The Determinants of Forward-looking Information in Annual Reports of UAE Companies

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Abstract

Purpose
To empirically explore empirically the underlying factors that may affect the extent to which forward-looking information is disclosed.

Methodology
This study uses a list of forward-looking keywords to demonstrate the differences, if any, in the level of disclosure among firms and between sectors. The sample includes 46 companies listed in either the Dubai financial market or Abu Dubai securities market. Statistical analysis is performed using a backward regression.

Findings
Debt ratio and profitability are found significant; however, sector type, firm size, and auditor size are found to have insignificant association with the level of forward-looking information disclosed in UAE annual reports.

Practical implications
A number of users, such as investors, lenders, and auditors, may find these results beneficial. These users may consider the results of this study when they are dealing with firms that have low profitability and high financial risk. Accordingly, they may wish to extend their investigations and verify such reporting practices. By doing this, the quality of information that is available to the public may be enhanced; and hence, users of annual reports may be better served.

Originality/value
It is important to note that the association between the extent of disclosure and the selected corporate attributes is still ambiguous. There are very limited number of studies that have examined disclosure of forward-looking information in developing countries and even fewer such studies may be found in the Middle Eastern countries. To the best of the authors' knowledge, no study yet has examined the forward-looking information disclosure issues in the UAE or Middle Eastern countries.

Keywords: Narrative Disclosure; Forward-looking Disclosure; UAE; Relevant Information; Annual Reports; Emerging Markets
Introduction:

Disclosure of information in corporate annual reports has attracted a number of researchers in both developed and developing countries. Information is disclosed by firms in a number of ways. In addition to the annual report, there are a number of other sources that might provide investors with value-relevant information in predicting firms’ future performance. These sources include: interim reports, press releases, conference calls and direct communication with analysts. The paper focuses on forward-looking information voluntarily published in annual report narratives of UAE companies.

We decide to focus on annual reports for a number of reasons (Hussainey, 2004). First, the annual report is a mandatory document which is required to be produced on an annual basis. Second, most companies release their annual reports within three to four months after the financial year-end, so timing differences are minimised. Third, because of their standard format, annual reports are more easily comparable among firms than other less formal communication channels like press releases or direct contact with analysts. Fourth, prior studies rank annual reports high as a communication source by different groups of stakeholders (Chang and Most, 1985). Fifth, prior studies find that annual report disclosure scores are correlated positively with other media of financial communications (Botosan, 1997; Lang and Lundholm, 1993), suggesting that firms coordinate their overall disclosure policy. Finally, we use the annual report alone in this study because of its availability and ability to be scored. Other sources of information are not available, but it is recognised that, in practice, investors are likely to use all sources of information to make informed decisions about companies.
The main objective of this study is to explore empirically the underlying factors that may affect the extent to which forward-looking information is disclosed. This study is conducted in the United Arab Emirates (UAE), a developing country situated in the Western region of Asia, which has an open economy with a high per capita income and a sizable annual trade surplus. Its borders are the Gulf of Oman, the Arab Gulf, the Sultanate of Oman, and the Kingdom of Saudi Arabia. It is comprised of seven Emirates, which include Abu Dhabi, Dubai, Sharjah, Ras Al-Khaimah, Ajman, Umm Al-Qaiwain and Fujairah. Its economic philosophy is based on the adoption of a market economy and liberalization of trade, which makes it capable of adopting its own local laws in line with those of its international counterparts. There are three main regulatory authorities in the UAE corporate sector: the Ministry of Economy and Planning, the Central Bank, and the Emirates Securities & Commodities Authority (ESCA). In addition, the Accountants and Auditors Association is the official body that represents the accounting profession in the country. The corporate compulsory disclosure requirements state that each listed company must prepare income statements, balance sheets, statements of cash flow, statements of changes in equity and notes to accounts. It should be noted that in the UAE, firms prepare their annual reports within two to three months of the year-end.

There are very limited numbers of studies that have examined disclosure of forward-looking information in developing countries and even fewer such studies may be found in Middle Eastern countries. To the best of the authors' knowledge, no study yet has examined the forward-looking information disclosure issues in the UAE or Middle Eastern countries. Additionally, this study includes a new informative scoring methodology. This methodology improves the value of scoring where all forward-looking sentences have been proportioned to the total sentences presented in annual
report narrative sections. This reduces the subjectivity (classification of scores to high and low using the mean or the median) involved in previous research. Although this study has specific relevance to the needs of the UAE environment, it is believed that many other countries that have similar problems and/or needs could benefit from its results.

**Forward-Looking Disclosure**

*Definition of Forward-Looking Information*

Information published in the annual report can be classified into two categories: ‘backward-looking information’ and ‘forward-looking information’ (Hussainey, 2004). Backward-looking disclosure is the class of information that refers to past financial results and their related disclosures. Forward-looking disclosure is the class of information that refers to current plans and future forecasts that enable investors and other users to assess a company’s future financial performance. Such forward-looking disclosure involves financial forecasts such as next’s year earnings, expected revenues and anticipated cash flows. Forward-looking disclosure also involves non-financial information such as risks and uncertainties that could significantly affect actual results and cause them to differ from projected results. In many cases, one can identify forward-looking sentences by terms such as ‘forecast’, ‘expect’, ‘anticipate’, ‘estimate’, ‘predict,’ or other comparable terminology.

Hussainey (2004) argues that the definitions of backward- and forward-looking information are not as simple as stated above. In many cases, some types of information may be categorised as backward-looking while they carry messages which have relevance for the future. For example, if the CEO reports in the annual report that the level of Research and Development (R&D) expenditure was increased
by 10% last year; this statement definitely refers to the past. However, it implies that such investment in R&D is expected to lead to an increase in the future cash flow.

**Arguments for and against Forward-Looking Information**

There is a plenty of literature that attempts to explain what motivates firms to voluntarily disclose additional information. Healy and Palepu (2001) and Walker (1997) provide comprehensive reviews of this literature. This paper focuses only on one type of discretionary disclosure - forward-looking information.

There are various arguments about the advantages of including forward-looking information in annual reports. Keiso and Weygandt (1995) argue that forward-looking information will be helpful to investors in their investment decision-making process. They also argue that the absence of forward-looking information may lead investors to base their forecasts on inaccurate information from other sources. Finally, they argue that the economic environment is too dynamic to rely on historical information only.

In addition to the above advantages, it is argued that the publication of forward-looking information in the annual report is useful for reducing the degree of information asymmetry between managers and investors, thereby reducing the firm’s cost of external financing (Bujaki et al., 1999). This argument is consistent with the capital markets transactions hypothesis as a motivation for voluntary disclosure (Healy and Palepu, 2001).

In contrast, academic researchers provide some arguments against the publication of forward-looking disclosures. First, because of the uncertainty associated with the future, it might be difficult to predict with accuracy. Additionally, firms might leverage their performance towards the level of their forecasts (Kasznik, 1999).
Second, inaccurate forecasts might lead to lawsuits; this is consistent with the litigation cost hypothesis (e.g. Field et al. 2003). Litigation might reduce a manager’s incentives to provide forward-looking information. This is especially true when managers believe that the legal system cannot distinguish between forecast errors due to uncertainty and deliberate management bias. Third, forward-looking disclosure might provide useful information to competitors and, hence, might affect its competitive position in product markets; this is consistent with the proprietary cost hypothesis (Healy and Palepu, 2001).

**Nature of Forward-Looking Information**

Studies that look at how forward-looking information is presented in the corporate annual report show that this type of information can be qualitative, quantitative, financial or non-financial. For example, Bujaki et al. (1999) describe the nature of forward-looking information published in the chairmen’s statements and the Management Discussion and Analysis (MD&A) for 46 Canadian companies. They find that 19.2% of information included in the chairmen’s statements and the MD&A is forward-looking. In addition, they observe that most of the forward-looking information is qualitative and company-specific. Another important finding in Bujaki et al. (1999) is that good news dominates bad news. Good news disclosures account for 97.5%, while 2.5% of forward-looking information is bad news. This argument has broad consistency with the findings in Clarkson et al. (1992 and 1994) and Clatworthy and Jones (2003).

Clarkson et al. (1992 and 1994) argue that managers tend to publish favourable forward-looking information in their annual reports. The findings in Clatworthy and Jones (2003) suggest that UK companies prefer to report positive aspects of their
performance. Their study also shows that UK companies prefer to take credit for good performance themselves whilst attributing bad performance to external sources.

In addition, large numbers of studies investigate empirically the economic benefits of disclosing forward-looking information. They are reviewed below.

**The Benefits of Forward-Looking Information**

Numerous studies examine the benefits of forward-looking information in a variety of contexts. These include the prediction of corporate future performance, the characteristics of analyst forecasts and stock price behaviour.

A number of studies investigate the usefulness of forward-looking information for anticipating future corporate performance. One such study is Clarkson et al. (1994) which finds that the inclusion of forward-looking information in corporate annual reports is informative with respect to corporate future performance. Another study that links corporate disclosure with corporate future performance is Bryan (1997) which finds that indications of future operations and capital expenditures are associated with future short-term performance measures, after controlling for information contained in financial ratios. In addition, Clarkson et al. (1999) provide evidence that changes in the level of forward-looking information in the MD&A vary directly with future corporate performance. This suggests that forward-looking disclosures in the MD&A provide credible information.

Besides studies focusing on corporate future performance, there are those that concentrate on the association between forward-looking information and the characteristics of financial analyst forecasts. For example, Barron et al. (1999) show that higher levels of forward-looking information about capital expenditure and operations are associated with more accurate analyst forecasts. In addition, Walker
and Tsalta (2001) find a positive association between analyst forecasts and the quality of forward-looking information published in UK annual reports.

A further group of studies examines the effects of increasing the level of forward-looking disclosures on the stock market. For example, Schleicher and Walker (1999) and Hussainey et al. (2003) provide evidence that high levels of forward-looking disclosure in annual report narrative sections improve the stock market's ability to anticipate future earnings changes.

The stream of research discussed above suggests that forward-looking disclosures are valuable to investors because they contain incremental information. This information is relevant in forecasting future performance. The evidence also suggests that narrative disclosures carry valuable information for financial analysts. Because of their importance, we decided to focus on this class of information to examine the determinants of including these forecasts in the annual reports of UAE firms.

**Literature Review and Hypotheses Development**

The association between corporate disclosure and firm characteristics (such as firm size, listing/cross listing, profitability, gearing, sector type and auditor size) has attracted major interest in accounting journals since 1961. However, the results are most often mixed.

In our study, we develop hypotheses about the association between the level of forward-looking disclosure and five firm characteristics which might affect disclosure decisions of UAE companies. These characteristics are: sector type, firm size, debt ratio, profitability and auditor size.
Sector type

Sector type as a determinant of corporate disclosure has been investigated in prior studies. Ahmed and Courtis (1999) survey prior literature and find a significant relationship between disclosure and sector type in some countries such as the USA, Canada, and Sweden (Stanga, 1976; Belkaoui and Kahl 1978; Cooke, 1989). On the other hand, an insignificant relationship between the two variables is found by a number of academic studies such as Wallace (1987) in Nigeria, McNally et al. (1982) in New Zealand, and Wallace et al. (1994) in Spain. Our first hypothesis suggests that the four sectors in the UAE (banks, insurance, industry and service) would adopt different accounting policies, measurement, valuation and disclosure techniques, which will result in differences in the level of disclosure. In short, the majority results of the previous studies lead to the following hypothesis:

H1: The level of forward-looking information disclosure in annual reports differs among firms in the four sectors.

Firm size

Prior disclosure studies investigated the relationship between level of corporate disclosure and the size of firm. The size of firms was used as an important control variable in the empirical studies on the determinants of corporate disclosures. Results have often found that a positive relationship exists between a firm size and its level of disclosures (Firth, 1979; Lang and Lundholm, 1993; Hossain et al., 1995; Beattie et al., 2004; Hassan et al., 2006; Alsaeed, 2006). This indicates that larger companies follow better disclosure practices (Ahmed and Courtis, 1999). There are a number of explanations for such a positive association (Hassan et al., 2006). Firstly, large companies might have sufficient resources to afford the cost of producing information
for the user of annual reports. Secondly, small companies might suffer from a competitive disadvantage if they provide additional disclosure. Thirdly, large companies might be of interest to different users of annual reports including government agencies. Finally, agency costs are higher for larger companies because shareholders are widespread (Alsaeed, 2006); therefore, additional disclosure might reduce these costs (Watts and Zimmerman, 1983). As a result, these firms might publish more information in their reports to supply information relevant to different users. However, large firms might have the incentive for reducing the level of disclosure, more specifically the level of forward-looking information, to avoid litigation costs (Field et al., 2003). In summary, the above arguments indicate that there is an interactive effect between the levels of forward-looking disclosure in annual report narratives and firm size. Thus, it seems reasonable to hypothesise that:

**H2: Big firms are more likely to disclose forward-looking information in their annual reports compared with small firms.**

**Debt ratio**

Debt to total assets ratio or leverage is another variable that was widely used in prior studies to examine the determinants of corporate disclosure. A positive relationship between leverage and corporate disclosure has been hypothesized in prior studies (see, for example, Wallace et al., 1994). Jensen and Meckling (1976) argue that because more highly leveraged firms incur more monitoring costs, they seek to reduce these costs by disclosing more information to satisfy the need of creditors. Empirical evidence on the association between the two variables is mixed. For example, Hossain et al. 1994) find a significant association, while Raffournier (1995) has found no support for the proposed association between the two variables. The third hypothesis states that:
H3: Firms with a high debt ratio are more likely to disclose forward-looking information in their annual reports compared with firms with a low debt ratio.

Profitability

In prior studies, a positive association between firm's profitability and level of corporate disclosures were hypothesized. An explanation for such a positive association is that managers of highly profitable firms might provide greater information to increase investors’ confidence and hence to increase their compensation (Singhvi and Desai, 1971). Ahmed and Courtis (1999) argue that empirical evidence on the association between disclosure and profitability is mixed and provides conflicting results. For example, some studies find a significant positive association (Singhvi, 1968; Singhvi and Desai, 1971; Wallace et al., 1994), while others find no such relationship (McNally et al., 1982; Lau, 1992; Raffournier, 1995). Surprisingly, a significant negative relationship between profitability and disclosure level has also been reported (Belkaoui and Kahl, 1978; Wallace and Naser, 1995). Based on some of the previous studies, the fourth hypothesis purports that:

H4: Firms with high profitability are more likely to disclose forward-looking information in their annual reports compared with firms with low profitability.

Auditor size

Auditor size is also used in prior studies to examine the determinants of corporate disclosures. It is argued that the auditor can play an important role in improving firms’ overall reporting strategies (Hail, 2002). Empirical findings thus suggest that
companies reviewed by larger audit firms provide higher quality financial statements, ceteris paribus (Becker et al., 1998). Similar results were obtained by other studies, but with lower significance levels (McNally et al., 1982; Tai et al., 1990). On the other hand, Wallace et al. (1994) find no association between auditor size and disclosure levels. Another study finds that large audit firms show a significantly negative association with mandatory disclosure compliance of Hong Kong listed companies (Wallace and Naser, 1995).

**H₅:**  *Firms engaging with one of the Big 4 are more likely to disclose more forward-looking information than firms engaging with other auditing firms.*

**Methodology**

**Data collection and variables definition**

The sample used in this study includes 46 companies listed in either the Dubai financial market or Abu Dubai securities market. This sample constitutes 74 percent of the total listed firms in the two markets at the end of 2004. The choice of firms was based on the availability of data. A cross-sectional regression analysis was employed to test the study’s hypotheses, which is further explained in the next subsection.

We collect all regression variables from UAE annual reports. In this study, the size of the company is measured by the natural logarithm of the company’s sales. We measure the debt ratio by dividing total debt by total assets. Profitability is measured by dividing net income by net sales. Auditor size takes one if the audit firm is one of the Big 4 and zero otherwise. Industry variables are measured by four dummy
variables (1,0). Finally, for the purpose of our study we use the same list of forward-looking words as in Hussainey et al. (2003, p. 277)\textsuperscript{1} to demonstrate the differences, if any, in the level of disclosure among firms and between sectors. Narrative sections (mainly the chairman statement, CEO report and the report of director) for each company were examined and firms are awarded one point for each relevant sentence. 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.

The disclosure index can be shown as follows:

\[ TDS = \frac{FWD}{TD} \]  \hspace{1cm} (1)

where:
- TDS = Total disclosure score
- FWD = Total forward-looking sentences disclosed
- TD = Maximum sentences disclosed for each company

**Statistical methods**

A backward regression analysis was used to test the hypotheses of this study. The regression model is given by

\[ TDS = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 \]  \hspace{1cm} (2)

where:
- \( X_1 \) = the natural logarithm of the company’s sales
- \( X_2 \) = Debt equity ratio
- \( X_3 \) = Profitability
- \( X_4 = 1 \), for Banks, \( X_4 = 0 \), otherwise
- \( X_5 = 1 \), for Insurance firms, \( X_5 = 0 \), otherwise
- \( X_6 = 1 \), for Industrial firms, \( X_6 = 0 \), otherwise
- \( X_7 = 1 \), for Service firms, \( X_7 = 0 \), otherwise
Results

This section discusses the empirical methods used to examine the research hypotheses of this study and reports the results. It covers three statistical methods: a descriptive analysis, a regression analysis and a comparative analysis.

Descriptive Analysis

Table 1 reports the minimum, maximum, mean and standard deviation for the continuous and categorical variables in the sample data set. A broad range of variation is evident in the sample. The sales (in logarithms) ranges from 16.81 to 23.08 with a mean of 19.81 and a standard deviation of 1.31. The profitability ranges from .01 to .66 with a mean of .33 and a standard deviation of 1.17, while the debt equity ratio ranges from .04 to .91 with a mean of .51 and standard deviation of 0.30. The table also provides some information about disclosure. The extent of disclosure of forward-looking information ranges from .00 to .70 with a mean of .08 and a standard deviation of 0.15. Table 1 also shows that 33 percent of the firms in the sample are banks; 30 percent, insurance firms; 24 percent, service firms; and 13 percent, industrial firms.

"Take in Table I"

Backward Regression Analysis

The correlation between each of the continuous variables is not too high as shown in Table 2. The highest correlation found between profitability and debt ratio (.31) is very acceptable. The results confirm that no colinearity exists between the independent variables.

"Take in Table II"
Regression coefficients and their p-values are presented in Table 3 which displays the contribution of the independent variables to the model by comparing models with and without each variable. The contributions of profitability (p < 0.05) and debt ratio (p < 0.05) are found to be statistically significant. For the regression coefficient that differed significantly from zero, 95 percent confidence limits were computed. The direction of the first coefficient (profitability) suggests that companies with high profitability are more likely to disclose less forward-looking information. This is consistent with the results of Belkaoui and Kahl (1978) who find a negative association between profitability and the extent of disclosure. However, a number of studies find a positive relationship between the two variables (Wallace, 1987; Wallace and Naser, 1995; Inchausti, 1997). These inconclusive results show that the effect of profitability on disclosure can be interpreted in different ways. One possible explanation for the results presented in Table 3 is that firms with low profitability would tend to disclose more forward-looking information and convey a positive message to the stakeholders. This information usually includes future plans and projects which could signal strong reactions, especially to the market.

Regarding the second coefficient (debt ratio), the results indicate that firms with high debt ratio are more likely to disclose forward-looking information. This is likely occurring because such firms would prefer to share more relevant information with their creditors. It is argued that firms with a high debt ratio are considered to be a much higher risk by lenders. Therefore, such companies would tend to disclose more forward-looking information to reduce their finance costs through negotiating their credit agreement. Likewise, they may disclose such information to reassure
shareholders and reduce risk premiums in required rates of return on equity. It is important to note that the association between the debt ratio and the extent of disclosure is still ambiguous.

Conversely, sector type, auditor size, and the firm size variables are found to have an insignificant impact on the level of disclosure. This is in contrast to our hypotheses (H1, H2, and H5) related to these variables. However, these results are consistent with a number of studies which find insignificant association between these variables and the level of disclosure. For example, Wallace, (1987), McNally et al., (1982) and Wallace et al., (1994), find insignificant relationships between the level of disclosure and sector type. As well, Wallace et al. (1994), who examine the relation between the auditor size and the level of disclosure, show an insignificant association between the two variables. In comparison, Stanga (1976) and Spero (1979) find an insignificant relationship between the company size and the level of disclosure. With respect to hypotheses H1, H2 and H5, the results show that the three explanatory variables (sector type, auditor size and firm size) have an insignificant association with the level of disclosure.

"Take in Table III"

Conclusions

The objective of this study is to explore the effect of five main variables on the extent of the level of forward-looking information disclosure in the annual reports of UAE firms. The results for the sample of 46 firms reveal that profitability and debt ratio variables have significant effects on the disclosure level, whereas the other three variables (sector type, size and auditor size) are found to have an insignificant
relationship with the level of disclosure. Although results in previous research are inconclusive about the association between sector type and the extent of disclosure, it is surprising to find that sector type has an insignificant association with the extent of disclosure in the UAE. This is because the banking sector, for example, are more regulated than other sectors and was expected to be significantly different in the level of disclosure than other sectors. Aljifri (2006) examines the effect of four variables (sector type, size, debt equity and profitability) on the level of financial disclosure. He uses denominator-adjusted disclosure-indices (using a list of 73 financial items); the extent of corporate disclosure is calculated and compared among firms and between sectors. Aljifri (2006) finds significant differences in disclosing financial information among sectors; however, the size, the debt equity and the profitability are found to have an insignificant association with the level of disclosure. This leads to an important conclusion -- the factors that affect the level of disclosing forward-looking information could be different from those that affect the level of disclosing accounting information (i.e., items presented in financial statements).

The existence of a significant association between the profitability and debt ratio and the level of disclosure suggest that firms who experience a significant increase in gearing and a significant decrease in profitability are more likely to disclose more forward-looking information. In fact, low profitability and high debt could be used as indicator of firms’ risks (Barry and Brown, 1986; Prodham and Harris 1989). It is suggested that firms with high financial risks might be more motivated to increase their forward-looking information disclosure. This could be interpreted as a positive signal by the market and may reduce the cost of equity capital of such firms (Dhaliwal et al. 1979). On the other hand, the absence of a significant relationship between the
other variables (sector type, auditor size and firm size) and the disclosure level suggests that firms in different sectors, using different auditors, and of varying sizes, tend to have no significant differences in their forward-looking disclosure. In short, firms that disclose more forward-looking information are found to experience an increase in their financial risk and decrease in their profitability.

It is hoped that this study will enhance the understanding of the underlying factors that could affect forward-looking information disclosure in UAE firms. This study contributes to the literature by illustrating that low profitability and high debt ratios are the significant factors that could motivate UAE firms to increase their forward-looking information disclosure. A number of users, such as investors, lenders and auditors, may find these results beneficial. These users may consider the results of this study when they are dealing with firms that have low profitability and high financial risk. Accordingly, they may wish to extend their investigations and verify such reporting practices. By doing this, the quality of information that is available to the public may be enhanced and hence users of annual reports may be better served. Future research may be conducted by increasing the number of firms examined or by adding more variables to increase the robustness of evidence beyond that presented in this study.
References


Clarkson, P. M., Kao, J. L. and Richardson, G. D. (1999), “Evidence that management discussion and analysis (MD&A) is a part of a firm’s overall disclosure package”, *Contemporary Accounting Research*, Vol. 16 No 1, pp. 111-134.


Note

1 The words are: 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.

Table (1): Descriptive Statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<tr>
<td>Sales*</td>
<td>46</td>
<td>16.81</td>
<td>23.08</td>
<td>19.81</td>
<td>1.31</td>
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<tr>
<td>Profitability</td>
<td>46</td>
<td>.01</td>
<td>.66</td>
<td>.33</td>
<td>.17</td>
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<td>Debt ratio</td>
<td>46</td>
<td>.04</td>
<td>.91</td>
<td>.51</td>
<td>.30</td>
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<tr>
<td>Score disclosure index</td>
<td>46</td>
<td>.00</td>
<td>.70</td>
<td>.08</td>
<td>.15</td>
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<td>Banks- Disclosure level**</td>
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<td>.00</td>
<td>.40</td>
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<td>8</td>
<td>.00</td>
<td>.70</td>
<td>.10</td>
<td>0.26</td>
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</table>

*The size is measured by the natural logarithm of sales in the regression model used in this study.

** Using a Kruskal-Wallis test, no significant differences in the level of forward-looking information disclosure were found among the four sectors.

***No significant difference was found, using a Mann Whitney test, between the mean of the disclosure level in firms engaging with Big 4 and firms engaging with other auditing firms.
Table 2: Correlations

<table>
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<tr>
<th>Descriptions</th>
<th>Sales</th>
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<th>Debt ratio</th>
<th>Score disclosure index</th>
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<td>Sales</td>
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<tr>
<td>Profitability</td>
<td>.154</td>
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<tr>
<td>Debt ratio</td>
<td>.239</td>
<td>.310(*)</td>
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<td>Score disclosure index</td>
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<td>.157</td>
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<tr>
<td>N</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
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</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
Table 3: Determinants of forward-looking disclosures

<table>
<thead>
<tr>
<th>Model*</th>
<th>Determinants</th>
<th>Unstandardized Coefficients</th>
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<th>Sig.</th>
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<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
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<td>1</td>
<td>(Constant)</td>
<td>-.131</td>
<td>.315</td>
<td>-.415</td>
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<tr>
<td></td>
<td>Profitability</td>
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<td>.181</td>
<td>-1.842</td>
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<tr>
<td></td>
<td>Debt ratio</td>
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<td>.137</td>
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*Dependent Variable: Score of forward-looking information disclosure.

**The results shown in Table 4 suggest the following backward regression model:

\[ TDS = 0.115 - 0.344 X_2 + 0.164 X_3 \]  

Where \( X_2 \) is the profitability and \( X_3 \) is the debt ratio (as explained in equation 2). The F test statistic is 3.87 at a significant p-value < .05.