The Relationship between forward-looking disclosure and performance-related variables in the annual reports of listed Egyptian firms

Dr. Bassam Samir Baroma

Assistant Professor
Accounting department
Faculty of commerce,Tanta University

Abstract

***Purpose**: the main objective of this study is to test the relationship between numbers of variables representing the firm characteristics (performance–related variables) and the extent of the level of voluntary disclosure (forward–looking disclosure) in the annual reports of Egyptian firms listed in Egyptian Stock Exchange. This study empirically investigates hypothesized impact of performance–related variables on the extent of forward–looking disclosure.

***Design/methodology/approach**: this study uses a list of forward–looking keywords to determine the differences in the level of forward looking disclosure between firms in different sectors. The sample included 49 non–financial firms listed in Egyptian Stock Exchange for the years 2017, 2018 and 2019. The statistical analysis is implemented using a multiple linear regression analysis.

***Findings**: the results show that profitability (measured by earning per share) and liquidity ratio were significantly positive with the level of forward–looking disclosure in years 2018 and 2019. While, they were insignificant with the level of forward–looking disclosure in year 2017.

E.mail: Bassambaroma2@gmail.com

However, profitability (measured by return equity ratio) variable was found insignificantly associated with the level of forward–looking information disclosed in the annual reports for all the three years.

*Research limitations/implications: The results of this paper may be used by number of users such as auditors, lenders and investors. These results may be beneficial for users when they are dealing with firms which have low profitability and high financial risk.

This study has some limitations. First, the study used the same list of forward-looking items applied in previous studies. Second, the items selected did not show their level of importance observed by financial information users. Third, the study used unweights approach to measure the level of forward–looking disclosure. Finally, the study concentrated on non–financial listed firms in Egyptian Stock Exchange and excluded financial and insurance firms.

*Originality/value: The results of this study are more important to the investment community in evaluating the extent of forward–looking disclosure in valuation of the firm characteristics (performance–related variables) by Egyptian firms as Egypt is a developing country. There is a little number of studies to the knowledge of the researcher that have examined the forward-looking information disclosure in developing countries in general and in the Middle East in particular. Moreover, all previous studies examined the forward–looking disclosure in the annual reports for only one year, but this study examined it for a relatively long period (three years).

This study adds that high leverage and low profitability are the major factors that could encourage Egyptian listed firms to increase their forward–looking information disclosure.

Keywords: forward–looking disclosure, performance–related variables, annual reports, Egyptian Stock Exchange

العلاقة بين الإفصاح عن المعلومات المستقبلية والمتغيرات المتعلقة بالأداء

فى التقارير المالية السنوية للشركات المقيدة بالبورصة المصرية

ملخص البحث

هدف البحث: تمثل الهدف الرئيسى لهذه الدراسة فى اختبار العلاقة بين عدد من المتغيرات التي تعكس خصائص الشركة (المتغيرات المتعلقة بالأداء)، ومستوى الإفصاح الاختياري (الإفصاح عن المعلومات المستقبلية) في التقارير المالية السنوية للشركات المقيدة بالبورصة المصرية ، واعتمدت على استخدام الدراسة التطبيقية لإختبار الفروض لتحديد تأثير المتغيرات المتعلقة بالأداء علي الإفصاح عن معلومات النظرة المستقبلية.

التصميم / المنهجية / المدخل: استخدمت هذه الدراسة قائمة بالكلمات المفتاحية لدراسة الاختلافات بين مستوى الإفصاح عن المعلومات المستقبلية للشركات عبر القطاعات المختلفة ، واعتمدت الدراسة التطبيقية على عينة مكونة من 49 شركة غير مالية مقيدة في بورصة الأوراق المالية المصرية خلال الفترة من عام 2017 حتى عام 2019 ، واستخدمت الدراسة الإنحدار المتعدد كاسلوب احصائى لاختبار فروض الدراسة.

نتائج البحث: أظهرت نتائج الدراسة وجود علاقة إيجابية ، ومعنوية بين الإفصاح عن المعلومات المستقبلية ، وكلاً من الربحية (مقاسة بربحية السهم) ، ونسب السيولة خلال عامى 2018 ، 2019، وكانت تلك العلاقة غير معنوية خلال عام 2017 0

كما أظهرت تلك الدراسة وجود علاقة غير معنوية بين الربحية (المقاسة بنسبة العائد على حقوق الملكية) مع مستوى الإفصاح عن المعلومات المستقبلية في التقارير المالية السنوية خلال كل سنوات الدراسة.

حدود البحث: يمكن استخدام نتائج البحث بواسطة العديد من المستخدمين مثل المراجعين ، والمقرضين ، والمستثمرين ، كما يمكن أن تكون نتائج هذه الدراسة مفيدة للمستخدمين المتعاملين مع الشركات ذات الربحية المنخفضة والمخاطر المالية المرتفعة .

كما توجد بعض جوانب القصور في هذه الدراسة ، والتى تمثلت ، أولاً: فى استخدام نفس عناصر الإفصاح عن المعلومات المستقبلية ، والتى تم استخدامها فى الدراسات السابقة . ثانياً : لا تعكس العناصر التي تم استخدامها مستوى الأهمية الملاحظ من قبل مستخدمى المعلومات المحاسبية . ثالثاً : استخدمت الدراسة التطبيقية مدخلاً غير مرجح بالأوزان لقياس مستوى الإفصاح عن

المعلومات المستقبلية . وأخيراً : اعتمدت الدراسة على الشركات غير المالية المدرجة في البورصة المصرية واستبعدت الشركات المالية وشركات التأمين.

الأهمية / الأصالة: تعتبر نتائج هذه الدراسة أكثر أهمية للمستثمرين ، لتقييم مدى تأثير الإفصاح عن المعلومات المستقبلية على المتغيرات التى تعكس خصائص الشركة (المتغيرات المتعلقة بالأداء) من قبل الشركات المصرية ، وفى حدود علم الباحث يوجد عدد قليل من الدراسات التي تناولت الإفصاح عن المعلومات المستقبلية في الدول النامية بصفة عامة ، والشرق الأوسط بصفة خاصة. 0 وعلاوة على ذلك فإن الدراسات السابقة التي نمت إلى علم الباحث تناولت العلاقة بين الإفصاح عن المعلومات المستقبلية في التقارير المالية السنوية لسنة واحدة فقط ، لكن هذه الدراسة تناولت فترة أطول نسبياً (ثلاث سنوات)0 كما أوضحت هذه الدراسة أن ارتفاع درجة الرافعة المالية ، وانخفاض الربحية من أهم العوامل التي تشجع الشركات المصرية المقيدة بالبورصة على زيادة الإفصاح عن المعلومات المستقبلية .

الكلمـات المفتاحيـة: الإفصـاح عن المعلومـات المستقبلية، المتغيـرات المتعلقـة بـالأداء، التقارير المالية السنوية، البورصة المصرية.

1. Introduction

There is an increasing importance in the level of non-financial information disclosure in financial reporting. Therefore, the relationship between the level of non-financial disclosure and corporate characteristics is considered as the main objective for more than 40 years.

Companies prefer to disclose non-financial information for legitimacy purposes, because of the absence of any regulatory or obligatory requirements (Parsa, 2001). On the other hand, Investors need financial and non-financial information to help them estimating a security risk (beta) and in reducing the cost of capital (Lutfi, 1989).

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 applied in the developed countries such as : UK (Firth,1979), USA (Lang and Lundholm,1993), Canada(Belkaoui and Kahl,1978), Sweden (Cooke,1989), Switzerland (Raffournier,1995), Japan (Cooke,1992), Mexico (Chow and Wong-Boren,1987) and New Zealand (McNally et al.,1982).

On the other hand, there are few studies that are applied in the developing countries such as: Egypt (Abd-Elsalam and Weetman, 2003; Hassan et al., 2006), Jordan (Naser et al., 2002), Saudi Arabia (Alsaeed, 2006), Bangladesh (Ahmed and Nicholls, 1994), Malaysia (Hossain et al., 1994), Zimbabwe (Owusu-Ansah, 1998), and Kenya (Barako et al., 2006).

It is common to Classifies firm characteristics into three groups (Alsaeed, 2006):

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.

*__Research objective__: the main objective of this study is to test the relationship between numbers of variables representing the firm characteristics (performance-related variables) and the extent of the level of voluntary disclosure (forward-looking disclosure) in the annual reports of Egyptian firms listed in Egyptian Stock Exchange.

*__Research importance__: There is a little number of studies to the knowledge of the researcher that have examined the forward-looking information disclosure in developing countries in general and in the Middle East in particular. Moreover, all previous studies examined the forward-looking disclosure in the annual reports for only one year, but this study examined it for a relatively long period (three years).

The remainder of the paper proceeds as follows: section 2 shows the importance of annual reports as a source of disclosure, section 3 presents the definition of forward-looking information, section 4 surveys the related literature conducted on disclosure studies, section 5 shows the variables discussion and hypotheses development, section 6 outlines research methodology including sample description and model development, section 7 reports the study results, while section 8 presents the conclusions along with its limitation and the future research.

2. 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 predicting the future performance of the company. These sources contain interim reports, press release, conference calls and direct communication with analysts.

There are many reasons that interpret why annual reports are considered as the main source of disclosure (Hussainey, 2004):

a) Annual report is a legal document and it needs to be issued on an annual basis.

b) The time difference between the end of the financial year and the preparing of the annual report is minimized.

c) Annual report for any company can be compared with other annual reports of other companies because the structure of preparing annual reports is formalized.

d) Stakeholders groups prefer annual report as a communication source of information.

e) There is a positive association between annual report and other sources of financial communication (Lang & Lundholm, 1993).

f) The use of the annual report in this study is due for a technical reason that it is presented on an electronic version for a large number of Egyptian firms.

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

Epstein and Palepu (1999) found that annual reports are considered as an important source of information for financial analysts, especially the management discussion and analysis (MD&A). Professional and non–professional users need the management discussion and analysis (MD&A) more than other parties of the annual reports (Beattie, Pratt, & Scotland, 2002).

3-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) in evaluating a firm's future performance (Hussainey, 2004).

Forward–looking information contains different types of information: financial information such as cash flows, 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 affected on actual results and makes difference between actual results and expected results (Khaled Aljifri & Hussainey, 2007). There are some words related to forward–looking information such as: likely, will, forecast, expect, anticipate, estimate and predict. The reporting of forward–looking information is more related to make accurate level of share price estimation and lower forecast errors.

In some cases, it is not easy to make separation between backward–looking and forward–looking information because in some cases there are some words related to the past and are considered backward–looking, but in the same time it is relevant for the future. For example, if annual report disclosed that expenses of research and development were increased by 10% in the last year, although this information is related to the past, but it is considered to make increase when estimating in the future (Hussainey, 2004).

According to the **CICA** (**Canadian Institute of Chartered Accountants**), **framework** (**2001**), defined forward–looking information completes as it financial and non–financial information in order to make a better estimation of the impact of operations, transactions and decisions on value creation.

There are many types of information related to forward–looking information (Beretta & Bozzolan, 2004) which are: core business and strategies, capacity to deliver results, explanation of past events, decisions, facts and results that might be effective on future results, vision, strategies and objectives stated by management, future events, decisions, opportunities and risks that might be effective on future results, critical success variables, and past results and future results

Moreover, there are different strategies that are used to measure forward–looking information: intellectual capital (INT), quantity (QNT), environment (ENV), information about activity (ACT), coverage (COV), financial (FIN), organization and corporate governance (ORG). Previous studies found significant relationship between quality of forward–looking information and cover–

age of information and financial forward–looking information (Abad and Bravo, 2010).

4- Literature review

There has been an increased interest in accounting disclosure studies since 1960s. The methods, which organized to researching accounting disclosure, contained two types of methods. The first, is based on questionnaire forms which are sent to users to ask, if annual reports requested from them arrange accounting disclosure items in according to their level of importance related to decisions making process, and the second method, focused on making relationship between level of disclosure (mandatory or voluntary) and firm characteristics (Alsaeed, 2006).

So, there are more considerable international studies that have been developed to explain the relationship between the firm's characteristics and the level of disclosure in corporate annual reports. Weight and unweight index scores are used in many previous studies to measure voluntary disclosure, whereas weight index score depended on the importance of selected items by users of annual reports. Alternatively, unweight index score gives to all items as the same importance. Whereas the aim of using unweight index is to decrease subjectivety in determining weights (Ahmed & Courtis, 1999).

The current study concentrates on the association between the level of voluntary disclosure (forward–looking information) and performance–related variables {profitability, (profit margin and return on equity), and liquidity}. The most common variables examined in previous studies were: corporate size, listing status, capital structure (leverage), profitability and size of audit firm, in order to discover the relationship between those variables and the level of disclosure in annual reports. Th0se 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 (Ahmed & Courtis, 1999).

Alsaeed (2006) examined the relationship between firm characteristics and the level of disclosure in Saudi Arabia. The study examined 20 voluntary items in order to evaluate the level of disclosure in the annual reports of 40 firms. It 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 to have insignificant association with the level of disclosure. While Wang and Claiborne (2008) examined the extent of voluntary disclosure in the annual reports of Chinese listed firms. His 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 if it discloses more voluntary disclosure.

In addition to the previous studies, Aljifri (2008) examined the level of disclosure for 31 listed firms in the UAE. The study determined five variables that 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 ratio and profitability and the level of disclosure. However, there was insignificant association between sector type, firm size and audit firm size and the level of disclosure.

Moreover, the literature review related to performance–related variables found a positive relationship between profitability and disclosure level. Singhvi and Desai (1971) agreed about the result that because the managers in highly profitable firms want to provide more information to creditors and investors to gain confidence of them, and to increase its competitive position in the market. Also, the same relationship is argued by (Cooke, 1989; Wallace et al., 1994; Wallace and Naser, 1995) that highly profitable are firms disclosing more information in their annual reports to signal to the market their superior performance. While Lang and Lundholm (1993) supported the same relationship only if the information asymmetry between agents (managers) and principals (investors) is high.

Although, there are some previous studies confirmed the positively relationship (Singhvi and Desai, 1971; Wallace et al., 1994), however there are other studies found no such association (McNally et al., 1982; Lau, 1992; Raffoutnier, 1995). On the other hand, there are other studies proved a significant relationship between the two variables (**e**.**g**.,**Belkaoui** and Kahl, 1978; Wallace and Naser, 1995)

While, the association between liquidity and level of disclosure is examined by many previous studies (Belkaoui and Kahl.1978; Wallace et al., 1994; Wallace and Naser, 1995), however they found no relationship between the two variables

5. Variables discussion and hypotheses development
5.1 Firm characteristics (independent variables)

The firm characteristics considered as predictors of the indexes of comprehensive disclosure are, The firm characteristics can be classified into three categories: structure-related variables, performance-related variables, and market-related variables (Wallace, Naser, & Mora, 1994). There are many considerable previous studies investigated the relationship between firm characteristics and the extent of the level disclosure in the annual reports, {e.g., Singhvi and Desai (1971), McNally et al., (1982), Belkaoui and Kahl (1978), Firth (1979), Chow and Wong-Boren (1987), cooke(1989,1991 and 1992), Lang and Lundholm(1993), Malone et al,.(1993), Ahmed and Nicholls(1994), Hossain et al,.(1995) ,Beattie et al,.(2005), Hassan et al.,(2006)}.

Most of previous studies found that firm size and listing status significantly related with the level of disclosure, while different results have been reported regarding leverage, profitability and audit firm size in relation to level of disclosure (Ahmed & Courtis, 1999).

Also, **Alsaeed** (**2006**) used the same relationship between the level of disclosure and firm characteristics classified into structure-related variables, performance-related variables and market-related variables.

5.2 Performance-related variables

Users of accounting information are interested in the information about performance such as **liquidity ratio**, **earnings return**, and **profit margin**. Those variables can change from time to time (Alsaeed, 2006).

On one hand, the management of companies has motivation to disclose more detailed information about their operations when their companies achieve higher return on equity or profit margin that convince creditors and investors of the firm's profitability and to improve management's compensation (Wallace et al., 1994). On the other hand, T.E. Cooke (1989) found a correlation between greater disclosure and the soundness of the firm as represented by a high liquidity ratio. This relationship is based on the expectation that a financially strong companies prefer to disclose more information than a financially weak companies.

5.2.1 profitability-related variables (profit margin and return on equity)

Firm profitability represents the measure of the firm's performance for a specific year. Profitability as a measure of performance is considered as one of the most important clarifying variables that is used in disclosure literature (Abdel–Fattah, 2008), and it is also considered as an indicator of an investment quality (Prencipe, 2002).

There are two reasons that encourage firms, with higher profitability, to disclose more information about their performance (Omar, 2007). Managers want to clarify the continuation on their position and higher profitability confirms a better position for the firm in the price competition, and profitable firms mean that they provide good news to the market and owners could avoid the undervaluation of their shares. On the other hand, management with lower level of profitability wishes to vague poor performance by disclosing less information (Meek et al., 1995) to avoid the bad effect on the firm's market value.

In regarding to agency theory and the information asymmetry between the agent and the principal, it can be assumed that firms with high level of profitability will disclose more information to improve their corporate image in the market (Abdel-Fattah, 2008). The same idea can be supported by the political theory which indicates that profitable companies are interested in disclosing more information to support their higher profit (Inchausti, 1997).

There are arguments on the relationship between profitability and the level of disclosure and the results of previous studies were conflicting (Kamran Ahmed & Courtis, 1999). Some previous studies found significantly positive association between profitability and the level of disclosure, (e.g.,Ali et al., 2004; Haniffa & Cooke, 2002; Naser et al., 2002; Patton & Zelenka, 1998; Singhvi & Desai, 1971)

Other studies observed no significant association between the two variables. For example, (e.g.,Kamran Ahmed and Courtis (1999), Alsaeed (2006), McNally et al., (1982) in New Zealand firms. Also, (Ho & Shun Wong, 2001; Malone et al., 1993; Meek et al., 1995; Raffournier, 1995); R. S. O. Wallace et al. (1994) found the same previous result in Spanish firms.

Surprisingly, Camfferman & Cooke (2002) (Camfferman & Cooke, 2002) observed significant negative relationship between profit margin and the level of disclosure in British firms, and no relationship between return on equity and the level of disclosure. Also, (Belkaoui & Kahl, 1978; Chen & Jaggi, 2000; R. S. O. Wallace & Naser, 1995) found the same previous relationship between the two variables. While M. Lang and Lundholm (1993) found that company's performance affected disclosure but the direction of association between the performance and the level of disclosure was unclear.

Few previous studies tested the association between the level of forward-looking disclosure and profitability such as the study conducted by (Khaled Aljifri & Hussainey, 2007), whereas they found a significant association between profitability and forward-looking information disclosed in UAE annual report. Also, Schleicher et al. (2007) found that forward-looking information

disclosed in the annual report narrative sections is the main source for unprof‐itable firms not for profitable firms.

Thus, it seems a hypothesis can be developed as follows:

H1: **There is a significant association between firm profitability measured by Earning per share and forward–looking disclosure in the annual reports of Egyptian companies**.

H2: **There is a significant association between firm profitability measured by return on equity and forward–looking disclosure in the annual reports of Egyptian companies**.

Earnings per share and return on equity are proxy for firm's profitability. Earnings per share could be measured by (net income available to shareholders divided by weighed average number of shares outstanding), while return on equity can be measured by (net profit available for shareholders divided by total equity).

5.2.2 Liquidity

Liquidity ratio refers to the ability of the firm to pay its short–term liabili‐ties. Oxford Dictionary of Accounting (1999) defined liquidity as "the extent to which an organization's short term assets are liquid   (capable of being transferred to cash in a short period of time) in order to pay its debt (short term liabilities) when they become due without having to liquidate long term assets (Omar, 2007). Also, Wallace and Naser (1995) defined liquidity as" the ability of a company to meet its short–term financial obligation without hav‐ing to liquidate its long–term assets or cease operations".

Some previous studies explained the relation between the level of disclo‐sure and liquidity using signaling theory. In regarding to this theory, firms with rational liquidity may be interested to disclose more information to dis‐tinguish themselves from other firms with a lower liquidity. In according to agency theory, firms with a lower liquidity may be motivated to disclose more information in their annual reports to satisfy the requirements of shareholders and debtors and decrease the conflict between shareholders and creditors

(Camfferman & Cooke, 2002). Also, according to stakeholders, managers may be interested in disclosing more information about the liquidity ratios and profitability.

Cooke and Wallace (**1989**) found a positive relationship between liquidity and the level of disclosure, whereas firms with higher level of liquidity want to disclose more information than firms with lower level of liquidity. While, Wallace et al. (1994) showed that firms with lower liquidity might be encouraged to magnify their disclosure to mitigate fears and inform shareholders that management is conscious of the problems.

Prior disclosure studies showed different results about the relationship between liquidity and the level of disclosure. For example, (Kamran Ahmed & Courtis, 1999)**;** observed no association between the two previous variables.

Alsaeed (2006), Barako, Hancock, and Izan (2006) , Wallace and Naser (1995) and Owusu–Ansah (1998) found insignificant relation between the two previous variables in Saudi Arabia firms. While Wallace et al. (1994) and Naser et al. (2002) found a significant negative association between the two variables.

Moreover, Camfferman and Cooke (2002) found insignificant a negative association with respect to UK firms, and significant a positive association with respect to Dutch firms.

However, no previous studies (to the knowledge of the researcher) tested the association between the level of forward–looking disclosure and liquidity in Egyptian environment.

Thus, it seems to derive the follows hypothesis:

H3: **There is a significant association between liquidity ratio and forward–looking disclosure in the annual reports of Egyptian listed companies**.

Current ratio (current assets divided to current liabilities) could be used as a proxy for measuring the liquidity.

6. Research Methodology

6.1 Data collection and variables definitions

The annual financial reports are the main sources and the most important devices that include information about variables tested. Also other sources such as TV or newspaper may be used to provide some information.

The sample used in this study contains annual reports for non–financial companies (49 companies) listed in Egyptian stock exchange, which they represent different sectors (industries, cement, property, construction, petrochemicals, food and cultivate and services) for three years 2017, 2018 and 2019. The election of firms was based on the availability of data. The researcher cannot collect data from the annual reports of year of 2020 because there were COVID–19 Pandemic problem 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 cannot be considered as voluntarily determined.

The study used cross–sectional regression (Ordinary Least Square (OLS) multiple regressions) using Minitab program (the same SPSS program) to test the research hypotheses and regression variables collected from the annual reports.

In this study there are different proxies for measuring performance–related variables. The profitability was measured by Earning per share (net profit divided by weighted average number of shares), return on equity (net profit divided by total equity) and liquidity was measured by current ratio (current assets divided by current liabilities). These variables are measured as continuous variables.

For the purpose of this study, the same list of forward–looking words is used as in (Hussainey, Schleicher, & Walker, 2003), to determine the differences in the level of forward looking disclosure between firms in different sectors (1)

The study defines the forward–looking statements as all sentences that contain: will, should, can, could, may, might, expect, anticipate, believe, seek, project, forecast, objective, or goal. The study excluded the word shall because it is associated with legal language and boilerplate disclosure (Li, 2008).

Moreover, the researcher examined narratives sections for each firm (CEO report, report of director and chairman statement) and gives one point for each relevant sentence.

6.2 Model development

Matched–pair statistical was used by many previous studies to test the difference between disclosure indexes of two or more samples (Wallace, Naser, & Mora, 1994). Therefore, the cross–sectional regression analysis was used in the case of non–linearity directions and monotonic data (Chow & Wong–Boren, 1987).

While Lang and Lundholm (1993) used the ranked Ordinary Least Square (OLS) regression, the main feature of (OLS) is easy conducted after transforming continuous variables into ranked scores.

On the other hand, Camfferman and Cooke (2002) justified the use of unranked (OLS) instead of ranked (OLS) on the basis that:

"The main advantage of replacing the ranks by normal scores is that the resulting tests have exact statistical properties because significant levels can be determined, the F and t– tests are meaningful, the power of the F– and t– tests may be used, and the regression coefficients derived using normal scores are meaningful. A further characteristic is that normal scores approach offers a means whereby a non–normal dependent variable may be transformed into normality and, as such, offers a further advantage over ranks."

The extent of disclosure was measured as the ratio of the value of the number of forward–looking sentences a firm discloses divided by the total sentences in its narrative sections. This study used the same formula as used by (Aljifri & Hussainey, 2007):

$$TDS=FWD/TD \qquad\qquad (1)$$

Where:

TDS= total disclosure score

FWD= total forward–looking sentences disclosed

TD= maximum sentences disclosed for each company

The researcher 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 (performance–related variables), which is presented as the following:

$$Y= Bo + B1X1 + B2X2+ B3X3+ B4X4+ E \qquad\qquad (2)$$

Where:

Y= voluntary disclosure index level (forward–looking disclosure level)

B0= constant value or the value of Y when all X values are zero.

X1= profitability variable measured by Earning per share (net profit available to shareholders divided by number of shares)

X2= profitability ratio measured by return equity ratio (net profit available to shareholders divided by total owner equity)

X3= liquidity ratio (measured by current assets divided by current liabilities)

E= the error term normally distributed about a mean of zero

7. Research results

This section presents the practical Minitab methods used to test the re–search hypotheses and to report the results. It consists of two parties: descrip–tive analysis and regression analysis.

7.1 Descriptive statistics

Table (**1**) shows the results related to descriptive analysis: the minimum, maximum, mean and standard deviation (the smaller the standard deviation the more accurate future predictions because there is less variability) for the continuous and categories variables of the sample data set and also provides information about disclosure for the three years (2017, 2018 and 2019). There

is a wide range of variation in some variables within the sample as shown by the minimum and maximum values. In the year **2017**, the extent of forward–looking disclosure level (dependent variable (DV) ranges from 3 to 49 with a mean of 17.73 and a standard deviation of 9.76. The Earning per share (EPS) ranges from –4.50 to 16.56 with a mean of 3.844 and a standard deviation of 4.98. The profitability ratio (PTE) ranges from –0.180 to 0.610 with a mean of 0.168 and a standard deviation of 0.157.While the liquidity ratio (LR) ranges from 0.270 to 9.370 with a mean of 2.384 and a standard deviation of 2.060.

In the year **2018**, the extent of forward–looking disclosure level (depend–ent variable (DV) ranges from 0.00 to 40 with a mean of 13.71 and a standard deviation of 9.26. The Earning per share (EPS) ranges from –2.16 to 26.86 with a mean of 4.00 and a standard deviation of 6.55. The profitability ratio (PTE) ranges from –0.080 to 0.550 with a mean of 0.126 and a standard devi–ation of 0.135.While the liquidity ratio (LR) ranges from 0.150 to 22.53 with a mean of 3.245 and a standard deviation of 3.759.

While in the year **2019**, the extent of forward–looking disclosure level (dependent variable (DV) ranges from 2.00 to 38 with a mean of 15.38 and a standard deviation of 8.02. The Earning per share (EPS) ranges from –0.14 to 35.96 with a mean of 5.46 and a standard deviation of 7.29, The profitability ratio (PTE) ranges from –0.0100 to 0.430 with a mean of 0.1365 and a stand–ard deviation of 0.1257.While the liquidity ratio (LR) ranges from 0.26 to 41.69 with a mean of 3.50 and a standard deviation of 6.50. From the previ–ous results, the standard deviation for profitability ratio (PTE) was the smaller one and it is considered more accurate future predictions because there was less variability.

Table 1: descriptive statistics

Descriptive Statistics: DV; EPS; PTE; LR (2017)

Variable	N	N*	Mean	Median	TrMean
StDev					
DV	40	8	17.73	15.00	17.06
9.76					
EPS	27	21	3.844	1.830	3.669
4.987					
PTE	29	19	0.1683	0.1600	0.1648
0.1575					
LR	29	19	2.384	1.490	2.203
2.060					

Variable	SE Mean	Minimum	Maximum	Q1	Q3
DV	1.54	3.00	49.00	11.00	23.75
EPS	0.960	-4.500	16.560	0.350	6.340
PTE	0.0293	-0.1800	0.6100	0.0700	0.2350
LR	0.382	0.270	9.370	1.110	3.550

Descriptive Statistics: DV; EPS; PTE; LR (2018)

Variable	N	N*	Mean	Median	TrMean
StDev					
DV	45	3	13.71	14.00	13.39
9.26					
EPS	39	9	4.00	1.12	3.02
6.55					
PTE	44	4	0.1261	0.1000	0.1185
0.1350					
LR	44	4	3.245	2.070	2.727
3.759					

Variable	SE Mean	Minimum	Maximum	Q1	Q3
DV	1.38	0.00	40.00	6.50	20.50
EPS	1.05	-2.16	26.86	0.28	6.33
PTE	0.0204	-0.0800	0.5500	0.0325	0.2050
LR	0.567	0.150	22.530	1.363	3.250

Descriptive Statistics: DV; EPS; PTE; LR (2019)

Variable	N	N*	Mean	Median	TrMean
StDev					
DV	42	6	15.38	14.50	15.11
8.02					
EPS	41	7	5.46	4.00	4.36
7.29					
PTE	40	8	0.1365	0.1100	0.1286
0.1257					
LR	40	8	3.50	1.92	2.46
6.50					

Variable	SE Mean	Minimum	Maximum	Q1	Q3
DV	1.24	2.00	38.00	9.00	19.75
EPS	1.14	-0.14	35.96	0.49	6.92
PTE	0.0199	-0.0100	0.4300	0.0425	0.1775
LR	1.03	0.26	41.69	1.21	3.26

7.2. Assessing the validity of the model or (OLS) regression analysis

Before explaining the results of multiple regression analysis, it is useful to check for the existence of multicollinearity or collinearity between the independent variables. Multicollinearity or collinearity means that two or more of the independent variables are highly correlated and this situation can have damaging effects on the results of multiple regressions. The correlation matrix is a powerful tool for getting a rough idea of the relationship between predictors.

Table (**2**) displays the correlations between independent variables, and between dependent variable {the level of forward–looking disclosure (DV)} and other independents variables, in the three years. In the year **2017**, there was no multicollinearity between independents variables because the correlation between each of the continuous variables was not too high. The highest correlation found between profitability variable measured by earning per share (EPS) and profitability ratio measured by return equity ratio (PTE) (0.641) was acceptable, and all correlations were insignificant at the 0.05 level (two–tailed) except the correlation between earning per share (EPS) and return equity ratio (PTE) that was significant (0.000<0.05).. The correlation between the level of forward–looking disclosures {dependent variable (DV)} and the other independent variables were insignificant (p–value>0.05).

In the year **2018**, there was no multicollinearity between independents variables. The correlation between each of the continuous variables was not too high. The highest correlation found also (as the same in year 2008) between profitability variable measured by earning per share (EPS) and profitability ratio measured by return equity ratio (PTE) (0.628) was acceptable, and all correlations were insignificant at the 0.05 level (two–tailed) except the correlation between earning per share (EPS) and return equity ratio (PTE) was significant (0.000<0.05).

The correlation between the level of forward–looking disclosures {dependent variable (DV)} and the other independent variables were significantly

(p–value<0.05) except the correlation with return equity ratio (PTE) insignif–icantly (0.143>0.05).

While in the year **2019**, there was no multicollinearity between independ–ents variables. The correlation between each of the continuous variables was not too high. The highest correlation found also (as the same in years 2017 and 2018) between profitability variable measured by earning per share (EPS) and profitability ratio measured by return equity ratio (PTE) (0.560) was ac–ceptable, and all correlations were insignificant at the 0.05 level (two–tailed) except the correlation between earning per share (EPS) and return equity ratio (PTE) was significant (0.000<0.05).

The correlation between the level of forward–looking disclosures {de–pendent variable (DV)} and the other independent variables were significantly (p–value<0.05) except the correlation with return equity ratio (PTE) is insig–nificant (0.362>0.05).

To sum up, the results in all the three years confirm that no colinearity ex–ists between the independent variables. The highest correlation was found between profitability variable measured by earning per share (EPS) and profit–ability ratio measured by return equity ratio (PTE), and the correlation were also significant between the two previous variables (p–value<0.05) in all the three years. The correlation between the level of forward–looking disclosure {dependent variable (DV)} and liquidity ratio (LR), earning per share (EPS) (independent variables) was significant in the years 2018 and 2019.

Table 2: correlations

Correlations: DV; EPS; PTE; LR (2017)

```
                DV        EPS        PTE
EPS          0.227
             0.287

PTE          0.217     0.641*
             0.286     0.000**

LR          -0.203    -0.285     -0.106
             0.321     0.150      0.584

Cell Contents: Pearson correlation
              P-Value
```

Notes:
*the highest correlation between independent variables
**correlation is significant at the 0.05 level (two-tailed)

Correlations: DV; EPS; PTE; LR (2018)

```
                DV        EPS        PTE
EPS          0.356
             0.028**

PTE          0.227     0.628*
             0.143     0.000**

LR           0.325    -0.142     -0.091
             0.033**    0.390      0.557

Cell Contents: Pearson correlation
              P-Value
```

Notes:
*the highest correlation between independent variables
**correlation is significant at the 0.05 level (two-tailed)

Correlations: DV; EPS; PTE; LR (2019)

```
                DV        EPS        PTE
EPS          0.358
             0.025**

PTE          0.152     0.560*
             0.362     0.000**

LR           0.522     0.047     -0.010
             0.001**    0.776      0.951

Cell Contents: Pearson correlation
              P-Value
```

Notes:
*the highest correlation between independent variables
**correlation is significant at the 0.05 level (two-tailed)

7-3- Multiple regression results

Appendix (**A**) showed all the multiple regression results for the years 2017, 2018 and 2019. Results of the OLS regression in **table** (**3**) showed that stand–ard deviation of the error terms are 11.44, 8.18 and 6.207 for the three years respectively.

The results statistically (ANOVA tests) support the insignificance of the model in the year 2017 because F–Stat. was 0.44 (P=0.727>0.05). But support the significance of the model in the years 2018 and 2019 because F–Stat. was 4.36 (P=0.011>0.05) and F–ratio was 7.66 (P=0.000<0.05) respectively. 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 that independent variables explain of the variance in dependent variable (the level of looking–forward disclo–sure), in anther words, (the variance percentage in dependent variable due to the variance percentage in independent variables).

R^2 (6.2%, 27.8% and 40.3%) for the three years, was not a respectable re–sult because it less than 75% (the begging percentage to accept the R^2 result for any model). So the best R^2 was 40.3% for the year 2019, implies that in–dependent variables explain 40.3 percentage of the variance in the level of looking–forward disclosure. In other words, there were a variation in the val–ue of Y (level of looking–forward disclosure), 40.3% of it was due to the model (or due to change in X –independent variables) and 59.7% was due to error or some unexplained factor.

Table 3: model summary

```
Year 2017
S = 11.44      R-Sq = 6.2%      R-Sq(adj) = 0.0%
Analysis of Variance
Source           DF         SS           MS         F       P-value
Regression        3        172.8        57.6       0.44     0.727
Residual Error    20       2618.5       130.9
Total             23       2791.3

Year 2018
S = 8.180      R-Sq = 27.8%     R-Sq(adj) = 21.4%
Analysis of Variance
Source           DF         SS           MS         F       P-value
Regression        3        874.68       291.56     4.36     0.011
Residual Error    34       2275.21      66.92
Total             37       3149.89

Year 2019
S = 6.207      R-Sq = 40.3%     R-Sq(adj) = 35.1%
Analysis of Variance
Source           DF         SS           MS         F       P-value
Regression        3        885.58       295.19     7.66     0.000
Residual Error    34       1309.82      38.52
Total             37       2195.39
```

Table (4) shows the results of regression related to independent variables, profitability (Earning per share) (EPS), profitability (return equity ratio) (PTE) and liquidity ratio (LR) for the three years.

The sample estimated alpha (constant) and beta (independent variables) are {17.43, 0.549, –6.95 and –0.379} respectively for the year 2017, {8.34, 0.537, 3.01 and 0.902} respectively for the year 2018, and {11.55, 0.400, –3.44 and 0.585} for the last year 2019.

The comment on the results is as follows:

*profitability: (measured by Earning per share), it is found to be insignificantly associated with the level of forward–looking disclosure only in the year 2017 (P>0.05), but the relationship was significant in other years 2018 and 2019 (P<0.05). The relationship between the level of forward–looking disclosure and Earning per share was positive in all the three years. So the result before did not provide a clarification of the forward–looking disclosure variation.

*profitability :(measured by return equity ratio), it is found to be insig-nificantly associated with the level of forward-looking disclosure in all the three years (P>0.05). It is only positive in the year 2018, and negatively in other years 2017 and 2019.

The direction (coefficient) of the previous results suggest that firms with high profitability are preferring to disclose more forward-looking information, This result is in conflict with the findings found by (Aljifri & Hussainey, 2007).

Lang and Lundholm (1993) supported the previous result, whereas they found that the direction of the relationship between the level of voluntary disclosure and performance variables was unclear because those variables could serve as a measure for the information asymmetries between manage-ment and shareholders.

The previous result was also supported by Ahmed and Courtis (1999), Alsaeed (2006), McNally et al., (1982) in New Zealand firms. Also, (Ho & Shun Wong, 2001; Malone, Fries, & Jones, 1993; Meek, Roberts, & Gray, 1995; Raffournier, 1995); Wallace et al. (1994) but to measure the relation-ship between performance variables and the level of voluntary disclosure. On the other hand, Few previous studies tested the association between the level of forward-looking disclosure and profitability such as the studies made by (Aljifri & Hussainey, 2007), whereas they found that there is significant asso-ciation between profitability and forward-looking information disclosed in UAE annual report.

*Liquidity: (measured by current ratio: current assets/current liabilities), it is found to be insignificantly correlated to the level of forward-looking disclo-sure only in the year 2017 (P> 0.05), but the relationship was significant in the years 2018 and 2019 (P<0.05). The relationship was negatively in the 2017 but positively in other years 2018 and 2019. A clarification for such a positive relationship is that managers of highly profitable firms might provide

more forward–looking information to increase investors' confidence and to increase their compensation (Aljifri & Hussainey, 2007).

There were previous studies that supported the insignificant relationship such as Alsaeed (2006), Barako, Hancock, and Izan (2006) ,Wallace and Naser (1995) and Owusu–Ansah (1998), but Wallace et al. (1994) and Naser, Al–Khatib, and Karbhari (2002) found significant relationship as the result in year 2019. On the other hand No previous studies to the researcher knowledge tested the association between the level of forward–looking disclosure and liquidity in Egyptian environment.

Table 4: regression results of the effect of the performance-related variables on the level of forward-looking disclosure

Year 2017

Predictor	Coef	SE Coef	T	P
Constant	17.434	5.456	3.20	0.005
EPS	0.5499	0.6390	0.86	0.400
PTE	–6.95	21.72	–0.32	0.752
LR	–0.379	1.194	–0.32	0.755

Year 2018

Predictor	Coef	SE Coef	T	P
Constant	8.348	2.210	3.78	0.001
EPS	0.5377	0.2627	2.05	0.048
PTE	3.01	12.60	0.24	0.813
LR	0.9029	0.3404	2.65	0.012

Year 2019

Predictor	Coef	SE Coef	T	P
Constant	11.552	1.608	7.18	0.000
EPS	0.4007	0.1635	2.45	0.020
PTE	–3.448	9.572	–0.36	0.721
LR	0.5850	0.1535	3.81	0.001

8- Conclusions, limitations and future research

The main purpose of preparing annual reports is to offer satisfactory and timely information to the users of financial reports. But 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 (performance–related variables) and discover the effect of two main performance–related variables (profitability ratio, and liquidity ratio) on the extent of the level of forward–looking information disclosure through the annual reports of non–financial Egyptian firms.

Also, this paper helps the determinant of the disclosure policy of Egyptian firms by making connect on between annual reports with specific firm characteristics (performance–related variables).

The results for the sample of 49 firms showed that profitability ratio (measured by earning per share) and liquidity ratio variables have significant positive effects on the forward– looking disclosure level in years 2018 and 2019. But, they have insignificant relationship with the level of forward–looking disclosure in the year 2017.

While, profitability ratio (measured by return equity ratio), has an insignificant association with the level of forward–looking disclosure in all the three years.

The previous study made by Aljifri (2006) found that an insignificant association between profitability and the level of voluntary disclosure (items presented in financial statements). So, the previous result leads to an important conclusion, that the variables that affect the level of disclosing accounting information could be different from those that affect the level of disclosing forward–looking information (Aljifri & Hussainey, 2007).

This study has some limitations, first, the study used the same list of forward–looking items as in previous study made by (Hussainey et al., 2003). Second, the items which were selected do not show their level of importance observed by financial information users. Third, the study applied unweights approach to measure the level of forward–looking disclosure. Fourth, in real life some information items have higher value to same users of annual reports than other users, so the items should be weighted to reflect their level of im-

portance. Fifth, this study concentrated on non–financial listed firms in 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.

Future research can address the following suggestions:

* Introducing new forward–looking items not addressed by the current study.

* Introducing a list of items related to forward–looking disclosure that reflects the level of importance observed by users.

* Conducting a new study that examines 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 increase the strength of evidence that presented in this study.

* Examining the effect of cost of equity (as an independent variable) on the level of forward–looking disclosure.

***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.

Appendix A

Descriptive Statistics: DV; EPS; PTE; LR (2017)

```
Variable        N       N*      Mean    Median  TrMean  StDev
DV              40      8       17.73   15.00   17.06   9.76
EPS             27      21      3.844   1.830   3.669   4.987
PTE             29      19      0.1683  0.1600  0.1648  0.1575
LR              29      19      2.384   1.490   2.203   2.060

Variable        SE Mean Minimum Maximum         Q1      Q3
DV              1.54    3.00    49.00           11.00   23.75
EPS             0.960   -4.500  16.560          0.350   6.340
PTE             0.0293  -0.1800 0.6100          0.0700  0.2350
LR              0.382   0.270   9.370           1.110   3.550
```

Correlations: DV; EPS; PTE; LR

```
            DV      EPS     PTE
EPS         0.227
            0.287

PTE         0.217   0.641
            0.286   0.000

LR          -0.203  -0.285  -0.106
            0.321   0.150   0.584

Cell Contents: Pearson correlation
              P-Value
```

Descriptive Statistics: DV; EPS; PTE; LR (2018)

```
Variable        N       N*      Mean    Median  TrMean  StDev
DV              45      3       13.71   14.00   13.39   9.26
EPS             39      9       4.00    1.12    3.02    6.55
PTE             44      4       0.1261  0.1000  0.1185  0.1350
LR              44      4       3.245   2.070   2.727   3.759

Variable        SE Mean Minimum Maximum         Q1      Q3
DV              1.38    0.00    40.00           6.50    20.50
EPS             1.05    -2.16   26.86           0.28    6.33
PTE             0.0204  -0.0800 0.5500          0.0325  0.2050
LR              0.567   0.150   22.530          1.363   3.250
```

Correlations: DV; EPS; PTE; LR

```
            DV      EPS     PTE
EPS         0.356
            0.028

PTE         0.227   0.628
            0.143   0.000

LR          0.325   -0.142  -0.091
            0.033   0.390   0.557

Cell Contents: Pearson correlation
              P-Value
```

Descriptive Statistics: DV; EPS; PTE; LR (2019)

```
Variable         N      N*     Mean     Median     TrMean     StDev
DV              42      6      15.38     14.50      15.11      8.02
EPS             41      7      5.46      4.00       4.36       7.29
PTE             40      8      0.1365    0.1100     0.1286     0.1257
LR              40      8      3.50      1.92       2.46       6.50
Variable       SE Mean    Minimum    Maximum          Q1          Q3
DV              1.24       2.00       38.00         9.00       19.75
EPS             1.14      -0.14       35.96         0.49        6.92
PTE             0.0199    -0.0100     0.4300        0.0425      0.1775
LR              1.03       0.26       41.69         1.21        3.26
```

Correlations: DV; EPS; PTE; LR

```
            DV       EPS       PTE
EPS        0.358
           0.025
PTE        0.152     0.560
           0.362     0.000
LR         0.522     0.047    -0.010
           0.001     0.776     0.951
Cell Contents: Pearson correlation
              P-Value
```

Regression Analysis: DV versus EPS; PTE; LR (2017)

```
The regression equation is
DV = 17.4 + 0.550 EPS - 6.9 PTE - 0.38 LR

24 cases used 24 cases contain missing values

Predictor       Coef      SE Coef          T          P
Constant       17.434      5.456        3.20      0.005
EPS            0.5499      0.6390       0.86      0.400
PTE            -6.95       21.72       -0.32      0.752
LR             -0.379      1.194       -0.32      0.755

S = 11.44      R-Sq = 6.2%      R-Sq(adj) = 0.0%

Analysis of Variance

Source          DF          SS          MS          F
P
Regression       3         172.8        57.6        0.44
0.727
Residual Error  20        2618.5       130.9
Total           23        2791.3

Source         DF      Seq SS
EPS             1       143.2
PTE             1        16.4
LR              1        13.2

Unusual Observations
Obs      EPS          DV          Fit       SE Fit     Residual
St Resid
 24      0.5        6.00        12.05       8.49        -6.05
-0.79 X
```

```
 39      3.1     49.00     17.34      2.53     31.66
2.84R
 47     13.1     15.00     20.31      8.30     -5.31
-0.67 X
```

R denotes an observation with a large standardized residual
X denotes an observation whose X value gives it large influence.

Regression Analysis: DV versus EPS; PTE; LR (2018)

```
The regression equation is
DV = 8.35 + 0.538 EPS + 3.0 PTE + 0.903 LR

38 cases used 10 cases contain missing values

Predictor          Coef      SE Coef          T          P
Constant          8.348       2.210       3.78      0.001
EPS              0.5377      0.2627       2.05      0.048
PTE                3.01       12.60       0.24      0.813
LR               0.9029      0.3404       2.65      0.012

S = 8.180      R-Sq = 27.8%     R-Sq(adj) = 21.4%

Analysis of Variance

Source             DF           SS          MS          F
P
Regression          3       874.68      291.56       4.36
0.011
Residual Error     34      2275.21       66.92
Total              37      3149.89

Source         DF      Seq SS
EPS             1      398.65
PTE             1        5.13
LR              1      470.90

Unusual Observations
Obs      EPS          DV         Fit      SE Fit     Residual
St Resid
  3       0.1       21.00       28.81       6.59        -7.81
-1.61 X
 18      26.9       15.00       26.83       4.91       -11.83
-1.81 X
 21      26.0       28.00       23.87       5.72         4.13
0.71 X
 39       1.9       40.00       17.37       2.22        22.63
2.87R
```

R denotes an observation with a large standardized residual
X denotes an observation whose X value gives it large influence.

Regression Analysis: DV versus EPS; PTE; LR (2019)

```
The regression equation is
DV = 11.6 + 0.401 EPS - 3.45 PTE + 0.585 LR

38 cases used 10 cases contain missing values

Predictor        Coef       SE Coef          T          P
Constant       11.552        1.608        7.18      0.000
EPS            0.4007        0.1635        2.45      0.020
PTE            -3.448         9.572       -0.36      0.721
LR             0.5850        0.1535        3.81      0.001

S = 6.207      R-Sq = 40.3%     R-Sq(adj) = 35.1%

Analysis of Variance

Source             DF            SS           MS          F
P
Regression          3        885.58       295.19       7.66
0.000
Residual Error     34       1309.82        38.52
Total              37       2195.39

Source        DF       Seq SS
EPS            1       315.40
PTE            1        10.91
LR             1       559.26

Unusual Observations
Obs       EPS          DV          Fit       SE Fit     Residual
St Resid
 21       36.0       22.00        26.04        4.88        -4.04
-1.06 X
 38        6.8       30.00        18.29        2.26        11.71
2.03R
 39        7.0       38.00        38.43        5.93        -0.43
-0.24 X

R denotes an observation with a large standardized residual
X denotes an observation whose X value gives it large influ-
ence.
```

References

Abad, Cristina and Bravo, Francisco. (2010),"Board of directors' characteristics and forward–looking Information disclosure strategies", paper presented at Universidad de Sevilla, Spain.

Abdel–Fattah ,Tarek.M.H. (2008) "Voluntary Disclosure Practices in Emerging Capital Markets: The Case of Egypt", PhD Thesis, Durham University, UK.

Abd–Elsalam, O. H., & Weetman, P. (2003). Introducing international accounting standards to an emerging capital market: relative familiarity and language effect in Egypt. *Journal of International Accounting, Auditing and Taxation, 12* (1), 63–84.

Ahmed, K., & Courtis, J. K. (1999). ASSOCIATIONS BETWEEN CORPORATE CHARACTERISTICS AND DISCLOSURE LEVELS IN ANNUAL REPORTS: A META-ANALYSIS. *The British Accounting Review, 31* (1), 35–61. doi: 10.1006/bare.1998. 0082

Ahmed, K., & Nicholls, D. (1994). 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.

Ali, M. J., Ahmed, K., & Henry, D. (2004). Disclosure compliance with national accounting standards by listed companies in South Asia. *Accounting and Business Research, 34*, 183–200.

Aljifri, K. (2008). Annual report disclosure in a developing country: the case of the UAE. *Advances in Accounting, 24* (1), 93–100.

Aljifri, K., & Hussainey, K. (2007). The determinants of forward–looking information in annual reports of UAE companies. *Managerial Auditing Journal, 22* (9), 881–894.

Alsaeed, K. (2006). The association between firm–specific characteristics and disclosure; The case of Saudi Arabia. *Managerial Auditing Journal, 21* (5), 476–496.

Barako, D. G., Hancock, P., & Izan, H. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review, 14* (2), 107–125.

Beattie, V., Pratt, K., & Scotland, I. o. C. A. o. (2002). *Voluntary annual report disclosures: what users want*: Institute of Chartered Accountants of Scotland.

Beattie, V. (2005). Moving the financial accounting research front forward: the UK contribution. *The British Accounting Review, 37*(1), 85–114.

Belkaoui, A., & Kahl, A. L. (1978). *Corporate financial disclosure in Canada*: Canadian Certified General Accountants' Association.

Beretta, S., & Bozzolan, S. (2004). A framework for the analysis of firm risk communication. *The International Journal of Accounting, 39* (3), 265–288.

Camfferman, K., & Cooke, T. E. (2002). An analysis of disclosure in the annual reports of UK and Dutch companies. *Journal of International Accounting Research, 1* (1), 3–30.

Chen, C. J. P., & Jaggi, B. (2000). Association between independent non–executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy, 19* (4–5), 285–310.

Chow, C. W., & Wong–Boren, A. (1987). Voluntary financial disclosure by Mexican corporations. *Accounting Review*, 533–541.

CICA. 2001. *Management's Discussion and Analysis; Guidance on Preparation and Disclosure*, Ottawa: Canadian Institute of Chartered Accountants.

Cooke, T. E. (1989). Disclosure In The Corporate Annual Reports Of Swedish Compa. *Accounting and Business Research, 19* (74), 113.

Cooke, T. E. (1989). Voluntary corporate disclosure by Swedish companies. *Journal of International Financial Management & Accounting, 1* (2), 171–195.

Cooke, T. E. (1991). An assessment of voluntary disclosure in the annual reports of Japanese corporations. *The International Journal of Accounting, 26* (3), 174–189.

Cooke, T. E. (1992). The Impact of Size, Stock Market Listing and Industry Type on Disclosure in the Annual Reports of Japanese Listed Corporations. *Accounting and Business Research, 22* (87), 229.

Cooke, T. E., & Wallace, R. (1989). Global surveys of corporate disclosure practices and audit firms: a review essay. *Accounting and Business Research, 20* (77), 47–57.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review, 86*, 59.

Epstein, M. J., & Palepu, K. G. (1999). Features–What Financial Analysts Want–Even Wall Street analysts don't understand some footnotes, according to this survey, which means financial managers aren't doing their job as well as they. *Strategic Finance–Montvale, 80* (10), 48–57.

Firth, M. (1979). Impact of size, stock market listing, and auditors on voluntary disclosure in corporate annual reports. *Accounting and Business Research, 9*, p. 273.

Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus, 38* (3), 317–349.

Hassan, O. A. G., Giorgioni, G., & Romilly, P. (2006). The extent of financial disclosure and its determinants in an emerging capital market: the case of Egypt. *International Journal of Accounting, Auditing and Performance Evaluation, 3* (1), 41–67.

Ho, S. S. M., & Shun Wong, K. (2001). A study of the relationship between corporate governance structures and the extent of voluntary disclosure7. *Journal of International Accounting, Auditing and Taxation, 10* (2), 139–156.

Hossain, M., Perera, M. H. B., & Rahman, A. R. (1995). Voluntary disclosure in the annual reports of New Zealand companies. *Journal of International Financial Management & Accounting, 6* (1), 69.

Hossain, M., Tan, L. M., & Adams, M. (1994). *Voluntary disclosure in an emerging capital market: some empirical evidence from companies listed on the Kuala Lumpur stock exchange*: Dept. of Accountancy, Massey University.

Hussainey, K. (2004), "A study of the ability of (partially) automated disclosure scores to explain the Information content of annual report narratives for future earnings", PhD thesis, Manchester University, Manchester

Hussainey, K., Schleicher, T., & Walker, M. (2003). Undertaking large–scale disclosure studies when AIMR–FAF ratings are not available: the case of prices leading earnings. *Accounting and Business Research, 33* (4), 275–294.

Inchausti, A. G. (1997). The influence of company characteristics and accounting regulation on information disclosed by Spanish firms. *European Accounting Review, 6* (1), 45–68.

Lang, M., & Lundholm, R. (1993). Cross–sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research, 31* (2), 246–271.

Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics, 45* (2–3), 221–247.

Li, F. (2008). The Determinants and Information Content of the Forward–looking Statements in Corporate Filings – A Naive Bayesian Machine Learning Approach. *SSRN eLibrary*.

Li, F. 2008. Seeing the future through the eyes of managers: the information content of forward–Looking statements in corporate filings—a naive Bayesian machine learning approach Working paper, University of Michigan

Lutfe. M.M. (1989) "Voluntary Financial Disclosure and the Unlisted Securities Market: An Empirical Investigation", PhD Thesis, Glasgow University, Scotland, UK

Malone, D., Fries, C., & Jones, T. (1993). An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry. *JOURNAL OF ACCOUNTING AUDITING AND FINANCE, 8*, 249–249.

McNally, G.M., Eng., L.H. and Hasseldine, C.R. (1982),"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

Meek, G. K., Roberts, C. B., & Gray, S. J. (1995). Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations. *Journal of International Business Studies*, 555–572.

Naser, K., & Al–Khatib, K. (2000). THE EXTENT OF VOLUNTARY DISCLOSURE IN THE BOARD OF DIRECTORS'STATEMENT: THE CASE OF JORDAN. *Advances in International Accounting, 13*, 99–118.

Naser, K., Al–Khatib, K., & Karbhari, Y. (2002). 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.

Omar.B.F. (2007) "Exploring the Aggregate, Mandatory and Voluntary Financial Disclosure Behavior Under A new Regulatory Environment: The Case of Jordan", PhD Thesis, Hull University, UK.

Owusu-Ansah, S. (1998). 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.

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

Patton, J., & Zelenka, I. (1998). 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.

Prencipe, A. (2002). Proprietary Costs and Voluntary Segment Disclosure: Evidence from Italian Listed Companies. *SSRN eLibrary*. doi: 10.2139/ssrn.319502

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

Schleicher, T., Hussainey, K., & Walker, M. (2007). Loss firms' annual report narratives and share price anticipation of earnings. *The British Accounting Review, 39* (2), 153–171.

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

Wallace, R. S. O., & Naser, K. (1995). 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. doi: 10.1016/0278-4254(95)00042-9

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

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