Corporate disclosure, transparency and stock liquidity: Empirical estimation from the Ghana Stock Exchange

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Illiquidity remains one of the biggest challenges facing many African Securities Markets including Ghana. The paper sought to empirically document the extent to which corporate disclosure and transparency (TDS) reduces information asymmetry on the GSE with a residual effect of improving liquidity. Using a multidimensional liquidity approach of Liu (2006) and Lesmond et al. (1999) and the corporate disclosure and transparency (TDS) index of Aksu and Kosedag (2006), Liquidity on TDS was regressed whilst controlling for firm level properties for 27 listed companies from 2003-2008. The study revealed that TDS significantly reduces information asymmetry among both informed and uninformed investors as well as minimising the agency conflicts between managers and outside investors resulting in shortening the Liu (2006) turnover-adjusted number of non-trading days. The study further revealed that on the average the potential delay in executing an order is over 100 days among investors on the Ghana Stock Exchange (GSE). Firm characteristics such as financial leverage, return on equity and size are significant determinants of stock liquidity on the GSE

Key words: Corporate disclosure, transparency, liquidity, Ghana Stock Exchange, Ghana.

INTRODUCTION

Stock market establishment and functioning has been an integral part of the World Bank/IMF led economic and financial reforms in Africa in the last couple of decades. Though, the reasons for the high propensity of African governments to promote stock exchanges were both “technocratic” and “political” (Moss, 2003), the implementation of these policies has not been without setbacks. This is because developing countries are often faced with a myriad of problems, such as under-developed and illiquid stock markets, economic uncertainties, weak legal controls and investor protection, and frequent government intervention (Rabelo and Vasconcelos, 2002). At the core of these problems is low liquidity. According to Bencivenga and Smith (1991) with a liquid market, the initial investors do not lose access to their savings for the duration of the investment project because they can easily, quickly, and cheaply, sell their stake in the company. Investors will then be able to reduce the downside risk and costs of investing in projects that do not pay off for a long time (Yartey and Adjasi, 2007).

In this direction Yartey and Adjasi (2007) contends that African stock exchanges now face the challenge of integration and need better technical and institutional development to address the problem of low liquidity. The Ghana stock exchange has gained prominence at the world stage in the last decade including being the “Most Innovative African Stock Exchange for 2010” at the Africa investor (Ai) prestigious annual Index Series Awards held at the New York Stock Exchange (NYSE) on Friday, 17th September 2010 (www.gse.com.gh accessed 10th December, 2010); with Thomson Reuters announcing the commencement of feeds of real-time data from the Ghana Stock Exchange (GSE) thus increasing equity.

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Trading opportunities for its local and global clients (www.gse.com.gh accessed 10th December, 2010) and Bloomberg providing investors with GSE data. In addition, the All-Share Index, by the close of 2003 was the top performance of stock markets in the world with yield of 154.7 or 142.7% in dollar terms (GSE Fact Book, 2005).

In 1993, the GSE was the 6th best index performing emerging stock market, with a capital appreciation of 116%. In 1994 it was the best index performing stock market among all the emerging markets gaining 124.3% in its index level. These returns, while substantial, are subject to increased risk and volatility; they are significantly reduced by the increased illiquidity of trading stocks. There have been calls for the merging of African securities markets to improve liquidity. According to Claessens et al. (2002) merging stock exchanges (the extreme form of integration) results in volumes multiplying with potentially the same overhead costs. The intuition according to proponents of this concept is that a well integrated regional stock exchange in Africa will be a powerful source and driver of capital flows to Africa. Such an exchange will also, if well structured, solve the current problems of illiquidity, small size, and fragmentation (Yartey and Adjasi, 2007). Whilst this sounds good for now though overly ambitious, this paper posits that at the firm level, corporate disclosure could be packaged in a manner that meets the expectations of investors and offer some solution to the low liquidity problem on most African stock markets including Ghana. This is because there are serious informational and disclosure deficiencies for stocks on the continent (Yartey and Adjasi, 2007). Fashioning out good disclosure policy could be pursued alongside integration of the African capital markets. This is because corporate disclosure is a potentially important means of communication between management and outside investors (Hassan et al., 2009).

Though corporate governance is gradually taking root in Africa and is considered as a part of the larger economic context in which businesses operate, empirically the relationship between corporate disclosure and stock liquidity remains under researched. Demand for corporate disclosure can arise from the information asymmetry problem and agency conflicts between management and outside investors (Healy and Palepu, 2001). Corporate governance grants management right to privacy but corporate disclosure and transparency grants investors and outsiders' right to information. The theoretical foundation linking corporate disclosure to liquidity is first provided by Diamond and Verrecchia (1991) and supported by Kim and Verrecchia (1994). They argue that voluntary disclosure reduces information asymmetries among informed and uninformed investors. Moreover, Leuz and Verrecchia (2000) and Healy et al. (1999) find that informative disclosure reduces the bid-ask spread. Corporate disclosure can mitigate the adverse selection problem and increase market liquidity by levelling the playing field among investors (Verrecchia, 2001). Welker (1995) documents a significant negative relationship between analysts' ratings of firms' disclosures and bid-ask spreads. Healy et al. (1999) find that firms with increased analyst ratings of disclosure had significantly higher bid-ask spreads than their industries prior to the disclosure change. Leuz and Verrecchia (2000) examining bid-ask spreads for firms listed on the Neuer Market which has higher disclosure requirements document that these firms have lower bid-ask spreads than firms listed on the Frankfurt Exchange. Earlier, Akerlof (1970) shows that information asymmetry problems lead to the agency conflicts between managers and outside investors which consequently decrease the volume and number of transactions in capital market. Corporate disclosure could then provide an important bridge between corporate managers and investors thus improving the number and volume of transaction on the capital markets.

The nature and stage of the stock market could impact the direction of the relationship between corporate disclosure and stock liquidity. Using emerging market data, Gana and Chemli (2008) find that stock liquidity decreases with the level of disclosed information. Haddad et al. (2009) provide a contrasting evidence by reporting a positive relationship between stock liquidity and disclosure level (Matoussi et al., 2004). Osei (1998) tested the efficiency of the Ghana Stock Exchange with the random walk hypothesis relates that the GSE is not efficient and questioned to what extent do companies divulge enough information for investors compared with those of the industrialized nations?. He further questioned whether traders devote enough time and resources to gather investment information and to what extent can local investors analyze investment information? The study seeks to also answer these questions by examining the level of corporate disclosure on the Ghana stock exchange and what impact it may have on stock liquidity.

THEORETICAL FOUNDATION AND LITERATURE REVIEW

The theoretical foundation linking corporate disclosure to liquidity is first provided by Diamond and Verrecchia (1991) and supported by Kim and Verrecchia (1994). They argue that voluntary disclosure reduces information asymmetries among informed and uninformed investors. Diamond and Verrecchia (1991) economic theory of corporate disclosure predicts that greater disclosure lowers the information asymmetry. Bushman and Smith (2001) disclose that accounting disclosure reduces the information asymmetry between informed and uninformed investors which according to Kim and Verrecchia (1994) would otherwise lead to market inefficiencies and the mispricing of firms' stocks. Akerlof (1970) contends that managers as agents, have better information on the financial standings of the corporation than the investor,
as a principal resulting in asymmetrical information between the parties.. This information gap leads to adverse selection and moral hazard problems. Adverse selection both in market makers (Kyle 1985) and in order driven market (Handa et al., 2003) induces a high cost of transaction. Market makers establish a large spread to minimize potential losses due to informed trading and simultaneously to maximize potential gains due to uninformed trading. When a firm commits to increased levels of disclosure the potential for information asymmetries to arise between the management of the firm and its shareholders or among buyers and sellers of the firm’s shares diminishes (Bailey et al., 2006). Corporate disclosure of information reduces the information gap that exists between investors leading to a reduction in the information asymmetry component of the cost of capital (Zhang, 2001). Lev (1988) contends that Lower information asymmetry would also reinforce the liquidity of the market underscoring the important relationship between information asymmetry and stock market liquidity. According to Diamond (1985) corporate disclosure is then key to improving market conditions including homogenize investors’ opinions and reduce speculative positions with the net effect of reducing information asymmetry, and consequently to improve stock liquidity and to reduce capital cost. Increased disclosure reduces information asymmetry and thus reduces transaction costs in secondary markets, resulting in increased share liquidity. Trading volume reactions reflect differences among individual investors in the price formation process, where the differences stem from information asymmetry that arises when investors acquire private information and the quality (precision) of the private information is not uniform (Diamond and Verrecchia, 1991). Brennan and Subrahmanyam (1995) argue that greater information asymmetry reduces stock liquidity. Leuz and Verrecchia (2001) show that a commitment to increased disclosure lowers bid-asked spreads (see also (Botosan and Plumlee, 2002) and increases volume. Amihud and Mendelson (1986) earlier show that higher information asymmetry would result in wider bid-ask spreads and higher cost of capital because investors would require a higher return to compensate them for bearing higher information risks. Kim and Verrecchia (1994) relate that high levels of disclosure are also more likely to attract investors, who are more confident that stock transactions occur at “fair” prices, and thereby increase the liquidity in the firm’s stock. Healy et al. (1999) document that firms with greater disclosure have lower bid-ask spreads, a measure of the cost related to information asymmetry (see also Welker, 1995). Espinosa et al. (2008) also document a positive relationship between stock liquidity and disclosure level. Haddad et al. (2009) also document a negative relationship between spread and disclosure level. Using emerging market data, Gana and Chemli (2008) find a negative relationship reporting that stock liquidity decreases with the level of disclosed information whilst Haddad et al. (2009) find a positive relationship between stock liquidity and disclosure level.

MODEL CHOICE, SPECIFICATION AND DATA

Estimating liquidity has not been easy (Lesmond, 2005) partly due to the transactional characteristics or properties of the markets including tightness, depth, and resiliency which makes liquidity a slippery and elusive concept (Kyle, 1985). Empirically, Amihud (2002) provided an index for measuring illiquidity risk using just average of stock spread a measure of trading cost with Datar et al. (1998) capturing the trading quantity dimension used stock turnover. Matoussi et al. (2004) also adopted one dimensional measure of liquidity consisting of spread and depth with Liu (2006) expanding this approach using a multidimensional approach which embodies the turnover-adjusted number of non trading days capturing the three dimensions of liquidity namely; potential delay for executing an order, cost and quantity of transaction. This is consistent with empirics given that liquidity is generally described as the ability to trade large quantities quickly at low cost with little price impact. This highlights four dimensions of liquidity - trading quantity, trading speed, trading cost, and price impact (Liu, 2006). The Liu’s (2006) measure is the standardized turnover adjusted number of zero daily trading volumes over the prior x months (x = 1; 6; 12) and is specified in days as:

\[
LIU = \frac{\text{NOZV} + \frac{1}{\text{TURN}}}{\text{DEFLATOR}} \times \frac{252}{\text{NOTD}}
\] (1)

where \( \text{NOZV} \) is a number of zero-volume trading days and \( \text{NOTD} \) is the total number of trading days in the market over the year.. Because this number can vary from one year to another, the factor \( \frac{252}{\text{NOTD}} \) is used to standardize it to 252 days (average number of trading days in the year in Ghana) and to make this measure comparable over time a deflator is chosen such that:

\[
\frac{1}{\text{TURN}} \times \left(1 + \frac{\text{DEFLATOR}}{\text{NOTD}}\right)
\] (2)

The Liu’s measure is the standardized turnover adjusted number of zero daily trading volumes which is supposed to be more appropriate to assess liquidity risk than average spread and illiquidity ratio of Amihud (2002) when sample include stocks with high trading activity and others with low trading activity. Thus, the study did not use the spread of Amihud (2002) a measure of trading cost particularly also given the non-availability of the variable in Ghana. Lesmond (2005) contends that empirically, liquidity definitions span direct trading costs
(tightness), measured by the bid-ask spread (quoted or
effective) to indirect trading costs (depth and resiliency)
measured by price impact. But the lack of obtainable bid–
ask quotes or intraday trading information makes the use
of proxies standard procedure in estimating emerging
market liquidity (Lesmond, 2005) including Ghana.

The question remains which liquidity measure best
captures the unique characteristics (illiquidity) of emerg-
ing markets. Lesmond (2005) contends that the liquidity
augmented model of Lesmond et al (1999) (also known as
LOT) best suits emerging markets because the model
is predicated only on daily prices, and as such, estimates
for any market can be easily calculated. This model is
based on the Amihud (2002) price impact measure
defined as the absolute value of stock returns scaled by
dollar volume in assessing the relationship between
liquidity and exante returns. Lesmond et al. (1999) then
proposed an indirect method for estimating liquidity
based on the occurrence of zero returns. The significance
of their model is predicated on the fact that there is a
comprehensive estimate of liquidity by implicitly including
not only the spread, but also commission costs, a portion
of the expected price impact costs, and possible oppor-
tunity costs of informed trade. Thus, the paper in addition
to Liu (2006) liquidity measure also adopts the LOT
model due to it applicability to emerging markets and
resilience over the other earlier models (see Lesmond,
2005). The LOT uses only daily security returns to
endogenously estimate firm-level liquidity costs positing
that if transaction costs inhibit more informed investors
from trading, then more zero returns will be observed
because no new information, on average, has been
incorporated into the price and therefore the higher the
level of transaction costs, the more zero returns will be
observed (Lesmond, 2005). Given the non-availability of
bid-ask spread on the GSE, the LOT model is also
adopted as it gives a holistic measure. The LOT estimates
liquidity by considering the informed trader’s
reservation price, including all relevant costs bearing on
the informed trader’s decision to trade as well as the
explicit costs, such as taxes, fees, and commissions, and
the implicit bid–ask spread, expected price impact, and
potential opportunity costs of delayed or failed trades
(Lesmond et al., 2004). The Lesmond et al. (1999) is
derived from the common market model regression of the
return on firm i and time t, , on the return of a market
index, , given as:

\[ R_{it} = B_i + \epsilon_{it} = \epsilon_{it} \]  

It is assumed here that the stock’s return is generated by
price responses to market-wide and new firm-specific
information through the terms , and respectively
following Amihud and Mendelson (1986) demonstration
that actual returns require a liquidity premium
over the desired return.

In addition to the Liu (2006) and Lesmond et al. (2004)
liquidity measure, the study also employed the market
turnover (Datar et al., 1998) a measure of trading quantity
and to capture the trading speed dimension of liquidity of
shares on the Ghana Stock Exchange.

Corporate disclosure index follows the S&P as used by
Aksu and Kosedag (2006) after adjusting the index for
non-applicable items estimated as:

\[ TDS = \sum_j \sum_k \frac{S_{jk}}{TOTS} \]  

Where \( j \) is the attribute category subscript, \( j = 1, 2, 3, k \) =
the attribute subscript, \( k = 1, \ldots, 109, S_{jk} \) = the number of
info items disclosed (answered as “1”) by the firm in each
category, and \( TOTS \) = the total maximum possible “1”
answers for each firm. Their disclosure index is adjusted
to reflect the Ghanaian corporate environment and the
requirement of the Ghana National Accounting Standard
which just the wholesale adoption of the then IAS.

Given these two important variables and the precedin-
g variables, our major econometric specification follows the
functional model proposed by Botosan (1997) and also
used by Hail (2002) and Francis et al. (2005) in relating
TDS to firm level variables:

\[ LIQUIDITY = f(TDIndexControlVariables, \mu_i) \]  

\[ \mu_{it} = \mu_i + \nu_{it} \]  

where \( \mu_i \) is time-invariant and accounts for any
unobservable individual firm specific effect that is not
included in the regression model. The term \( \nu_{it} \)
represents the remaining disturbance, and varies with the
individual firms and time.

Therefore the specific regression model is derived as:

\[ LIQUIDITY = \alpha + \beta TDS + \delta FINLEV + \gamma ROE + \lambda FSIZE + \mu OIV + \xi ROA + \zeta TOBIN'SQ + \omega MTBV + \beta RISK + \epsilon_i \]  

\[ LIQUIDITY \] is described as well as \( TDS \). \( FINLEV \) is
Financial leverage measured as the ratio of total debts to
total assets (both current liabilities and long term
debt/total assets), \( ROE \) is return on shareholders
invested capital, \( FSIZE \) is measured by the natural
logarithm of total assets, \( ROA \) is return on share
holders equity to book value of equity at the
financial year-end, \( ROA \) is measured as earnings before
interest, taxes, depreciation, and amortization less interest, taxes, and common dividends scaled by net assets. \( \text{DIV} \) is the annualised dividend yield and \( \text{RISK} \) is a measure of volatility in earnings. Data was derived from the GSE FactBook for the various years especially market based variables. Contact was made with the GSE library for the annual reports and financial statements of the listed companies for the various years. Missing figures were filled by specifically contacting the respective firms.

**DISCUSSION OF RESULTS**

In Table 1, the descriptive summary statistics is presented. All the four liquidity measures as well as the independent variables are presented. Our main liquidity measure (Liu, 2006) records average standard turnover adjusted zero trading days of over 100 days (130.6013) out of 252 trading days in a year with the minimum being ten and the maximum being 252. On the average, investors’ waiting period in a year is more than hundred days, though not surprising, it is quite high. But industry classification and dynamics reveal more active (few standard turnover adjusted number of zero trading days) trading stock in the financial services sector or industry of the Ghanaian economy compared to other industries and reveals concentration of investors’ attention in this industry. Perhaps to reflect the active nature of the financial services industry, the Ghana Stock Exchange (GSE) has introduced two indices, namely the GSE Composite Index (GSE-CI) and the GSE Financial Stocks Index (GSE-FSI) with GSE Financial Stocks Index (GSE-FSI) for stocks from the financial sector including banking and insurance sector stocks. Though the automated trading and settlement system was introduced to improve the level of stock liquidity and overall efficiency, it has not impacted the stocks of other industries broadly defined to include banking and insurance companies. Until recently when GSE adopted the continuous auction trading system, trading floors took place three times a week; Monday, Wednesday and Friday with pre-opening hours from 09hrs-10 hours and the market opens for continuous trading: 10.00 hours to 15.00 hours (GMT). The standard deviation of 93.5404 shows that the sample includes high and low frequently traded stocks.

Lesmond et al. (1999) zero returns liquidity measure records an average of 0.7731 which is quite close to 1 indicating much illiquidity with the maximum being 1 and the minimum being 0.07143. This alludes to the fact that the number of zeros are very persistent. Consistent with the Liu (2006) measure, the Lesmond et al. (1999) suggests some stocks do not experience any transaction at all in a year. Additionally, market capitalisation and value of shares traded all normalised by GDP being used as alternate liquidity measures show average of 0.1216 for market capitalisation and 0.0048 for value of shares traded. Corporate disclosure and transparency scores average of 0.4877 a little below the average of the items to be scored. Corporate disclosure and transparency is low among firms on the GSE and effort must be made to improve the level of corporate transparency among firms on the GSE. The maximum disclosure and transparency index registers 0.6889 with the minimum being 0.3222. For the other explanatory variables, financial leverage registers overall mean of 0.9015 suggesting high indebtedness, overall mean return on investors’ fund (ROE) earned 0.2327 with overall earning power (ROA) recording overall mean of 0.0667 , MTBV records average of 2.0989, firm size registers overall mean of 10.0155 , dividend yield records overall average mean of 0.0455. Average Tobin’s Q registers 0.1738 with risk measuring 0.1376 (Table 2).

The surge on the demand for corporate disclosure
Table 2. Regression results.

<table>
<thead>
<tr>
<th></th>
<th>LIU</th>
<th>LESMOND</th>
<th>TURNOVER</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDS</td>
<td>-286.5218 (3.82)***</td>
<td>-0.0407 (0.27)</td>
<td>-0.0207 (0.81)</td>
<td>-0.0006 (0.30)</td>
</tr>
<tr>
<td>FINLEV</td>
<td>8.4503 (1.13)</td>
<td>0.0086 (0.58)</td>
<td>0.0022 (0.86)</td>
<td>0.0002 (1.14)</td>
</tr>
<tr>
<td>ROE</td>
<td>-49.4159 (1.75)*</td>
<td>-0.0817 (1.46)</td>
<td>-0.0011 (0.12)</td>
<td>-0.0009 (1.27)</td>
</tr>
<tr>
<td>MTBV</td>
<td>7.9885 (2.98)**</td>
<td>0.0023 (0.43)</td>
<td>-0.0001 (0.06)</td>
<td>-0.0001 (1.42)</td>
</tr>
<tr>
<td>SIZE</td>
<td>-2.5328 (1.21)</td>
<td>0.0023 (0.43)</td>
<td>0.0001 (0.15)</td>
<td>-0.0001 (0.85)</td>
</tr>
<tr>
<td>DIVIDEND</td>
<td>11.5819 (0.15)</td>
<td>0.0429 (0.29)</td>
<td>0.0028 (0.11)</td>
<td>-0.0019 (0.97)</td>
</tr>
<tr>
<td>TOBIN'SQ</td>
<td>55.0428 (1.62)*</td>
<td>-0.1444 (2.01)*</td>
<td>-0.0016 (0.13)</td>
<td>-0.0007 (0.86)</td>
</tr>
<tr>
<td>ROA</td>
<td>131.4732 (1.38)</td>
<td>0.2279 (1.20)</td>
<td>0.0038 (0.12)</td>
<td>-0.0026 (1.08)</td>
</tr>
<tr>
<td>RISK</td>
<td>-19.2657 (0.44)</td>
<td>0.1379 (1.57)*</td>
<td>-0.0051 (0.34)</td>
<td>0.0009 (0.77)</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>267.2326 (6.15)***</td>
<td>0.7708 (8.91)***</td>
<td>0.1296 (8.71)***</td>
<td>0.0061 (5.47)***</td>
</tr>
</tbody>
</table>

Obs. 155 155 155 155
Parms 9 9 9 9
RMSE 83.16491 0.1654 0.0284 0.0021
R² 0.1992 0.0703 0.0111 0.0625
Chi2 38.56 11.72 1.75 10.34
P 0.0000 0.2295 0.9949 0.3239

Notes: All regressions include a constant. T-statistics are in parentheses. ***, **, * means significant at 1, 5 and 10% level of significance.

The significance of the findings can be understood in the fact that greater information asymmetry reduces stock liquidity (see Brennan and Subrahmanyam (1995). The study further observes a negative but statistically insignificant relationship between corporate disclosure and other measures of stock liquidity. A 1% increase in corporate disclosure and transparency narrows the Lesmond et al. (1999) zero day returns by 0.0407 though its statistically insignificant at conventional levels.

The use of debt according to the agency costs hypothesis may help mitigate agency costs and affect firm value (see Jensen and Meckling, 1976) and have implications for firm value and performance (Heinkel 1982) but Fama and French (1998) argue that excessive use of debt creates agency problems among shareholders and creditors that could result in a negative relationship between leverage and profitability. The findings confirm the fact that excessive use of debt increases Liu (2006) standard turnover adjusted zero trading days. This implies, the use of debt creates further agency problem between shareholders and creditors (Fama and French, 1998) thereby increasing the potential delay (days) in executing an order on the GSE. This is not surprising given that the GSE has not achieved its core objective of encouraging the use of equity instead of debt (see Aboagye, 1996; Abor, 2005). Many firms on the GSE still maintain close relationship with banks in the country and often resort to more of short term borrowing. The study further reports that the use of debt increases the zero returns days developed by Lesmond et al (1999), the financial leverage pushes the annualised zero returns further close to 1.

Return on shareholders equity significantly reduces Liu (2006) standard turnover adjusted zero trading days.
Firms posting good results to shareholders' fund would experience lower standard turnover adjusted non trading days than firms reporting losses. Profitable firms would experience intensity of trading activities than firms in the opposite of the coin. Though, this is statistically significant only in the case of Liu (2006) measure of liquidity, the same results is reported for the other measures of liquidity suggesting the same direction of impact except for the fact that the strength of economic relationship is not sensitive to the measurement of liquidity. Market to book value ratio positively impacts Liu (2006) liquidity measure and is economically significant though is positive also for Lesmond et al. (1999) liquidity measure but statistically insignificant. But market to book value ratio negatively impacts market capitalisation and stock turnover though insignificant in all cases. Size of the firm is irrelevant in explaining stock liquidity on the GSE regardless of the indices of liquidity measure. Perhaps investors consider other factors in their investment decisions than merely size or how big the company is.

Dividend payment widens the Liu (2006) standard turnover adjusted zero trading days as well as Lesmond et al. (1999) zero return liquidity though they are not economically significant at conventional levels. Dividend negatively influences market capitalisation and value of shares traded normalised by GDP though statistically insignificant at conventional levels. Investment opportunity is statistically significant at conventional levels but rather widens Liu (2006) standard turnover adjusted zero trading days but narrows Lesmond et al. (1999) zero return liquidity at economically significant levels. Investment opportunities further impacts negatively market capitalisation and stock turnover though not economically significant. Profitability is not a key factor in investors' decision making unlike return on equity. Investors on the GSE prefer ROE to ROA as ROE is a direct measure of return on shareholders' fund. Risk, a measure of volatility in earnings statistically and significantly narrows Liu (2006) standard turnover adjusted zero trading days but rather widens Lesmond et al. (1999) zero return liquidity though statistically insignificant at conventional levels.

**Conclusions and implications**

Stock markets provide important role for the economy and it has been a part of the several reforms led principally by the World Bank/IMF. But African stocks and Ghana for that matter is beset with problems including illiquidity. Several proposals have been put forward to improve the level of market liquidity in Africa including merging African securities markets but little evidence exist on how corporate disclosure policy could reduce market illiquidity. Verrecchia (2001) laments the paucity of evidence linking disclosure to market Liquidity (see also Callahan et al.,1997). Yartey and Adjası (2007) contend that there are serious informational and disclosure deficiencies for other stocks in African securities markets. This study fills this gap by addressing the extent of accounting information disclosure and its impact on stock liquidity. Few studies if any on the GSE have ascertained the impact of corporate disclosure, transparency on stock liquidity. This notwithstanding, estimating liquidity in itself has not been easy (Lesmond, 2005) especially the applicability of existing liquidity models to emerging markets and developing countries due to lack of bid-ask spread on African securities markets. Applying different measures of liquidity including Liu (2006) turnover-adjusted number of non trading day which measures the potential delay for executing an order, cost and quantity of transaction and Lesmond et al. (1999) indirect method for estimating liquidity based on the occurrence of zero returns whilst adapting corporate disclosure index of S&P as used by Aksu and Kosedag (2006), I stand to make concrete contribution to extant literature from emerging country perspective. The study spans the period of 6 years from 2003-2008 for 27 listed companies on the GSE. Our main liquidity measure (Liu, 2006) records average standard turnover adjusted zero trading days of over 100 days (130.6013) out of 252 trading days in a year with the minimum being ten and the maximum being 252. On the average, investors' waiting period in a year is more than hundred days, though not surprising, it is quite high. This is corroborated by Lesmond et al (1999) zero returns liquidity measure which records average of 0.7731 which is quite close to 1 indicating much illiquidity with the maximum being 1 and the minimum being 0.07143. We empirically document that corporate disclosure and transparency statistically significantly reduces the Liu (2006) turnover-adjusted number of non trading days. Corporate disclosure and transparency significantly reduces information asymmetry on the GSE and improves liquidity among stock on the GSE. Thus, an increased corporate disclosure and transparency reduces significantly the potential delay in executing an order on the Ghana Stock Exchange (GSE). I further observe a negative but statistically insignificant relationship between corporate disclosure and other measures of stock liquidity. A 1% increase in corporate disclosure and transparency narrows the Lesmond et al. (1999) zero day returns by 0.0407 though it's statistically insignificant at conventional levels. The study confirmed that the excessive use of debt increases Liu (2006) standard turnover adjusted zero trading days implying the use of debts creates further agency problem between shareholders and creditors consistent with Fama and French (1998) thereby increasing the potential delay (in days) of executing an order on the GSE. Returns on shareholders equity significantly reduces Liu (2006) standard turnover adjusted zero trading days whilst dividend payment widens the Liu (2006) standard turnover adjusted zero trading days as well as Lesmond et al. (1999) zero return liquidity though they are not economically significant. There are significant implications for
both corporate managers and investors. The level of corporate disclosure and transparency is low and corporate managers must take advantage of the adoption of the IFRS in order to increase the level of information disclosure in a timely manner. Frequent disclosure of relevant information could be another means of increasing the intensity of stock activity on the GSE. This is because the increasing sophistication of investors is such that they will discount stocks of companies with low disclosure. Recent development on the GSE is such that firms must make information disclosure a top priority in order to take advantage of globalisation since now with Bloomberg and Thomson Reuters providing real-time information on firms listed on the GSE are open to foreign investors who often shy away from stocks in developing countries due to the fact that they are informationally disadvantaged.

REFERENCES