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**THE EFFECT OF ACCOUNTING DISCLOSURE QUALITY AND  
INFORMATION ASYMMETRY ON THE STOCK MARKET ACTIVITY -  
AN APPLIED STUDY ON LISTED COMPANIES IN THE EGYPTIAN  
STOCK MARKET**

**Abstract:**

The research investigated the impact of accounting disclosure quality and information asymmetry on the Egyptian stock market activity. The research provided some insights for the efficiency of the Egyptian stock market and how accounting disclosures play an active role in certain circumstances leading to reducing the informational gap between investors and management and enhancing the responsiveness to information in terms of increase in stock prices, transactions volume and transactions value. Data has been collected for companies listed in the Egyptian stock market for the period from 2002 through 2014. Research sample comprised of 60 companies which results in 780 observations for the research. I found that there are significant association between both accounting disclosure quality and information asymmetry and the stock market activity.

**Keywords:**

accounting disclosure quality

**JEL Classification:** E44

**Introduction:**

The Egyptian stock market is one of the emerging capital markets in which accounting disclosures play an important role in achieving efficiency in capital market in terms of fair prices for stocks, low information asymmetry and increase in transactions volume and value.

Accounting disclosure is one of the important topics that have received huge attention in recent years. Not only many accounting researches investigated this topic, but also many academics, professional and governmental bodies have issued guidelines and recommendations in this regard.

The recent financial crises resulted in a growing emphasis on accounting disclosures in the past few decades. Many researchers attributed these crises to the lack of transparency and full disclosures of financial and non financial information leading to a loss of confidence in financial reports among investors and market participants. This creates an increasing demand for accounting

disclosures. The needs for new information have emerged due to the concern of corporate governance and internal control. This necessitates the development of accounting disclosures to meet these new needs that resulted from changes in the investment and market environment.

Information asymmetry exists in stock markets when corporate management deliberately conceals specific information from investors in order to use this information in achieving abnormal returns from their stock ownership. Alternatively, management may hide this specific information because the disclosure of such information may create a competitive disadvantage to the firm, as competitors may use such information to alter their production plans and investment decisions. Information asymmetry also exists when one group of investors (informed investors) processes different information about the firm that is not available for other investors (uninformed investors).

Different theories have been used to explain managerial behavior when making accounting disclosure decisions, namely: optimal contracts theory, opportunistic behavior theory, and information prospective theory.

Many recent accounting studies have examined the relationship between accounting disclosure quality and information asymmetry and stock market activity. They concluded that the higher the quality of accounting disclosure, the lower the degree of information asymmetry, the higher the responsiveness of stock prices to such disclosures, and the more efficient the capital market in reaching equilibrium prices.

**Research problem:**

Discrepancy exists among prior studies concerning the impact of accounting disclosure quality on the activity of stock market. Although many previous studies (e.g. Gelb and Zarowin, 2002; Ferrell, 2007; Haggard et al., 2008; Wang and Chang, 2008; Goto et al., 2009; Hussainey and Mouselli, 2010; Dima et al. 2013) found a positive association between the quality of accounting disclosure and stock prices and returns, Sadeghzadeh

and Karimi, 2010; Mugaloglu and Erdag, 2011 found a negative association in some other years. Further, Mugaloglu and Erdag, 2011 found no significant association between accounting disclosures quality and changes in stock returns and consequently increases the degree of uncertainty.

Therefore, the researcher is attempting to examine this relationship in the Egyptian settings. This is of crucial importance because most prior studies examined the impact of disclosure quality on stock prices or returns only without taking into consideration the impact of information asymmetry on the activity of the stock market. Based on the above mentioned discussion, the research problem can be addressed by the following questions:

1. What is the impact of accounting disclosure quality on the stock market activity with regard to listed companies in the Egyptian stock market?
2. What is the impact of information asymmetry on the stock market activity with regard to listed companies in the Egyptian stock market?
3. What are the effects of both accounting disclosure quality and information asymmetry on the stock market activity with regard to listed companies in the Egyptian stock market?

### **Research Objective:**

The research objective is to investigate the impact of accounting disclosure quality and information asymmetry on the Egyptian stock market activity. Prior studies focused on studying the impact of either the accounting disclosure quality or the information asymmetry (but not both) on stock prices or returns. Therefore, this research contributes to prior studies by studying the impact of both (accounting disclosure quality and information asymmetry) on the stock market activity.

Hence, this research will provide some insights about the efficiency of the Egyptian stock market and how accounting disclosure may play an active role in reducing the informational gap between investors and management leading to enhancing the responsiveness to information by capital market participant.

### **Literature Review and Hypothesis Development:**

Prior studies can be classified into three categories as follows:

**First: The effect of disclosure quality on the stock market activity.** Many previous studies (e.g. Gelb and Zarowin, 2002; Ferrell, 2007; Haggard et al., 2008; Wang and Chang, 2008; Goto et al., 2009; Hussainey and Mouselli, 2010; Dima et al. 2013) investigated the effect of disclosure quality on the stock market activity, all concluded that there is a significant positive association between disclosure quality and the stock market activity. While the study of (Mugaloglu and Erdag, 2011) founds a non-significant association between disclosure quality and the stock market activity. While the study of (Sadeghzadeh and Karimi, 2010) found a significant negative association between disclosure quality and the stock market activity. Also, Gelb and Zarowin, 2002 found that greater disclosures are associated with stock prices that are more informative about future

earnings (i.e., higher future ERC). These results provide empirical support for the widely held, but empirically undocumented, belief that greater disclosures provide information benefits to investors. (Ferrell, 2007) found that mandatory disclosure is associated with both a dramatic reduction in the volatility of OTC stock returns and OTC stocks enjoying positive abnormal returns. (Haggard et al., 2008) found a negative relation between disclosure and stock price synchronicity (co-movement) as measured by the R<sup>2</sup> from asset pricing model regressions. These results indicate that a higher level of disclosure negatively impacts stock price co-movement, consistent with the notion that disclosure increases the amount of firm-specific information for returns. This finding is consistent with Vekilov's (2006) information markets model and Jin and Myers' (2006) division of risk model. Wang and Chang, 2008 found that firms with high levels of information disclosure have a higher association between accounting earnings and stock market price than firms with low levels of information disclosure. In addition, the results provide evidence that there is a positively significant relationship between book value and stock price as well as between earnings per share and stock prices. (Goto et al., 2009) found significant shifts in the time-series properties of stock returns for firms that undergo large changes in disclosure environments, such as those cross-listing on the NYSE/AMEX/NASDAQ and those from less-developed/emerging markets and code-law countries. (Hussainey and Mouselli, 2010) found that future-oriented earnings statements in the annual report narratives increase the stock market's ability to anticipate future earnings change three years ahead. This is consistent with a recent study by Hussainey and Walker (2009). They also find that firms with poor DQ, in general, have higher costs of capital than firms with good DQ. This result is consistent with previous research, for example, Gietzmann and Ireland (2005), Francis and Nanda (2008) and theories that demonstrate a role for information risk (referred to here by DQ) in asset pricing. Finally, the time-series analysis suggests that allowing for a DQ factor in constructing the asset pricing model can be important. The DQ factor is significant in pricing excess returns of UK portfolios, sorted on the basis of DQ and industry. However, for the industry portfolios, the Fama-French model generally shows more explanatory power than the model with a DQ factor. This result can be explained by the fact that the three factors in the Fama-French model (especially HML) partially capture effects related to DQ. (Dima et al. 2013) found that all the disclosure variables are positive and significantly associated to PER ratios overreactions for both markets; the effects exercised by the disclosure of non-financial information are less clear in the case of Romanian companies compared to the Spanish ones; the intensity of prices' overreactions appears to be higher for Spanish stocks, suggesting a higher degree of adjustment speed to informational shocks; the global disclosure indicator constructed based on principal components analysis methodology is positive and significant related to larger PER ratios values for both markets, but the amplitude of such relationship tends to be greater for the Bucharest Stock Exchange.

## **Second: The effect of information asymmetry on the stock market activity:**

Many previous studies (e.g. Moeller et al., 2007; O Nwezeaku and Okpara, 2010; Abosed and Ezekiel, 2011; Sun et al., 2014; Tavares et al., 2014 ) investigated the effect of information asymmetry on the stock market activity. Moeller et al., 2007 found that there is

no difference in abnormal returns between cash offers for public firms, equity offers for public firms, and equity offers for private firms after controlling for one of these proxies, idiosyncratic volatility. Nwezeaku and Okpara, (2010) found that significant difference existing between good and bad news in the Nigerian stock market. We also found from the results of the EGARCH model, the presence of leverage asymmetric effect in the market implying that unexpected drop in prices (bad news) increases predictable volatility more than unexpected increases in price (good news) of similar magnitude. Abosed and Ezekiel, 2011 Studies that empirically tested the impact of information asymmetry on equity pricing in emerging and developing economies, where market efficiency are mostly in the semi-strong and weak forms are very few. The shortage of such studies could not be divorced from lack of testable models to accommodate the peculiarity of market data in such informational inefficient markets. Also, it is important to note that direct proxies of information asymmetry produce verifiable and less subjective outcomes than proxies derived from data manipulation, therefore identifying and selecting the firm and market-specific proxies require the understanding of the firm and market dynamics that impact significantly on equity pricing. The models derived can be tested in emerging economies that most studies examining the impact of information asymmetry on equity pricing have neglected for various reasons including inability to assess testable models. The study has contributed to existing literatures in providing a platform for measuring the effect of information asymmetry on equity prices both in the primary and secondary markets of emerging economies. Sun et al., (2014) found that the dynamic volume-return relation within medium-size trades has the most significant response to the degree of information asymmetry. They also show that the effect of information asymmetry on the volume-return dynamics migrates to small-size trades in recent years, especially in larger stocks. These results are consistent with the notion that informed traders prefer medium-size trades and this preference has shifted to small-size trades. The findings highlight the importance of incorporating informed traders' trade-size decision in the examination of the dynamic volume-return relation. Tavares et al. (2014) investigated whether the information asymmetry component imbedded in the bid ask spread helps explain the difference in returns between portfolios composed of value versus growth stocks in the Brazilian market. Additionally, they test whether the portfolios' volatility has any relation with asymmetry. They incorporate an element from the market microstructure literature, the information asymmetry component, in the classic asset pricing theory. The results obtained for the period between July 2006 and April 2009 suggest that asymmetry can explain the difference in returns of the two types of portfolios.

### **Third: The effect of disclosure quality and information asymmetry on the stock market activity:**

Many previous studies (e.g. Roychoudhury et al., 2012; Shroff et al., 2013; Barron and Qu, 2014) investigated the effect of disclosure quality and information asymmetry on the stock market activity. Roychoudhury et al. (2012) found that earnings informativeness relative to other sources is higher in bad news quarters than in good-news quarters. Further, cross-sectional tests indicate that earnings differential informativeness in bad-news quarters is more pronounced when managers do not voluntarily disclose the news, information asymmetry is stronger, and managers are net sellers of stock. Shroff et al. (

2013) found that firms provide significantly more pre offering disclosures after the Reform. Further, they found that these pre offering disclosures are associated with a decrease in information asymmetry and a reduction in the cost of raising equity capital. Their findings not only inform the debate on the market effect of the Reform, but also speak to the literature on the relation between voluntary disclosure and information asymmetry by examining the effect of quasi-exogenous changes in voluntary disclosure on information asymmetry, and thus a firm's cost of capital. Barron and Qu (2014) found that high-quality public disclosure leads to increased price efficiency and decreased cost of capital in the pre-announcement period when information asymmetry is high. The impending high-quality public information increases the competition among informed traders, which leads prices to impound more private information and alleviates the adverse selection problems facing uninformed traders. The study suggests building a high-quality public information environment (e.g., by adopting high-quality accounting standards or committing to transparent disclosure policies) would likely provide ex ante benefits for firms with significant adverse selection among traders.

**Based on the previous discussion, three main hypotheses have been formulated in this research:**

H1: There is a significant positive association between accounting disclosure quality and the stock market activity with regard to listed companies in the Egyptian stock market. This hypothesis can be divided into three sub hypotheses as follow:

H1a: There is a significant positive association between accounting disclosure quality and the stock return activity with regard to listed companies in the Egyptian stock market.

H1b: There is a significant positive association between accounting disclosure quality and the trade volume with regard to listed companies in the Egyptian stock market.

H1c: There is a significant positive association between accounting disclosure quality and the trade value with regard to listed companies in the Egyptian stock market.

H2: There is a significant negative association between information asymmetry and the stock market activity with regard listed companies in the Egyptian stock market. This hypothesis can be divided into three sub hypotheses as follow:

H2a: There is a significant negative association between information asymmetry and the stock return with regard listed companies in the Egyptian stock market.

H2b: There is a significant negative association between information asymmetry and the trade volume with regard listed companies in the Egyptian stock market.

H2c: There is a significant negative association between information asymmetry and the trade value with regard listed companies in the Egyptian stock market

H3: There are significant associations between both accounting disclosure quality and information asymmetry and the stock market activity with regard listed companies in the Egyptian stock market. This hypothesis can be divided into three sub hypotheses as follow:

H3a: There are significant associations between both accounting disclosure quality and information asymmetry and the stock return with regard listed companies in the Egyptian stock market.

H3b: There are significant associations between both accounting disclosure quality and information asymmetry and the trade volume with regard listed companies in the Egyptian stock market.

H3c: There are significant associations between both accounting disclosure quality and information asymmetry and the trade value with regard listed companies in the Egyptian stock market.

## **DATA AND METHODOLOGY**

The research depends on listed companies in the Egyptian stock market in the period from 2002 through 2014 with emphasis on the first month after the publication of the financial statements of firms so as to investigate the direct impact of accounting disclosures quality and information asymmetry on the stock market activity. A selective sample was taken from the population after excluding financial services institutions, banks, insurance companies, and companies with incomplete financial data during the test period. The final sample of the research included 60 companies which results in 780 observations for the research. The research data were obtained from the annual disclosure book of the Egyptian stock exchange, Egypt for Information Dissemination (eg/ID). The researcher analyzed data depending on the statistical program SPSS, and uses the simple and multiple regression model to test the hypotheses.

### **The independent variables are:**

**First**, disclosure quality measured by the number of factors disclosed in the financial statements out of an index of 160 factor developed by Akhtaruddin, 2005. **Second**, information asymmetry, measured by using proxy for information asymmetry. The proxy is the adverse selection component of the average daily bid-ask spread (ASC Spread). ASC Spread measures the extent to which unexpected order flow affects prices and is increasing in information asymmetry. **Third, control variables** using: A- Firm size: measured by calculating the natural logarithm of total assets. B- Leverage Ratio: measured by total liabilities / total assets. C- The Existence of BIG 4 Auditors: score 1 if the auditor from the Big four audit firms (KPMG; Ernst & Young; Deloitte; Price water house) and 0 otherwise.

The **dependent variables** are:

The stock market activity. This variable was measured by **stock return; trade volume; and trade value.**

The statistical models to test the hypotheses were formulated as follows:

$$RET_{(i)} = \beta_0 + \beta_1 DQ_{(i)} + \varepsilon_{(i)} \quad (1-1)$$

$$TVOL_{(i)} = \beta_0 + \beta_1 DQ_{(i)} + \varepsilon_{(i)} \quad (1-2)$$

$$TVAL_{(i)} = \beta_0 + \beta_1 DQ_{(i)} + \varepsilon_{(i)} \quad (1-3)$$

$$RET_{(i)} = \beta_0 + \beta_2 IA_{(i)} + \varepsilon_{(i)} \quad (2-1)$$

$$TVOL_{(i)} = \beta_0 + \beta_2 IA_{(i)} + \varepsilon_{(i)} \quad (2-2)$$

$$TVAL_{(i)} = \beta_0 + \beta_2 IA_{(i)} + \varepsilon_{(i)} \quad (2-3)$$

$$RET_{(i)} = \beta_0 + \beta_1 DQ_{(i)} + \beta_2 IA_{(i)} + \beta_3 FS + \beta_4 LVR + \beta_5 TOA + \beta_6 IT + \varepsilon_{(i)} \quad (3-1)$$

$$TVOL_{(i)} = \beta_0 + \beta_1 DQ_{(i)} + \beta_2 IA_{(i)} + \beta_3 FS + \beta_4 LVR + \beta_5 TOA + \beta_6 IT + \varepsilon_{(i)} \quad (3-2)$$

$$TVAL_{(i)} = b_0 + b_1 DQ_{(i)} + b_2 IA_{(i)} + \beta_3 FS + \beta_4 LVR + \beta_5 TOA + \beta_6 IT + \varepsilon_{(i)} \quad (3-3)$$

Where:

RET (i): stock return.

TVOL (i): trade volume.

TVAL (i): trade value.

DQ(i): disclosure quality.

IA(i): information asymmetry.

FS: Firm size.

LVR: Leverage of the Firm.

AOT: The Existence of BIG 4 Auditors (KPMG; Ernst & Young; Deloitte; Price water house)

## Results and comments:

### The first model:

I found there is a significant positive association between accounting disclosure quality and the stock return with regard to listed companies in the Egyptian stock market. Where ANOVA analysis showed the significance of the model at P-Value = 0.00000 which is lower



than 5% while the regression coefficient of disclosure quality on stock return = 0.143 which means that there is a positive relation between disclosure quality and stock return. There is a significant negative association between accounting disclosure quality and the trade volume. Where ANOVA analysis showed the significance of the model at P-Value = 0.001 which is lower than 5% while the regression coefficient of disclosure quality on trade volume = -0.121 which means that there is a negative relation between disclosure quality and trade volume. There is a significant negative association between accounting disclosure quality and the trade value. Where ANOVA analysis showed the significance of the model at P-Value = 0.018 which is lower than 5% while the regression coefficient of disclosure quality on trade value = -0.085 which means that there is a negative relation between disclosure quality and trade value.

### **The second model:**

I found that there is a significant negative association between information asymmetry and stock return. Where ANOVA analysis showed the significance of the model at P-Value = 0.041 which is lower than 5% while the regression coefficient of information asymmetry on stock return = -2.048 which means that there is a negative relation between information asymmetry and stock return. There is a significant negative association between accounting information asymmetry and the trade volume. Where ANOVA analysis showed the significance of the model at P-Value = 0.001 which is lower than 5% while the regression coefficient of disclosure quality on trade volume = -3.349 which means that there is a negative relation between information asymmetry and trade volume. There is a significant negative association between information asymmetry and the trade value. Where ANOVA analysis showed the significance of the model at P-Value = 0.000 which is lower than 5% while the regression coefficient of disclosure quality on trade value = 2455606.847 which means that there is a negative relation between information asymmetry and trade value.

### **The third model:**

I found that there are significant association between both accounting disclosure quality and information asymmetry and the stock return. Where ANOVA analysis showed the significance of the model at P-Value = 0.000 which is lower than 5%. There are significant association between both accounting disclosure quality and information asymmetry and the trade volume. Where ANOVA analysis showed the significance of the model at P-Value = 0.000 which is lower than 5%. There are significant association between both accounting disclosure quality and information asymmetry and the trade volume. Where ANOVA analysis showed the significance of the model at P-Value = 0.000 which is lower than 5%.

## **References**

- Abosedo, A. J., & OSENI, J. E. 2011. Theoretical Analysis of Firm and Market-specific proxies of Information Asymmetry on equity prices in the stock markets. *Australian Journal of Business and Management Research*, 1(2) : 1-13
- Akhtaruddin, M. 2005. Corporate mandatory disclosure practices in Bangladesh. *The International Journal of Accounting* 40(1): 399-422.

- Barron, O. E., & Qu, H. 2014. Information Asymmetry and the Ex Ante Impact of Public Disclosure Quality on Price Efficiency and the Cost of Capital: Evidence from a Laboratory Market. *The Accounting Review* 89(4): 1269-1297.
- Callen, J. L., Khan, M., & Lu, H. 2013. Accounting Quality, Stock Price Delay, and Future Stock Returns\*. *Contemporary Accounting Research*, 30(1): 269-295.
- Dima, B., Cuzman, I., & Saramat. 2013. Effect of financial and non financial information disclosure on 4 prices' mechanisms for emergent markets: the case of Bucharest stock exchange. *Journal of Accounting and Management Information Systems* 12(1): 76-100.
- Drake, M. S., Myers, J. N., & Myers, L. A. 2009. Disclosure quality and the mispricing of accruals and cash flow. *Journal of Accounting, Auditing & Finance*, 24(3), 357-384.
- Ferrell, A. 2007. Mandatory Disclosure and Stock Returns: Evidence from the Over-the-Counter Market. *The Journal of Legal Studies* 36(2): 213-251.
- Frino, A., Palumbo, R., Capalbo, F., Gerace, D., & Mollica, V. 2013. Information disclosure and stock liquidity: Evidence from borsa Italiana. *Abacus* 49(4): 423-440.
- Gelb, D. S., & Zarowin, P. 2002. Corporate disclosure policy and the informativeness of stock prices. *Review of Accounting Studies* 7(1): 33-52.
- Goto, S., Watanabe, M., & Xu, Y. 2009. Strategic disclosure and stock returns: Theory and evidence from US cross-listing. *Review of Financial Studies* 22(4): 1585-1620.
- Haggard, K. S., Martin, X., & Pereira, R. 2008. Does voluntary disclosure improve stock price informativeness?. *Financial Management* 37(4): 747-768.
- Hussainey, K., & Mouselli, S. (2010). Disclosure quality and stock returns in the UK. *Journal of Applied Accounting Research* 11(2): 154-174.
- Lang, M., K. V. Lins, and M. Maffett. 2012. Transparency, liquidity, and valuation: International evidence on when transparency matters most. *Journal of Accounting Research* 50: 729-774.
- Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. 2007. How do diversity of opinion and information asymmetry affect acquirer returns?. *Review of Financial Studies*, 20(6), 2047-2078.
- Mugaloglu, Y. I., & Erdag, E. 2011. The Relationship between Stock Return Volatility and Public Disclosure: The Case of Istanbul Stock Exchange Online Public Disclosure Platform. *Journal of Applied Economics & Business Research* 1(2): 93-102.
- Nwezeaku, N. C., & Okpara, G. C. 2010. Stock market volatility and information asymmetry: Lessons from Nigeria. *Interdisciplinary Journal of contemporary research in business*, 2, 67-79.
- Ramos, S. B., & von Thadden, E. L. 2008. Stock exchange competition in a simple model of capital market equilibrium. *Journal of Financial Markets* 11(3): 284-307.
- Ronen, J., Ronen, T., & Yaari, V. L. 2003. The effect of voluntary disclosure and preemptive preannouncements on earnings response coefficients (ERC) when firms manage earnings. *Journal of Accounting, Auditing & Finance*, 18(3), 379-409.
- Roychowdhury, S., & Sletten, E. 2012. Voluntary disclosure incentives and earnings informativeness. *The Accounting Review*, 87(5), 1679-1708.
- Sadeghzadeh, A., & Karimi, J. 2010. Determining Of Relationship Between Information Disclosures And Price Fluctuations Of Accepted Companies In Tehran Stock Exchange. *International Journal of Academic Research*, 2(5).
- Shroff, N., Sun, A. X., White, H. D., & Zhang, W. 2013. Voluntary disclosure and information asymmetry: Evidence from the 2005 securities offering reform. *Journal of Accounting Research* 51(5): 1299-1345.

- Sun, Y., Duong, H. N., & Singh, H. 2014. Information Asymmetry, Trade Size, and the Dynamic Volume-Return Relation: Evidence from the Australian Securities Exchange. *Financial Review*, 49(3), 539-564.
- Tavares, M. L. F., da Silveira Barbedo, C. H., & Araujo, G. S. 2014. The Influence of information asymmetry on the return and volatility of value and growth stock portfolios. *Brazilian Business Review*, 11(1), 111-129.
- Wang, H. C., & Chang, H. J. 2008. The association between accounting information disclosure and stock price. *Global Journal of Business Research*2(2): 1-10.