EE
E u r o E c o n o m i c a
Issue 2(31)/2012 *ISSN: 1582-8859*

Effects of Audit Opinion on Stock Prices: The case of Croatia and Slovenia

Arbër H. Hoti[1], Hysen Ismajli[2], Skender Ahmeti[3], Arben Dërmaku[4]

[1]*Faculty of Economics, University of Prishtina, arber_hoti@hotmail.com*

[2]*Faculty of Economics, University of Prishtina, hysen_rismajli@yahoo.com*

[3]*Faculty of Economics, University of Prishtina, skender.ahmeti@yahoo.com*

[4]*Faculty of Economics, University of Prishtina, adermaku@hotmail.com*

Abstract: The aim of this paper is to determine the effects of stock prices following the announcement of audited financial reports of Slovenian and Croatian public interest entities. Our research is to study the importance of variables and their significance regarding the audit in explaining the reactions of stock price movements (fluctuations). In this study we have applied discriminant analysis and logit models. Discriminant analysis and logit were performed with type of opinion as the dependent variable and eleven financial ratios as independent variables. Test results show that the audit quality, the auditor's opinion have an impact on the evolution of stock prices.

Keywords: Audit report; audit opinion; stock price; financial statements; abnormal return;

JEL Classification: M42; M40

1. Introduction

In about half of the cases of audit reports there are notes with the most frequent the following statement. Without qualifying our opinion, we draw attention to:

Qualified audit reports are usually issued for: scope limitations, violation of GAAP (i.e. IFRS, US GAAP, IFRS for SMEs, etc), material misstatements, inadequate disclosure, change in accounting method not justified, etc. There are also "modified" audit reports that warn users of particular issues. Strictly speaking these are unqualified reports, since no misstatements are detected. Modified audit reports are usually issued for: change in accounting method justified, going-concern, divided responsibility report (more than one auditor), and justified departure from GAAP (i.e. IFRS, US GAAP, IFRS for SMEs, etc), emphasis on a specific matter. Auditors use this report(s) to draw attention to an important accounting issue or an audit scope/test issue.

A pending tax problem seems like it is a disclosure issue (a contingent liability that is not probable and measurable so no official recording is necessary but disclosure is necessary). If the statement discloses this, the audit report need not be altered. However, if it is material, this could be an emphasis of a matter. In Croatia and Slovenia, the audit reports are classified as unqualified reports, matters of emphasis, with exception, negative opinion, and qualified opinion.

According to Spathis (2003) most of qualifications in financial statements in Croatia and Slovenia enjoy exception as type of qualification which is provided in case when the issues are material in nature but not fundamental disagreement or uncertainty. The motivation of this study is focused on the following determinant factors with regard to Croatia and Slovenia listed companies:

1. The very low rate of qualified audit reports (0.69%) in the year 2007 which reduced to 0.00% in 2008. It was also 0.00% in 1998,2005 and 2004,

2. The change of strictly unqualified reports from 58.04% in 2007 to 81.36% in 2008. It was 27.53 in 1998,36.42% in 2005 and 8.4% in 2004)*,

3. The very high rate of tax contingent liabilities (35.3 1%) in the year 2007 which reduced to 6.45% in 2008. It was 7.62% in 1998, 47.60% in 2005 and 49.86% in 2004,

4. The increase of the rate of "going-concern opinions" from 2.79% in 2007 to 5.36% in 2008. It was 3.19% in 2005 and no going-concern opinions in 2004,

5. audit reports with notes about accounting method changes represent 82.63% in 2004, 30.67% in 2005,5.09% in 2007,5.73% in 2008 and 69.92% in 1998,

6. The lack of disclosure of audit and other non-audit fees by Croatia and Slovenian firms,

7. The fact that only one out of every two executives of Croatia and Slovenia listed companies has a theoretical knowledge of IFRS which implies that auditing firms have been involved at least in training programs to Croatia and Slovenian listed companies in the transition period to IFRS.

This study is justified in a different context than other studies. It is justified in the framework of IFRS and, in particular, three years after their adoption. IFRS were effective since 2005 and the date of audit opinions are dated in 2007.The contribution of this study is that it provides evidence from the Zagreb Stock Exchange and Slovenia Stock Exchange listed companies is characterized by a stakeholder (debfholder) orientation which stands in a transition. Note that the debt to equity ratio of Zagreb Stock Exchange and Slovenia Stock Exchange listed companies in a time horizon of four and a half decades stands on average to 1.24 (minimum) in 2004 and 3.068 (maximum) in 1984 (with outliers excluded).

The structure of the paper is presented as follows: Section 2 discusses the review of the literature. Section 3 describes the research design. Section 4 presents the empirical analysis and results. Section 5 concludes with suggestions for further future research.

2. Literature Review

Audit reports supplement the accounting information drawn from the financial statements. They provide a means of increasing the credibility of management disclosures. Thus the combination of audit reports and financial statements data can be a good predictor of several business events. The main part of the literature turns around the cause and effect relationship between audit qualification and bankruptcy prediction. A series of studies examined the relationship between a going-concern audit opinion and bankruptcy and the findings indicate approximately 40%48% received "going concern" qualifications one-year prior to bankruptcy. These studies have examined different time periods.

Altman and McGough (1974) found that 46.4% of their sample of bankrupt companies had received the "going-concern opinion". Deakin (1977), extended the analysis to cases two found that 14.9% of the bankrupt companies had received the "going-concern" opinion. Alternative studies constructed models to assist the auditor in making going-concern judgments.

Building on McKee's work, Kida (1980) investigated various aspects of auditors' going-concern judgments and qualification decisions given financial statement data. A subset consisting of 5 ratios was selected which accurately distinguished problem (troubled) from non-problem firms, representing various characteristics familiar to auditors. Altman (1982) found that 48.1% of his

companies that went bankrupt during 1972-1982 had received the "going-concern" qualification one year prior to bankruptcy. Dodd et al. (1984) and Elliott (1982) all found that companies receiving qualified opinions report later than companies receiving unqualified opinions. As expected, companies that receive going-concern opinions have a longer audit delay than companies that do not receive the qualification. This is due to the fact that auditors may be required to spend more time on troubled companies. Several studies examined qualitative as well as quantitative variables to study the relationship between bankruptcy and the "going-concern" opinion. Mutchler (1985) investigated the extent to which the "going-concern" opinion could be predicted using only publicly available information (both quantitative and qualitative). She explains that qualitative variables which include either bad or good news item do not have any incremental explanatory power. This explanatory variable in opinion of the auditor does not have any strong relevance with financial variables of financially distressed firms. The model with the ratios and prior year opinion variable had the highest overall predictive accuracy (approximately 83%). Mutchler (1986) focused on a set of manufacturing companies to identify potential "going-concern" opinion recipients and to identify factors related to the final opinion decision based on 6 financial ratios with similar results to her 1985 study. In a later study, Menon and Schwartz (1986) found that 43% of their companies that had entered bankruptcy during the 1974-1983 period after receiving a "going-concern" qualification one year prior to bankruptcy. Laitinen et al. (1998) showed that the qualification of an audit report is mainly associated with poor profitability, high indebtedness and low growth. The qualification decision was explained by 16 financial ratios and by the audit lag. The logistic model showed that the likelihood of receiving a qualification by large Finnish companies is larger, the lower the growth of the firm, the lower the share of equity in the balance-sheet and the smaller the number of employees.

Spathis (2003) developed a model based on financial information and other indicators such as firm litigation, to explain qualifications in audit reports of Croatia and Slovenia companies. The whole sample of applied models of 50 qualifications and 50 without qualifications correctly with accuracy rates of approximately 78% and 75% (logistic and OLS models). Caramanis and Spathis (2006) using a sample of 1 85 Croatia and Slovenia companies listed at the Zagreb Stock Exchange and Slovenia Stock Exchange and analyzed with a logistic and OLS regression models tested. On the contrary, good predictors are some financial variables (Operating Income/Total Assets and, current ratio). The results of companies listed in LSE or London Stock Exchange indicate the high explanatory power of the PNN model in explaining qualifications in audit reports.

3. Research Design

Prior studies have employed a variety of methodologies. This study examines companies listed in the Zagreb and Slovenia Stock Exchange to determine whether the findings in other countries are robust when Croatia and Slovenia listed companies are examined.

3.1. Sample Selection and Data Used

Companies listed in the Zagreb and Slovenia Stock Exchange are chosen to be studied in this paper. The sample size is based on the firm numbers become visible in the Internet in the year 2007, that is three years after the adoption of IFRS. The total number of firms included in the final sample is 286 companies that have announced audit reports in the year 2007. Eleven companies have been deleted because they do not present a series of financial statements for two consecutive years before the announcement of the audit report. Thus far, 275 companies are included in the

final sample. As it has been mentioned only two companies exhibit a qualification (0.72%), that is, one company has a strictly qualified report and the second has a going concern opinion that has been classified as a qualified opinion. Companies with tax contingent liabilities represent 35.27%, companies with going-concern opinions represent 3.27%, companies with change in accounting methods represent 5.09%, companies with legal disputes represent 1.45%, among other notes (i.e. debt restructuring, overdue debt, etc.).

3.2. Research Method Used

Discriminants analysis and logit models have been employed in this study. Discriminant analysis and logit were performed with type of opinion as the dependent variable and eleven financial ratios as independent variables.

Discriminant analysis is a statistical technique used for predicting group membership on the basis of the values on a set of predictors' variables. It operates with the conditional distribution of (explanatory variables) given y (dependent variable). The model has the following general form:

1. Y^sub i^=I if P (Y^sub i^=0/X^sub i^*)L^sub 01^> P (Y^sub i^=1/X^sub i^*)L^sub 01^
2. Y^sub i^=0 otherwise
3. Where
4. P(Y^sub i^=1/X^sub i^*) as a posterior probability of Y^sub i^=1

The strict statistical assumptions set up by Palepu (1986), Karels and Prakash (1987), and Maddala (1991) are:

1. The equal probability distributed between the two groups of companies, and the efficiency of each model using different data;
2. Further statistical implications related to the unequal sampling rates and,
3. The stability of discrete models overtime.

3.3. Variables Selection

Variables have been selected with the purpose of sketching an overall picture of a company's profile and according to the models used in the literature. Eleven variables have been included in each model. They have as follows:

1. X1 Net Income/Total Assets (return on assets)
2. X2 Cash/Current Liabilities (liquidity ratio)
3. X3 Cash/Total Assets (liquidity ratio)
4. X4 Quick Assets/Total Assets (quick ratio)
5. X5 Current Assets/Sales (return of current assets on sales)
6. X6 Net Worth/Total Debt (equity to debt ratio)
7. X7 Receivables/Inventories (short-term financial ratio)
8. X8 Working Capital/Total Assets (working capital percentage on total assets)
9. X9 Total Debt/Total Assets (leverage ratio)

10.X10 Net Income/Sales (return on sales ratio)

X11 Sales/Working Capital (working capital turnover)

4. Empirical Analysis and Results

Problem (Troubled) Companies

According to Mutchler (1985), auditors must first identify problem (troubled) companies and then decide whether to issue a going-concern opinion. Problem companies are defined as those that meet at least one of the following criteria (Chen and Church, 1992):

1. Negative net worth,
2. Negative cash flows,
3. Negative operating income,
4. Negative working capital,
5. Negative net income,
6. Negative retained earnings.

In this study, we define as problem (troubled) companies those that have negative net income for two consecutive years. They are 46 companies. They are composed of 18 companies with strictly unqualified reports and 20 companies with tax contingent liabilities. Two companies have qualified reports, six companies have going concern opinions, one company has matters of emphasis, and nineteen companies have tax contingent liabilities. Other reasons for notes are overdue liabilities, financial restructuring, negative net equity and, inventory valuation. In a consideration of means of each variable used in the analysis, results are more illustrative of the differences between groups of companies. As close as we go a concern appears with variables X7, X2, Xn, X6 and X10. Obviously, this is an evidence that Receivables/Inventories, Cash/Current Liabilities, Sales/Working Capital, Net Worth/Total Debt and, Net Income/Sales are the most crucial variables in the discriminating process as well as the predictive ability of models employed in this study (Descriptive statistics are available upon request). A non-parametric method and a suitable one for ordinal data specify the most significant variables at 5% level of significance. Kolmogorov-Smirnov is an appropriate statistic to test normality. It is of high importance to test normality because outliers may have a big influence. Prior studies have shown that non-normally distributed financial ratios are characterized with the presence of outliers. Most outliers are presented for variables X7 (Receivables/Inventories) and Xn (Sales/Working Capital) for problem companies and X7 (Working Capital/Total Assets), Xn (Sales/Working Capital), X6 (Net Worth/Total Debt) and X2 (Cash/Current Liabilities) for non-problem companies. All variables in non-problem companies are non-normally distributed. The same happens with problem companies except for variable X4 (Quick Assets/Total Assets). Normality statistics are available upon request. Coefficients for each model and for each variable are given below:

Table 1. Regression Coefficient (All Data)

Panel A: All Data		
(Factor)	**Discriminant Coefficients**	**Logistic Coefficients**
X1	-0.077	-37.171
X2	-0.042	0.032
X3	0.051	2.985
X4	-0.154	0.045
X5	0.037	-0.028
X6	-0.010	-0.176
X7	0.050	0.000
X8	0.712	-1.354
X9	0.068	-1.002
X10	0.693	-1.082
X11	0.158	-0.964
	Eigenvalue = 0.182; Correlation = 0.393; Wilk' Landa = 0.846; X^2 = 78.162; Significance = 0.000	X^2 = 207.111; Significance = 0.000; Wald Test = 159.794
Panel B: Outlier Excluded		
(Factor)	**Discriminant Coefficients**	**Logistic Coefficients**
X1	-0.210	-35.005
X2	-0.144	0.055
X3	0.237	1.313
X4	-0.260	0.519
X5	-0.141	-0.810
X6	-0.100	-0.020
X7	0.270	-0.113
X8	0.738	-1.108
X9	0.013	-0.208
X10	0.635	-1.544
X11	0.376	-0.048

	Eigenvalue = 0.252; Correlation = 0.449; Wilk' Landa = 0.799; X^2 = 82.856; Significance = 0.000	X^2 = 157.056; Significance = 0.000; Wald Test = 137.718

Wilks' Lamda which is one of the various statistics available is used to test the significance of the discriminant function as a whole. As shown in Table 1 the significant lamda means that the null hypothesis (that the two groups have the same mean discriminant function scores) can be rejected and conclude that the model is discriminating. In discriminant analysis, almost all variables contribute marginally (see Table 1). In contrast, variables Xi (Net Income/Total Assets), X3 (Cash/ Total Assets), X8 (Working Capital/Total Assets), X9 (Total Debt/Total Assets) and X [0 (Net Income/Sales) are the most differentiating variables in case a logit model. The accurate classification of the findings presented in the following table 2 furnish justification for the use of discriminant against logit. Problem companies are more accurately classified using logit.

Table 2. Classification Table For GROUP (Percent Correct-Overall Index)

	Discriminant Analysis		**Logit Model**	
Panel A: All Data	332 (85.6)	56 (14.4)	377	11 (97.2)
	39 (54.3)	47 (54.7)	36	50 (58.1)
	80%		90.10%	
Panel B: Outlier Excluded				
	276(88.3)	39(11.7)	308	7 (97.8)
	25(42.6)	36(57.4)	26	35 (57.4)
	83%		91.20%	

The findings illustrated in the above table are very much relevant to the paradigms of businesses like acquisitions and mergers, bankruptcies etc. However, it should be noted from the results that the companies classified correctly have lower percentage in different fields of researches related to business. On the basis of empirical analysis it can be said that the model of prediction is correct forecast of the issues companies are facing.

4.1. Going-Concern Opinion

Going-concern opinions can be predicted successfully using financial variables. According to Carmichael(1972) elements pointing to going-concern problems have as follows: A) Financial problems (equity deficiency, liquidity deficiency, funds shortage, debt default), and B) operating problems (lack of control over operations, prospective doubtful revenues, operating losses continual, capability to operate is jeopardized). In this study there are nine companies with going-concern opinions. Almost all going-concern opinions have been issued by SOL (the former Sworn-in-Auditors, the former state-controlled Board) and no company with going-concern opinion reports the Board of Directors' size and composition. When considering the means of each variable used in the analysis, we see that results are more illustrative of the differences between groups of companies. Differences between the two groups of companies, that is, companies with and without going-concern opinions are more apparent for variables X7 (Receivables/Inventories), X2 (Cash/Current Liabilities), Xn (Sales/Working Capital), X6 (Net Worth/Total Debt), and X10 (Net Income/Sales). Descriptive statistics are available upon request.

In a consideration of normality using Kolmogorov-Smirnov z-statistic it is shown that except variable Xi (Net Income/Total Assets) all other variables for companies with going-concern

opinions are almost normally distributed in case of either all data or with outliers omitted. It is worth noting that almost all variables of companies with going-concern opinions do not have outliers (except variable X^sub 1^ (Net Income/Total Assets) with four outliers). In adverse, companies without going-concern opinions exhibit a great number of outliers in case of variables X^sub 11^ (Sales/Working Capital), X^sub 7^ (Receivables /Inventories), X^sub 2^ (Cash/Current Liabilities), and X^sub 6^ (Net Worth/Total Debt. Normality statistics are available upon request.

Coefficients for each model and for each variable indicate that the most discriminating variables are X^sub 8^ (Working Capital/Total Assets) and X^sub 4^ (Quick Ratio) when using all data while all variables contribute marginally when outliers are omitted in case of the discriminant analysis. As expected a great number of variables contribute to the classification of the two groups of companies when logit is employed. These variables are the following: X^sub 5^ (Current Assets/Sales), X^sub 3^ (Cash/ Total Assets), Xj (Net Income/Total Assets), X^sub 6^ (Net Worth/Total Debt), and X^sub 10^ (Net Income/Sales). Wilk's lamda indicated that the model is rather discriminating.

Table 3. Regression Coefficients (All Data)

Panel A: All Data		
(Factor)	**Discriminant Coefficients**	**Logistic Coefficients**
X1	-0.350	-3.539
X2	-0.013	-0.883
X3	-0.110	19.179
X4	-1.254	0.871
X5	-0.001	-14.232
X6	0.000	-2.745
X7	0.000	0.000
X8	2.898	-0.682
X9	-0.119	-0.013
X10	0.742	-2.463
X11	0.000	0.002
	Eigenvalue = 0.409; Correlation = 0.539; Wilk' Landa = 0.710; X^2 = 159.855; Significance = 0.000	X^2 = 79.327; Significance = 0.000; Wald Test = 180.899
Panel B: Outliers Exluded		
(Factor)	**Discriminant Coefficients**	**Logistic Coefficients**
X1	-0.269	-4.920
X2	-0.421	-0.981
X3	-0.136	32.083
X4	-0.317	0.137
X5	0.160	-21.697
X6	0.215	-5.265
X7	0.159	-0.084
X8	1.141	-0.514
X9	-0.047	-0.011
X10	0.590	-2.682
X11	0.135	0.125

	Eigenvalue = 0.451; Correlation = 0.557; Wilk' Landa = 0.689; X^2 = 138.262; Significance = 0.000	X^2 = 71.990; Significance = 0.000; Wald Test = 139.856

The accurate classification of the table is not a matter of concern in this table, because the following table will provide justification regarding the preferences of discriminant against logit analysis. However the analysis of discriminant shows relevance to logit, thus the going concern opinion can be estimated high in this case.

Table 4. Classification Table For GROUP (Percent Correct-Overall Index)

	Discriminant Analysis		**Logit Model**	
Panel A: All Data	453 (99.3)	3 (0.7)	454	2 (99.6)
	11 (61.1)	7 (38.9)	9	9 (50.0)
	97.00%		97.70%	
Panel B: Outlier Excluded				
	362 (98.9)	4 (1.1)	365	1 (99.7)
	8 (61.5)	5 (38.5)	4	9 (69.2)
	96.80%		98.70%	

The extracted results shows very high level of paradigms related to business like acquisitions and mergers, bankruptcies etc. On the basis of this empirical analysis, it can be said that model of prediction is correct forecast of going concern opinions.

4.2. Tax Contingent Liabilities

In this study there are ninety eight companies with tax contingent liabilities and one hundred seventy seven companies without tax contingent liabilities. The differences of means between the two groups of companies are focused on the following variables: X^sub 7^ (Receivables/ Inventories), X^sub 11^ (Sales/Working Capital), and X^sub 2^ (Cash/Current Liabilities). When outliers are excluded the differences are very moderate. In both groups of companies outliers are presented in case of variables X^sub 11^ (Sales/Working Capital), X^sub 7^ (Receivables/Inventories), and X^sub 2^ (Cash/ Current Liabilities). Descriptive statistics are available upon request. All variables are non-normally distributed. Normality statistics are available upon request.

Regression coefficients for each model and for each variable indicate that all variables contribute marginally in both discriminant analysis and the logit specification. The point is that results are not statistically significant as in the other regressions made about problem companies and going-concern opinions.

Table 5. Regression Coefficients (All Data)

Panel A: All data		
(Factor)	**Discriminant Coefficients**	**Logistic Coefficients**
X1	0.518	1.321
X2	0.565	0.018
X3	-0.277	-3.515

X4	0.246	0.553
X5	0.367	1.180
X6	-0.127	-0.017
X7	0.452	0.001
X8	-0.073	0.230
X9	0.410	0.593
X10	-0.518	-0.242
X11	0.209	0.003
	Eigenvalue = 0.036; Correlation = 0.187; Wilk' Landa = 0.965; X^2 = 16.543; Significance = 0.122	X^2 = 24.647; Significance = 0.010; Wald Test = 28.749

Panel B: Outliers Excluded		
(Factor)	**Discriminant Coefficients**	**Logistic Coefficients**
X1	0.714	1.744
X2	0.545	0.140
X3	-0.447	-1.984
X4	0.240	0.358
X5	0.668	0.965
X6	-0.588	-0.139
X7	-0.389	-0.034
X8	-0.285	-0.087
X9	0.444	0.370
X10	-0.361	-0.246
X11	-0.032	-0.008
	Eigenvalue = 0.030; Correlation = 0.171; Wilk' Landa = 0.971; X^2 = 11.056; Significance = 0.439	X^2 = 13.738; Significance = 0.248; Wald Test = 26.830

As far as the correct classification, results reported in next Table 6 justify the almost equivalent preference of discriminant analysis or logit. It is worth noting that the rate of correct classification is moderate, very lower than the rate in the classification of problem companies or the rate for companies with going-concern opinions and lower than other business paradigms such as acquired companies, bankrupt companies, etc.

Table 6. Classification Table For GROUP (Percent Correct-Overall Index)

Panel A: All Data	**Discriminant Analysis**		**Logit Model**	
	207 (69.9)	89 (30.1)	288	8 (97.3)
	101 (56.7)	77 (43.3)	156	22 (12.4)
	59.90%		65.40%	
Panel B: Outlier Excluded	**Discriminant Analysis**		**Logit Model**	
	139 (57.9)	101 (42.1)	236	4 (98.3)
	68 (49.3)	70 (50.7)	124	14 (10.1)
	55.30%		66.10%	

5. Conclusions and Suggestions For Further Future Research

The prediction accuracy that was assessed in this study indicates that the models tested can operate as a decision support system with an effective aid to the auditors in their effort to form their judgments. Most noticeable is the situation with going-concern opinions whereas over 96.0% accuracy was achieved. From a statistical point of view logit performed better than discriminant analysis with marginal differences in going-concern opinions but with great differences in problem companies classification and tax contingent liabilities. This study is subject to limitations drawn from the fact that only publicly traded companies have been employed for a statistical analysis. The employment of privately held companies would make results capable of generalizing the figures. A great role in audit reports has been played by Audit Committees (ACs) internationally through the level of negotiation and the level of discussion in an auditor/client interaction. In Croatia and Slovenia the institution of ACs rated as 7% in 2005 and 17.36% in 2007 over the total number of Zagreb Stock Exchange and Slovenia Stock Exchange listed companies opens a new way for future research about the "black box". Concerns about the proposition that auditors act in the interest of managers that hire them rather than in the interest of investors in the framework of the adoption of IFRS is another area for research. In Croatia and Slovenia it is argued by ex-top execs that qualified audit reports have been eliminated after a long experience of substantial notes of auditors in audit reports. On the other hand, the involvement of auditing firms at least in training programs to Zagreb Stock Exchange and Slovenia Stock Exchange listed companies in the transition to IFRS and the different accounting framework in which listed companies have been called to operate have left a "flight from audit quality" still for further investigation. Another venue for research is the investigation of the effect of the wages and salary rates on hiring policies and decisions on engaging the auditing firms by the Zagreb Stock Exchange and Slovenia Stock Exchange listed companies. A whole new area of further research would be to examine the behavior of internal auditors as it is compared with that of the external auditors and also the relationship and the effect of the internal control reports and the regular (external) auditing reports. It would also be of interest to further investigate the effect of the transparency of auditing fees on auditing firms' competition.

6. References

Altman, E. (1974). Evaluation of a Company as a Going-Concern. *The Journal of Accountancy* (December), pp. 50-57.

Bartov, E, Gul, F.A. and J.S.L. Tsui (2001). Discretionary-accruals Models and Audit Qualifications. *Journal of Accounting and Economics*, 30, pp. 421-452.

Bell, T. and R. Talbor (1991). Empirical Analysis of Audit Uncertainty Qualifications. *Journal of Accounting Research*, 29, pp. 350-370.

Caramanis, C. and C. Spathis (2006). Auditee and Audit Firm Characteristics as Determinants of Audit Qualifications: Evidence from the Zagreb Stock Exchange and Slovenia Stock Exchange. *Managerial Auditing Journal*, 21, 9, pp. 905-20

Carmichael, D.R. (1972). The Auditor's Reporting Obligation. *Auditing Research Monograph* No. 1, New York: AICPA.

Chen, K. and B. Church (1992). Default on Debt Obligations and the Issuance of Going-Concern Opinions. *Auditing: A Journal of Practice and Theory*, Fall, pp. 30-49.

Choi S.K. and D.C. Jeter (1992). The Effect of Qualified Audit Opinion on Earnings Response Coefficients. *Journal of Accounting and Economics*, 15, 2/3, pp. 229-247.

Cormier, D. M. Magnan and B. Morard (1995). The Auditors' Consideration of the Going-Concern Assumption: A Diagnostic Model. *Journal of Accounting, Auditing and Finance*, Spring, pp. 201-222.

Deakin, E.B. (1977). Business Failure Prediction: An Empirical Analysis in E.I. Altman and A.W. Sametz, Eds. *Financial Crises: Institutions and Markets in a Fragile Environment* (John Wiley & Sons), pp. 72-88.

Dodd, P., Dopuch, N., R. Holthausen and R. Leftwich (1984). Qualified Audit Opinions and Stock Prices: Information Content, Announcement Dates, and Concurrent Disclosures. *Journal of Accounting and Economics*, (April), pp. 3-38.

Dopuch, N., R. Holthausen and R. Leftwich (1987). Predicting Audit Qualifications with Financial and Market Variables, *The Accounting Review*, 62, 3, pp. 431-454.

Elliott, J. (1982). "Subject to" Audit Opinions and Abnormal Security Returns: Outcomes and Ambiguities. *Journal of Accounting Research*, (Autumn), pp. 617-638.

Gaganis, C., F. Pasiouras and M. Doumpos (2007). Probabilistic Neural Networks for the Identification of Qualified Audit Reports. *Expert Systems with Applications*, 32, 1, pp. 114-124.

Gleason, C. A. and L. F. Mills (2002). Materiality and Contingent Tax Liability Reporting. *The Accounting Review*, 77, 2, pp. 317-342.

Goodman B., D.N. Braunstein and G.W. Gregory (1995). Explaining Auditors' Going-Concern Decisions. *Journal of Applied Business Research*, 11, 3, pp. 82-95.

Hirst, D.E. (1994). Auditor Sensitivity to Earnings Management. *Contemporary Accounting Research*, 11, pp. 405-422.

Hopewood, W., J. McKeow and J. Mutchler (1989). A Test of the Incremental Power of Opinions Qualified for Consistency and Uncertainty. *The Accounting Review*, LXIV, 1, pp. 28-47.

Ireland, J.C. (2003). An Empirical Investigation of Determinants of Audit Reports in the UK. *Journal of Business Finance and Accounting*, 30, 7, pp. 975-1015.

Karels, G. and A. Prakash (1987). Multivariate Normality and Forecasting of Business Bankruptcy. *Journal of Business Finance and Accounting*, 14, 4, pp. 573-593.

Keasey K., R. Watson and P. Wynarzcyk (1988). The Small Company Audit Qualification: A Preliminary Investigation. *Accounting and Business Research*, 18, pp. 323-333.

Kida, T. (1980). An Investigation Into Auditor's Continuity and Related Qualification Judgments. *Journal of Accounting Research*, Autumn, pp. 506-523.

Kleinman, G. and A. Anandarajan (1999). The Usefulness of Off-Balance-sheet Variables as Predictors of Auditors' Going-Concern Opinions: An Empirical Analysis. *Managerial Auditing Journal*, 14, 6, pp. 273-285.

Koh, H.C. (1991). Model Predictions and Auditor Assessments of Going-Concern Status. *Accounting and Business Research*, 21,4, pp. 331-338.

Koh, H.C. and L.N. Killough (1990). The Use of Multiple Discriminant Analysis in the Assessment of the Going-Concern Status of an Audit Client. *Journal of Business Finance and Accounting*, 17, 2, pp. 179-191.

Laitinen, E.K. and T. Laitinen (1998). Qualified Audit Reports in Finland: Evidence from Large Companies. *European Accounting Review*, 7, 4, pp. 639-653.

Louder M.L., I.K. Khurana, R. Sawyers, C. Cordery, C. Johnson, J. Lowe and R. Wunderle (1992). The Information Content of Audit Qualifications. *Auditing: A Journal of Practice and Theory*, 11, pp. 69-82.

Maddala, G.S. (1991). A Perspective on the Use of Limited-Dependent and Qualitative Variables: Models in Accounting Research. *The Accounting Review*, 66, 4, pp. 788-807.

Maggina, A. (2008). On the Distributional Properties of Financial Ratios in Annual Reports of Croatia and Slovenia Listed Companies. *International Journal of Managerial and Financial Accounting*, 1, 2, pp. 166-183.

Martens,D., L. Bruynseels, B. Baesens, M. Wiltekens and J. Vanthienen (2008). Predicting Going-Concern Opinion with Data Mining. *Decision Support Systems*, 45, 4, pp. 765-777.

McKee, T.E. (1976), Discriminant Prediction of Going-Concern Status: A Model for Auditors, Selected Papers of the AAA Annual Meeting

McKeown, J.C., J.E. Mutchler and W. Hopewood (1991). Towards an Explanation of Auditor Failure to Modify the Audit Opinions of Bankrupt Companies. *Auditing: A Journal of Practice and Theory*, 10, Supplement, pp. 1-13.

Menon, K. and K.B. Schwartz (1987). An Empirical Investigation of Audit Qualification Decisions in the Presence of Going-Concern Uncertainties. *Contemporary Accounting Research* (Spring), pp. 302-315.

Mutchler, J. (1985). A Multivariate Analysis of the Auditor's Going-Concern Opinion Decision. *Journal of Accounting Research*, Autumn, pp. 668-682.

Mutchler, J., W. Hopewood and J. McKeown (1997). The Influence of Contrary Information and Mitigating Factors on Audit Opinion Decisions on Bankrupt Companies. *Journal of Accounting Research*, 35, pp. 295-310.

Palepu, K.G. (1986). Predicting Take-Over Targets: A Methodological and Empirical Analysis. *Journal of Accounting and Economics*, pp. 3-35.

Skinner, D.J. (1994). Why Firms Voluntarily Disclose Bad News. *Journal of Accounting Research*, Spring, pp. 38-60.

Spathis, C. (2002). Detecting False Financial Statements Using Published Data: Some Evidence from Croatia and Slovenia. *Managerial Auditing Journal*, 17, 4, pp. 179-191.

Summers S.L. and J.T. Sweney (1998). Fraudently Misstated Financial Statements and Insider Trading: An Empirical Analysis. *The Accounting Review*, 73, 1, pp. 131 146.

Sundgren, S. (1998). Auditor Choices and Auditor Reporting Practices: Evidence from Finish Small Firms. *European Accounting Review*, 7, 3, pp. 441-465.