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Going concern and audit opinion: studies on banking companies on the Indonesian stock exchange for the period 2003-2008

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ABSTRACT

The primary aim of this study is to investigate the usefulness of the bankruptcy prediction model for assessing going concern to help the auditor issue better going concern opinion. The model bankruptcy prediction firm for banking industry characteristic Model bankruptcy prediction proxed by three general financial ratios; capital ratios, risk financial ratios, and Z-score Altman ratio in Indonesia have been taken from the previous research of Bank Indonesia. The samples of this study are public commercial banks listed in JSX (Jakarta Stock Exchange) for the year 2003 to 2008. There are 114 samples which are collected by pooled data method and the samples are selected with purposive sampling method. Binary logistic regression SPSS version 15 tool used as aim for analyzing. The results show that capital ratios are effective for assessing going concern to predict the issuance of going concern opinion. Both univariate analysis and multivariate analysis show that 5 variables are significant. For the rest, financial risk ratios have 3 variables are significant and Z score Altman ratios have 1 variables are significant.

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1. INTRODUCTION

Going concern is an assumption in the preparation of financial reports by management, since the issuance of SAS3 34 by AICPA in March 1981, followed by SAS 59 in April 1988. increasing the auditor's responsibility in disclosing financial reports, especially the going concern problem of client companies. The auditor is a liaison party between users of financial statements and company management, where the auditor has access to inside information.

This research is motivated by changes in SAS standards, the fall of companies involving big 5 KAPs, and the fall of the banking industry in Indonesia in 1998. These are examples of the importance of assessing the going concern aspect for; companies, investors, creditors and auditors, because the auditor has a responsibility in evaluating the continuity of his client's business based on these auditing standards. For this reason, the banking bankruptcy model from Bank Indonesia is used to assist auditors in providing going concern opinions and increasing information transparency to users of financial statements.

The responsibility of auditors in reporting companies experiencing going concern problems has been debated since 19788. "There is no reason to believe independent auditors are more able to

predict whether a company will liquidate than they are able to predict the outcome of other uncertainties" (1978 , p30 in Kida, 1980:506). This statement is supported by previous research on the benefits of financial statement data in explaining going concern issues.

Research that seeks to explain the relationship between the ability of mathematical models with the ability of auditors to predict business continuity problems initiated by Altman and McGaugh (1974). Trying to analyze the level of accuracy of bankruptcy prediction using auditor opinion and ratio data bankruptcy prediction models while using audit opinion the level of accuracy only reaches 44%, one year before bankruptcy.

To show that there is discrepancy in the level of bankruptcy prediction, using a mathematical model the prediction reaches an accuracy rate of 82%, while using an audit opinion the level of accuracy only reaches 44%, one year before bankruptcy which explains the difference in the mathematical prediction model and the auditor's judgment on the continuity of the business because differences in auditor perceptions in assessing client company problems.

Research on going concern studies and audit opinions on the banking industry in Indonesia, was conducted by Hani et al (2003). Then followed by several studies afterwards, one of which is the research of Puji Rahayu (2007). Both of them concluded that financial ratios cannot be used as a definite benchmark to determine the viability of a company. However, the ratio can be a tool in measuring the health of the company in the continuity of the company.

Based on the description above, the authors intend to use a ratio measure to assist auditors in assessing the continuity of their client's business in the banking industry listed on the IDX. Seeing the economic conditions of Indonesia and the Asia Pacific region in general, which have occurred since mid-1977 as a result of currency depreciation in these countries, had a significant impact on the financial reporting of companies in Indonesia in general for the 1997 financial year, so there is a need for auditing standards in Indonesia, SPAP_IAI, issued a standard for reporting on the impact of these conditions on the continuity of the entity.

This study aims to investigate the use of financial information in assessing business continuity in order to assist auditors in issuing a going concern modified report audit opinion. The object of this research is the banking industry in Indonesia with the object argument being that all activities of commercial banks can affect the national economic system.

2. RESEARCH METHOD

The research started from April to July 2009, the research location was aimed at studying literature by visiting a number of libraries; Indonesian Banking Development Institute (LPPI), FE-University of Indonesia, FE-Trisakti University, Bank Indonesia, FE-Atma Jaya, Bina Nusantara University, IDX Corner Reference Center at Trisakti University, and visited the Indonesia Stock Exchange. Target respondents are banking companies listed on the IDX, complete with data from Independent Auditor reports.

The data collected is secondary data. The data is obtained in a cross-sectional manner, originating from; Indonesian Capital Market Directory (ICMD), Indonesian Banking Directory, and annual reports obtained from the IDX Corner Reference Center at Trisakti University. The data consists of a number of annual reports of banking companies listed on the IDX, with 25 research variables, for 6 years (2003 to 2008) and data from independent audit opinion reports.

In collecting data choosethe sample uses a purposive sampling method, meaning that the sample is deliberately selected based on certain criteria in order to represent the population. The sample selection criteria are as follows: Publish audited financial reports during the research observation period, from 2003 to 2003. 2008, Has complete data that is used as a variable in this study and is consistently reported in ICMD, The company's shares are actively traded, referring to SE bPT BEJ No. 03/BEJ.II.I/I/1994. namely the trading frequency of more than 75 times in 3 months.

Data is collected based on secondary data reference sources; Published research journals both nationally and internationally, Text Books (general theory books), and published financial

reports of issuer companies (Audited) by certain institutions, namely Bank Indonesia (Indonesian banking Directory) and the Indonesia Stock Exchange (Indonesia Capital Market Directory).

The research consists of 25 variables taken from several references to bankruptcy prediction models to distinguish the soundness of banking industry companies in Indonesia. It is hoped that these variables can distinguish healthy and unhealthy companies in relation to assisting the auditor's decision in granting a going concern audit opinion. The research variables are divided into 3 major namely; capital ratios, financial risk ratios, and Altman's (1984) Z-score model ratios.

Table 1. Description of Research Variables

Variable	**Measurement**	**Reference**
1. Variables dependent**:**		
Going Concern Modified audit opinion *Report*	*Going Concern Audit Report*(GCAR) = 1, Non-Going Concern Audit Report (NGCAR) = 0	Hani et al (2003)
Variable	*Measurement*	Reference
prediction models bankruptcy	*Capital Ratios* *The size that shows the level of existence of the number certain capital to protect depositors, to cover losses in order to maintain a going concern bank, to purchase fixed assets for smooth running of bank services, and to comply with regulatory requirements for the sake of guard against unjustified expansion of assets.* *X1. (CAP1) : Capital to deposits* *X2. (CAP2) : Equity to deposit X3 . (CAP3) : Loans to equity X4. (CAP4) : Loans to capital* *X5. (CAP5) : Fixed assets to equity X6. (CAP6) : Fixed assets to capital* *X7. (CAP7) : Equity capital to total assets X8 . (CAP8) : Net opening position to capital X9. (CAP9) : Return on Equity* *X10. (CAP10) : Return on Capital* *Financial Risk Ratios* *Measures that indicate the relative level of consequences management decision making in various financial dimensions in order to achieve the desired return. High returns are usually only possible by taking high risks, and vice versa.* *X11. (Risk1) : Liquidity Risk = (liquid assets-Short term borrowing) to total deposit* *X12. (Risk2) : Capital Risk = capital to risk assets X13. (Risk3) : Credit Risk = classified earning assets (APYD) to earning assets (AP) X14. (Risk4) : Deposit Risk = equity to total deposit X15. (Risk5) : Off-Balanced Sheet Risk = loan commitment to fee income* *X16. (Risk6) : Loans to assets* *X17 . (Risk7) : Treasury Securities to assets X18. (Risk8) : Other Securities to assets X19 . (Risk9) : Capital to assets* *X20. (Risk10) : NPL Ratio = Non Performing Loans to Total Loans*	Hadad et al (2004)
Variable	*Measurement*	Reference

Altman's Z-score (1984)	*Z-score = 0.717 WC/TA + 0.847 RE/TA + 3.107 EBIT/TA + 0.420 MVE/BVD + 0.998 S/TA* *WC/TA = Working Capital/Total Assets* *RE/TA = Retained Earning/ Total Assets* *EBIT/TA = Earning Before Interest and Tax/ Total Assets* *MVE/BVD = Market Value Equity/ Book Value of Debt S/TA = Sales/ Total Assets*	Supardi et al (2003)

In this study, there are twenty five independent variables that are measured by a ratio scale and the variables that are measured by a ratio scale are called parametric variables. While the dependent variable is one variable that is measured on a nominal scale and is generally referred to as a non-parametric variable. While the dependent variable is one variable that is measured on a nominal scale and is generally referred to as a non-parametric variable. The statistical test for analyzing data sets like this is called the dependent statistical method, which is intended to determine whether the independent variables affect the dependent variable individually and or together.

The analytical method for the model where the dependent variable is a nominal scale and the independent variable is a ratio scale, there are two alternative statistical analysis methods with certain conditions, namely discriminant analysis or logistic regression analysis. The assumptions underlying the choice of discriminant analysis are: The data must be normally distributed. The number of samples for the dependent variable category must be comparable, namely 50% : 50%. If the above assumptions cannot be met, then it is better to use the logistic regression statistical analysis method. The logistic regression equation can be stated as follows:

Ln = B0 + B1X1 + … + BnXn or

= e (B0 + B1X1 + … + BnXn) …….(1)

Where: Bo, B1,…, Bn = estimated coefficient.

X1,…, Xn = independent variable.

Before analyzing using discriminant analysis or logistic regression analysis, the data must be tested for normality beforehand: normality test, descriptive statistical test, normality test, hypothesis test (hypothesis test, multivariate test, model fit test , Validity Test, Significance Test)

3. RESULTS AND DISCUSSIONS

The research population is a banking company registered on the IDX, the research is a hypothesis testing study with minimal inference, namely to see relationships, this study uses non-contrived study settings in the sense that researchers do not make special restrictions or manipulate the dependent variable to obtain the desired research results, correlational studies This kind of thing in the organization is usually called field studies.

The unit of analysis is a banking company, with a total population of 24 companies listed on the IDX during the period 2003 to 2008. The sample of banking companies that met the criteria was 19 companies, for 6 consecutive years, so that pooled data with an analysis unit of n = 6 x 19 = 114 observations was obtained. Data were collected cross-sectionally by taking into account time and costs.

The selection of the sample is in accordance with the criteria for selecting the sample by purposive sampling, namely there are complete data, independent auditor reports, and companies that are actively traded by looking at the trading frequency of more than 75 times in 3 months.

Table 1. Sample Banking Companies

No	Issuer Code	Issuer Name
1	Bumiputera Bank Indonesia	BABP
2	Bank Central Asia	BBCA
3	CIC International Bank	BCIC
4	Bank Danamon Indonesia	BDMN
5	International Executive Bank	BEKS
6	Indonesian International Bank	bnii
7	Artha Graha International Bank	INPC
8	Kesawan Bank	BKSW
9	Lippo Bank	LPBN
10	Mandiri Bank	BMRI
11	Megabank	MEGA
12	Indonesian State Bank	BBNI
13	Commercial Bank	BNGA
14	NISP bank	NISP
16	Pan Indonesian Bank	PNBN
17	Gem Bank	BNLI
18	Bank Rakyat Indonesia	BBRI
19	Bank Victoria International	BVIC

In Table 3, a description of the research variables is presented. From the table it can be seen that the minimum and maximum values of the research variables are far from their average values. This indicates that in general there is a significant difference between the ratios of companies experiencing financial problems to companies that are healthy. It also provides evidence that financial ratios can distinguish healthy and unhealthy companies.

So that the difference in these ratios can assist the auditor in the decision to grant a going concern audit opinion, in accordance with the auditor's responsibility, namely for the purpose of evaluating the business continuity of a company.

Table 3. Description of research variables

Independent variable	N	Minimum	Maximum	Means	std. Deviation
Cap/Dep	114	2,595	7415864	121.18415	838.419387
Equity/Dep	114	3,441	784,032	22.85837	88.121405
Loans/Equity	114	.404	14,741	5.89451	2.712382
Loan/Cap	114	062	168,253	12.34319	20.687512
FxA/Equity	114	.103	95,574	24.14818	16.321955
FxA/Cap	114	.016	124,713	29.88421	22.092208
Equity/Ta	114	2,760	57,802	9.31430	5.315145
ROE	114	-315,181	51,428	12.25444	35.397491
ROC	114	-73,651	141,994	27.59908	32.878059
PDN/Cap	114	.000	562010	10.39386	53.463034
Liquidity_Risk	114	.594	271,310	12.13411	25.663842
Deposit_Risk	114	3,420	783,838	22.47205	88.131470
OffBS_Risk	114	.219	384,094	41.05230	65.405917
Loan/Ta	114	15,219	90,967	48.53732	16.705450
TresrySec/Ta	114	.000	14,411	.26685	1.380633
OtherSec/Ta	114	.333	67,571	29.84347	17.029732
Cap/Ta	114	2,214	376,546	14.26341	40.599206

CAR	114	8070	42,350	16.65104	5.879954
PPAP/AP	114	.000	14,250	3.17974	2.608778
NPL/TLoan	114	.150	16.140	3.58372	3.292279
Re/Ta	114	-319,473	10,789	-5.30338	36.566069
EBIT/Ta	114	-8,836	29,727	1.72025	3.180996
Sales/Ta	114	4,447	18,710	9.88629	2.337915
MvEq/BvDebt	114	2,441	1371015	31.76701	129.800028
Wc/Ta	114	-29,237	49,213	16.42918	10.634425
Valid N (listwise)	114				

In the Kolmogorov-Smirnov normality test it can be seen that the variables showing normal distribution are Loan/Equity, Loan/Ta, OtherSec/Ta, CAR, Sales/Ta, and Wc/Ta. With a significant value each of; 0.148, 0.474, 0.527, 0.092, 0.115, and 0.057. Where the value is > 0.05, while the other variables are not normally distributed because they have a significance value < 0.05. Thus, the authors conclude that further analysis in this study uses logistic regression analysis, because the assumption that the data are normally distributed for discriminant analysis cannot be fulfilled.

Table 4. Results of the Normality Test for Each Data

Free Variables	N	Normal Parameters(a,b)		Most Extreme Differences			Kolmogorov-Smirnov Z	asymp. Sig.(2-tailed)
	Means	std. Deviation	absolute	positive	Negative	Means		
Cap/Dep	114	121.18415	838.419387	.519	.519	-.444	5,540	.000
Equity/Dep	114	22.85837	88.121405	.463	.463	-.413	4,945	.000
Loans/Equity	114	5.89451	2.712382	.107	.107	-.067	1,141	.148
Loan/Cap	114	12.34319	20.687512	.364	.364	-.276	3,888	.000
FxA/Equity	114	24.14818	16.321955	.142	.142	-.107	1,518	.020
FxA/Cap	114	29.88421	22.092208	.132	.132	-.098	1,411	.037
Equity/Ta	114	9.31430	5.315145	.239	.239	-.179	2,557	.000
ROE	114	12.25444	35.397491	.314	.181	-.314	3,357	.000
ROC	114	27.59908	32.878059	.147	.147	-.143	1,566	.015
PDN/Cap	114	10.39386	53.463034	.432	.432	-.423	4,613	.000
Liquidity_Risk	114	12.13411	25.663842	.418	.418	-.326	4,462	.000
Deposit_Risk	114	22.47205	88.131470	.464	.464	-.414	4,950	.000
OffBS_Risk	114	41.05230	65.405917	.290	.290	-.266	3,099	.000
Loan/Ta	114	48.53732	16.705450	079	079	-.052	.844	.474
TresrySec/Ta	114	.26685	1.380633	.423	.355	-.423	4,520	.000
OtherSec/Ta	114	29.84347	17.029732	076	076	-.062	.810	.527
Cap/Ta	114	14.26341	40.599206	.383	.350	-.383	4,093	.000
CAR	114	16.65104	5.879954	.116	.116	-.098	1,241	092
PPAP/AP	114	3.17974	2.608778	.144	.144	-.114	1,537	.018
NPL/TLoan	114	3.58372	3.292279	.155	.155	-.148	1658	008
BOPO	114	87.1559	18.74406	.184	.184	-.107	1966	001
Re/TaEB	114	-5.30338	36.566069	.355	.355	-.339	3,787	.000
IT/Ta	114	1.72025	3.180996	.243	.217	-.243	2,595	.000
Sales/TaMvEq/	114	9.88629	2.337915	.112	.112	-.075	1,196	.115
BvDebt	114	31.76701	129.800028	.424	.424	-.411	4,524	.000
Wc/Ta	114	16.42918	10.634425	.125	.078	-.125	1,335	057

partial (individual) hypothesis testing. On variables that are normally distributed, univariate testing is carried out to answer the hypothesis.

Table 5. T-test Test Results

Normal Distributed Variables		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Means difference	std. Error difference	95% Confidence Intervals of the Difference	
		Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
Equal Loans /Equity	variances assumed	.284	.595	001	112	.999	.000503	.553205	-1.095602	1.096607
	Equal variances not assumed			001	58,597	.999	.000503	.580127	-1.160496	1.161502
Equal Loans /Ta	variances assumed	4,000	048	-1,562	112	.121	-5.265083	3.370648	-11.943590	1.413424
	Equal variances not assumed			-1,361	49,057	.180	-5.265083	3.867721	-13.037330	2.507163
Other Equal rSec/ Ta	variances assumed	8,805	.004	1,249	112	.214	4.307774	3.449371	-2.526712	11.142260
	Equal variances not assumed			1.107	50,603	.274	4.307774	3.891354	-3.505936	12.121484
CAR Equal	variances assumed	1,253	.265	-2,641	112	.009	-3.072691	1.163571	-5.378157	-.767224
	Equal variances not assumed			-2,907	82,669	005	-3.072691	1.057156	-5.175455	-.969926
Sales/Ta	Equal variances assumed	1,410	.238	-. 816	112	.416	-.387812	.475420	-1.329796	.554172
	Equal variances not assumed			-.740	52,822	.463	-.387812	.524383	-1.439674	.664051
Wc/ Ta	Equal variances assumed	.357	.551	-.629	112	.531	-1.360914	2.165132	-5.650846	2.929018
	Equal variances not assumed			-.611	61,216	.543	-1.360914	2.225807	-5.811372	3.089543

Multivariate testing is carried out to answer the hypothesis, in simultaneous (simultaneous) hypothesis testing. Testing was carried out using logistic regression analysis, through 4 stages of testing including; fit model test, model prediction classification test, validity test, and significance test.

This research is a hypothesis testing research, which seeks to test research conjectures about previous research that has been done by trying to correct the deficiencies of previous research. Bankruptcy prediction model indicators for banking companies in Indonesia are based on financial indicators that match the characteristics of banks in Indonesia, namely by using a bankruptcy indicator model based on financial variables that has been researched by Bank Indonesia.

The SPSS output results through univariate and multivariate testing indicate that the banking ratio variable taken from Bank Indonesia research, especially the Capital ratio model in the test, succeeded in rejecting Ho (accepting H1), the model is relatively better than the equation 2

model and equation 3 model, so that the model Equivalent bankruptcy indicators can help the accuracy of giving a going concern audit opinion.

Based on these results it can be concluded that the Altman Z-score ratio equation model is not suitable for application to the characteristics of the banking industry in Indonesia. This is in line with research conducted in 2002 in the investment & portfolio management journal, which concluded that Altman's Z-score model cannot be applied to the Indonesian banking world, because it produces the opposite, especially for banks that can operate without recapitalization. This is because the Z-score model was formed from an empirical study of the manufacturing industry which is of course very different from the banking industry.

4. CONCLUSION

The results of this study prove that profitability, sales growth, firm value, and audit quality have no effect on going-concern audit opinion. The results of this study also prove that company size has a negative effect on going concern audit opinion. This means that the larger the size of the company, the greater the company's ability to overcome the difficulties encountered so that the auditor will have less opportunity to issue a going concern audit opinion. Large companies have a smaller possibility to fail in maintaining their business continuity. In univariate testing, the independent variables are tested separately so that the results obtained are only to explain the variable itself. In multivariate testing, the independent variables are tested simultaneously.

REFERENCES

Altman, Edward I. 1968. Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. The journal of finance XXIII. (September): 589- 609.

American Institute of Public Accountants (AICPA). 1981. The auditor's considerations when a question aries about an entity's continued existence. Statement on auditing standards 34. (March).

American Institute of Public Accountants (AICPA). 1988. The auditor's consideration of an entity's ability to continue as a going concern. Statement on auditing standards 59. (April).

American Institute of Public Accountants (AICPA). 1981. The auditor's considerations when a question aries about an entity's continued existence. Statement on auditing standards 34. (March).

Arens, A Alvin, R J. Elder., and M S. Beasley. 2006. Auditing and assurance services an integrated approach. Pearson International Edition. 11th ed.

Back, Barbro., T. Laitinen., K. Sere., and M. Van Wezel. 1996. Choosing bankruptcy predictors using discriminant analysis, logit analysis, and generic algorithms. Turku center for computer science 40. (September).

Bank Indonesia. Directory of Bank Indonesia (2003-2007). Jakarta: Bank Indonesia.

Casterella, JR, BL Lewis, and PL Walker. 2000. Modeling the audit opinions issued to bankrupt companies: a two-stage empirical analysis. Decision sciences 31. (Spring): 507-530.

Chen, KCY, and BK Church. 1996. Going concern opinions and the market's reaction to bankruptcy fillings. The accounting review 71. (January): 117-128.

Fanny, M., and S. Saputra. 2005. Audit opiniongoing concern: a study based on the bankruptcy prediction model, company growth, and KAP reputation (studies on JSX issuers). National Symposium on Accounting 8. (September): 966-978.

Garson D. 2007. Log-Linear, Logit, and Probit Models.http://www2.chass.ncsu.edu/garson/pa765/logit.htm

Ghazali, Imam. 2001. Multivariate analysis application with SPSS. Publishing Board of Dipenogoro University, Semarang.

Hadad, MD, W. Santoso, and I. Rulina. 2003. Bankruptcy indicators in Indonesia: an additional early warning tools on financial system stability. Directorate of Banking Research and Regulation, Bank Indonesia. (December).

Hadad, MD, W. Santoso, and Sarwedi. 2004. Bankruptcy prediction model for commercial banks in Indonesia. Directorate of Bank Indonesia. (June). Banking Research and Regulation,

Hani., Cleary, and Mukhlasin. 2003. Going concern and audit opinion: a study of banking companies on the JSX. National Symposium on Accounting 6. (Surabaya).

Holder-Webb, LM, and MS Wilkins. 2000. The incremental information content of SAS no. 59 going concern opinions. Journal of accounting research 38. (Spring): 209-219.

opwood, W., J. McKeown, and J. Mutchler. 1989. A test of the incriminal explanatory power of opinions qualified for consistency and uncertainty. The account Hnting review LXIV. (January): 28-48.
Indonesian Accounting Association. 2001. Professional Standards for Public Accountants. Jakarta: Salemba Empat
Indonesian Accounting Association. 2001. Professional Standards for Public Accountants. Jakarta: Salemba Empat
Indonesian capital market directory (ICMD). (2003-2008). Institute for Economic and Financial Research (ECFIN). Jakarta.www.idx.co.id
Kida, Thomas. 1980. An investigation into auditor's continuity and related qualification judgments. Journal of accounting research 18. (Autumn): 506-523.
Koh, Hianchye. 1991. Model prediction and auditor assessment of going concern status. Accounting and business research 21, 84. (Autumn): 331-338.
LaSalle, Randall E., and A. Anandarajan. 1996a. Auditor's views on the type of audit report issued to entities with going concern uncertainties. Accounting horizons 10. (June): 51-72.
LaSalle, Randall E., A. Anandarajan., and A F. Miller. 1996b. going concernuncertainties: disclaimer of opinion versus unqualified opinion with modified wording. Auditing: A journal of practice & theory 15. (Fall): 29-48.
Lenard, Mary J., P. Alam., and D. Booth. 2000. An analysis of fuzzy clustering and a hybrid model for the auditor's going concern assessment. Decision sciences 31. (Fall): 861-884.
Louwers, Timothy J. 1998. The relation between going concern opinions and the auditor's loss function. Journal of accounting research 36. (Spring): 143-156.
Murtanto, and Z. Arfiana. 2002. Analysis of financial statements using the CAMEL ratio and altman method as a tool to predict the failure rate of a bank's business. Accounting, auditing and information research media 2. (August): 44-56.
Mutchler, Jane P. 1985. A multivariate analysis of the auditor's going concern opinion decision. Journal of accounting research 23, 2. (Autumn): 668- 682.
Nogler, George E. 2004. Long-term effects of going concern opinion. Managerial auditing journal 19, 5. pp 681-688.
Petrolena, Thio A. 2004. Consideration of going concern companies in giving audit opinion. Balance 1. (March): 46-55.