VOLUNTARY DISCLOSURE OF CASH FLOWS INFORMATION AND COMPANY'S CHARACTERISTICS: EVIDENCE FROM THE CROATIAN CAPITAL MARKET

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Abstract

This paper focuses on the voluntary disclosure of cash flows information of Croatian large companies whose shares are listed on the Zagreb Stock Exchange, with the aim to identify characteristics of companies that provide extensive disclosures. In order to conduct the research and test the likelihood that company publicly announces wealth of information about cash flows, three groups of company's features are defined as variables: accounting data, capital market information and company's qualitative characteristics. Verification of empirical evidence was provided through the sample of Croatian listed companies using logistic regression analysis. Obtained results indicate that despite the desire of the regulatory authorities that capital market investors receive all relevant information, companies voluntarily disclose information about cash flows very rarely. Those companies are young (i.e. their shares are listed on an organized securities market for a short time) and profitable, with growing net income and growing cash flow from operating activities and usually use indirect method for operating cash flow report. The provision of features of Croatian companies that voluntary disclose cash flow information can be found as contribution of our research, because this topic in a cases of macro-oriented accounting system economies, i.e. bank oriented economies with emerging capital market is still unexplored.

Key words: *voluntary disclosure, financial reporting, cash flows, company's characteristics, Croatia*

1. INTRODUCTION

Since the introduction of International Accounting Standard - IAS 7: Cash Flow Statements in year 1994, this statement became a very important source of accounting information. Unfortunately, its preparation and disclosure in Croatia are still primarily in the function of formal and legal requirements satisfaction. The purpose of this paper is to show willingness of Croatian companies to publically announce different information about cash flows (e.g. notes to Statement, cash-flow ratios, liquidity analysis, cash flow trend analysis, etc). According to previous relevant research results, we expect that the issue of cash flow information is associated with the size of the company, its financial performance and capital market's characteristics.

The remainder of the paper is organized as follows: Section 2 presents the theoretical background of the research as well as relevant previous studies. Section 3 explains the sample, variables, research design and hypotheses. Empirical results of the research are analyzed in the Section 4 whereas the conclusions appear in the last Section.

2. THEORETICAL BACKGROUND

2.1. Institutional framework of cash flow reporting in Croatia

According to the Law on Accounting (Official Gazette, No. 109, 2007) which came into force on the beginning of 2008, all entrepreneurs (article 12) are obliged to draw up and present annual financial statements by application of the Croatian Financial Reporting Standards (CFRSs). The CFRSs are issued by the Financial Reporting Standards Committee in accordance with Accounting Act and shall be published in the Official Gazette. Large entrepreneurs and those entrepreneurs whose shares or debt securities are listed or are in the process of preparation for listing on an organized securities market are derogated of this rule (article 14), and they are required to draw up and present their annual financial statements by application of the International Financial Reporting Standards, including International Accounting Standards (IFRSs/IASs). Both CFRSs and IFRSs/IASs, as well as Article 15 of Law on Accounting, define a complete set of financial statements that should include balance sheet, profit and loss account, cash flow statement, statement on changes in equity and notes to the financial statements. However, the structure and contents of each financial statement are prescribed by specific standard. Thus, standards for presenting the cash flow statement are given in IAS 7: Statement of Cash Flows (Official Gazette, No. 140, 2006) and CFRS 1: Financial statements [CFRS 1.21-31] (Official Gazette, No. 30, 2008). But the problem is that Article 15.10 states that small entrepreneurs shall prepare only balance sheet, profit and loss account and the notes to the financial statements. For this reason, our research will concentrate on listed companies which prepare and present their annual financial statements by application of the IFRSs/IASs.

The Statement of Cash Flows (SCF) analyses changes in cash and cash equivalents during a period. Cash flows must be analyzed between operating (the main revenue-producing activities that are not investing or financing activities), investing (the acquisition and disposal of long-term assets and other investments that are not considered to be cash equivalents) and financing (activities that alter the equity capital and borrowing structure of the entity) activities [IAS 7.10 and CFRS 1.22]. For operating cash flows report, the direct method which shows each major class of gross cash receipts and gross cash payments or indirect method that adjusts accrual basis net profit or loss for the effects of non-cash transactions can be used [IAS 7.19 and CFRS 1.31]. IAS encourages the direct method of presentation, but accepts the indirect method [IAS 7.18].

2.2. Literature review

Financial reporting practices on the SCF as well as the usefulness of accounting information presented in the SCF have been the subject of many researches. Some of them were investigating regulation aspects of the Statement, while others were interested in determinants of the companies that voluntary disclose cash flow information.

First, there are researches that provide insights into cash flow reporting practices in different countries, i.e. in different institutional environment. E.g. Bernards (1994) has studied voluntary cash flow information of German and Austrian companies; McKinnon and Dalimunthe (1993) and Mitchell, Chia and Loh (1995) studies have investigated it in Australia. McKinnon and Dalimunthe (1993) identified ownership diffusion, the level of minority interest in subsidiaries, firm size and industry membership as factors that are influencing the voluntary disclosure of segment information about cash flows and as they state in the title of the paper, Mitchell, Chia and Loh (1995) provided “further Australian evidence”. Their results suggested that for extensive sample of diversified firms, voluntary segment disclosure about cash flow is significantly related to size, leverage and involvement in mining or oil activities. Leuz (1999a) has studied the incentives of German firms to voluntarily disclose cash flow statements in the annual report for the period when its disclosure has not been mandatory and found that cash flow statement disclosures appear to be governed primarily by capital-market considerations. Additionally, (1999b) he has investigated the development of voluntary cash flow statements in Germany and the influence of International Reporting Standards and confirmed his thesis that capital market forces drive voluntary cash flow statements that are in line with international reporting practice. In their research, Dimitrios et al. (2006) have reviewed the disclosure requirements for cash flow reporting in Greece and the willingness of Greek companies to voluntarily disclose cash flow information. The results of their research show that despite the fact that cash flows are more informative than an accruals definition of profits, in deciding about financial policy issues Greek companies show an increased preference to funds flows defined in terms of working capital. It is important to note that voluntary disclosure, as well as mandatory disclosure, in *ex* transition economies have been researched very rarely. Berglof and Pajuste (2005) have examined the level of disclosures in ten Central and Eastern European countries (not including Croatia) and found widespread non-disclosure of even the most basic elements of corporate governance despite existing regulation. Furthermore, they found high discrepancies in level of disclosure among firms, and especially among countries.

Additionally, some authors have researched the impact of different company's qualitative and quantitative features on voluntary disclosure level. E.g. research of Wallace et al. (1997, 1999) and Iatridis (2008) were conducted on the sample of UK companies, in order to study characteristics and comprehensiveness of disclosure in cash flow statements and their relationships with selected firm-specific characteristics. They identified the comprehensiveness of cash flow reporting as an increasing function of firm size and a decreasing function of return on sales. Also, they found that there are significant differences in cash flow reporting comprehensiveness between positive and negative net cash flows firms. According to Goebel and Fuchs (1995), companies that voluntarily disclose cash flow information are typically perceived as "investor friendly" and "capital-market oriented". Wasley and Wu (2006) have dealt with specific kind of cash flow information – voluntary issue of cash flow forecasts and found that management presents cash flow forecasts to signal good news in cash flow, to meet investor demand for cash flow information and to reduce the degree of freedom in earnings management.

In summary, our research can bring some contribution to the existing literature because it provides insights in cash flow reporting and information disclosure practices of Croatian companies as a case of emerging economy, with regard to a variety of company's specific factors.

3. RESEARCH DESIGN

The working hypothesis is that voluntary disclosure of cash flow information is strongly associated with company's financial performance, size and age as well as different qualitative characteristics, like listing market segment, news announcements, etc. Binary logistic regression analysis is used to test the stated hypothesis on the sample of Croatian listed companies.

3.1. Methodology and sample selection

This research includes all Croatian companies listed on the Zagreb Stock Exchange (ZSE) in year 2011, as listed companies have to comply their financial reporting with the IASB standards and need to draw up and present cash flow statement and notes to financial statements. Banks, investment funds and other financial institutions are excluded from the sample because of asset structure differences. In addition, 3 companies with missing or incomplete financial statements data are also excluded, which is presented in the table 1.

Table 1: Sample selection

Number of shares listed on ZSE regulated market	207
Number of shares of the same issuer	(9)
Banks, investment funds and other financial institutions (sector classification K-Financial and insurance activities)	(33)
Missing data	(3)
Final sample subset	162

Source: *estimated according to data from authors' data base (2012)*

Data set necessary for analysis is extracted from announced annual reports collected from ZSE, available on www.zse.hr.

3.2. Variables description and hypotheses development

Consistent with prior researches and with respect to specificities of Croatian companies, several factors that could affect company's decision to publicly announce information about cash flows are considered: accounting data (e.g. income, operating cash flow, payment of dividends, method used for operating cash flow reporting), capital market information (e.g. segment of market listed, news announcements) and company's qualitative characteristics (e.g. company's age, size).

3.2.1. Cash flow disclosure

Cash flow disclosure (CFD) is an indicator variable set equal to one if the company announce any voluntary information about cash flow in notes to financial statements (e.g. financial ratios, additional data about items in statement of cash flows, management analysis of cash flow/liquidity, trend analysis, etc.) and zero otherwise.

3.2.2. Cash flow performance

Variable change in operating cash flow (ΔCFO) is used to measure cash flow performance. It is calculated as operating cash flow in current year minus the operating cash flow from the previous year, deflated by lagged total assets. Operating activities are according to IAS 7.14 the main revenue-producing activities of the company, so operating cash flows include cash received from customers and cash paid to suppliers and employees. Thus, expected association of this variable to voluntary cash flow disclosure is positive, indicating that companies which generate more cash flow from operating activities will probably announce it voluntary with the aim to differentiate themselves from less liquid ones.

3.2.3. Operating cash flow report method

According to Gray et al. (2001:122), variations in format of the financial statements (MTHD) influence on financial reporting and information disclosure practices. Although IAS 7 [IAS 7.18] encourages the direct method of presentation, the use of indirect method in practice is more often. Probable reasons of its popularity are its cheapness and simplicity. Furthermore, reconciliation from income to cash is closer to managerial logic of financial results achievement than specification of cash inflows and outflows, so the managers and internal users of financial statements prefer indirect method. According to Wallace et al. (1997), when corporate reporters are allowed discretion, they often do not prefer to adopt the method that is perceived as beneficial to end users and/or considered by them as costly to implement in terms of data gathering and competitive disadvantage. This variable covariates categorical in binary logistic regression model and expected association with voluntary cash flow disclosure is positive, indicating that companies which use indirect method will probably voluntary disclose cash flow information in order to provide additional and complementary information about cash flow statement positions and items.

3.2.4. Dividend payout

Variable divided payout (DIV) is set equal to one if the company paid out dividend in current year and zero otherwise. Expected association of this variable to voluntary cash flow disclosure is positive, indicating that companies which decide to payout dividends will probably voluntary announce plenty of cash flow information to point out their liquidity.

3.2.5. Financial performance (profitability)

Variable change in net income (ΔNI) is used to measure company's profitability. It is calculated as net income in current year minus the net income from the previous year, deflated by lagged total assets. Expected association of this variable with cash flow reporting practice cannot be uniquely determined. Namely, the companies may have an incentive to publicly announce cash flow information in order to declare free of blame for bad financial performance. Results of Wasley and Wu (2006) study suggest that management discloses cash flow information to mitigate the negative impact of bad news in earnings. Thus, the probability of cash flow voluntary disclosure decreases with better financial performance results measured by net income. On the other hand, according to Leuz (1999a), more profitable companies are expected to have incentives to voluntarily disclose information to the capital market in order to distinguish themselves from less profitable ones.

3.2.6. Market segment

There are two types of market in ZSE: regulated market and multilateral trading facility (MTF), and according to Meek and Gray (1989) listing at a different market segment is likely to result in additional demand for voluntary disclosures. The main difference between these markets is in the level of transparency. MTF has lower requirements set before the issuer with regard to the traded instruments and minimum requirements with regard to publicly available information. Thus, only companies traded at regulated market are included in the sample. Regulated market is divided into the following segments: Prime Market, Official Market and Regular Market. Prime Market is the most demanding market segment with regard to the requirements set before the issuer, especially in relation to transparency. Regular Market commits the issuer to submit only a minimum of information stipulated by the Capital Market Act while the Exchange Rules stipulate additional requirements applicable to the Official Market. However, only two types of the market segments are identified in the sample: Official (n=18) and Regular (n=144), so this variable covariates categorical in binary logistic regression model. Expected association of this variable with cash flow reporting practice is positive, indicating that probability of cash flow voluntary disclosure increases with the listing at official market segment.

3.2.7. News announcements

Variable news announcements (NEWS) is set equal to one if the company announces news in current year and zero otherwise. In explanation, the following news is identified: possible bankruptcy proceedings (n=5); capital decrease (n=6); merger/takeover bid (n=12) and shareholder squeeze out (n=2). As in 137 cases (85%) no news is announced in current year, this variable is set as dummy in the model. Expected association of this variable to voluntary cash flow disclosure is positive, indicating that probability of cash flow voluntary disclosure increases with news announcement.

3.2.8. Size

Variable size (SIZE) is calculated as natural logarithm of average value of total assets in current year and previous year. Expected association of this variable with cash flow reporting practice is positive, indicating that probability of cash flow voluntary disclosure increases in larger companies, because larger companies have more complex activities, and consequently have a larger number of interested parties that are paying attention for information about company's activities, especially those about liquidity. Furthermore, according to Leuz (1999:11) the cost of producing and disseminating information are likely to be decreasing per unit of company’s size due to some fixed component.

3.2.9. Age

Variable age (AGE) is measured as the number of years of listing share on ZSE. According to Chen, DeFond and Park (2002) and Wasley and Wu (2006), there is a greater uncertainty about “young” companies’ earnings and their product activity, so their management will disclose more cash flow information in order to signal economic viability. As a result, expected association of this variable with cash flow reporting practice is negative, indicating that probability of cash flow voluntary disclosure decreases as the number of years increases, i.e. will be more frequent in young companies whose shares are listed on an organized securities market for a short time.

4. RESEARCH RESULTS AND DISCUSSION

In order to test the relations defined in previous section related to probability that company will voluntarily disclose cash flow information, the following binary logistic regression model is developed:

$$CFD = ß_0+ß_1*AGE+ß_2*MTHD+ß_3*\Delta CFO+ß_4*\Delta NI+ß_5*DIVIDEND+ß_6*MKT + ß_7*NEWS + ß_8*SIZE +e \quad (1)$$

Results of conducted logistic regression analysis are shown in the table below:

Table 2: Binary logistic regression model

Variable	**B**	**Wald**	**Sig.**
AGE	-0.155	5.349	0.021**
MTHD	1.409	4.733	0.030**
ΔCFO	0.000	2.743	0.098***
ΔNI	0.000	6.777	0.009**
DIVIDEND	0.723	2.194	0.139
MKT	-0.798	1.202	0.273
NEWS	-0.163	0.522	0.971
SIZE	0.009	0.008	0.928
Wald χ^2 /-2 Log likelihood/Pseudo R^2	35.180*/183.812*/0.263		
Hit ratio (corectly classified/sample size)	69% (112/162)		

*Notes:*statistically significant at the0.01, 0.05 and 0.1 level respectively*
Source: estimated according to data from authors’ data base (2012)

Voluntary cash flow disclosure (CFD) is obtaining one if the company announces any voluntary information about cash flow in notes to financial statements and zero otherwise. Table 2 presents the results of binary logistic regression analysis on 162 observations. The overall test of the model indicates that the overall model is statistically significant (Wald χ^2 = 35.180). Cox & Snell and Nagelkerke pseudo R Squares, as well as -2 Log likelihood and Hosmer and Lemeshow test of likelihood ratio indicate relatively good model fit and confirm overall model significance. Also, in order to detect potential multicollinearity problem among independents, Variance Inflation Factor (VIF) are calculated. As obtained VIF values range from 1,039 to 1,251, it can be concluded that there is no indication for multicollinearity to be present. Hit ratio of overall model is 69%.

The results of Wald statistic tests show that age, operating cash flow report method and change in net income are found statistically significant at the 0.05 level, and change in operating cash flow is found statistically significant at the 0.1 level. All mentioned variables except age are positive correlated with the probability of voluntary cash flow disclosure, indicating that possibility of cash flow voluntary disclosure increases in profitable companies with growing net income and growing cash flow from operating activities and in companies that use indirect method for operating cash flow report. These findings are consistent with previous research and indicate that these companies will probably voluntary announce cash flow information with the aim to distinguish themselves from non-profitable and illiquid companies. Furthermore, association of operating cash flow report method and voluntary cash flow disclosure is expected and consistent with previous researches, indicating that companies which use indirect method will probably voluntary disclose cash flow information in order to provide additional and complementary information about cash flow statement positions and items.

Variable age is negative correlated with the voluntary cash flow disclosure, indicating that probability of cash flow voluntary disclosure increases in “young” companies, i.e. for companies whose shares are listed on an organized securities market for a short time, which is consistent with previous results and expected association.

Variables dividend, market segment, news and company’s size, are not found statistically significantly correlated with the probability that company will voluntarily disclose cash flow information.

5. CONCLUSION

The primary goal of this paper is to analyze financial and qualitative characteristics of companies that provide extensive cash flow disclosure. The paper provides information about disclosure practices of Croatian companies as a case of bank oriented economy with emerging capital market, with regard to a variety of company's specific factors which can be found as our contribution. Namely, financial reporting and information disclosure practices of these countries differ in relation to capital market oriented economies, because they are influenced by a variety of economic, social and political factors, like the legal system, stage of economic growth and development, enterprise ownership, activities of enterprises, etc. Thus, it should be explored separately. Obtained results indicate that despite the desire of the regulatory authorities that capital market investors receive all relevant information, companies voluntarily disclose information about cash flows very rarely.

Summarizing theoretical and empirical results of the research, the following recommendations can be derived: (1) the international standard setters as well as national legislative authorities should aim to make mandatory the publication of cash flow statement for all entities; (2) future researches should aim to explore cash flow reporting practices in more detail, e.g. in different regulatory framework countries, with regard to different company's characteristics, with regard to different financial performance measures, etc.

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