the study.

2. Literature Review

Stock market liquidity is one of the crucial issues that has attracted significant attention from researchers. In the literature, several studies examined the determinants of stock market liquidity. The majority of prior studies investigate the impact of corporate governance attributes. A study conducted by Pham (2020) examined how the characteristics of the firms' CEOs affect the stock market liquidity. Other studies supported the impact of board diversity on the firms' information transparency (Upadhyay & Zeng, 2014). It is also reported by Xue, Zhang, and Yu (2020) that the passive institutional shareholders are correlated with the firms' transparency of information environments. Several studies supported the association between corporate characteristics and stock liquidity (Glosten & Milgrom, 1985; Kyle, 1985; Lang, Lins, & Maffett, 2012).

In corporate governance literature, there are two opposing arguments towards the existence of blockholders. The first argument is in line with the monitoring hypothesis, which states that blockholders discipline the management team and enforce them to disclose more (Grossman, & Hart, 1988). Their existence also reduces the risk of management expropriation (Shleifer, & Vishny, 1997). In developed markets such as the U.S, most stockholders are outsiders, and the monitoring hypothesis is dominant (Byun, Hwang, & Lee, 2011). On the other hand, in countries with low minor shareholders protection, the blockholders might not play influential monitoring roles; instead, they are expropriating the benefits of minor shareholders (La Porta et al., 2000). This scenario is in line with the other argument, which is the entrenchment effect. Furthermore, the literature has two other hypotheses: the firm's trading activity, namely the adverse selection hypothesis and the trading hypothesis. The negative selection hypothesis states that due to the argument that blockholders have an advantage of having insider information compared to the minor shareholders, the information asymmetry consequently will be high, and this impairs the liquidity (Easley, & O'Hara, 1987; Rubin, 2007; Chung, Sheu, & Wang, 2009). The trading hypothesis is related to the investors' portfolio in that as more shares available to be traded among investors indicates fewer transaction costs. Therefore, firms' stock liquidity is improved.

Empirically, several studies such as Bolton and Hadden (1998), Jacoby and Zheng (2010), and Rubin (2007) found that ownership dispersion improves stock liquidity. In markets with high ownership concentration, the stock market liquidity for firms is low due to the limited number of shareholders trading the stocks (Bolton, & Von Thadden, 1998). Another reason is the superior information that blockholders possess which increases the adverse

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selection (Heflin & Shaw, 2000). The advantage of having privileged access to firm value information gives rise to information asymmetry. In the U.S context, Rubin (2007) found that the institutional holdings are positively correlated with liquidity, while the institutional concentration is negatively correlated with liquidity. This implies that the existences of institutional blockholders are perceived by market makers to have superior information. Rubin (2007) also found that the insiders are not perceived as shareholders who trade on private information. In the same context, Brockman, Chung, and Yan (2009) found that block ownership impairs the firm's market liquidity by reducing its trading activity.

Another study conducted by Liu and Xu (2016) found that concentrated ownership negatively affects stock liquidity and it is argued that information asymmetry affects traders. A study conducted by Heflin and Shaw (2000) found that stock market liquidity captured by (bid-ask spread) is higher for blockholders. Similarly, it is found that insider ownership increases information asymmetry (Lakonishok, & Lee 2001). In line with these findings, Chiang & Venkatesh (1988) supported that liquidity is lower for firms with higher insider ownership. Furthermore, Admati and Pfleiderer (1988) and Holden and Subrahmanyam (1992) stated that competition among institutional investors might lead to price discovery, consequently decreasing information asymmetry and increasing liquidity. Similarly, Liu (2013) supported the positive relationship between institutional ownership and stock liquidity. Following the literature review and in line with the previous literature and the agency theory and resources dependence theory, the present study develops the following hypotheses:

Hypothesis 1: There is a significant relationship between insider blockholder shareholdings and firms' stock market liquidity.
Hypothesis 2: There is a significant relationship between outsider blockholder shareholdings and firms' stock market liquidity.
Hypothesis 3: There is a significant relationship between outsider institutional blockholder shareholdings and firms' stock market liquidity.
Hypothesis 4: There is a significant relationship between outsider individual blockholder shareholdings and firms' stock market liquidity.

3. Methodology

In this study, Ordinary Least Square (OLS) is used to achieve the study objectives. The OLS estimator is unbiased, consistent, and efficient in the class of linear unbiased estimators. Using the STATA tool, the standard errors are adjusted by clustering firms for the pooled cross-sectional time-series data to capture potential heteroscedasticity and autocorrelation problems. This study followed prior studies such as Ali et al. (2011), Al-Jaifi, and Al-Rassas, (2019), and Prommin, Jumreornvong, and Jiraporn (2014). This study used 2,020 yearly observations for 505 companies listed in the Malaysian stock market for four years periods (2009-2012). The data set of this study includes all companies listed in Bursa Malaysia that provide available information. The study consists of all sectors except those companies listed in the financial industry. The data sources are Data Stream Thompson Router for the economic variables, while the blockholder shareholdings variables are collected manually from the annual reports. In the following equation, the model of the study is reported.

$$ILLIQ_{it} = \beta_0 + \beta_1 INSID + \beta_2 BOD + \beta_3 OC + \beta_4 SIZE_{it} + \beta_5 PROF_{it} + \beta_6 LEV_{it} + \beta_7 VOLATILITY_{it} + \beta_8 1/PRICE_{it} + \beta_9 TANG_{it}$$
$$+ \sum_{i=3}^{n} YEAR + \sum_{i=6}^{n} INDUSTRY + \varepsilon \qquad (1)$$

$$ILLIQ_{it} = \beta_0 + \beta_1 OUTSID + \beta_2 BOD + \beta_3 OC + \beta_4 SIZE_{it} + \beta_5 PROF_{it} + \beta_6 LEV_{it} + \beta_7 VOLATILITY_{it} + \beta_8 1/PRICE_{it} + \beta_9 TANG_{it}$$
$$+ \sum_{i=3}^{n} YEAR + \sum_{i=6}^{n} INDUSTRY + \varepsilon \qquad (2)$$

$$ILLIQ_{it} = \beta_0 + \beta_1 INST + \beta_2 INDV + \beta_3 BOD + \beta_4 OC + \beta_5 SIZE_{it} + \beta_6 PROF_{it} + \beta_7 LEV_{it} + \beta_8 VOLATILITY_{it} + \beta_9 1/PRICE_{it}$$
$$+ \beta_{10} TANG_{it} + \sum_{i=3}^{n} YEAR + \sum_{i=6}^{n} INDUSTRY + \varepsilon \qquad (3)$$

This study estimates the liquidity measure based on Amihud's (2015) illiquidity measure (ILLIQ). This measure has several advantages as it captures the relative change in the stock price to the volume of stock traded. This measure is considered theoretically superior. This measure divides stock return (in absolute value) by the amount of trading volume (in dollar value) thus, it reflects the resilience and depth of the stocks. Amihud's illiquidity measure also reflects the spread between the asking price and bid price. By its nature, the stock with a higher value of this measure means the stock has lower stock liquidity. The measure is transformed by the natural log, following several studies such as Amihud, Y., Hameed, A., Kang, W., and Zhang, H. (2015), and Kang and Zhang (2014) to avoid any impacts from the extreme values. The following equation shows how Amihud's illiquidity measure (ILLIQ) is estimated:

$$ILLIQ_{iy} = \frac{1}{D_{iy}} \sum_{t=1}^{D_{iy}} . \left| R_{iyd} \right| / VOLD_{iyd}$$

In terms of the independent variables, the blockholder shareholdings are measured as follows: the inside blockholders ownership (INSID) is the percentage of the substantial shareholders who are insiders. The outsider blockholder shareholding (OUTSID) is measured as the percentage of the substantial shareholders who are not insiders. The institutional bolckholder shareholdings are captured based on the percentage of the substantial shareholdings that are institutional entities. The individual blockholder shareholdings are captured based on the percentage of the substantial individual shareholdings. In terms of the control variables, BOD is the score for the board of directors' characteristics (board size; board independence; board meeting; board financial expertise). Ownership concentration (OC) is the percentage of total shares outstanding held by substantial shareholders. Firms' size (SIZE) is measured by the total assets, profitability measured by return on assets; Leverage (LEV) calculated by total liabilities divided by total assets; and tangibility measured by the ratio of net property, plant, and equipment to total assets several. In addition, the tick-size effect is captured by including the reciprocal of the end-of-year closing price. In contrast, the return volatility is captured by the standard deviation of the daily closing returns. Besides, the year and sector effect are included as dummy variables to capture any possible variations.

4. Findings and Discussion

In this section, the descriptive statistics of the variables are explained. Table 1 shows that the average value of the Amihud illiquidity measure is -6.92 with minimum and maximum values of -16.89 and 0.72, respectively. For the insider blockholders, it is reported in Table 1 that, on average Malaysian companies have 37.24 percent of the shares held by insider

blockholders with minimum and maximum values of zero and 91.84 percent, respectively. In terms of the outsider blockholders, the average is 17.83 percent, while the minimum and maximum are zero and 95.54 percent, respectively. It is also reported that for the firms that have outsider blockholders, Malaysian firms have on average 12.79 percent and 5.03 percent for the institutional and individuals, respectively. In terms of the control variables, the descriptive statistics are reported in Table 1 also. Furthermore, Table 2 shows the correlation between the study variables.

Table 1. Descriptive Statistics of the Study Variables

Variable Name	Mean	Minimum	Maximum	Median	S.Dev.
ILLIQ	-6.92	-16.89	0.72	-6.64	3.03
INSID	37.24	0	91.84	39.61	22.73
OUTSID	17.83	0	95.54	8.19	23.22
INST	12.79	0	95.54	0	21.23
INDV	5.03	0	92.72	0	12.50
BOD	1.48	0	4	1	1.14
OC	54.19	12.16	96.24	55.34	15.85
SIZE	12.90	9.86	18.29	12.69	1.45
ROA	0.03	-0.68	0.47	0.03	0.08
LEV	0.38	0.003	1.89	0.37	0.21
VOLATILITY	0.03	0.004	0.38	0.02	0.02
1/PRICE	2.41	0.015	25	1.42	3.05
TANG	0.36	0	0.98	0.34	0.20

Table 2. Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) ILLIQ	1.000												
(2) INSID	0.272*	1.000											
	(0.000)												
(3) OUTSID	-0.255*	-0.732*	1.000										
	(0.000)	(0.000)											
(4) INST	-0.267*	-0.609*	0.845*	1.000									
	(0.000)	(0.000)	(0.000)										
(5) INDV	-0.020	-0.325*	0.421*	-0.128*	1.000								
	(0.360)	(0.000)	(0.000)	(0.000)									
(6) BOD	-0.301*	-0.188*	0.215*	0.229*	0.011	1.000							
	(0.000)	(0.000)	(0.000)	(0.000)	(0.636)								
(7) OC	0.062*	0.157*	0.388*	0.392*	0.055*	0.013	1.000						
	(0.005)	(0.000)	(0.000)	(0.000)	(0.014)	(0.545)							
(8) SIZE	-0.721*	-0.213*	0.358*	0.360*	0.053*	0.353*	0.120*	1.000					
	(0.000)	(0.000)	(0.000)	(0.000)	(0.017)	(0.000)	(0.000)						
(9) ROA	-0.211*	-0.003	0.080*	0.082*	0.009	-0.014	0.127*	0.156*	1.000				
	(0.000)	(0.890)	(0.000)	(0.000)	(0.680)	(0.523)	(0.000)	(0.000)					
(10) LEV	-0.034	-0.127*	0.051*	0.050*	0.010	0.116*	-0.140*	0.185*	-0.324*	1.000			
	(0.127)	(0.000)	(0.022)	(0.026)	(0.638)	(0.000)	(0.000)	(0.000)	(0.000)				
(11) VOLATILITY	0.105*	-0.028	0.014	0.018	-0.006	-0.021	-0.010	-0.121*	-0.048*	0.045*	1.000		
	(0.000)	(0.211)	(0.538)	(0.406)	(0.790)	(0.340)	(0.658)	(0.000)	(0.030)	(0.041)			
(12) 1/PRICE	0.297*	0.028	-0.201*	-0.186*	-0.058*	-0.139*	-0.240*	-0.382*	-0.332*	0.128*	0.086*	1.000	
	(0.000)	(0.205)	(0.000)	(0.000)	(0.009)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)		
(13) TANG	-0.012	-0.007	0.026	0.020	0.014	0.016	0.055*	0.080*	-0.104*	0.125*	-0.030	-0.027	1.000
	(0.598)	(0.763)	(0.245)	(0.364)	(0.537)	(0.484)	(0.013)	(0.000)	(0.000)	(0.000)	(0.171)	(0.225)	
* p<0.1													

The findings in Table 3 show that the coefficient for insider blockholder share-holdings is statistically and positively significant at the 0.05 level with Amihud's illiquidity measure (ILLIQ). This indicates that there is a negative association between insider blockholder shareholdings and stock market liquidity. This finding implies that the existence of insider blockholder shareholdings impairs the stock market liquidity. This finding is in line with the results of Liu and Xu (2016) that supported the negative association between ownership concentration and firms' stock liquidity in China. This finding contradicts Rubin (2007), who found that the insiders are not perceived to be among those shareholders that trade on private information in the US. In an emerging country such as Malaysia, insider blockholder shareholdings are not advantageous due to the conflict between the major and minor shareholders.

The findings in Table 3 also show that the coefficient for outsider blockholder shareholdings is statistically and negatively significant at the 0.05 level with Amihud's illiquidity measure (ILLIQ). This indicates that there is a positive association between outsider blockholder shareholdings and stock market liquidity. This implies that the existence of outsider blockholder is perceived as monitoring bodies rather than blockholders with private information. In the third column in Table 2, when the outsiders are classified as institutional and individuals blockholders, the findings show that institutional blockholders positively influence the stock market liquidity while the individual blockholder is insignificant. This finding confirms the results of the argument that outsiders in a market like Malaysia are considered as a monitoring mechanism. For the three-model presented in Table 3, the adjusted R2 of the three models are considerably high, and F-statistics are statistically significant, indicating that all models of this study are well-fitted. As shown in Table 3, the models of this study are highly significant (F = 101.44, 96.94, and 93.00, respectively) and significant P-Values are also reported. Table 3 presents that the adjusted R2 are 65.57, 65.02, and 65.08 for the three modules of this study. This means that the combinations of the independent variables explain around 65% of the variation of the dependent variable.

Table 3 also shows the impacts of the control variables on the stock market liquidity. It is shown that the board strength variable (BOD) has a negative association with the illiquidity measure, which implies that firms with a more effective board have more stock market liquidity. This finding is in line with the agency theory and resource-dependent theory. It is also reported in the regression table ownership concentration is negatively affecting the stock market liquidity. For size, profitability, and tangibility, it is reported in Table 2 that the coefficients are negative with the illiquidity measures (positive associations with the stock market liquidity) for the three models of the study. In terms of the firm's size, it is found that there is a positive relationship with the stock market liquidity. This result is in line with previous studies as large firms can attract the attention of more investors and stock analysts. These big firms are likely to have management teams that are concerned more about financial reporting quality.

Table 3. Multivariate Regression Analysis

Dependent vraible	ILLIQ (t-statistic)	ILLIQ (t-statistic)	ILLIQ (t-statistic)
INSID	0.013		
	(4.40)***		
OUTSID		-0.009	
		(3.03)***	
INST			-0.011
			(3.36)***
INDV			-0.004
			-0.66
BOD	-0.111	-0.123	-0.118
	(2.02)**	(2.21)**	(2.12)**
OC	0.031	0.039	0.04
	(7.18)***	(8.38)***	(8.40)***
SIZE	-1.322	-1.324	-1.319
	(22.87)***	(22.37)***	(22.03)***
ROA	-4.169	-4.236	-4.243
	(4.65)***	(4.71)***	(4.71)***
LEV	0.695	0.65	0.654
	(2.08)**	(1.92)**	(1.93)**
VOLATILITY	25.349	25.231	25.062
	(5.66)***	(5.73)***	(5.71)***
1/PRICE	-0.062	-0.064	-0.063
	(2.73)***	(2.88)***	(2.82)***
TANG	-0.123	-0.133	-0.137
	-0.44	-0.47	-0.48
Cons	7.879	8.178	8.056
	(9.83)***	(10.23)***	(9.87)***
Years Dummy	Included	Included	Included
Ind. Dummy	Included	Included	Included
F-value	101.44	96.94	93.00
Sig	0.000	0.000	0.000
R-squared	65.57	65.02	65.08
N	2020	2020	2020

The values in parentheses are t-statistics based on standard errors that firms cluster.
Note: *, **, *** are significant levels at 10%, 5% and 1%, respectively.

Furthermore, large firms have more shareholders compared with small companies. The size of firms implies that larger firms have more participation in the market. Hence, stock market liquidity is more likely to be enhanced. In line with these arguments, these attributes could alleviate the information asymmetry and enhance stock market liquidity. Firm leverage (Leverage) also has an insignificant correlation with liquidity. Empirically, Fang, V., Noe, T., Tice, S. (2009) found that liquidity is significantly affected by the firm's performance. In the literature, Lesmond, O'Connor, and Senbet (2008) supported the negative association between financial leverage and a firm's liquidity. This finding is supported in the present study where leverage is found to significantly affect stock market liquidity with a negative direction. Bharath, Pasquariello, and Wu (2009), and Lipson and Mortal (2009) have reported similar findings that firms that rely on debt more in their leverage have less stock market liquidity. Amihud and Mendelson (1986) find that the size of a firm is negatively correlated with its bid-ask spread, suggesting that larger firms have better liquidity.

5. Conclusion

This study shows a negative association between insider blockholder shareholdings and stock market liquidity, whereas the outsider blockholder shareholdings enhance the stock market liquidity. Furthermore, the findings show that the institutional investors improve the stock market liquidity while the individual investor has no significant effect. These findings align with the theoretical arguments that information asymmetry is increased due to the existence of insiders, which leads to big adverse selection problems among investors. These findings provide implications for emerging economies on enhancing stock market liquidity by imposing a maximum percentage of insider blockholder shareholding. Regulators need to mandate to include institutional blockholder shareholding for Malaysian firms due to their advantages to mitigate the agency problem, particularly in an emerging country such as Malaysia, which is a highly concentrated ownership market.

The findings of this study provide implications for traders as guidelines on their trading strategies. This study is now without its limitations particularly on aspects such as institutional blockholder shareholding. This type of investor should be examined in detail as banks and mutual funds have different strategies than government entities. Furthermore, the context as this study is on the Malaysian companies, hence it lacks generalisability. The period in which the data are collected can also be extended to capture a wider time frame. Additionally, the model that is utilised in this study needs to be reexamined to investigate blockholder impacts on stock market liquidity during the Covid-19 pandemic. Future research may examine the effect of insider and outsider blockholder shareholdings on firms' stock market liquidity based on different industry types.

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