

# CONTEMPORARY REVIEW OF STOCK MARKET LIQUIDITY STUDIES IN EMERGING COUNTRIES

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## Abstract

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This study presents a review of stock market liquidity in emerging countries. Specifically, it highlights the factors that lead to the occurrence of a liquid market in emerging countries. Following a study by Ding, Ni, and Zhong (2016), this study argues that firms are motivated to have liquid stock to enable them to raise funds at a lower cost, so as to exploit growth opportunities. This paper contributes additional knowledge in terms of understanding stock market liquidity and offers some suggestions for future research. A systematic literature review (SLR) was adopted on stock market liquidity and its related causes and effects, encompassing the years 2010 to 2021. Based on the SLR, it is noted that the features and practices of firms, as well as the policies and regulations that are imposed by regulatory bodies and governments in emerging countries, are important. The limitation of this study is that only four micro-environmental factors and two macro-economic factors were reviewed. Therefore, it is suggested that in the future, researchers should focus on other factors, such as financial performance and political connection. The identification of factors in this study highlighted the gaps in current practices, thus, motivating future research to scrutinise issues relating to stock market liquidity more intensively.

**Keywords:** Systematic Literature Review, Stock Market Liquidity, Emerging Countries

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## 1. INTRODUCTION

Market liquidity refers to the state of affairs in the stock market, where the stock is generally easy to be converted into cash, and vice versa, without

causing a movement in prices (Bursa Malaysia, 2021). A liquid market is important to a firm in developed, emerging, as well as developing countries for efficient capital allocation. Ding, Ni, and Zhong (2016) documented that a liquid stock market enables

the firm to easily raise funds at a lower cost to exploit available growth opportunities, and also avoid extremely costly external financing, which motivates firms to have a liquid stock market. However, it is commonly accepted that emerging financial markets are not as liquid as those in advanced economies (Vo, 2016). Developed countries are considered safer investment havens than emerging countries (Emerging Money, 2012). Supporting the same vein, Joshi and Gawshinde (2012) state that the stock returns in emerging countries are riskier than in developed countries, thus, suggesting that factors influencing stock market liquidity in emerging countries might differ from those in the developed countries. Perhaps, it is due to the uniqueness and complex characteristics of firms in emerging countries compared to developed countries. Therefore, using a systematic literature review (SLR), this study highlights factors that contribute to the stock market liquidity in emerging countries based on the review of previous studies. The objective of adopting SLR is to provide a collective understanding through a theoretical blend that enhances the methodological rigor for academicians, and thus, develops a reliable knowledge base for practitioners (Prasad, Narayanasamy, Paul, Chattopadhyay, & Saravanan, 2019; Singh & Kumar, 2014; Tranfield, Denyer, & Smart, 2003). It is hoped that it formed the foundation for formulating effective strategies for the liquidity of the stock market. Based on the SLR, the study categorised the factors that influence stock market liquidity into two main aspects, namely micro-environmental factors and macro-economic factors. The micro-environmental factors inclusive of ownership concentration, foreign intermediaries, corporate governance, and corporate social responsibility (CSR), while macro-economic factors include monetary policy changes and global risk aversion.

The findings from this study can be applied by regulators, policymakers, governmental and non-governmental agencies, and industry players in reconsidering the existing practices related to stock market liquidity, while motivating other researchers to investigate stock market liquidity more intensively.

The remainder of this paper is structured as follows. Section 2 describes the SLR on factors that lead to stock market liquidity and its effects. Section 3 focuses on the methodology used in planning the review and gathering related literature, followed by Section 4 which discusses the analysis of findings. Section 5 provides a discussion of the results. Section 6 presents the conclusion and recommendations for further research on stock market liquidity, as well as practical contributions for various relevant parties.

## 2. LITERATURE REVIEW

### 2.1. Factors that lead to stock market liquidity

There are numerous factors that may affect the liquidity of the stock market in emerging countries, and this paper reviews all predicting variables and factors on stock market liquidity that have been studied. This study categorises the factors into micro-environmental and macro-economic, which are discussed further.

#### *Micro-environmental factors*

The first micro-environmental factor is the level of ownership concentration which is considered common in emerging countries, especially in Asia, where small and established firms have concentrated ownership (Mak & Kusnadi, 2005). A study by Almulhim (2020) has found that ownership structure is a significant determinant of stock market liquidity in the United Kingdom. Cueto and Switzer (2015) studied the relationship between ownership structure and the separation of ownership and control and its impact on stock market liquidity in Brazil and Chile; they found that dominant shareholders do not increase the liquidity costs or information asymmetries because they are motivated to protect liquidity to reduce their costs, which can directly protect other shareholders' costs. Malaysia is known for its highly concentrated ownership firms and any further increase in ownership may affect the liquidity of the stock market (Al-Jaifi, 2017) because the person who has power in the firm may act to his or her own benefit at the expense of others. Abbassi, Hunjra, Alawi, and Mehmood (2021), who studied the impact of ownership structure on stock market liquidity in South Asian countries, such as Pakistan, Sri Lanka, Bangladesh, and India, found that institutional ownership has a significantly positive effect, while managerial ownership has a significantly negative effect on stock market liquidity. This finding is consistent with a study by Hunjra, Perveen, Li, Chani, and Mehmood (2020). This is because institutional owners have more inside information and expertise to analyse the information received. The relationship between ownership concentration and stock market liquidity can be viewed from two perspectives. The first perspective is as the percentage of ownership concentration increases, firm performance may be enhanced (Amran & Ahmad, 2013) because it will promote better monitoring since the owners have an interest in their firms. Fama and Jensen (1983) suggested that the non-separation of ownership and control promotes better monitoring that can serve to partially solve the principal-agent problems that arise. However, it has been argued that the agency ignores the fact that each person has his or her personal objectives and incentives. The second perspective is as the percentage of ownership concentration increases, it may impair stock market liquidity as the owners hold greater information compared to other shareholders (Almulhim, 2020); thus, it may lead to the occurrence of information asymmetry. However, not all types of ownership structure have a negative impact on stock market liquidity as there are several types of ownership in emerging countries and each level of ownership concentration has its own effects on stock market liquidity.

The second factor is the presence of foreign investors in the stock market, which is found as the most important factor in Bekaert, Harvey, and Lumsdaine (2002). In the same vein, some researchers believe that foreign investment brings benefits as it helps to stimulate economic activities and growth (Leuz, Lins, & Warnock, 2010). The behaviour of foreign investors of not investing in family-controlled and highly institutional

ownership firms (Abdullah, 2019), is one of the crucial aspects that leads to the occurrence of a liquid market. Developed countries have both low concentrated ownership and information asymmetry between insiders and outsiders compared to developing countries. This then helps to stimulate the stock market. In emerging countries, Lee and Chung (2018) found that foreign investors are beneficial to the market in terms of lowering trading costs by increasing competition in the price discovery process. They also documented that the presence of foreign investors after the 2007–2008 global financial crisis resulted in higher price impacts and lower bid-ask spreads due to increased competition in the stock market. This is consistent with a study by Lee and Chou (2018), that in emerging countries, financial market openness can enhance stock market liquidity and it is more significant than in the developed markets. However, in Vietnam, Vo (2016) found that increased foreign investment is not associated with higher liquidity. This is because foreign investors are likely to invest in a long investment horizon, whereby they normally adopt a buy-and-hold strategy, thus leading to a lack of active trading, and consequently, lower liquidity. The researcher also argued that foreign investors in Vietnam are large traders, which may lead to imperfect competition in liquidity supply even after the information environment has been controlled.

In Malaysia, the majority of foreign investors originate from Western countries (Abdullah, 2019). According to research by the MIDF Amanah Investment Bank Berhad in 2019, foreign investors averaged 29.8 percent in the market (Kamarulzaman, 2020). Even though Malaysia has a high ownership concentration (Al-Jaifi, 2017), the Malaysian Investment Development Authority (MIDA) has regulated Investment Guarantee Agreements (IGAs) to promote a conducive environment for investments (MIDA, 2021). This is primarily to protect foreign investment because investors will be more confident to invest in firms with a high level of insider ownership if the countries have strong laws and enforcement agencies to monitor their local companies (Leuz et al., 2010). The information problem plays an important role in investment decisions (Das, 2014; Leuz et al., 2010). Leuz et al. (2010) added that foreign investors tend to avoid investing in a firm with a potentially problematic governance structure as it will increase the monitoring cost (agency cost) of the management. Das (2014) posited that with strong corporate governance practices in the firms, foreign investors would be more inclined to invest as good corporate governance is one of the tools to reduce information asymmetry problems and lower the monitoring cost (Shleifer & Vishny, 1997). Therefore, the nature of the information environment is vital to shareholders and investors in making investment decisions. The presence of information asymmetry in a firm not only distorts the confidence of existing shareholders but also lowers the interest of future investors, particularly foreign investors to invest in the firm. This creates a negative impact on Malaysia's stock market liquidity because foreign ownership helps to reduce stock price volatility and stabilise share price in emerging markets

(Thanatawee, 2021), as other investors will follow the lead of foreign investors. This is because foreign investors do not like to invest in highly concentrated ownership where information asymmetry exists.

Next is the corporate governance factor. Good corporate governance practices are vital to ensure the stock market becomes liquid. And, it has been generally accepted that better corporate governance leads to a liquid stock market (Berglund, 2020). The stock market environment is full of uncertainties and is very sensitive to any information; therefore, strong corporate governance practices play an important role in ensuring the shareholders, especially minority shareholders, that their interests are protected. Prior studies have argued that the quality of corporate governance influences stock market liquidity (Almulhim, 2020; Al-Jaifi, Al-Rassas, & Al-Qadasi, 2017). This is because it will lead to better transparency as it reduces information asymmetry, thereby improving stock market liquidity (Chung, Elder, & Kim, 2010). However, little attention has been focused on in the literature on the relationship between corporate governance quality and stock market liquidity (Almulhim, 2020). Each country has different corporate governance practices, such as in the United States (U.S.), where the majority of board members are outsiders (Almulhim, 2020); while in emerging countries, such as Malaysia, the majority of the independent board directors have ties with the controlling shareholders, which invariably impairs the independence of the board. In China, Tang and Wang (2011) found that there is a positive relationship between corporate governance and stock market liquidity. This is consistent with a study by Shi, Dempsey, Duong, and Klev (2015), which has found that a robust corporate governance system is an important factor that can lead to short- and long-term investments. There is a high degree of state ownership in China's stock market (Sabbaghi, 2016); in order to cope with agency problems that may arise, China has taken initiatives to strengthen corporate governance practices. Jiang and Kim (2015) found that there is an increment in terms of the percentage of board independence in China, and their effect has become stronger (Liu, Miletkov, Wei, & Xie, 2015).

In Vietnam, Huu Nguyen, Minh Thi Vu, and Truc Thi Doan (2020) documented that as the firm's corporate governance improves, the stock market also becomes better. In the Malaysian context, Capital Markets Malaysia was introduced (supported by strong corporate governance) in 2014 (Capital Markets Malaysia, 2020). Several actions on corporate governance have been taken after investors lost confidence in the Malaysian stock market during the 1997–1998 Asian financial crisis (Ho, Oo, & Kwong, 2017). As a result, Malaysia is one of the most favourable countries for foreign investment in Southeast Asia according to the Standard Chartered survey in 2021. Al-Jaifi et al. (2017) found that in Malaysia, there is a significantly positive relationship between corporate governance effectiveness and stock market liquidity because Malaysia has devoted itself to strengthening the corporate governance framework through the Malaysian Code of Corporate Governance (MCCG)

(Securities Commission, 2007). In the stock market environment, internal corporate governance plays an important role in monitoring the behaviour of the people who manage the firms because they possess important information. The board of directors, the audit committee, and the internal audit function, are emphasised in the revised MCGG 2007 to enhance the quality of information disclosure. Nonetheless, internal corporate governance, as a monitoring mechanism of liquidity, has been ignored by many researchers (Al-Jaifi et al., 2017). Munisi, Hermes, and Randøy (2014) stated that in developed countries, both internal and external corporate governance might complement each other in order to mitigate the agency problem; hence, emerging countries need to employ the same method where firms in emerging countries should also focus on internal and external corporate governance. For example, Al-Jaifi et al. (2017) combined internal and external corporate governance mechanisms to investigate the relationship between corporate governance and stock market liquidity in Malaysia.

Another important micro-environmental factor is CSR. In developed countries, it has been evinced that a firm receives benefits when they employ transparent CSR activities, which can lead to a reduction in the cost of capital (Dhaliwal, Li, Tsang, & Yang, 2011; Derwall & Verwijmeren, 2007), as well as informational asymmetry and transaction cost, while increases liquidity (Lambert, Leuz, & Verrecchia, 2007; Amihud & Mendelson, 2000). However, some scholars have argued that firms use CSR as a strategy to maintain their competitive advantage (Chang, Tan, Yang, & Zhang, 2018), and to hide all the underhand corrupt corporate practices (McWilliams, Siegel, & Wright, 2006; Hemingway & MacLagan, 2004). This, therefore, creates information asymmetry in the market between insiders and general shareholders, resulting in lower stock market liquidity (Kurlat, 2018). In emerging countries, the engagement of firms with CSR activities is vital. In India, Roy, Rao, and Zhu (2022) found that a firm that engages with education and healthcare projects as part of its mandatory CSR, has high stock market liquidity. They posited that having mandatory CSR may reduce information asymmetry as well as improve social and reputational capital, thereby improving the stock market liquidity of firms doing CSR. Thailand is also one of the emerging countries in which its firms engage with CSR. On 16 October 2014, the Stock Exchange of Thailand (SET) announced the “Thai Sustainability Investment”, to show the list of stocks of firms that use CSR as part of their management. Taechaubol (2017) investigated whether or not there is any interest in investing in the CSR firms on the SET and found there is a significantly negative abnormal return. This is because, according to Brammer, Brooks, and Pavelin (2006), it takes a long time to recover the cost of CSR activities and for the shareholders to receive a return on their investment. However, in other emerging countries, such as Indonesia and Malaysia, empirical studies have found that CSR plays an important role in increasing firm value and improving stock market liquidity (Jihadi et al., 2021; Subramaniam, Samuel, & Mahenthiran, 2016).

Jihadi et al. (2021) posited that Indonesian firms need to pay attention to social performance in order to attract more investors as they found that large-scale firms tend to engage in CSR activity to increase firm value. A study by Subramaniam et al. (2016) on the implication of CSR reporting on the Malaysian stock market, has found that liquidity is higher, in terms of price impact, when the level of CSR disclosures is higher. This suggests that the CSR firm managers tend to be more “reliable” to all stakeholders, including shareholders, and less likely to engage in unethical corporate activities as they have a strong sense of obligation (Donaldson & Preston, 1995; Carroll, 1979). Blau (2017) documented that the CSR-induced social capital and trust could lead to superior stock market liquidity for socially responsible firms, in addition to mitigating managerial agency problems in firms as explained by Hoi, Wu, and Zhang (2019).

#### *Macro-economic factors*

Ochenge, Muriu, and Ngugi (2020) who investigated the macro-economic factors that significantly drive liquidity fluctuations in Kenya; found that monetary policy changes and global risk aversion significantly affect stock market liquidity. A tight monetary policy implies funding constraints to potential investors, which reduce risk appetite, thereby impairing stock market activity and liquidity. In India, Debata and Mahakud (2018) argued that expansionary monetary policy should be considered to have an improvement in stock market liquidity. Fernández-Amador, Gächter, Larch, and Peter (2013) posited that even in developed countries, such as in Europe, monetary policy is one of the crucial factors that need attention in order to have a liquid stock market. Morales, Moreno, and Vio (2014) studied foreign shocks in Chilean financial markets and found that an increase in global uncertainties increases the volatility of the stocks in Chile. The finding is consistent with a study by Brandao-Marques (2016) that there is a significant relationship between global risk conditions and stock market liquidity in Chile. Dimic, Kiviaho, Piljak, and Äijö (2016) studied seven emerging countries including Argentina, Brazil, Bulgaria, Colombia, Peru, Russia, and Venezuela, revealed that a high level of uncertainty negatively affects stocks and bonds. Hence, posited that global market uncertainties play a significant role in emerging countries.

## **2.2. The effects of stock market liquidity**

A liquid stock market refers to the ability of buyers and sellers to buy and sell stock efficiently. It is measured by the speed with which large purchases and sales can be executed and the level of associated costs, such as transaction costs, or the acceptance of a lower price to find a buyer within a reasonable time (Elliott, 2015). Market liquidity is considered a complicated issue because it is not clear what is happening to underlying liquidity; besides, liquidity levels are unsustainable and disappear quickly under stress. Any situation or information being published to the insider or public may trigger the liquidity of the stock market. A highly liquid market is important for all countries because it

means efficient allocations and is a tool for economic growth (Bencivenga, Smith, & Starr, 1996; Levine, 1991), as well as a critical precondition for financial market growth and development (Wang, 2013). Besides, it also contributes to increasing a firm's value by reducing its cost of capital. Firms can then generate more to cover the costs incurred before and for self-funding instead of acquiring external funding.

The purpose of this study to focus on stock market liquidity in emerging countries is due to a study by Bekaert, Harvey, and Lundblad (2006) which documented that study on liquidity in emerging countries is more important as many investors are concerned with this issue in emerging countries. Besides, stock market liquidity promotes informed trading which may give rise to an informative stock price (Huang, Wu, Yu, & Zhang, 2013). In Southeast Asian countries, Hansen and SungSuk (2013) studied the relationship between stock market liquidity and firm value in the Indonesian stock market and they found that more liquid firms have higher operating profits. In Malaysia, Lim, Thian, and Hooy (2015) found that there is a positive relationship between the increasing number of investors and trading activity and stock market liquidity. In order to promote liquidity, alternative measures need to be taken to mitigate information asymmetry, because most Malaysian firms are controlled by family members, which is beyond regulatory control as it is a tradition where this family business has been passed down among family members.

### 3. METHODOLOGY

In conducting the literature review on stock market liquidity, this paper adopted the SLR introduced by Tranfield et al. (2003), whereby the objective is to offer collective understanding through a theoretical blend, such that the review process enhances the methodological rigor for academicians and develops a reliable knowledge base for practitioners (Prasad et al., 2019; Tranfield et al., 2003). The SLR has mostly been applied by other studies, such as Prasad et al. (2019) and Singh and Kumar (2014). The SLR process consists of three steps: 1) planning the review; 2) gathering the relevant articles, and 3) analysing the findings.

#### 3.1. Planning the review

The main focus of the SLR is to identify the liquidity of the stock market in emerging countries and to highlight previous studies on stock market liquidity, as well as factors that lead to the occurrence of a liquid stock market. In this planning stage, all extant reviews on stock market liquidity in emerging markets found in online journal articles were gathered and organised into a matrix table. Then, this study gathered as many terms as possible from prior literature reviews on stock market liquidity and assembled the keywords in a table form.

#### 3.2. Gathering the relevant articles

The relevant articles were searched and selected manually through UiTM e-resources: databases and Google Scholar because Google Scholar presents geographically neutral results (Shah, Mahmood, & Hameed, 2017; Prasad et al., 2019). The databases included Science Direct, Emerald, Research Gate, and Social Science Research Network (SSRN) and evaluated to see if it should be included in the literature review. The author's name, year published, title, journal, cite score rank, and h-index were gathered as presented in Table 1. Worth noting, that only articles published in English were searched and selected. The characteristics of each material were determined. For this study, some materials reviewed were from published journals, working papers, and conference proceedings. The published journals are ranked in Scimago Journal Ranking, with nine journals from the first quartile (Q1), seven journals from the second quartile (Q2), six journals from the third quartile (Q3), and three journals from the fourth quartile (Q4). H-index scores represent the quality of the journals selected for this review, with the scores ranging from 3 to 190. In addition, there is one working paper from the Central Bank of Chile, which is a study by Morales et al. (2014) on foreign shocks in Chilean financial markets.

**Table 1.** List of journals, working papers, and conference proceedings on stock market liquidity

No.	Authors	Title	Source type	Cite score rank	H-index
1	Abbassi et al. (2021)	The role of ownership structure and board characteristics in stock market liquidity	International Journal of Financial Studies	Q4	6
2	Al-Jaifi (2017)	Ownership concentration, earnings management and stock market liquidity: Evidence from Malaysia	Corporate Governance International Journal of Business in Society	Q3	15
3	Al-Jaifi et al. (2017)	Corporate governance strength and stock market liquidity in Malaysia	International Journal of Managerial Finance	Q2	25
4	Berglund (2020)	Liquidity and corporate governance	Journal of Risk and Financial Management	Q3	3
5	Cueto and Switzer (2015)	Intraday market liquidity, corporate governance, and ownership structure in markets with weak shareholder protection: Evidence from Brazil and Chile	Journal of Management and Governance	Q2	50
6	Dimic et al. (2016)	Impact of financial market uncertainty and macroeconomic factors on stock-bond correlation in emerging markets	Research in International Business and Finance	Q1	42
7	Hunjra et al. (2020)	Impact of ownership concentration, institutional ownership and earnings and anagement on stock market liquidity	Corporate Ownership & Control	Q4	19
8	Huu et al. (2020)	Corporate governance and stock price synchronicity: Empirical evidence from Vietnam	International Journal of Financial Studies	Q4	6
9	Jihadi et al. (2021)	The effect of liquidity, leverage, and profitability on firm value: Empirical evidence from Indonesia	Journal of Asian Finance, Economics and Business	Q2	14
10	Lee and Chung (2015)	Foreign ownership and stock market liquidity	International Review of Economics & Finance	Q2	54
11	Leuz et al. (2010)	Do foreigners invest less in poorly governed firms?	Review of Financial Studies	Q1	190
12	Liu et al. (2015)	Board independence and firm performance in China	Journal of Corporate Finance	Q1	101
13	Morales et al. (2014)	Foreign shocks on Chilean financial markets: Spillovers and comovements between bonds and equity markets	Working Paper		
14	Ochenge et al. (2020)	Macroeconomic conditions and stock market liquidity in Kenya	International Journal of Economics and Finance	Q4	3
15	Roy et al. (2022)	Mandatory CSR expenditure and stock market liquidity	Journal of Corporate Finance	Q1	101
16	Sabbaghi (2016)	Corporate governance in China: A review	Corporate Governance International Journal of Business in Society	Q3	15
17	Subramaniam et al. (2016)	Liquidity implication of corporate social responsibility disclosures: Malaysian capital market evidence	Journal of International Accounting Research	Q3	22
18	Tang and Wang (2011)	Corporate governance and firm liquidity: Evidence from the Chinese stock market	Emerging Markets Finance & Trade	Q2	34
19	Vo (2016)	Foreign ownership and stock market liquidity — Evidence from Vietnam	Afro-Asian Journal of Finance and Accounting	Q3	10

#### 4. ANALYSIS OF THE FINDINGS

##### 4.1. Stock market liquidity measurement and outcomes

Many measurements have been employed by researchers to measure liquidity, based on the predicting variables. Table 2 shows the measurement employed by each study and the sample size used. From Table 2, Amihud's (2002) illiquidity measure (ILLIQ) is commonly used in seven of the studies, followed by bid-ask spread and

turnover. Ochenge et al. (2020), who adopted ILLIQ to identify the macroeconomic factors that may affect stock market liquidity, found that monetary policy changes, exchange rate fluctuations, and global risk aversion significantly affected stock market liquidity in Kenya. The result is consistent with a study by Morales et al. (2014) which used the GARCHX model and found a significant relationship between global uncertainty and stock market volatility. The other two studies (Berglund, 2020; Sabbaghi, 2016) have conducted a review on stock market liquidity.

Table 2. List of selected articles

No.	Authors	Theory/Approach	Measurement	Sample size	Outcome
1	Abbassi et al. (2021)	Agency theory Stewardship theory	Amihud's (2002) illiquidity ratio (ILLIQ)	511 non-financial firms.	Institutional ownership, board size, board independence, and CEO duality have a positively significant impact, while managerial ownership has a significantly negative effect on stock market liquidity.
2	Al-Jaifi (2017)	Signalling theory Agency theory	Amihud's illiquidity measure (ILLIQ)	505 Malaysian listed firms	There is a significantly negative relationship between ownership concentration and stock market liquidity.
3	Al-Jaifi et al. (2017)	-	Amihud's illiquidity measure (ILLIQ)	505 Malaysian listed firms	There is a significantly positive association between corporate governance effectiveness and stock market liquidity.
4	Berglund (2020)	-	-	-	An efficient board contributes to reducing the adverse selection risk for an outside investor who lacks privileged information.
5	Cueto and Switzer (2015)	-	1. Equally-weighted spread 2. Time-weighted spread 3. Effective spread 4. Realized spread 5. Intraday price impact 6. Daily price impact	72 firms (14 Chilean and 58 Brazilian)	In protecting the minority shareholders against highly concentrated firms, governance mechanisms play an important role in enhancing the liquidity effect.
6	Dimic et al. (2016)	-	Volatility indices, constructed by the Chicago Board Options Exchange and Bank of America Merrill Lynch (VIX and MOVE)	10 emerging countries	Global stock market uncertainty plays a significant role.
7	Hunjra et al. (2020)	Signalling theory	Amihud's (2002) illiquidity measure (ILLIQ),	114 firms	Ownership concentration, institutional ownership and earnings management significantly affect stock market liquidity.
8	Huu et al. (2020)	Agency theory	Roll's model	247 non-financial listed firms on the Ho Chi Minh Stock Exchange in Vietnam	Stocks in the market move together more when the firms' corporate governance improves.
9	Jihadi et al. (2021)	Signalling theory	Price book value (PBV)	22 firms listed on the Indonesia Stock Exchange	Liquidity is significant to firm value, whereby CSR plays an important role.
10	Lee and Chung (2015)	-	Amihud's measure	Firms in 20 emerging markets	The price impact of trading increases while bid-ask spread decreases with the percentage of shares held by foreign investors.
11	Leuz et al. (2010)	Capital market equilibrium approach	Proportion of firm free float that is held by U.S. investors	4,409 firms	Foreigners invest less in poorly governed firms.
12	Liu et al. (2015)	-	1. Return on assets (ROA) 2. Return on equity (ROE)	2,057 firms	Chinese independent directors play an important role in improving investment efficiency.
13	Morales et al. (2014)	-	GARCHX model	8,000 observations	Increases in global uncertainty generate an increase in the volatility of the stocks in Chile.
14	Ochenge et al. (2020)	-	Amihud's (2002) illiquidity ratio (ILLIQ)	48 listed sample stocks	Monetary policy changes, exchange rate fluctuations, and global risk aversion are found to significantly affect stock market liquidity.
15	Roy et al. (2022)	Social/reputational capital theory Information asymmetry theory	Annual intervals from daily trading data	3,237 non-financial firms	Firms that engage with education and healthcare projects have higher stock market liquidity.
16	Sabbaghi (2016)	-	-	-	A review on the importance of corporate governance in China has found that corporate governance affects firm performance and institutional investors.
17	Subramaniam et al. (2016)	Neo-institutional theory Agency theory Resource dependence theory Finance theory	1. Amihud's price impact 2. Effective spread 3. Turnover	194 Malaysian listed firms	The greater the level of CSR disclosures, the higher the liquidity, particularly in terms of the price impact.
18	Tang and Wang (2011)	-	Tradable turnover ratio (Turnover)	1,343 firms traded in Shenzhen Stock Exchange	The level of corporate governance is positively related to firm liquidity.
19	Vo (2016)	-	The total value of stocks traded over a year divided by the market value of the firm	1,876 firms listed on the Ho Chi Minh City stock exchange	Increased foreign investment in firms is not associated with higher liquidity as foreign investors adopt long-term buy and hold strategy.

## 4.2. Underpinning theories

To analyse stock market liquidity, the agency theory has been widely used to explain how ownership concentration, foreign intermediaries, corporate governance, and CSR, are connected to stock market liquidity. For instance, Al-Jaifi (2017) employed the agency theory to explain how managers react to information in order to mask their performance, which may impair stock market liquidity. Further, the signalling theory (Jihadi et al., 2021; Al-Jaifi, 2017); the resource dependence theory (Subramaniam et al., 2016); the institutional theory (Subramaniam et al., 2016); the management entrenchment theory (Amran & Ahmad, 2013); the alignment theory (Amran & Ahmad, 2013); the social/reputational capital theory (Roy et al., 2022); the information asymmetry theory (Roy et al., 2022); and the finance theory (Subramaniam et al., 2016) have been employed by empirical studies. Subramaniam et al. (2016) employed the resource dependence theory to explain the responsibility of larger boards in helping to align the interests of firms with the government by having politically-connected directors on the board to improve CSR disclosure credibility in Malaysia. Roy et al. (2022) employed the social/reputational capital theory to explain how CSR activities are connected to high stock market liquidity. They argued that firms that engage in

CSR activities would gain more social/reputational capital internationally, which may attract international investments.

## 5. DISCUSSION

This section discusses the outcomes or findings of the variables. From Table 3, it can be concluded that the level of ownership concentration greatly impacts stock market liquidity. This is because, when ownership concentration is high, there is a gap between the majority shareholders and minority shareholders, with the majority shareholders having absolute power in the firms. Therefore, strong corporate governance practices are needed in order to protect the interest of minority shareholders as well as foreign investors. This is evinced by Cueto and Switzer (2015), and consistent with Leuz et al. (2010), that corporate governance plays an important role in mitigating the agency problem. As it is not clear what is happening to the underlying liquidity of the stock market, investors need assurance that their investment can generate more returns as they also need to bear the risks. Therefore, information is vital for them in order to protect themselves against any opportunistic actions. Changes in monetary policy, exchange rate fluctuations, and global risk aversion can only make it worse for the investors.

**Table 3.** The relationship of variables

No.	Authors	Variables relationship	Outcome
1	Abbassi et al. (2021)	Ownership concentration, Corporate governance → Stock market	Institutional ownership, board size, board independence, and CEO duality have a positively significant impact, while managerial ownership has a significantly negative effect on stock market liquidity.
2	Al-Jaifi (2017)	Ownership concentration → Stock market	There is a significantly negative relationship between ownership concentration and stock market liquidity.
3	Al-Jaifi et al. (2017)	Corporate Governance → Stock market liquidity	There is a significantly positive association between corporate governance effectiveness and stock market liquidity.
4	Cueto and Switzer (2015)	Ownership concentration → Stock market liquidity	In protecting the minority shareholders against highly concentrated firms, governance mechanisms play an important role in enhancing the liquidity effect.
5	Dimic et al. (2016)	Financial market uncertainty, Macroeconomic factors → Stock-bond correlation	Global stock market uncertainty plays a significant role.
6	Hunjra et al. (2020)	Ownership concentration, Earning management → Stock market	Ownership concentration, institutional ownership, and earnings management significantly affect stock market liquidity.
7	Huu et al. (2020)	Corporate governance → Stock price synchronicity	Stocks in the market move together more when the firms' corporate governance improves.
8	Jihadi et al. (2021)	Liquidity → Stock market liquidity	Liquidity is significant to firm value, whereby CSR plays an important role.
9	Lee and Chung (2015)	Foreign investors → Stock market liquidity	The price impact of trading increases while bid-ask spread decreases with the percentage of shares held by foreign investors.
10	Leuz et al. (2010)	Corporate governance → Foreign investors	Foreigners invest less in poorly governed firms.
11	Liu et al. (2015)	Board independence → Firm performance	Chinese independent directors play an important role in improving investment efficiency.
12	Morales et al. (2014)	Foreign shocks → Bond and equity markets	Increases in global uncertainty generate an increase in the volatility of the stocks in Chile.
13	Ochenge et al. (2020)	Macroeconomic conditions → Stock market liquidity	Monetary policy changes, exchange rate fluctuations, and global risk aversion are found to significantly affect stock market liquidity.
14	Roy et al. (2022)	Corporate social responsibility → Stock market liquidity	Firms which engage with education and healthcare projects have higher stock market liquidity.
15	Sabbaghi (2016)	Firm performance, Institutional investors → Corporate governance	A review on the importance of corporate governance in China has found that corporate governance affects firm performance and institutional investors.
16	Subramaniam et al. (2016)	Corporate social responsibility → Stock market liquidity	The greater the level of CSR disclosures, the higher the liquidity, particularly in terms of the price impact.
17	Taechaubol (2017)	Corporate social responsibility → Stock market liquidity	There are less significantly negative abnormal returns after announcement for the ESG100 list.
18	Tang and Wang (2011)	Corporate governance → Stock market liquidity	The level of corporate governance is positively related to firm liquidity.
19	Vo (2016)	Foreign investors → Stock market liquidity	Increased foreign investment in firms is not associated with higher liquidity as foreign investors adopt long-term buy and hold strategy.



## 6. CONCLUSION

This paper reviews related studies on stock market liquidity in emerging countries. This review shows that several factors have a significant relationship with the liquidity of the stock market, such as ownership concentration, foreign intermediaries, corporate governance, CSR, monetary policy, and global risk aversion. Based on the reviews, researchers (Abbassi et al., 2021; Hunjra et al., 2020; Al-Jaifi, 2017; Cueto & Switzer, 2015) have found that ownership concentration has a negative impact on stock market liquidity because in a highly concentrated firm, the existence of information asymmetry is also high; therefore, impairing the liquidity of the stock market. From a foreign intermediary's perspective, it can be concluded that foreign investment may/may not affect the liquidity of the stock market in emerging countries. For example, Vo (2016) found foreign investors in Vietnam adopt a long-term buy and hold strategy; whereby the impact on the liquidity of the stock market may be negligible or none at all. This is because it takes time to have an impact on the stock market since for the stock market to be liquid, the stock should be bought or sold quickly and easily.

From a corporate governance perspective, it can be concluded that corporate governance plays an important role in ensuring the stock market becomes liquid, especially board independence. Abbassi et al. (2021) and Liu et al. (2015) found that the role of board independence affects stock market liquidity in emerging countries because the responsibility of the independent directors is to protect the interests of minority shareholders and other investors. Therefore, the number of independent directors on the board is crucial in emerging countries, considering that most firms in emerging countries are highly concentrated; thus,

in order to mitigate the agency problem, corporate governance practices must be strong. From a CSR perspective, even though the awareness level of CSR disclosures in emerging countries is not as high as in developed countries, it still has an impact on stock market liquidity in the emerging countries. Equality, diversity, education, and employee welfare are the common issues that firms always focus on. On the macro-economic level, it can be concluded that monetary policy changes and global risk aversion are two of the factors that may affect stock market liquidity, which may then affect the investors' investment decisions. Due to the uncertainty level in emerging countries' stock markets, investors are more cautious in making an investment decision to ensure they can gain high returns.

Although numerous studies have been conducted in developed countries on stock market liquidity, in emerging countries, especially in Southeast Asian countries, discussion on this matter is still scarce and there is also a period gap among the studies conducted. Another limitation of this paper is that the reviews are only conducted on four micro-environmental and two macro-economic factors that may affect stock market liquidity in emerging countries. Thus, this study encourages more researchers to study this area by including other factors, such as financial performance and political connections, which may have a connection to stock market liquidity in order to improve the current empirical findings. This study contributes to knowledge in the area of stock market liquidity. It is believed that this review may provide a better understanding of stock market liquidity in emerging countries and lays the foundation for future studies. Further, this study provides relevant information to promote stock market liquidity in emerging countries.

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