THE EFFECT OF CORPORATE GOVERNANCE'S IMPLEMENTATION ON 3 DIMENSIONS OF STOCK LIQUIDITY

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ABSTRACT

It is really crucial for companies to provide a good corporate governance (GCG) that can be accessed either by inside or outside investor to avoid information asymmetry between inside investor that has better information and outside investor with little operational information. By decreasing information asymmetry that occurs between the participants of stock market, this will reduce the cost of capital that should be borne by market dealer. Moreover, it will be profitable for liquidity provider or market dealer and improve the liquidity of the company shares. More liquid a stock, it will leads to more stock volume (depth) that will be traded and smaller the spreads. This study aims to investigate the effect of GCG's implementation on 3 dimensions of stock liquidity by using data obtained from 100 companies listed on Indonesian Stock Exchange which is include in the COMPASS 100's financial statement in 2012 and intraday stock data to determine information regarding the implementation of GCG toward stock liquidity. The results show that audit committee and audit quality has a significant relationship with the 3 dimension of stock liquidity while board of commissioners does not significantly affect the 3 dimension of stock liquidity, ie. spread, depth and DTRS.

Type of Paper: Empirical

Keywords: Audit Committee, Audit Quality, Board of Commissioners, Corporate Governance, Stock Liquidity.

1. Introduction

The business world is always in increasingly competitive era of competition. Success, viability and opportunities to grow for a company heavily influenced by the availability of funds and access to existing funding sources. Source of funds required by the company may come from internal financing and external financing company, but most sources of funding obtained by companies originating from the external environment of the company itself. One source of external funding for the company is the stock market. Capital markets provide ample opportunity for both companies and for investors to hold a mutually beneficial cooperation. Companies are given the opportunity to compete fairly in attracting investors to invest in their company, while investors are given an alternative investment to invest both short- and long-term.

But according to Verrecchia (2001) in the capital market mechanism market participants face agency problems are among investors who will sell or buy shares with the dealer stock or market maker. The market participants interact with each other in the capital markets in order to achieve the objective which is to buy or sell securities. Their activities mainly influenced by the information they receive, either directly (public statements) or indirectly (insider trading). Dealer or market maker as one of the participants in the capital markets have limited ability to perception that would come and face the potential loss from traders who informed because the dealer does not have superior information compared to well-informed traders. So the dealer or market maker requires information on corporate governance whose securities they trading.

Better implementation of corporate governance will leads to smaller information asymmetry that occurs between uninformed and informed traders, so that the transaction costs to be incurred are also getting smaller and give rise to higher stock liquidity. Studies that seek to test the effect of the application of corporate governance on the level of stock liquidity, among others, is the research conducted by Bacidore, *et al.* (2002). This research showed that companies listed on the NYSE has a higher stock liquidity than companies based outside the US. It is caused by the US government to apply strict controls on corporate governance based in countries other than the United States while the United States government does not provide strict protection to shareholders in the country.

While Brockman, et al. (2003) showed that, among the companies listed on the Stock Exchange of Hong Kong, which is based in Hong Kong has a smaller rate of spread and greater depth than companies based in China mainland. Moreover, Chung (2006) show that companies that are members of the American Depository Receipts which operates in the United States which has a protection mechanism for shareholders and the tighter high-yield leads to narrower spreads. The same thing also noted from Eleswarapu, et al. (2006) showed that firms in countries with better judicial efficiency, better accounting standards, and higher political stability has a higher liquidity. Gompers, et al. (2003) show that companies with poor governance structures has lower value because the rights of shareholders are not well protected that leads to smaller cash flow to shareholders.

Chung (2010) also states that companies with good corporate governance tend to have a high level of liquidity due to good governance improve financial and operational transparency, which in turn reduces information asymmetry between well informed and uninformed traders. It's also reducing information asymmetry that occurs between the traders with liquidity providers. Meanwhile Tang et al. (2011) stated that financial transparency, operational transparency, and disclosure of information is the most important element of corporate governance. Companies that do not embrace the practice of good corporate governance usually produces lower operational and financial transparency and lower level of disclosure. It will have implications on the information asymmetry that leads to lower stock liquidity.

Why liquidity is very important in the mechanism of the stock market compared to stock returns and risks? Handa, et al. (1996) gave the following statement about the importance of liquidity for investors, "Investors want three things from the markets: liquidity, liquidity, and liquidity". Although it is difficult to find a precise definition of the liquidity but according Hasbrouck et al. (1988) and Stoll (1978) liquidity is the ability to transact in large quantities in

a short time and low cost. Based on this concept Harris (2003) in his book "Trading and Exchanges: Market Microstructure for Practitioners", stating that the concept of liquidity has four dimensions: immediacy, width, depth, and resiliency. Immediacy dimension is speed or ease to conduct transactions in an amount and a certain price, the faster and easier shares traded, the more liquid the stock. While the second dimension is width. Width relates to the costs incurred for the transaction, smaller the costs will lead to more liquid the stocks. The third dimension is depth. Depth is the amount of orders to buy and sell in the capital market, the more volume between orders to buy and sell, the more easily the shares traded without affecting the stock that will be lead to more liquid the stocks. The fourth dimension is resiliency, this dimension relates to how fast the stock price can go back to previous levels if there is an imbalance of buy and sell transactions of shares in large quantities.

In essence previous studies that raised the topic of the effect of the application of *corporate governance* mechanisms to liquidity have been carried out abroad. However, research to examine the effect of corporate governance mechanism to stock liquidity, measured by spread, depth, and depth to relative bid-ask spread (DRS) has not been done in Indonesia.

With reference to the background research and the results of previous studies, the issues to be examined in this study are as follows: 1). Does good corporate governance mechanisms have an influence on spread?, 2). Does good corporate governance mechanisms have an influence on depth?, 3). Does good corporate governance mechanisms have an influence on depth to relative spread (DTRS)?

So the purpose of this study is to investigate: 1). The effect of good corporate governance mechanism on spreads, 2). The effect of good corporate governance mechanism on depth, 3). The effect of good corporate governance mechanism on depth to relative spread (DTRS).

Based on previous studies, this study sought to investigate the effect of the application of GCG mechanism to liquidity represented by spread, depth, and the ratio of depth to relative spread, thus hypotheses developed in this study are:

H1 : The application of *good corporate governance* mechanisms have an influence on the dimensions of the stock liquidity is *spread.*

H2 : The application of *good corporate governance* mechanisms have an influence on the dimensions of the stock liquidity is *depth.*

H3 : The application of *good corporate governance* mechanisms have an influence on the dimensions of the stock liquidity is *depth to relative spread.*
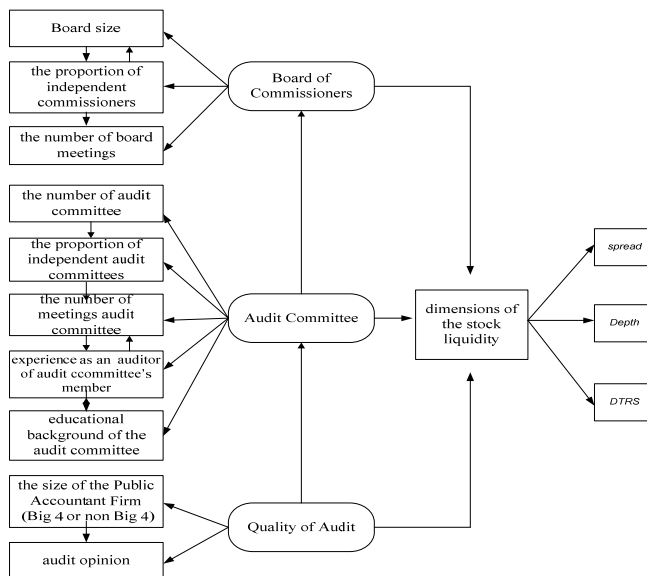

Figure 1. Research Model

2. Methodology

This study used a form of Structural Equation Model (SEM). Meanwhile for the measurement model in this study using Confirmatory Factor Analysis (CFA), which indicates a latent variable is measured by one or more variables observed. In this case the latent variables in this study is three-dimensional stock liquidity (represented by spread, depth, and depth to relative spread) and good corporate mechanism (represented by the Board of directors, audit committee, and audit quality).

2.1 Spread

According Ekaputra (2004), the bid-ask spread variable is a variable that is most often used to measure the level of stock liquidity. In this context the spread related to transaction costs required to buy or sell shares immediately. The smaller the value spread, meaning the more liquid stock. Instead the greater the spread value, the more illiquid stock. In general, for comparing the spread of the stock with other stocks more frequently using a relative spread value compared to the nominal spread, because spreads are relatively not contain currency unit that is easy to use to compare between good liquidity stocks in the market with the same currency unit or in the market with units that has different currency. Spread can be calculated using formulas 3.1 and denoted by RS.

$$Relative\ Spread_i = \frac{\sum_{d=1}^{N} \frac{ask_{i,t} - bid_{i,t}}{(ask_{i,t} + bid_{i,t})/2}}{N} \tag{3.1}$$

Where,
Relative Spread $_i$ = the average bid-ask spread relative to the company's stock i
A $_{i,t}$ = daily closing price of the best selling (ask) shares of the company i on day t
B $_{i,t}$ = daily closing price of the best buying (bid) shares of the company i on day t
N = number of trading transaction days

2.2 Depth

According to Harris (2003), depth has a different signal with a spread, a stock is said to have a high level of liquidity if it has a high depth. This means that more shares can be traded or more orders to buy or sell, the easier it shares traded without affecting the stock price, so it will be more liquid shares. Stocks that have a high degree of depth is also said to have a high liquidity because the stock is able to absorb higher transaction value compared to stocks that have a low level of depth. Depth can be calculated using formulas 3.2 and denoted by the TD.

$$Total\ Depth_i = \frac{\sum_{d=1}^{n}(ask\ volume_{i,t} + bid\ volume_t)}{n} \tag{3.2}$$

Where,
Total Depth $_i$ = The average total depth on the company's stock i
Ask volume $_{i,t}$ = volume at the best price (ask) shares of the company i at day t
Bid volume $_{i,t}$ = volume at the best purchase price (bid) shares of the company i at day t
N = number of trading transaction days

2.3 Depth to the Relative Spread

This ratio is useful to overcome any ambiguity (ambigous) of different signals between spreads with depth in determining the level of liquidity of a stock. According Ekaputra (2007) and Purwoto, et al. (2004), DRS is a ratio that measures the trade-off between the relative spread and the total depth is the ratio of the total depth of the relative spread. The smaller the value of DRS means that the reduction in depth greater than the decline in the relative *spread,* so the

lower the value, the more liquid DRS shares. In this study DRS can be calculated using formulas 3.3 and denoted by DRS.

$$\textit{Depth to the Relative Spread (DRS) }_i = \frac{\sum_{d=1}^{N}\frac{(\textit{ask depth}_{i,t} + \textit{bid depth}_{i,t})}{\textit{relative spread}_{i,t}}}{N} \quad (3.3)$$

Where,

Depth to the Relative Spread (DRS) $_i$ = The average *depth to relative spread* of firm i
Ask depth $_{i,t}$ = volume of the best selling price *(ask)* shares of the company i on day t
Bid depth $_{i,t}$ = Volume at the best buy price *(bid)* shares of the company i on day t
Relative Spread $_{i,t}$ = *spread* relative to the company's stock i on day t
N = number of trading transaction days

2.4 Good Corporate Governance (GCG)

Latent variables GCG mechanism represented by the Board of Commissioners, Audit Committee, and Quality of Audit. The Board of Commissioners measured by 3 indicators ie Board size, the proportion of independent commissioners, and the number of board meetings. Audit Committee measured by five indicator i.e. the number of audit committee, the proportion of independent audit committees, the number of meetings audit committee, audit committee members' experience working as an auditor, and educational background of the audit committee. While the third latent variable that is variable audit quality is represented by using dummy variables of the size of the Public Accountant Firm which conduct an audit of the company. If companies audited by Big 4 Auditing Firm then it is said that the company has high audit quality but if the company is audited by non-Big 4 then the company has lower audit quality. The last variable is audit opinion, measured by the quality audit opinion that also use the dummy 1 and 0. A value of 1 if the company get an opinion on the audit of "Fair without Exceptions ", and 0 if otherwise.

3. Result and Discussion

Testing is done by following the steps that apply in SEM by using the three-step test (Hair et al.,1995) represented by the overall model fit testing, measurement model fit, and the structural model fit.

Overall summary of the critical value of the overall suitability testing model can be seen from the summary in Table 1.

Table 1. Overall Model Fit Testing Result

Suitability Criteria Model	Matches Level Indicator	Model Estimation Results	Compatibility level Model
Chi-Square P	A small value P> 0.05	0000 P = 1:00	Good *(Good fit)*
RMSEA P *(close fit)*	RMSEA <0.08 P <0.05	0,000 0:00	Good *(Good fit)*
ECVI	Values smaller than and closer to the Saturated Model	M* = 0:36 S** = 0.61 I*** = 3:13	Good *(Good fit)*
AIC	Values smaller than and closer to the Saturated Model	M* = 36.00 S** = 182.00 I*** = 995.85	Good *(Good fit)*
CAIC	Values smaller than and closer to the Saturated Model	M* = 120.67 S** = 310.04 I*** = 995.85	Good *(Good fit)*
NFI	NFI> 0.90	1:00	Good *(Good fit)*
NNFI	NNFI> 90	1:09	Good *(Good fit)*

Suitability Criteria Model	Matches Level Indicator	Model Estimation Results	Compatibility level Model
CFI	CFI> 0.90	1:00	Good *(Good fit)*
IFI	IFI> 0.90	1:09	Good *(Good fit)*
RFI	RFI> 0.90	1:00	Good *(Good fit)*
RMR	Standardized RMR <0:05	0:04	Good *(Good fit)*
GFI	GFI> 0.90, *good fit;* 0.90 <GFI> 0.80, *marginal fit*	0.91	Good *(Good fit)*

By looking at the overall results of the estimation based on existing criteria, the overall obtained good values *(good fit).* So that the results of an analysis of the reliability of *the output* for testing the overall model, it can be concluded that the model is good *(good fit).*

3.1 Measurement Model Fit Testing Result

The level of validity and reliability of each construct of observed variables shown in Table 2.

Table 2. List of Validity and Reliability Model

Variable	Standardized Loading Factors	Errors	Reliability		Descriptions
			CR = 0.70	VE = 0.50	
KOMIS			0.90	0.75	Good Reliability
VAR 1	0.87	0.25			Good Validity
VAR 2	0.87	0.25			Good Validity
VAR 3	0.87	0.13			Good Validity
AUDIT			0.79	0.50	Good Reliability
VAR 4	0.96	0.08			Good Validity
VAR 5	0.57	0.68			Good Validity
VAR 6	0.50	0.75			Good Validity
VAR 7	0.89	0.22			Good Validity
VAR 8	0.25	0.94			Good Validity
KUADIT			0.83	0.70	Good Reliability
VAR 9	0.85	0.27			Good Validity
VAR 10	0.82	0.32			Good Validity
STOCK			0.90	0.76	Good Reliability
VAR 11	0.87	0.24			Good Validity
VAR 12	0.87	0.24			Good Validity
VAR 13	0.87	0.24			Good Validity

Based on data in Table 2 it can be concluded that from the *standard factor loading* of each variable observed greater than 0.70 then the validity of each variable is good. Meanwhile, if viewed from the *variance extracted* all variables observed were greater than 0:50, it can be said that each variable has a good level of reliability.

The analysis was carried out on the structural equation coefficients by specifying certain level of significance. Analysis of this structural model to test the hypothesis proposed in this study. For a significance level of 0.05, the value *t* of structural equation must be greater or equal to 1.96 or greater for practical purposes equal to 2 (Wijanto, 2008).

3.2 Structural Equation Model:

H1 : Board of commissioners has an influence on *spread.*
H2 : Audit committee hase an influence on *depth.*
H3 : Quality of Audit has an influence on DTRS.

Stock = 0.098 *Komis + 0.024 * Audit + 0.25 * Kuadit, Errorvar. = 0.014, R ^{2} = 0,12
(0.078)   (0.0096)   (0.057)   (0.0013)

Table 3. T-value for each hypothesis

Hypothesis	Path	Estimation	t-Value	Conclusion
1	KOMIS STOCK	0.10	1.26	not significant
2	AUDIT STOCK	0.19	2.53	significant
3	KUADIT STOCK	0.28	4.36	significant

From the equation above in the structural model can be seen all the coefficients have the value *t* is significant, except for the variable Board of Commissioners (KOMIS). This equation is an equation for the hypothesis 1, 2 and 3. It can be concluded that the hypothesis 2 and 3 are significantly proved. As for the H1 is not significantly proved.

To assess how well the coefficient of determination of structural equation, will be seen from the amount of R^2 (Wijanto, 2006). Lisrel test results that can be seen in Equation Reduced Form obtained the value of R ^{2} for structural equation in this study. The value of R ^{2} in this research model is 0.12, which means this model can only explain 12% of the change in liquidity latent variables.

While the results of the path diagram in Figure 2 below, shows the structural model generated from the output lisrel.
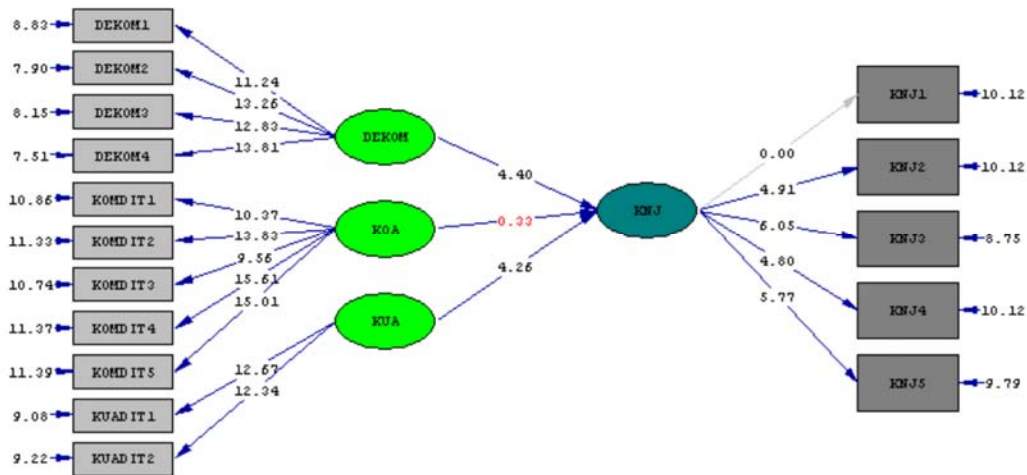

Figure 2. Path Diagram Structural Model

3.3 Analysis of Test Results

Based on structural equation model produced, confirming that the board of commissioners proven has a positive effect on the liquidity of the stock, but the effect is not significant. It means greater supervision by the board of commissioners over the operations of the company, will lead to higher liquidity. While the second hypothesis which examines the effect of the audit committee on liquidity of the stock shows the results proved has significant effect with a sign positive. This means that greater oversight is conducted by the audit committee on the company's operations, the higher liquidity. The third hypothesis that

evaluated the effects of a quality audit on stock liquidity result is also proved has a positive and significant influence. Means the greater the quality of audit, will lead to liquidity. These results reinforce the results of previous studies such as research Gompers et al. (2002), Beck et al. (2003), Black (2001), Durnev et al. (2003), Cheung et al. (2008), Chung et al. (2010), Irma (2010), and research Tang et al. (2011).

4. Conclusions And Recommendation

Hypothesis 1 is to test whether the board of directors affect the level of liquidity of the stock did not prove significantly, but seen in the output results *of structural equations* with positive estimation value means the commissioners has positive effect on stock liquidity. The better the *performance of* the board of commissioners, more high liquidity, although it's not proven significantly.

Hypothesis 2 that tests whether the audit committee affect the level of stock liquidity has significantly proven the better *performance* of the audit committee, the better stock liquidity.

Hypothesis 3 which test whether audit quality affect the level of stock liquidity proved to be significantly and look at the output results *of structural equations* with positive estimation value means a positive effect on audit quality stock liquidity. The more quality audit obtained by a company, the better the level of liquidity of the stock.

Based on these results are expected that in future studies to increase the number of samples and widens years of observation (firm *years)* and add a variable in *corporate governance* suspected of having an influence on the performance of firms. By entering these variables can be expected research results more in line with the facts on the ground.

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