# EVIDENCE OF VOLUNTARY ACCOUNTING DISCLOSURES IN THE ATHENS STOCK MARKET

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**Abstract**

The study explores the motives for providing voluntary accounting disclosures and investigates the financial differences between voluntary and non-voluntary disclosers. The study also examines the association between the provision of voluntary disclosures and earnings management. The findings show that voluntary disclosers exhibit higher profitability and growth and appear to be good news bearers. They also display a change in their management and a higher share trading volume. The results provide evidence that the provision of voluntary accounting disclosures is negatively associated with earnings management. The study indicates that sound financial indicators and good news and prospects are likely to motivate firms to provide voluntary disclosures in order to attract investors' attention and communicate their managerial superiority or potential. Less information asymmetry and earnings management would lead to the disclosure of informative accounting information and would subsequently assist investors in making efficient decisions.

## 1. Introduction

Positive accounting theory suggests that firms would disclose sets of information that suit their financial needs and profile and are less costly and

financially burdensome (Fields et al, 2001). Managers may provide voluntary accounting disclosures in order to illustrate and communicate in further detail their financial policies, their decisions and actions and other explanatory information. They may be inclined to provide voluntary disclosures in order to clarify possible areas of dispute or explain their financial decisions. Also, firms that need debt or equity capital or are in a growth phase would tend to timely disclose information in order to satisfy capital providers' information needs and reduce uncertainty. However, in certain cases, firms may behave in an opportunistic manner, with their actions being short-sighted or to the detriment of the shareholders' wealth (Burgstahler and Dichev, 1997; Weil et al, 2006). Provided that managers would be reluctant to disclose bad news and given the uncertainty that surrounds the disclosures of unfavourable information, the stock market would tend to appreciate voluntary disclosures leading to higher stock returns (Guay and Verrecchia, 2007).

The disclosure of voluntary information would seek to reduce uncertainty, information asymmetry and scepticism, and would tend to reinforce investors' confidence on the company's management. Lower uncertainty would reduce the need for monitoring management actions and would consequently lead to lower debt contracting costs and higher firm value. More importantly, voluntary accounting disclosures would reduce the potential of earnings manipulation and would therefore lead to share prices reflecting firms' financial picture in a more reliable manner. The provision of voluntary accounting disclosures may be more likely when good news is reported. Firms may be reluctant to disclose voluntary financial information in accounting years with declining profits or profits below analysts' forecasts. However, they may choose to provide voluntary disclosures in order to limit investors' potential adverse perceptions, and create expectations about the company's future prospects. Voluntary information on recognition, measurement and disclosure of accounting items in the financial statements would attract investors' interest and would significantly benefit firms' financial and managerial profile.

The objective of the study is to examine how firms that provide voluntary disclosures compare with firms that disclose accounting

information that is required at minimum by law. The study therefore examines the motives for providing voluntary disclosures. For example, firms might be motivated to provide voluntary disclosures, in order to obtain easier access to domestic and international capital markets or to facilitate their growth process. Alternatively, firms that are large and visible in the stock market or experience a change in management might also be motivated to provide voluntary disclosures. The study subsequently seeks to determine whether the (non-) provision of voluntary disclosures would be linked to (more) less earnings management.

The motivation of the study relates to whether the decision to report accounting information beyond the minimum required by the accounting regulation is influenced by major financial and managerial factors, such as change in management, share trading volume, size, stock return movements, etc. The study is also motivated by the need to identify the relationship between voluntary disclosures and earnings management and whether firms. The provision of voluntary disclosures would be expected to be related to less earnings management because additional and explanatory information would shed light on company accounts and actions, and would therefore discourage firms to manage their earnings due to the higher risk of such techniques getting revealed. Alternatively, it may be argued that managers provide voluntary disclosures to misdirect investors' attention and mislead them, and thus conceal actions of earnings management. Such information would be useful for the accounting standard setting process, particularly with regard to whether stricter or more flexible financial reporting should be imposed (see Levitt, 1998).

The remaining sections of the study are as follows. Section 2 presents the theoretical background of the study. Section 3 shows the research hypotheses. Section 4 describes the data sets and the empirical methods of the study. Section 5 discusses the empirical findings, and Section 6 presents the conclusions of the study.

## 2. Theoretical Considerations

The degree of providing voluntary accounting disclosures varies from firm to firm. It would be associated with the potential agency, political and

contracting costs that might exist or follow from the voluntary disclosure of accounting information (Watts and Zimmerman, 1986). It would also depend upon the requirements of mandatory disclosures and how these affect managers' choices and judgement (Gigler and Hemmer, 1998). The factors that affect the size and content of voluntary disclosures include firm size, industry sector, stock ownership, stakeholder interests, international exposure, investors' expectations, profitability, leverage, growth, etc. (Lang and Lundholm, 1993; Healy and Palepu, 2001). However, the size of voluntary disclosures is uncertain because the provision of extensive disclosures in good periods would improve managers' corporate profile, but would question their skills and decision-making in bad periods. It may also be that voluntary disclosures reflect managers' opportunism and subjectivity and therefore may contradict stakeholders' interests (Weil et al, 2006).

Firms are usually more eager to voluntarily disclose positive information. The provision of voluntary disclosures would assist investors in making informed judgements and decisions. The decision to provide voluntary disclosures is closely related to contractual arrangements, such as compensation schemes and debt covenants, as well as to agency costs and regulatory compliance (Bushman and Smith, 2001; Lambert, 2001). For example, managers may seek to influence investors' and lenders' perceptions in order to reinforce their bonuses or achieve better terms of borrowing respectively (Fairchild, 2003). They may also provide voluntary disclosures in order to demonstrate that they faithfully abide by the accounting regulation (Abarbanell and Lehavy, 2003). Firms would tend to provide voluntary disclosures when they plan to issue debt or equity or to acquire another company (Healy and Palepu, 1995).

The change in management is likely to be accompanied by voluntary disclosures in order to make investors aware of their superior managerial ability and give a positive signal of favourable future prospects. Firms that employ complicated or risky financial valuation models may be inclined to provide voluntary disclosures in order to supply clarifications and explanations and mitigate uncertainty and investors' concerns (Gietzmann and Trombetta, 2003). The reduction of uncertainty would smooth the communication between managers and stakeholders (Bushman and Smith,

2001; Healy and Palepu, 2001). Higher uncertainty would result in higher cost of capital, and investors would require a higher return to compensate them for bearing higher risks (Merton, 1987).

The provision of voluntary disclosures would lead to the reduction of information asymmetry, which would in turn be hailed by financial analysts and investors (Gigler and Hemmer, 2001). Voluntary disclosures would give financial analysts a better picture of firms' financial performance and position, and would enable them to issue more reliable forecasts (Lang and Lundholm, 2000). Subsequently, it is shown that firms that provide voluntary disclosures tend to exhibit a positive change and less variability in their stock returns as well as larger analyst following and less dispersion in analyst forecasts (Dye, 1998; Healy et al, 1999; Gelb and Zarowin, 2002). On the other hand, firms may not be inclined to disclose information that will damage their financial picture, even if this increases the cost of issuing new capital (Newman and Sansing, 1993; Gigler, 1994). Under such circumstances, firms tend to disclose aggregate financial information, concealing information that might harm their market picture (Hayes and Lundholm, 1996).

## 3. Research Hypotheses

### 3.1 Voluntary Accounting Disclosures

The study focuses on the identification of the motives for the provision of voluntary accounting disclosures and the related impact on firm financial figures. While providing comprehensive accounting disclosures, firms provide evidence and assurance that their actions are consistent with the law and accounting regulation and in line with investors' expectations and interests (Zimmerman, 1983). Such assurance would lead to lower political, agency and regulatory costs. The considerations above would hold especially for large firms, which are subject to political attention and scrutiny (see Moses, 1987; Ndubizu and Tsetsekos, 1992; Ali and Kumar, 1994). Firms that are not performing well are not likely to voluntarily provide 'rich' accounting disclosures. In contrast, firms that perform well would be inclined to voluntarily disclose detailed and sensitive accounting information, in order to provide evidence of superior managerial ability. Firms would tend to

disclose higher quality information or provide voluntary accounting disclosures to reduce stock return risk, or when the annual change in earnings is material (Bens, 1999). Likewise, firms are more likely to provide voluntary disclosures in periods of large negative earnings news than in periods of large positive earnings news (Kasznik and Lev, 1995). Hence, the hypothesis that is tested is as follows:

*$H_1$ Firms that provide voluntary accounting disclosures are likely to be significantly different than those that do not.*

To test $H_1$, the study seeks to identify differences in the financial measures of firms that provide voluntary accounting information and firms that report the minimum required by accounting regulation. This categorisation is based on the examination of firms' financial statements and on whether they provide extensive and detailed or brief and basic accounting information in their annual financial reports.

Firms that present basic accounting information, i.e. the minimum required by the law, such as report by the chief executive, balance sheet, profit and loss statement, cash flow statement and (brief) notes to the accounts with low informational value, are referred to as non-voluntary information providers. In contrast, firms that provide informative notes to the accounts and sensitive information relating to corporate governance, internal control systems, debt covenants, risk profile, details on changes in accounting policies and impact on accounting figures, segmental information, use of financial instruments and derivatives, management remuneration, recognition and measurement issues, management judgement, etc, are referred to as voluntary information providers. The logistic regression that is employed uses a dummy variable as the dependent variable, which is dichotomous and takes two values, i.e. 1 for voluntary information providers and 0 for non-voluntary information providers.

Based on the categorisation presented above, the study implements a logit model whereby the explanatory variables are strictly accounting (see equation 1), followed by a logit model whereby the explanatory variables are a mixture of general firm-specific financial attributes (see equation 2).

The study focuses on the period 2005 to 2008. The logit models used in the study are presented below:

$$VI_{i,t} = a_0 + a_1\, MVBV_{i,t} + a_2\, DE_{i,t} + a_3\, CUR_{i,t} + a_4\, LNMV_{i,t} + a_5\, EPS_{i,t} +$$
$$a_6\, \Delta E_{i,t} + a_7\, PE_{i,t} + a_8\, RET_{i,t} + e_{i,t} \qquad\qquad (1)$$

where $VI_{i,t}$   is a dummy variable representing the provision of voluntary accounting disclosures. $VI_{i,t} = 1$ for voluntary information providers and $VI_{i,t} = 0$ otherwise,

$PE_{i,t}$   is price to earnings ratio,

$RET_{i,t}$   is retained earnings divided by total equity,

$MVBV_{i,t}$   is market value divided by book value,

$DE_{i,t}$   is debt to equity,

$CUR_{i,t}$   is current assets divided by current liabilities,

$LNMV_{i,t}$   is the natural logarithm of market value,

$EPS_{i,t}$   is earnings available to shareholders divided by number of ordinary shares in issue,

$\Delta E_{i,t}$   is the change in net income before extraordinary items,

$e_{i,t}$   is the error term.


$$VI_{i,t} = a_0 + a_1\, TV_{i,t} + a_2\, PC_{i,t} + a_3\, MC_{i,t} + a_4\, AU_{i,t} + a_5\, MI_{i,t} + a_6\, R\, DR_{i,t}$$
$$+ a_7\, R_{i,t} + a_8\, RL1_{i,t} + a_9\, RL1\, DR_{i,t} + e_{i,t} \qquad\qquad (2)$$

where $VI_{i,t}$   is a dummy variable representing the provision of voluntary accounting disclosures. $VI_{i,t} = 1$ for voluntary information providers and $VI_{i,t} = 0$ otherwise,

$R_{i,t}$   is the annual stock return,

$RL1_{i,t}$   is 1-year lagged annual return,

$TV_{i,t}$   is the share trading volume divided by shares outstanding,

$PC_{i,t}$   is a dummy variable that proxies for page count. $PC_{i,t} = 1$ for annual reports with more than 100 pages and $PC_{i,t} = 0$ otherwise,

$MC_{i,t}$   is a dummy variable that proxies for changes in the management. $MC_{i,t} = 1$ when changes in the management have occurred in the year and $MC_{i,t} = 0$ otherwise,

$AU_{i,t}$   is a dummy variable that takes 1 when a firm is audited by a Big-4 auditor and 0 otherwise,

$DR_{i,t}$   is a dummy variable that proxies for news. $DR_{i,t} = 1$ for positive returns and $DR_{i,t} = 0$ otherwise,

$MI_{i,t}$   is minority interests divided by total liabilities,

$e_{i,t}$   is the error term.

*3.2 Voluntary Accounting Disclosures and Earnings Management*

Voluntary accounting disclosures would provide interested parties with significant accounting information relating to managerial behaviour, actions and decision-making, company strengths and weaknesses, and would assist users in making forwarding-looking company assessment and investment decisions. Therefore, the provision of voluntary disclosures and the subsequent investor awareness would tend to reduce the potential of earnings management. The hypothesis that is tested is as follows:

*$H_2$ Firms that provide voluntary accounting disclosures are likely to exhibit lower discretionary accruals.*

     The study uses an Ordinary Least Square (OLS) regression to determine the association between discretionary accruals and cash flows as well as profitability, leverage and size. The regression model that is used is as follows (see Tendeloo and Vanstraelen, 2005):

$$DAC_{i,t} = a_0 + a_1\,VI_{i,t} + a_2\,VI\,OCF_{i,t} + a_3\,VI\,LNMV_{i,t} + a_4\,VI\,OPM_{i,t} + a_5\,VI\,TLSFU_{i,t} + e_{i,t} \qquad (3)$$

where   $DAC_{i,t}$     is the discretionary accruals that are estimated using the cross-sectional Jones model (Jones, 1991). The study uses the residuals of the following regression model as discretionary accruals (see also DeFond and Subramanyam, 1998; Bartov et al, 2001; Kothari et al, 2004; Garza-Gomez et al, 2006).

$$AC_{i,t} = a_0\,(1/A_{i,t-1}) + a_1\,\Delta REV_{i,t} + a_2\,PPE_{i,t} + e_i, \qquad (4)$$

where $AC_{i,t}$    is accruals in year *t* scaled by lagged total assets, i.e. total assets in year *t-1*. Accruals equal the annual change in current assets (excluding cash) minus current liabilities (excluding short-term debt and income tax payable) minus depreciation,

$A_{i,t-1}$    is total assets in year *t-1*,

$\Delta REV_{i,t}$ is the annual change in revenues in year *t* scaled by lagged total assets,

$PPE_{i,t}$   is property, plant and equipment in year *t* scaled by lagged total assets,

$e_{i,t}$     is the error term.

| $VI_{i,t}$ | is a dummy variable representing the provision of voluntary accounting disclosures. $VI_{i,t} = 1$ for voluntary information providers and $VI_{i,t} = 0$ otherwise, |
| :--- | :--- |
| $VI\,OCF_{i,t}$ | is a variable used to examine the impact of information quality on the association between discretionary accruals and cash flows. It is the multiplication of VI and operating cash flows (OCF), |
| $VI\,LNMV_{i,t}$ | is a variable used to examine the impact of information quality on the association between discretionary accruals and size. It is the multiplication of VI and the natural logarithm of market value (LNMV), |
| $VI\,OPM_{i,t}$ | is a variable used to examine the impact of information quality on the association between discretionary accruals and profitability. It is the multiplication of VI and operating profit margin (OPM), |
| $VI\,TLSFU_{i,t}$ | is a variable used to examine the impact of information quality on the association between discretionary accruals and leverage. It is the multiplication of VI and total liabilities to shareholders' funds (TLSFU), |
| $e_{i,t}$ | is the error term. |

The second test examines firms' aptitude to manage accounting numbers in order to report, for example, small profits rather than losses (Burgstahler and Dichev, 1997; Leuz et al, 2003). The study also examines the speed by which losses are recognised, in the sense that the timely recognition of large losses should provide evidence of lower earnings management (Lang et al, 2005). Within the independent variables, the study uses a dummy variable, SP, as a measure of small profits (see Lang et al, 2003; Barth et al, 2005), and a dummy variable, LL, as a measure of timely loss recognition (see Lang et al, 2003, 2005). The model takes the following form:

$$VI_{i,t} = a_0 + a_1\,MVBV_{i,t} + a_2\,DE_{i,t} + a_3\,CUR_{i,t} + a_4\,LNMV_{i,t} + a_5\,EPS_{i,t} + a_6\,SP_{i,t} + a_7\,LL_{i,t} + e_{i,t} \qquad (5)$$

| where $SP_{i,t}$ | is a dummy variable indicating a measure of small profits. $SP_{i,t} = 1$ if net profit scaled by total assets is between 0 and 0.01 and $SP_{i,t} = 0$ otherwise, |
| :--- | :--- |
| $LL_{i,t}$ | is a dummy variable indicating a measure of timely loss recognition. $LL_{i,t} = 1$ if net profit scaled by total assets is less than -0.20 and $LL_{i,t} = 0$ otherwise. All other variables are defined as in equation (1). |

A negative coefficient on $SP_{i,t}$ would show that firms reporting voluntary accounting information tend to manage their profit figures less frequently in order to report small positive rather than negative amounts. A positive coefficient on $LL_{i,t}$ would suggest that firms reporting voluntary accounting information tend to recognise large losses more readily.

## 4. Datasets and Empirical Methods

The empirical analysis concentrates on 2006, 2007, 2008 and 2009. The sample consists of 171 Greek firms. All sample firms implement IFRSs. The study has found that 41 sample firms provided voluntary accounting disclosures in 2006, 54 firms in 2007, 68 firms in 2008 and 99 firms in 2009. Accounting and financial data were collected from DataStream. Information about the accounting policies of the sample firms was obtained from their financial statements, which were collected from the Financial Times Annual Report Service. All sample firms are listed on the Athens Stock Exchange. The analysis has excluded banks, insurance, pension and brokerage firms, as their accounting measures are not always comparable with those of industrial firms. Appendix 1 presents the industrial sector structure of the sample firms. Appendix 2 shows the explanatory variables that are employed in the empirical analysis. The research hypotheses are tested using the binary logistic regression analysis and the OLS regression analysis.

The logistic regression is useful in analysing categorical data, where the dependent variable is dichotomous and takes only two values, i.e. 0 and 1. The parameters of the logistic regression are estimated based on the maximum likelihood method, while the hypothesis testing is based on the Wald statistic. The diagnostic tests entailed an assessment of: (i) the relative significance of the estimated coefficients ($p$-value $< 0.01$; two-tailed); (ii) the magnitudes of the logit models' Studentized residuals ($< \pm 3.0$); and (iii) the naive proportional chance model (see Joy and Tollefson, 1975). All the logistic regression results reported in this study have consistently passed those tests.

The study has accounted for heteroscedasticity, autocorrelation, departure from normality and multicollinearity, where appropriate. The tests that have been performed to check the OLS assumptions are the White test and the Autoregressive Conditional Heteroscedasticity (ARCH) test for heteroscedasticity; the Durbin-Watson test and the Breusch-Godfrey test for autocorrelation; the Jarque-Bera test for the departure from normality of residuals; and the correlation coefficients among the test variables for multicollinearity.

## 5. Empirical Findings

*5.1 Descriptive Statistics*

Table 1 presents the descriptive statistics for voluntary and non-voluntary disclosers and shows how the provision or non-provision of voluntary accounting disclosures might affect income statement and balance sheet figures. Table 1 shows that voluntary disclosers tend to exhibit lower discretionary accruals (DAC). It appears that voluntary disclosers would seek to positively affect their financial numbers and market profile by reinforcing the information side of their disclosures and obtaining investors' and market participants' credit and trust, rather than managing their earnings. On the other hand, the use of earnings management and the simultaneous provision of voluntary accounting disclosures would be likely to expose voluntary disclosers since voluntary disclosures might give hints and indications of earnings management and subsequently negative signals to investors. Thus, voluntary disclosers would be expected to be reluctant to use earnings management. Table 1 also shows that voluntary disclosers are more profitable (EPS) and display a larger positive change in their profits (ΔE). It follows that higher profitability would provide a plausible motive to managers to disclose voluntary accounting information and details about their positive financial performance. Voluntary disclosers exhibit higher contemporaneous annual stock returns (R), price to earnings ratio (PE) and minority interest ratio (MI), while they retain (RET) more of their profits for reinvestment or financing purposes. They also demonstrate higher size (LNMV), growth (MVBV) and debt to equity (DE) measures. It appears therefore that firms that are larger and financially more visible in the market

place and operate in a growth area would provide voluntary disclosures in order to reinforce their financial picture and enhance their growth prospects. In a similar vein, firms with higher leverage would be inclined to provide voluntary disclosures in order to make a good impression on capital providers and lower the cost of their capital. Voluntary disclosers display lower current ratio (CUR), likely because of the higher borrowing obligations and subsequent interest costs. Table 1 indicates that voluntary disclosers exhibit lower volatility in discretionary accruals (DAC) and annual stock returns (R). They also demonstrate less volatility in their current ratio (CUR), debt to equity (DE), price to earnings ratio (PE) and earnings per share (EPS). These findings show that, in connection with the higher debt to equity ratio and the subsequent lower current ratio that were reported above, voluntary disclosers likely seek to reduce the inherent uncertainty and risk and shield their financial position by achieving less volatility levels in the figures above. In contrast, they display more volatile size (LNMV) and growth (MVBV). In their effort to stabilise and secure their growth process, firms may be motivated to provide further voluntary disclosures in order to be able to attract the necessary funds on better terms and effectively carry out their expansion plan.

*5.2 Voluntary Accounting Disclosures*

Panel A of Table 2 shows that firms that provide voluntary accounting disclosures exhibit higher earnings per share (EPS). The higher profitability would encourage them to report accounting information that is beyond the minimum required by accounting regulation in order to demonstrate their positive financial performance and managerial ability. Thus, firms exhibiting higher profits would be expected to provide voluntary accounting disclosures in order to give a positive signal to stock market participants about the quality and completeness of the reported financial numbers. It is noteworthy that voluntary disclosers tend to display a positive change in net income before extraordinary items ($\Delta E$), confirming the arguments presented above and implying that a positive movement in net earnings would motivate firms to provide voluntary accounting information. Voluntary disclosers also exhibit higher growth (MVBV) and retained

earnings (RET). This indicates that they provide voluntary disclosures in order to impress capital providers and market participants and therefore enhance and realise their growth prospects. The higher retained earnings also show that, as they experience higher growth, voluntary disclosers retain more of their net profits for reinvestment purposes. The statistically significant attributes that voluntary disclosers carry, as described above, indicate that $H_1$ holds.

Panel B of Table 2 shows that firms that have experienced a change in their management (MC) are more likely to provide voluntary disclosures. Indeed, being consistent with the literature (see e.g. McKnight and Weir, 2009), a new management would seek to improve the company's financial profile, impress and attract investors and favourably influence the view and perceptions that stock participants have about the company's strengths and financial prospects. It may also be that a new management seeks to differentiate themselves from their predecessors and provide evidence of their superior managerial ability by voluntarily providing additional and non-required by law accounting disclosures. Panel B also shows that voluntary disclosers higher share trading volume (TV), implying that the provision of voluntary disclosures attracts investors and increases the tradeability of the stock. It could also be that a company with significant share trading volume may attract the focus of financial analysts and market authorities, and therefore it may be inclined to provide voluntary information in order to obtain positive market reports and views.

Voluntary disclosers display a higher minority interest ratio (MI), suggesting that since there is a higher and potentially significant claim on assets belonging to other, non-controlling, shareholders, firms may be motivated to provide voluntary accounting disclosures in order to satisfy the information needs of the various interested parties. Also, being audited by a Big-4 auditor appears to encourage and support the provision of voluntary disclosures as it follows from the positive coefficient of AU. Furthermore, voluntary disclosers exhibit contemporaneous good news (RDR), i.e. positive stock returns, implying that the provision of voluntary disclosures is regarded to bear good news and explanatory pieces of company information to the stock market. On the other hand, one would not expect firms

experiencing contemporaneous bad news to report voluntary disclosures, although firms that pre-disclose bad news may be subject to lower litigation costs than firms that do not (Skinner, 1994). The empirical analysis shows that the lagged returns that proxy for good/bad news (RL1 DR) are not significant.

*5.3 Voluntary Accounting Disclosures and Earnings Management*

Panels A and B of Table 3 indicate that firms that provide voluntary accounting disclosures are likely to use less earnings management, suggesting that $H_2$ holds. Panel A shows that VI, which provides an indication of the provision or non-provision of voluntary accounting disclosures, is significantly negative. This suggests that firms that provide voluntary disclosures tend to exhibit lower accruals, indicating that they are likely to be less prone to earnings management. Panel A also shows that VIOPM is positive, implying that voluntary disclosers with low profitability would not tend to increase accruals. The negative association between discretionary accruals and leverage (VITLSFU) shows that voluntary disclosers with high leverage would not be inclined to increase accruals. Similar considerations apply when testing the association between discretionary accruals and size (VILNMV), suggesting that voluntary disclosers of large size, and potentially of significant market presence, would exhibit lower discretionary accruals.

      Panel B shows that voluntary disclosers display larger size (LNMV), indicating that, given their large size and subsequent visibility and analyst following, they may provide voluntary accounting disclosures in order to obtain positive market critics. They also display lower small profits (SP) and higher negative losses (LL). These findings show that voluntary disclosers report small positive earnings less frequently, while they tend to report losses, even if they are large, more timely. It follows, therefore, that voluntary disclosers do not manage their accounting numbers to report small positive profits rather than losses nor do they smooth their earnings by delaying the recognition of large losses, implying that they are likely to be less prone to earnings management.

**6. Conclusions**

This study investigates the financial differences of firms that provide voluntary accounting information beyond what is required at minimum by accounting regulation and firms that disclose minimum information. Here, the empirical analysis focuses on both financial quantitative attributes, such as profitability and leverage, as well as on financial qualitative attributes, such as being audited by a Big-4 auditor, good/bad news proxies, change in management, etc. Also, the study examines the association between the provision of voluntary disclosures and earnings management.

The study shows that the financial attributes of voluntary disclosers are significantly different compared to those of non-voluntary disclosers. Voluntary disclosers are generally audited by a Big-4 auditor and exhibit higher levels of and positive changes in profitability and appear to be good news bearers. They also display a change in their management and a higher minority interest ratio reflecting the pending information needs of minority shareholders. Voluntary disclosers also exhibit higher growth and a higher share trading volume, implying either that they are visible, and hence have a strong motive to report voluntary information, or that voluntary disclosures attract investors. It follows that the favourable financial measures may have motivated firms to provide voluntary accounting disclosures that go beyond the minimum required by accounting regulation in order to communicate their positive financial performance, impress stock market participants and influence investors' perceptions. Also, the timely recognition of large losses in the income statement and the less frequent reporting of small profits, as a means of managing earnings toward a target, signify the lower potential for earnings management for voluntary disclosers, even if they experience low profitability or high leverage.

The findings of the study are useful for financial analysts and stock market authorities, as they enable them to understand the financial attributes of firms providing voluntary disclosures as well as their earnings management potential, and subsequently assist investors in making unbiased predictions about firms' future performance. Voluntary accounting disclosures would give a positive signal to investors about the intention of the company to diligently inform users of accounting information and to

provide them with explanatory notes and informative reports, thereby reducing uncertainty and scepticism. Future research should investigate whether there are situations whereby voluntary disclosures aim at simply confirming and publicising a good financial year or at mitigating the concerns over an unfavourable accounting year and reducing the subsequent uncertainty over the financial prospects of future periods. Future research should also examine whether voluntary disclosures reflect the true financial situation of a firm or mislead investors.

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**Table 1 Descriptive Statistics (Pooled Data 2006-2009)**

| Variables | Voluntary Accounting Disclosers | | Non-Voluntary Accounting Disclosers | |
|---|---|---|---|---|
| | Mean | Standard Deviation | Mean | Standard Deviation |
| DAC | .1209 | .1910 | .1630 | .2287 |
| ΔE | .8817 | .7668 | .7251 | .5131 |
| R | .1755 | .6760 | -.0388 | 1.9920 |
| MI | .0526 | .0710 | .0422 | .0767 |
| LNMV | 4.6211 | 1.9045 | 3.6767 | 1.4174 |
| MVBV | 10.7108 | 20.1723 | 6.0223 | 10.8975 |
| CUR | 1.8861 | 1.7544 | 2.7101 | 11.2642 |
| DE | 4.1960 | 5.2322 | 4.0500 | 6.0807 |
| PE | 13.4722 | 25.1070 | 9.6924 | 29.0081 |
| EPS | .4474 | .3353 | .1452 | .3972 |
| RET | 1.5505 | 26.2627 | -.5256 | 15.9285 |

ACC, accruals; ΔREV, change in revenues; R, annual stock return; MI, minority interests divided by total liabilities; LNMV, natural logarithm of market value; MVBV, market value to book value; CUR, current ratio; DE, debt to equity; PE, price to earnings ratio; EPS, earnings per share; RET, retained earnings divided by total shareholders' equity.

**Table 2 Voluntary Accounting Disclosures**

| Panel A | | Panel B | |
|---|---|---|---|
| Variables | Coefficients | Variables | Coefficients |
| ΔE | 0.230* | MC | 2.819*** |
| | (0.141) | | (0.765) |
| MVBV | 0.011* | MI | 0.0001*** |
| | (0.006) | | (0.0001) |
| RET | 0.014* | TV | 1.706* |
| | (0.008) | | (0.974) |
| EPS | 0.408*** | RDR | 1.774* |
| | (0.169) | | (0.985) |
| Constant | 0.818 | AU | 0.562* |
| | (0.139) | | (0.342) |
| | | Constant | 1.331 |
| | | | (0.639) |
| Model $\chi^2$ | 28.277*** | Model $\chi^2$ | 36.334*** |
| % correctly classified | 63.4 | % correctly classified | 68.7 |
| Sample size | N=684 | Sample size | N=684 |

***, ** and * indicate statistical significance at the 1%, 5% and 10% level (two-tailed) respectively. All the explanatory variables were entered/removed from the logistic regression using a step-wise procedure with a p-value of 0.05 to enter and a p-value of 0.10 to remove. The Wald statistic was used to test the null hypothesis that each coefficient is zero.

**Table 3 Voluntary Accounting Disclosures and Earnings Management**

| Panel A | | Panel B | |
|---|---|---|---|
| Variables | Coefficients | Variables | Coefficients |
| VI | -0.105*** | SP | -0.380** |
| | (0.031) | | (0.196) |
| VIOPM | 0.031** | LNMV | 0.0015* |
| | (0.016) | | (0.0009) |
| VITLSFU | -0.091*** | LL | 0.845*** |
| | (0.017) | | (0.186) |
| VILNMV | -0.015*** | Constant | -0.334 |
| | (0.006) | | (0.092) |
| Constant | 0.123 | | |
| | (0.010) | | |
| $R^2$ adj. | 0.019 | Model $\chi^2$ | 7.515** |
| Sample size | N=684 | % correctly classified | 61.1 |
| | | Sample size | N=684 |

***, ** and * indicate statistical significance at the 1%, 5% and 10% level (two-tailed) respectively. All the explanatory variables were entered/removed from the logistic regression using a step-wise procedure with a p-value of 0.05 to enter and a p-value of 0.10 to remove. The Wald statistic was used to test the null hypothesis that each coefficient is zero.

**Appendix 1 Sample Industrial Sectors**

| Industry | Number of Firms |
|---|---|
| Engineering and machinery | 20 |
| Retail | 10 |
| Construction and building materials | 26 |
| Media and entertainment | 9 |
| Oil and gas | 3 |
| Personal care and household products | 30 |
| Basic resources | 11 |
| Travel and leisure | 12 |
| Technology | 15 |
| Telecommunications | 1 |
| Food and beverage | 22 |
| Health care | 3 |
| Utilities | 3 |
| Chemicals | 5 |
| *Total* | *171* |

**Appendix 2 Accounting Measures Used as Explanatory Variables**

| | |
|---|---|
| DAC | Discretionary accruals |
| SP | A dummy variable indicating a measure of small profits. SP = 1 if net profit scaled by total assets is between 0 and 0.01 and SP = 0 otherwise |
| TLSFU | Total liabilities divided by shareholders' funds |
| OCF | Operating cash flows scaled by total assets |
| OPM | Operating profit divided by sales |
| MVBV | Market value divided by book value |
| DE | Debt to equity |
| CUR | Current assets divided by current liabilities |
| LNMV | Natural logarithm of market value |
| EPS | Earnings available to shareholders divided by number of ordinary shares in issue |
| $\Delta E$ | Change in net income before extraordinary items |
| R | Annual stock return |
| TV | Share trading volume divided by shares outstanding |
| MI | Minority interests divided by total liabilities |
| PC | A dummy variable that proxies for page count. PC takes 1 for annual reports with more than 100 pages and 0 otherwise |
| MC | A dummy variable that proxies for changes in the management. MC takes 1 when changes in the management have occurred in the year and 0 otherwise |
| PE | Price to earnings ratio |
| RET | Retained earnings divided by total shareholders' equity |
| AU | A dummy variable that takes 1 when a firm is audited by a Big-4 auditor and 0 otherwise |
| RL1 | is 1-year lagged annual return |
| DR | A dummy variable that proxies for news. DR takes 1 for positive returns and 0 otherwise |
| VI | A dummy variable representing the provision of voluntary accounting disclosures. VI = 1 for voluntary information providers and VI = 0 otherwise |
| LL | A dummy variable indicating a measure of timely loss recognition. LL = 1 if net profit scaled by total assets is less than -0.20 and LL = 0 otherwise |