The Impact of Market-Related Variables on Forward-Looking Disclosure in the Annual Reports of Non-Financial Egyptian Companies

Bassam Baroma

Abstract—The main objective of this study is to test the relationship between numbers of variables representing the firm characteristics (market-related variables) and the extent of voluntary disclosure levels (forward-looking disclosure) in the annual reports of Egyptian firms listed on the Egyptian Stock Exchange. The results show that audit firm size is significantly positively correlated (in all the three years) with the level of forward-looking disclosure. However, industry type variable (which divided to: industries, cement, construction, petrochemicals and services), is found being insignificantly associated with the level of forward-looking information disclosed in the annual reports for all the three years.

Keywords—Forward-looking disclosure, market-related variables, annual reports, Egyptian Stock Exchange.

I. INTRODUCTION

There is an increasing importance in the level of non-financial information disclosure in financial reporting. Thence studying the relationship between the level of non-financial disclosure and corporate characteristics has been considered as the main objective in accounting research for over 40 years.

Companies prefer to disclose non-financial information for legitimacy purposes: due to the absence of any regulatory or obligatory requirements [41].

Academic research has investigated the association between corporate characteristics and the level of voluntary disclosures in developed and developing countries. A lot of studies are dedicated to the developed countries such as: [24], [34], [12], [18], [43], [20], [16] and [37].

In addition, a few other studies pertinent to developing countries also exist: [1], [27], [39], [8], [4], [29], [40], and [11].

It is common to divide firm characteristics into three groups [8]:

a) Structure-related variables such as firm size, leverage, ownership dispersion and firm age
b) Performance-related variables such as profitability (profit margin), return on equity and liquidity
c) Market-related variables such as cross listing, industry type and audit firm size.

The remainder of the paper proceeds as follows: the second section shows the importance of annual reports as a source of disclosure, the third section explains the definition of forward-looking information, the fourth section surveys the associated literature conducted on disclosure studies, the fifth section shows the variables discussion and hypotheses development, the sixth section outlines research methodology including sample description and model development, the seventh section reports the obtained results, whilst the eighth section presents the conclusions along with its limitation and future research.

II. THE IMPORTANCE OF ANNUAL REPORTS AS A SOURCE OF DISCLOSURE

There are many sources that might provide relevant information to investors and other users to help them to predict the future performance for the company. These sources contain interim report, press release; conference calls and direct communication with analysts [30]. There are many reasons that explain why choose annual reports as the main source of disclosure [30]:

a) Annual report is legal document and it needs to be produced on an annual basis.
b) The time difference between the end of financial year and prepare annual report is minimized.
c) Annual report for any company can be compared with other annual reports in other companies because the structure for making annual reports is formalized.
d) Stakeholders groups prefer annual report as a communication source of information.
e) There is a positive association between annual reports and other sources of financial communication [34].
f) The use of annual reports in this study is presented on an electronic version for a large number of Egyptian firms.

The main objective of annual reports is to provide relevant information to different user of such documents such as: investors, managers, customers, creditors, employees and unions. Most of the previous studies found that annual reports consider the most important source of information and the income statement and direct communication with management are more valuable than other sources of information.

III. DEFINITION OF FORWARD-LOOKING INFORMATION

Information in the annual report can be classified into two types of information: backward-looking information and
forward-looking information. Backward-looking information is related to past financial operations and their related disclosures. While forward-looking information is related to current and future forecasts operations that help users of information (investors) to evaluate a firm’s future performance [30].

Forward-looking information contains different types of information: financial information such as cash flow, profitability, changes in revenues, expected operating results and expected financial resources. It also includes non-financial information such as significant risk and uncertainties that might be effective on actual results and makes difference between actual results and expected results [7].

According to the CICA [17], defined forward-looking information consists of financial and non-financial information so as to provide better estimates of the impact of operations, transactions and decisions on value creation.

IV. LITERATURE REVIEW

Since 1960s, a growing interest has arisen in accounting disclosure studies. The methods, which organized to researching accounting disclosure, contained of two types of methods. The first, based upon questionnaires sent to users asked whether annual reports requested from them arrange accounting disclosure items in according to their level of importance in relating to decisions making process, and the second method, was mentioned to relationship between level of disclosure (mandatory or voluntary) and firm characteristics [8].

This study concentrates on the association between the level of voluntary disclosure (forward-looking information) and market-related variables (industry type and audit firm size). The most common variables examined in previous studies were: corporate size, listing status, capital structure (leverage), profitability and size of audit firm, to discover the relationship between these variables and the level of disclosure in annual reports. These studies used the following to explain this association: agency costs, political costs, corporate governance and monitoring, proprietary costs, signaling and information asymmetry, litigation costs, capital needs, and audit firm reputation [3].

Reference [8] examined the relationship between firm characteristics and the level of disclosure in Saudi Arabia. The study examined 20 voluntary items to evaluate the level of disclosure in the annual reports of 40 firms. It was found a positive association between firm size and the level of disclosure, while debt-equity ratio, ownership dispersion, firm age, profit margin, industry type and audit firm size were found insignificant association with the level of disclosure. While [49] examined the extent of voluntary disclosure in the annual reports of Chinese listed firms. The results indicated that there are positive relationship between the level of disclosure and proportion of state ownership, foreign ownership, firm performance and reputation of the engaged auditor. Also, the study found no proof that the firm has a lower cost of debt capital if it discloses more voluntary disclosures.

In addition for the previous studies, [6] examined the level of disclosure for 31 listed firms in the UAE. The study determines five variables would affect the extent level of disclosure in the UAE: size (assets), debt-equity ratio, profitability, sector type and audit firm size. The study found a significant association between debt-equity and profitability and the level of disclosure. However, insignificant association between sector type, firm size and audit firm size and the level of disclosure. Moreover, Industry type has also been examined by many previous studies. Some of them found a positive relationship with the level of disclosure such as [12], [18], but others found no relationship such as [48] and [37]. In according to audit firm size, there are many studies examined the association between audit firm size and the level of disclosure. Some previous studies found a significant relationship between the two variables that large audit firms provided higher level of disclosure [45], [36], [4], [29], [43], [2], [22] and [32]. While, other studies found no relationship between audit firm size and disclosure level [24], [48], [26], [43]. There is one study found a negative association between the two variables in Hong Kong listed companies.

V. VARIABLES DISCUSSION AND HYPOTHESES DEVELOPMENT

A. Market-Related Variables

Market-related variables are related to aspects of a company’s behavior carried from its relationship with other companies in its operational environment. These variables are qualitative, categorical and related to a specific time. Market-related variables included corporate reporting cultures from the industry, stock exchange and type of auditor and these variables may be affected on corporate reporting. In other study made by [48] classified market-related variables to three variables:

a) Industry type: companies from a specific industry type may approve disclosure practices additional to those mandatory for companies from all industries.

b) Listing status: firms should fulfill with the listing rules when they make registration on the stock market and should provide the details disclosure in their annual reports and accounts. The level of details in the annual reports may vary between listed firms and unlisted firms.

c) Auditor type: firms which audited by one of the big four international audit firms are expected to disclose more information and more details about their operations than firms that are not. These variables may be under or out of control of the firm and may be either time-period or stable over time.

B. Industry Type

Firm’s industry is defined as the main economic activity in which it derives its revenue [46]. Levels of disclosure in the annual reports are not the same in all economic sectors. Reference [33] noted that firms in the same industry want to accept the same disclosure practices to be in line with the uniqueness of their industry such as the degree of diversification.
Industry type is an important factor to determine company’s risk. Some industry types are more risky than others, for example high technology firms are more risky because the life cycle of product is shorter and the rapid changes in technology make technological more obsolescence [13]. Also, industry type considered an important factor in clarifying the level of disclosure [13]. The influence of industry may be affect by signaling theory, that if an industry company does not keep up with the others and fails to follow the same disclosure practices as others, this can be explained as a bad market signal [9].

There are many previous studies examined the relationship between the two variables. For example, [20] examined the association between the two variables in manufacturing and non-manufacturing Japanese firms and found that Japanese manufacturing firms prefer to disclose more information than other non-manufacturing firms. Reference [21] observed that trading companies disclosed less information than others companies.

Also, [15] observed that industry type has an effect on the level of disclosure in manufacturing firms in the UK and Netherlands firms. In addition to that there are others studies found a significant relation between the two variables, [3], [10], [19], [23], [26], [38], [44], [47], [50], and [51].

In the opposite of the previous [5], [7], [32], [39], and [48] found that no association between the two variables. On the other hand, [8] found insignificantly associated between industry type and the extent of voluntary disclosure in Saudi Arabia. The same previous result was found by [14], and [43].

This study will test the relationship between industry type and forward-looking information disclosed in the Egyptian annual reports.

Thus, it seems variable to hypothesis that:

H1. There is a significant association between industry type and the level of forward-looking disclosure in the annual reports of Egyptian companies.

Industry type is measured by dummy variables (manufacturing 1, and non-manufacturing 0).

All Egyptian companies are subject to the same disclosure requirements. So, this study tries to test whether manufacturing firms include in their annual reports more forward-looking information than non-manufacturing ones. This study will choose five types of industry type to test the previous hypothesis: industries, cement, construction, petrochemicals and services.

C. Audit Firm Size

The responsibility of the auditors, as an independent party, is to guarantee the reliability and the validity of financial statement, and the auditors play a vital role to decrease the agency costs and asymmetry information between the managers and shareholders and play a role in defining the disclosure policy of their clients [7], and [43]. Reference [4] noted that audit firm size can positively effect of information disclosed in financial statements. So, Firms, which have large clients, tend to hire large audit firms because of their large size and complexity.

There are two reasons that explain why large audit firm have more advantages than small audit firms [46]:

a) Large audit firms have more clients and their economic dependency on a specific client is minimal, so large audit firms have greater motivation to maintain independence from their clients.

b) Large audit firms have more expected exposure to legal liability. Because auditors are responsible for misleading certified annual reports.

Furthermore, there are more previous studies that observed the association between audit firm size and the level of disclosure. For example, [2], [15], [22], [43], [4], [39], and [42] found significantly positive association between the two variables. While [25] and [48] found a positively associated but not insignificant.

Moreover, [47] observed a significantly negative relationship between the two variables. On the other hand, there are prior studies that found no significant relationship between audit firm size and the level of disclosure. For example; [3], [8], [24], [28], [36].

Audit firms in Egypt can be classified into two main groups: first, auditing firms associated with international auditing firms and, second, auditing firms that are not associated with international auditing firms. The first group is expected to disclose high level of disclosure and high level of quality information in the annual reports. Thus, it seems variable to hypothesis that:

H2. There is a significant association between audit firm size and the level of forward-looking disclosure in the annual reports of Egyptian companies.

Audit firm size could be measured by a dummy variable: 1 if the company audited by one of the big 4 large audit firms and, 0: if not.

VI. RESEARCH METHODOLOGY

A. Data Collection and Variables Definition

The sample used in this study contains annual reports for non-financial companies (49 companies) listed and non-listed in Egyptian stock exchange, they represented different sectors (industries, cement, property, construction, petrochemicals, food and cultivate and services) for three years 2008, 2009 and 2010. The choice of firms was based on the availability of data. The study cannot collect data from the annual reports in the year of 2011 because there were problems and setbacks in the Egyptian Stock Exchange due to the Egyptian revolution.

This study excluded financial and insurance firms because they are subject to specific disclosure requirements, so their annual reports do not be considered as voluntarily determined.

The study used cross-sectional regression (Ordinary Least Square (OLS) regression and multiple regressions) using Minitab programming to test and analyze the hypotheses and regression variables collected from the annual reports.

In this study there are different proxies to measure market-related variables; industry type was measured by dummy variable (1, 0), listing status was measured by dummy variable
(1, 0), and audit firm size was measured by dummy variable, takes one if the audit firm is one of the big 4 and zero if not.

For the purpose of this study, the study used the same list of forward-looking words as in [31] to determine the differences in the level of forward looking disclosure between firms in different sectors (1).

**B. Model Development**

This study prefers to use unranked (OLS), and the regression analysis model, which test the association between the level of voluntary disclosure (forward-looking disclosure) and firm characteristics (market-related variables), is presented as the following:

\[ Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + E \]

where:

- \( Y \) = voluntary disclosure index level (forward-looking disclosure level)
- \( B_0 \) = constant value or the value of \( Y \) when all \( X \) values are zero.
- \( X_1 \) = industry type (measured as dummy variable: manufacturing= 1, and non-manufacturing=0)
- \( X_2 \) = listing status (measured as dummy variable: listed company= 1, and non-listed company=0)
- \( X_3 \) = audit firm size (measured as dummy variable: big 4 audit firm= 1, and non- big 4 audit firm =0)
- \( E \) = the error term normally distributed about a mean of zero

**VII. MULTIPLE REGRESSION RESULTS**

Results of the OLS regression in Table I show that standard deviation of the error terms are 9.681, 9.143 and 7.588 for the three years respectively.

The results statistically (ANOVA tests) support the insignificance of the model in all the three years 2008, 2009 and 2010 because F-ratio was 1.11 (P=0.377>0.05), F-ratio was 1.19 (P=0.331>0.05) and F-ratio 1.80 (P=0.128>0.05) respectively. In fact F is nothing but T-square, A low P-value suggests that beta plays a significant role in the model; this is just reassurance of the T-test.

While \( R^2 \) which means the percentage of independent variables that explain the variance in dependent variable (the level of looking-forward disclosure), in another words, (the variance percentage in dependent variable due to the variance percentage in independent variables)

\( R^2 \) (16.8%, 15.9% and 23.6%) for the three years, was not a respectable result because it less than 75% (the begging percentage to accept the \( R^2 \) result for any model). So the best \( R^2 \) was 23.6% for the year 2010, implies that independent variables explain 23.6 percentage of the variance in the level of looking-forward disclosure. In other words, there were a variation in the value of \( Y \) (level of looking-forward disclosure), 23.6% of it was due to the model (or due to change in \( X \) -independent variables) and 76.4 % was due to error or some unexplained factor.
forward-looking disclosure. Fourth, in real life some study applies an "unweights" approach to measure the level of importance levels by financial information users. Third, the items selected do not show observed same list of forward-looking items as in previous study made years. 

size variable has significant positive effects on the forward-looking disclosure level in all the three years.

| Predictor | Coef  | SE Coef | T    | P    |
|-----------|-------|---------|------|------|
| Constant  | 12.941| 3.690   | 3.51 | 0.001|
| AUDIT     | 6.704 | 1.811   | 2.11 | 0.043|
| ind       | 3.043 | 4.094   | 0.74 | 0.463|
| cem       | -2.407| 5.500   | -0.44| 0.664|
| cons &rs  | 1.457 | 4.496   | 0.32 | 0.748|
| BETC      | 2.707 | 5.768   | 0.47 | 0.642|
| SERV      | -5.793| 7.530   | -0.77| 0.447|

TABLE II REGRESSION RESULTS OF THE EFFECT OF THE MARKET-RELATED VARIABLES ON THE LEVEL OF FORWARD-LOOKING DISCLOSURE

YEAR 2008

| Predictor | Coef  | SE Coef | T    | P    |
|-----------|-------|---------|------|------|
| Constant  | 9.327 | 3.089   | 3.02 | 0.005|
| ind       | 2.807 | 3.677   | 0.76 | 0.450|
| cem       | 2.587 | 5.098   | 0.51 | 0.615|
| cons &rs  | -1.652| 3.845   | -0.43| 0.670|
| BETC      | 5.674 | 3.592   | 1.05 | 0.299|
| SERV      | 0.174 | 7.044   | 0.02 | 0.980|
| AUDIT     | 6.999 | 2.841   | 2.46 | 0.018|

YEAR 2009

| Predictor | Coef  | SE Coef | T    | P    |
|-----------|-------|---------|------|------|
| Constant  | 10.265| 2.583   | 3.97 | 0.000|
| AUDIT     | 6.890 | 2.437   | 2.83 | 0.008|
| ind       | 2.989 | 3.093   | 0.97 | 0.341|
| cem       | 1.405 | 4.244   | 0.33 | 0.743|
| cons &rs  | 1.541 | 3.366   | 0.46 | 0.650|
| BETC      | 7.262 | 4.478   | 1.62 | 0.114|
| SERV      | -3.210| 5.846   | -0.55| 0.586|

YEAR 2010

| Predictor | Coef  | SE Coef | T    | P    |
|-----------|-------|---------|------|------|
| Constant  | 10.265| 2.583   | 3.97 | 0.000|
| AUDIT     | 6.890 | 2.437   | 2.83 | 0.008|
| ind       | 2.989 | 3.093   | 0.97 | 0.341|
| cem       | 1.405 | 4.244   | 0.33 | 0.743|
| cons &rs  | 1.541 | 3.366   | 0.46 | 0.650|
| BETC      | 7.262 | 4.478   | 1.62 | 0.114|
| SERV      | -3.210| 5.846   | -0.55| 0.586|

VIII. CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH

The main purpose of preparing annual reports is to offer satisfactory and timely information to the users of financial reports and if the management fails to provide this information, the firm will lose its value.

The objective of this paper is to examine the relationship between the level of forward-looking disclosure and firm characteristics (market-related variables) and to discover the effect of two main market-related variables (industry type and audit firm size) on the extent of the level of forward-looking information disclosure through the annual reports of non-financial Egyptian firms.

Also, this paper helps to determinant of the disclosure policy of Egyptian firms by making connect between annual reports to specific firm characteristics (market-related variables).

The results for the sample of 49 firms show that audit firm size variable has significant positive effects on the forward-looking disclosure level in all the three years.

While, industry type (which divided to industries (IND.), cement (CEM.), construction (CONS.), petrochemicals (BETC.) and services (SERV.) has an insignificant association with the level of forward-looking disclosure in all the three years.

This study has some limitations, first, the study uses the same list of forward-looking items as in previous study made by [31]. Second, the items selected do not show observed importance levels by financial information users. Third, the study applies an "unweights" approach to measure the level of forward-looking disclosure. Fourth, in real life some information items have higher value to users of annual reports than other users, so the items should be weighted to reflect their level of importance. Finally, this study concentrates on non-financial listed firms on the Egyptian Stock Exchange and excluded financial and insurance firms because they are subject to specific disclosure requirements, so their annual reports cannot be considered as voluntarily determined.

Further research could address the following suggestions:

* introduce new forward-looking items not addressed by the current study.
* introduce a list of items related to forward-looking disclosure reflects the level of importance observed by users.
* making a new study to examine the impact of firm characteristics on forward-looking disclosure in the annual reports of financial and non-financial listed and non-listed firms
* new research may be conducted by increasing the time of the period to more than 3 years, increasing the number of firms or introducing more variables to rise the strength of evidence that presented in this study.
* examine the effect of cost of equity (as independent variable) on the level of forward-looking disclosure [43]

* notes

(1) Accelerate, anticipate, await, coming (financial) year(s), coming months, confidence (or confident), convince, current financial year, envisage, estimate, eventual, expect, forecast, forthcoming, hope, intend (or intention), likely (or unlikely), look-forward (or look ahead), next, novel, optimistic, outlook, planned (or planning), predict, prospect, remain, renew, scope for (or scope to), shall, shortly, should, soon, will, well placed (or well positioned), year(s) ahead.

The study excluded the word shall because it associated with legal language and boilerplate disclosure [35].

REFERENCES

[1] Abd-ElSalam, O. H., & Weetman, P.," Introducing international accounting standards to an emerging capital market: relative familiarity and language effect in Egypt," Journal of International Accounting, Auditing and Taxation, 22(1), 63-84, 2003.

[2] Ahmed, K.," Disclosure policy choice and corporate characteristics: A study of Bangladesh," Asia Pacific Journal of Accounting, J, 183-203, 1996.

[3] Ahmed, K., & Couriris, J. K.," Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis," The British Accounting Review, 31(1), 1999.

[4] Ahmed, K., & Nicholls, D.," The impact of non-financial company characteristics on mandatory disclosure compliance in developing countries: The case of Bangladesh," The International Journal of Accounting, 29(1), 62, 1994.

[5] Akhtaruddin, M.," Corporate mandatory disclosure practices in Bangladesh," The International Journal of Accounting, 40(4), 399-422, 2005.

[6] Aljifri, K.," Annual report disclosure in a developing country: the case of the UAE," Advances in Accounting, 24(1), 93-100, 2008.

[7] Aljifri, K., & Hussainey, K.," The determinants of forward-looking information in annual reports of UAE companies," Managerial Auditing Journal, 22(9), 881- 894, 2007.

[8] Alsaeed, K.," The association between firm-specific characteristics and disclosure; The case of Saudi Arabia," Managerial Auditing Journal, 21(5), 476-496, 2006.

[9] Aly, D., Simon, J., & Hussainey, K.," Determinants of corporate internet reporting: evidence from Egypt," Managerial Auditing Journal, 25(2), 182-202, 2010.
"Li, F., "The Determinants and Information Content of the Forward-looking Statements in Corporate Filings: A Naive Bayesian Machine Learning Approach," SSRN eLibrary, 2008.

"Malone, D., Fries, C., & Jones, T.," An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry," Journal of accounting auditing and finance, 249-249, 1993.

"McNally, G.M., Eng., L.H. and Hasseldine, C.R.," Corporate finance reporting in New Zealand: An analysis of user preferences, corporate characteristics and disclosure practices for Discretionary information," Accounting & Business Research, Vol.13, pp.11-20, 1982.

"Naser, K.," Comprehensive disclosure of non-financial companies: Listed on the Amman financial market," International Journal of Commerce and Management, 8(1), 88-119, 1998.

"Naser, K., Al-Khatib, K., & Karbhari, Y.," Empirical evidence on the depth of corporate information disclosure in developing countries: the case of Jordan," International Journal of Commerce and Management, 12(3/4), 122-155, 2002.

"Owusu-Ansah, S.," The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe," The International Journal of Accounting, 36(5), 605-631, 1998.

"Parsa.S.," Non-Financial Information Disclosure Communication in Large UK Companies," PhD Thesis, Middlesex University, UK, 2001.

"Patton, J., & Zelenka, I.," An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech Republic," European Accounting Review, 6(4), 605-626, 1998.

"Raffournier, B.," The determinants of voluntary financial disclosure by Swiss listed companies," European Accounting Review, 4(2), 261-280,1995.

"Roberts, R. W.," Determinants of corporate social responsibility disclosure: an application of stakeholder theory," Accounting, Organizations and Society, 17(6), 595-612, 1992.

"Singhvi, S. S., & Desai, H. B.," An empirical analysis of the quality of corporate financial disclosure," The Accounting Review, 46(1), 129-138, 1971.

"Stephen, O.-A.," The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe," The International Journal of Accounting, 33(5), 605-631, 1998.

"Wallace, R. S. O., & Naser, K.," Firm-specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong," Journal of Accounting and Public Policy, 14(4), 311-368,1995.

"Wallace, R. S. O., Naser, K., & Mora, A.," The relationship between the comprehensiveness of corporate," Accounting and Business Research, 25(97), 41, 1994.

"Wang, K., & Claiborne, M. C.," Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China," Journal of International Accounting, Auditing and Taxation, 17(1), 14-30, 2008.

"Ward, M.," Summary financial statements: an analysis of the adoption decision," A research note. The British Accounting Review, 30(3), 249-260, 1998.

"Williams, S. M.," Voluntary environmental and social accounting disclosure practices in the Asia-Pacific region: An international empirical test of political economy theory," The International Journal of Accounting, 34(2), 209-238, 1999.