GOING CONCERN AND THE EFFECTS OF THE OPERATIONAL CYCLE MANAGEMENT. AN EMPIRICAL STUDY CONCERNING THE USAGE OF FINANCIAL ANALYSIS FOR OBTAINING PRELIMINARY PROOFS IN THE TASK OF FINANCIAL AUDIT

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Abstract

In the financial audit engagement, the auditor's objective is to express an independent and professional opinion regarding the accuracy of financial statements, in agreement with the accounting reference. Also, the auditor will ensure that financial statements have been drawn in compliance with the principle of the "going concern". This paper aims at setting the foundation of a basic mathematical model, based on the correlations established between a set of variables capable of characterizing the changes in the operating activity, which helps obtaining audit proofs regarding the (non-) compliance with the principle of going concern of the audited entities. Designing this model implies a study of the financial statements belonging to a sample made up of 80 quoted companies, following the benchmark of financial audit standards. The suggested model will be tested through a sensitivity analysis using the Monte Carlo method. For processing the information, for the regression analyses, and for the multiple correlations implied by the foundation of the model, the statistic instrument SPSS 15.0 will be used.

Keywords: Going concern, audit opinion, audit evidence, financial analysis, regression analysis
JEL classification: C51, M41, M42

1. INTRODUCTION

The issue of an independent, professional, and objective opinion by the financial auditor, regarding the compliance with the accounting reference applied by the audited company, implies the collection of *enough* and *appropriate* proofs by the former. At the same time, the auditor will have to evaluate and express an opinion on the ability of the company to continue its activity. From the perspective of the going concern assumption, a company is regarded as an entity whose activity can be predicted in the future, without it to go bankrupt, to close out, or to dissolute.

2. LITERATURE REVIEW

The principle of *going concern* has been until recently a concept exclusively associated with financial accounting, a postulate that forced managers to evaluate the company's ability to continue its activity within a predictable time horizon, a necessary condition for drawing financial statements. Therefore, IAS 1 states that annual financial statements must be drawn based on this principle, unless the company's management wishes to dissolve it or to waive it, or if it has no other realistic alternative but to take this course of action [IASB, 2009].

2.1 Presentation of the concept from the perspective of financial audit standards

In the evaluation of the ability of the company to continue as a going concern, the management has to evaluate the subsequent result of the events or conditions that are inherently uncertain, and the pertinent factors for this judgment are the following: the degree of uncertainty associated with the result of an event or condition, the availability of information at the moment of the evaluation, the size and complexity of the company, the nature and status of its activity, as well as the degree to which it is affected by external factors [IFAC, 2009].

The mission of the financial auditor will be to analyze the appropriateness of the usage by the management of the principle of going concern, although the accounting reference used in drawing the financial statements does not mention the explicit obligation of management to draw a specific evaluation of the ability of the company to continue as a going concern [Hayes *et al.*, 2005]. Although the financial auditor cannot foresee the appearance of future events or conditions that may cause the cessation of the activity of a company, a guarantee of the compliance with this principle is represented by the absence of any reference to the uncertainty related to the going concern in the audit report [Bragg, 2010].

For an exhaustive understanding of the events and risks related to the company's activity, which may significantly place a doubt over its ability to continue as a going concern after the foreseen period has passed, the auditor must question management regarding the knowledge they have in relation to these [Arens and Loebbecke, 2006]. In case the financial statements present this principle in an appropriate manner, the financial auditor can express an opinion without reserve, modifying the audit report by adding a paragraph that points out the existence of a significant uncertainty that may question the ability of the company to continue as a going concern [IFAC, 2009]. When financial statements do not include an appropriate presentation, the auditor must express a reserved or a contrary opinion, in compliance with ISA 700 *"Forming an Opinion and Reporting on Financial Statements"*. In this case, the audit report must include an express reference to the fact that there is im-

portant uncertainty that may significantly question the entity's ability to continue as a going concern [Hayes *et al.*, 2005]. If the entity is not able to continue its activity, the auditor must express a contrary opinion in case the financial statements have been drawn according to the principle of going concern [IFAC, 2009].

2.2. Elements that signal the compliance with the principle of going concern

In order to state their opinion concerning the compliance with the principle of going concern in drawing financial statements, the financial auditor will obtain a series of proofs. Both IAS 570 and SAS 59 (Statement on Auditing Standards) indicate the following audit procedures that may be used for founding an opinion regarding going concern: analytical procedures on the cash flow, on profit, and on other pertinent balance elements, forecasted or available; a review of the compliance of the terms for bondholder loans and credit agreements; a review of the minutes of the General Assemblies of the Stockholders, and of those responsible with governance; questioning the entity's lawyer concerning the evaluation of disputes, compensations, and their implications, closed with habilitated entities, which offer or preserve financial support; taking into consideration the plans of the entity regarding unpaid orders of the customers; review of the events subsequent to the reporting period, which may significantly influence the ability of the entity to continue as a going concern [IFAC, 2009] & [Bragg, 2010].

The main events or conditions that may signal the conformity of financial statements with the principle of going concern can be synthesized as shown in *table no. 1*.

Table no. 1 Elements that may prove the principle of going concern

Financial elements (FE)
FE1. Net debt or situation of the current net debt.
FE2. Approach of the due date of fixed term loans, with no realistic perspective of renewing/ refunding them, or the excessive usage of short-term loans for funding permanent capital.
FE3. Signals given by debtors and other creditors that they may cease their financial support.
FE4. Negative cash flows indicated by historic or forecasted financial statements.
FE5. Unfavorable key financial indicators.
FE6. Substantial losses from exploitation or the significant deterioration of the value of the assets used to generate cash flows.
FE7. Back payments or interruptions in the payment of dividends.
FE8. Inability to pay the creditors at the due date.
FE9. Difficulty in meeting the terms for granting loans.
FE10. Exchange of the credit transactions with the providers with transactions paid upon delivery.
FE11. Inability to obtain funds for developing new products or for other investments.
Operational or exploitation elements (EE)
EE1. Loss of key management members, without the possibility to replace them.
EE2. Loss of a main market, of franchise, of license, or of a main provider.
EE3. Difficulties related to manpower or important supply deficiencies.
Other elements (OE)
OE1. Non-compliance with the requirements concerning capital or with other legal requisites.
OE2. Actions in court against the entity, which, if they fail, may result in obligations that may not be fulfilled.
OE3. Legal changes or modifications of the governmental policy expected to have a negative impact on the entity.

2.3. Obtaining audit evidence

In case the financial auditor has doubts regarding the company's ability to continue as a going concern within a predictable time horizon, they must obtain a series of proofs. According to ISA 500, audit evidence is the collection of information used by the auditor to issue a conclusion on which the audit opinion is based, obtained as a result of auditing procedures. Audit evidence is the starting point in establishing the ways in which the company's management will improve the problems related to going concern, in the evaluation of the probability to achieve these improvements, as well as the main elements that may minimize the effects of non-compliance with this principle. At the same time, the auditor must plan and go through analytical procedures in order to obtain audit proofs regarding these elements.

The most commonly used analytical procedures in testing going concern are: rate analysis, trend analysis, and the regression and correlation analysis. According to ISA 520, the analytical procedures establish comparisons between economical-financial indicators that characterize the audited entity and the branch average for those indicators, comparisons between the economical-financial indicators of the audited entity corresponding to previous fiscal years, and comparisons between the results of the audited entity and the results estimated by the auditor [Hayes *et al.*, 2005]. Usually, analytical procedures have the role to signal significant financial difficulties that the audited entity faces.

2.4. The current research level

The development of the principle of *going concern* has been mainly supported by accounting references (IAS 1) and by audit references (ISA 570, SAS 59, SAS 64, SAS77, and SAS 96) that presents this notion, signal that may indicate the non-compliance with the principle, and by proofs that have to be obtained by the auditor in order to support their opinion on meeting the reporting criteria, in conformity with the International Reporting Standards – IFRS. At the level of empirical studies, in *table no. 2* we synthesize the main research concerns and directions at the international level, which have been the object of specialized papers on the relationship between *financial audit* and *the principle of going concern*, thus supporting the integration of our study in the trend of the research in this field.

Table no. 2 Empirical studies and directions for research

Authors	Direction of the research
Matsumara, E.M., Subramanyam, K.R., Tucker, R.R., [1997]	The study suggests a series of empirical evidence concerning the strategic behavior of the auditor in their decision-making process related to their opinion on the compliance with the principle of going concern. The study thus suggests a series of mathematical models and decision trees that will support the audit opinion regarding going concern.
Bassell, M., Anandarajan, A., Umar, A., [2003]	The study presents the relationship between the presentation, in financial statements, of the compliance with the principle of going concern and the type of report issued by the auditor, as well as the impact of the report on the users of the financial information *(stakeholders)*.
Franks, J.R., Lóránth, G., [2010]	The study presents the influence of the bankruptcy procedure on the principle of going concern.
Herbohn, K., Ragunathan, V.,	The study suggests the identification of the plus value by the auditor in the investigation of the compliance with the principle of going concern,

Authors	Direction of the research
Garsden, R., [2007]	as well as the reaction of the financial market to the report issued by the auditor.
Elliot, R.S., Highfield, M.J., Schaub., M., [2006]	This study tests the hypothesis regarding the modification of the price of the quoted stocks of rival companies when an unfavorable opinion is issued related to the compliance with the principle of going concern by an audited company.
Uang, J-Y., Citron, D.B., Sudarsanam, S., Taffler, R.J., [2006]	This study tests the relationship between the financial auditor and the manager, in what regards the fulfillment of the reporting requirements according to the principle of going concern, the constraints imposed on the managers both by auditors and by corporate governance for complying with this principle.
Kausar, A., Taffler, R.J., Tan, C., [2009]	The research direction of this study is the impact of the audit opinion, in relation with the principle of going concern, on the financial market where the titles of the audited company are quoted, as well as the response of the market concerning the quoted titles.
Bhimani, A., Gulamhussen, M.A., Lopes, S., [2009]	This study evaluates the extent to which the auditor's opinion on the compliance with the principle of going concern can be considered a protection and governance mechanism external to the company, in the management of credits on the long term.

3. THEORETICAL ASPECTS REGARDING THE ROLE OF THE FINANCIAL ANALYSIS IN PROVIDING EVIDENCE FOR THE EVALUATION OF THE COMPLIANCE WITH THE PRINCIPLE OF *GOING CONCERN*.

The analysis of the quality of financial statements allows auditors to detect possible errors committed by the audited entity in reporting. Based on the audit evidence obtained, the auditor must identify the events or conditions that may question the ability of the company to continue as a going concern. In this respect, the forecast analysis of operational risk is an indispensable tool for the auditor.

Operational risk originates in the impossibility of the company to correlate, without affecting the result of the organization, the activity volume, which changes because of the dynamics of the economic environment where the company operates, with the structure of costs. Any modification of the activity volume (through the diversification of products/services, through the expansion of the production capacity, through the introduction of technological changes in the production process, etc.) has an influence on the result of the company. Changes at the cost component level, at the level of the structure of floating assets, or of the funding required are all risky situations for the company itself, as well as for its partners, both internal and external. In this case, risk is expressed by a diminution of the operational result, following these modifications.

The extent of operational risk depends on the ability of the company to control the structure of the costs of the organization and to take into account their uneven sensitiveness to the fluctuations of the activity level. Therefore, some expense elements vary proportionally or non-proportionally to the production volume, and these are called variable expenses. Other expense elements have a reduced or almost null elasticity in relation to the volume of production and sales, in the circumstances of a given production capacity, and are called fixed or structural costs. Fixed costs diminish the flexibility of the company because they do not automatically adapt to the volume of activity and sales. The sold production becomes the

basis on which fixed costs are distributed. The larger the quantity of products to sell, the smaller will be the fixed costs quota that will be included in the sales price of the product, and the effect that the variation of the activity volume will have on the operational result will be reduced.

The study of the relationship established between the sales figure, which reflects the level of the company's activity, variable costs, fixed costs, and its result, has lead to the creation of the cost-volume-profit analysis model. The cost-volume-profit analysis, also called the *Break-Even Analysis*, reflects the sensitiveness of the result of the operational activity of the company to the variation of the activity level (the production volume, the sales figure). A careful analysis of the correlation cost-volume-profit points out that, near the break-even point, the result of the operational activity varies more than proportionally in relation with the activity volume, and therefore has a higher degree of sensitiveness to the modification of the activity level. The variability of the result is quantified using the operational lever. This reflects the degree of modification of the result of the operational activity for a change by 1% of the production volume or of the sales figure. Operational risk appears when to an increase by 1% of the production volume or of the sales figure correspond an increase by less than 1% or even a diminution of the result of the operational activity.

The factors that come into play in the relation for computing the operational lever show that, for a large given production volume (sales figure), the operational risk of the company depends on: the structure of costs, mainly the level of fixed costs, and on the proximity of the sales figure to the break-even point. Companies with significant fixed costs are risky and little flexible to the variations of the market. This translates in high values of the elasticity coefficient of the result in relation with the volume of production, and respectively a reduced change in the volume of production triggers very high variations (positive or negative) of the result of the operational activity. Companies in which the operational lever has high values are those where the value of the fixed costs is very close to the margin of variable costs. For these companies, in case the activity level diminishes, the ability of the margin divided by the variable costs to cover the fixed costs is significantly reduced.

The variability of the results of the company can be the consequence of the influence of random factors, which determine unpredictable trajectories for its activity and which make it impossible for the company to adapt, within the shortest delay and at the smallest expense, to the changes in the environment, and to continue as a going concern. Therefore, the company may encounter difficulties in constantly meeting its contractual relationships with its partners because it does not have a minimum profitability and satisfying liquidity. Excessive expenses may be the consequence of: outdated technologies or, on the contrary, of an excessively innovative spirit, inappropriate for the company; an inefficient stock management; incompetence and lack of motivation of the staff; social tensions; insufficient management control, etc. Excessive expenses, together with the high price of certain production factors and the existence of finite products stocks diminish added value, which may become lower for the expenses for the staff, a context in which the company can no longer compensate its direct and indirect participants to its activity.

Compensation and the renewal of the resources that the company hires are possible only if its activity generates a sufficient results flow (profitability). An insufficient profitability may come from the inappropriateness of production to the market demand, from the loss of some market shares, or from a lack of commercial dynamism.

In order to ensure at least its survival, if not its growth, the company must preserve its financial autonomy; otherwise the investments that generate supplementary funding needs

will not be able to be achieved. In this context, a lack of profitability triggers an insufficient funding ability in relation to the investments in fixed and floating assets, which do not always have the expected results.

The lack of liquidity determines the company to resort to debts, considering that low profitability does not allow it to draw capital from investors. For any company, it is important to know the financial structure with which it can perform a profitable activity, and respectively the level of debt it can contract so as the latter would not imply a financial risk.

Financial expenses, which add even more to the already high costs of the company, affect its solvency, in the context of an excessive debt and of the impossibility of the entity to fulfill its obligations towards its creditors at the due date.

Under these circumstances, the pressures from the creditors increase, and the company finds it impossible to resort to new loans, which determines a "strangulation" of liquidity (inability to pay). The pressures from the creditors and the inability to pay are clear signals of bankruptcy.

It is extremely important for the well functioning and continuity of the company for economic balance, expressed through high profitability, to coexist with monetary balance, translated in the permanence of liquidity and solvency. The lack of congruence between these two balances does not imply a high risk for the company if they are present on the short term or at the beginning of the existence of the company.

4. RESEARCH METHODOLOGY

This paper aims at setting the bases of a mathematical model for analyzing the correlations established between a set of variables (financial rates) that characterize the modifications of the operational activity, and that can be used to obtain audit evidence regarding the (non-) compliance with the principle of ongoing concern for the audited companies. In supporting this approach, we have taken into account, on the one hand, the specialty reference (ISA 500, ISA 520, and ISA 570) that recommends employing the regression and correlation analysis of the financial rates and branch analysis, in order to obtain sufficient and appropriate auditing evidence, which guarantee for the auditor that professional standards are met. On the other hand, we have considered specialized literature, which supports the need for a mathematical model for obtaining proofs [4], which will ensure the efficiency of the auditor's mission, as well as a substantial reduction of the audit and non-detection risk.

4.1. Presentation of the working hypotheses

In our methodological approach, we suggest a series of work hypotheses that we wish to test so that, through their validation, we may explain the role of financial analysis within the financial audit task, in relation to obtaining audit evidence for evaluating the compliance of the financial reporting system with the principle of going concern.

Hypothesis 1: Is there any significant connection between operational risk, expressed through the coefficient of the operational lever (an indicator of (the lack of) going concern), as a dependent variable, and a series of consecrated financial ratios – liquidity, assets structure, and activity ratios (independent variables)? What are the main factors that influence operational risk?

Hypothesis 2: Is there any significant connection between the relative variance of the level of long-term debts (an indicator of going concern), as a dependent variable, and a series of consecrated financial ratios – liquidity, structure, or financial autonomy (independent variables)? What are the main factors that influence this variance?

Hypothesis 3: Is there any significant connection between the relative variance of the level of the own capital (an indicator of going concern), as a dependent variable, and a series of consecrated financial ratios – liquidity, structure, or debt (independent variables)? What are the main factors that influence this variance?

4.2. Data collection and work methodology

The analysis was made on a sample of 80 companies quoted in the Bucharest Stock Exchange (BVB), as follows: 13% in the food industry, 16% in constructions, 21% in services, 11% in the commercial sector, and 39% in non-food industry. The period analyzed is represented by the fiscal years 2007 and 2008. The independent and dependent variables that have provided the test basis for the work hypotheses can be synthesized as in *table no. 3*.

Table no. 3 Meaning of the variables

Independent variables	Computing method	Meaning
$\mathbf{X_1}$ = Floating assets ratio	Floating assets/Total assets (A_{fl}/A_t)	The elasticity of the company to the market requirements
$\mathbf{X_2}$ = *Fixed assets ratio*	Fixed assets/Total assets (A_f/A_t)	The degree of investment of the company's capital
$\mathbf{X_3}$ =*Current debt ratio*	Current debt/Total assets (D_c/A_t)	The proportion in which the current debt participates to the total funding resources of the company
$\mathbf{X_4}$ =*Time-debt ratio*	Debts older than one year/Own capital ($D_{>1year}/C_{own}$)	The degree of dependency of the company on foreign resources, whose due date is higher than one year
$\mathbf{X_5}$= *Global debt ratio*	Total debt/Total assets (D_t/A_t)	The proportion in which the total debt participates to the total funding resources of the company
$\mathbf{X_6}$=*Financial independence ratio*	Own capital/Permanent capital (C_{own}/C_{PM})	The weight of the company's own resources in the total permanent resources to which it has access
$\mathbf{X_7}$= *General liquidity ratio*	Floating assets/Current debt (A_{fl}/D_c)	The degree in which the debt that has to be paid within a year can be funded by floating assets (potential liquidity)
$\mathbf{X_8}$=*Self-funding ratio of fixed assets*	Own capital/Fixed assets (C_{own}/A_f)	Degree of investment in fixed assets, from the own resources
$\mathbf{X_9}$=*Foreign funding ratio*	Debts older than one year/ Fixed assets ($D_{>1year}/A_f$)	The proportion in which the debts older than one year participate in the investments in fixed assets
$\mathbf{X_{10}}$= *Turnover of the floating asses in the sales figure*	Sales figure/Floating assets (SF/A_{fl})	The intensity (efficiency) of the usage of floating assets through the sales effect

Independent variables	Computing method	Meaning
X_{11}= *Turnover of the own capital in the sales figure*	Sales figure/Own capital (SF/C_{own})	The intensity (efficiency) of the usage of the own capital through the sales effect
Y_1= *Operational lever*	Relative variance of the operational result/ Relative variance of the sales figure $(\Delta R_{op}/R_{op})/(\Delta SF/SF)$	Sensitiveness of the percentage variance of the operational result from to the variation by 1% of the sales figure
Y_2=*Variation index of the debts older than one year*	Variation of the debts older than one year/ Debts older than one $year_{2007}$ $(\Delta D_{>1year} / D_{>1year2007})$	Relative variation (increase/ decrease) of the debts whose due date is higher than one year
Y_3= *Variation ratio of the own capital*	Variation of the own capital/ own $capital_{2007}$ $(\Delta C_{own} / C_{own2007})$	Relative variation (increase/ decrease) of the own capital

In order to prove the hypotheses, the work method used was the multiple regression analysis, employing the statistical tool SPSS 15.0. The multiple *regression* analysis is a method of predicting the values of a dependent variable (Y_i), starting from the values of several independent variables [14]. The equation of the regression line will be of the type: $Y_i = \beta_0 + \beta_1 \cdot X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3 + \beta_4 \cdot X_4 + \beta_5 \cdot X_5 + \beta_6 \cdot X_6 + \beta_7 \cdot X_7 + \beta_8 \cdot X_8 + \beta_9 \cdot X_9 + \beta_{10} \cdot X_{10} + \beta_{11} \cdot X_{11}$, where $\beta_{0..11}$= coefficients of the mathematical model, $X_{1..11}$= independent variables of the model, and $Y_{1..3}$= dependent variables, respectively: $Y_i \in$ {*Operational risk, Relative variance of the debts whose due date is older than one year, Relative variance of the own capital*}.

5. DISCUSSION ON THE RESULTS

After processing the data from the sample, the most important results refer to: the coefficients of the regression equation, the average values of each analyzed variable, and the corresponding average standard deviations. The *Pearson* correlation coefficient is used to indicate the degree of reciprocal linear association between two variables. This correlation coefficient belongs to the interval [-1; +1], and the values that tend towards -1 indicate a significant relationship; alternatively, the values that tend towards +1 indicate a significant and direct relationship between the variables, and the values of the coefficient that tend towards 0 indicate a lack of correlation between the variables [Jaba, 2005].

Table no. 4 Descriptive statistics

Variables	Average	Standard Deviation	The Pearson Correlation Coefficient		
			Y_1	Y_2	Y_3
X_1	0.38	0.24	0.09	-0.08	0.06
X_2	0.62	0.24	-0.09	0.08	-0.06
X_3	0.37	0.52	0.08	-0.08	0.25
X_4	0.13	1.22	-0.11	0.16	0.01
X_5	0.50	0.54	0.01	0.02	0.21
X_6	0.72	0.69	0.04	-0.05	0.05
X_7	3.24	5.28	-0.07	-0.08	-0.04
X_8	0.86	1.95	0.01	-0.03	-0.15

Variables	Average	Standard Deviation	The Pearson Correlation Coefficient		
			Y_1	Y_2	Y_3
X_9	0.31	1.27	-0.01	0.05	-0.03
X_{10}	2.43	1.97	0.09	-0.06	-0.05
X_{11}	0.61	6.57	-0.04	0.07	-0.02
Y_1	-179.82	1163.85	1	-	-
Y_2	1.29	4.90	-	1	-
Y_3	1.72	11.27	-	-	1

Table 4 presents a series of descriptive statistics of the variables of the analyzed sample. For each independent and dependent variable, the corresponding averages and standard deviations are computed, elements that will be used in making forecasts employing the Monte-Carlo method.

Table no. 5 Regression Coefficients

Coefficients	Y_1	Y_2	Y_3
β_0	212.52	1.13	0.54
β_1	0.00	0.00	0.00
β_2	-144.04	-0.84	1.21
β_3	3020.51	-13.82	14.18
β_4	185.75	-0.48	1.13
β_5	-2978.19	13.02	-8.89
β_6	-161.12	0.83	0.37
β_7	-21.50	-0.07	0.00
β_8	34.99	-0.16	-0.13
β_9	305.43	-1.26	0.83
β_{10}	45.19	-0.20	-0.39
β_{11}	-33.07	0.10	-0.11

Table 5 presents the coefficients of the regression model, and significant values of these coefficients also indicate the importance of the ratio used in analysis, in what concerns the evolution of each dependent variable. Considering *hypothesis 1*, we can notice that the increase of the degree of investments of the permanent resources in net fixed assets, a situation specific to the development-expansion phase of the life cycle, leads to a reduction of the operational risk for the company. An increase in the level of current debts in the total resources expresses, on the one hand, an intense operational activity, but on the other it may represent a sign of operational risk, in case the company goes bankrupt. A positive variance of the global debt ratio (following the investment activity as well as the dynamics of the current activity) implies a reduction of exploitation risk, which demonstrates the possibility for going concern, correlated with a policy supporting the consolidation of the own capital.

In what concerns *hypothesis 2*, an increase of the weight of the current debt in the total capital implies a reduction of the long-term debt, which explains a lack of implication of the company in investment projects. This shows that the company is in the maturity stage of its life cycle, and respectively that it continues as a going concern. A positive variance of global debt leads however to an increase of the level of debts, whose due date is higher than one year, and this situation, correlated to the absence of an investment policy, determines the impossibility to continue as a going concern.

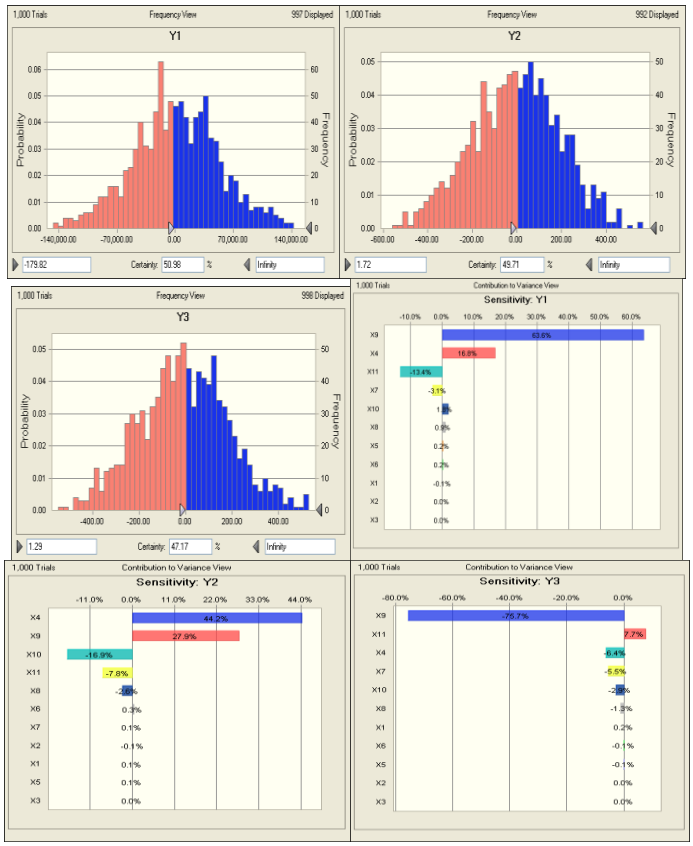
The results corresponding to *hypothesis 3* can be explained as follows: an increase in the weight of the current debt in the total resources expresses a dynamic operational activity,

which leads to a positive operational result and thus to an increasing net result. The net result can be partially included in the own capital, contributing to the degree of financial independence. This correlation proves once again the conformity to the principle of going concern. An increase in the global debt ratio implies a reduction of the company's financial autonomy, with direct repercussions on going concern. Based on these coefficients and on the model of the regression equation, it is possible to compute values of the *Operational Risk*, as well as of the *Indicators* suggested for analysis, based on scenarios, so that these values may be predicted.

6. TEST OF THE MATHEMATICAL MODELS USING THE *MONTE CARLO* METHOD

The main disadvantage of forecasts made using the usual coefficients obtained based on the regression analysis is the fact that we cannot know precisely the probability of appearance of the value of a dependent variable (e.g.: what is the probability to have a high degree of operational risk equal to **z**%). For this, we will use the *Monte-Carlo Method*, employing as a work tool the software product *Oracle Crystal Ball* [Sugiyama, 2008], which will allow making 1,000 simulations. At the same time, we will take into account the averages of the independent variables and the standard deviations in *table 4*, as well as the values of the regression coefficients in *table 5*, so as to obtain the statistical distributions of *Operational risk*, the *Variation index of debts older than one year*, and of the *Variation index of the own capital*, with a degree of certainty of 95%. Using the Monte Carlo method, we will test the probability for a company to have an operational risk, a variation index of long-term debt, as well as a variation index of the own capital higher than the average computed for the analyzed sample.

Figure 1 presents the statistical distributions of the dependent variables (Y_1, Y_2, Y_3), as well as the sensitivity analysis (the degree to which the dependent variables will influence this probabilistic distribution). Thus, we can state with a certainty of 95% that based on the data from the analyzed sample, the probability to have an *Economic risk* higher than the sample average (-179.82) is 50,98%, the probability to have an *Index of the increase of the debts older than one year* higher than the sample average (1.72) is 49,71%, and the probability to have an *Index of the increase of the own capital* higher than the sample average (1.29) is 47,17%. Moreover, 63,6% of the statistical distribution of *Economic risk* is directly and positively influenced by $\mathbf{X_9}$ (*The funding ratio from foreign resources, with a due date higher than one year*), for the distribution of the *Index of the increase of the debts older than one year* a significant direct and positive influence will be determined in proportion of 44. 2% by $\mathbf{X_4}$ (*The time-debt ratio*), and of 27.9% by $\mathbf{X_9}$ (*The funding ratio from foreign resources, with a due date higher than one year*), and for the distribution of the *Index of the increase of the own capital* a significant but negative influence will be given by $\mathbf{X_9}$ (*The funding ratio from foreign resources, with a due date higher than one year*), in proportion of 75.7%.



Source: [own processing in SPSS 15.0]

Figure no. 1 Statistical distributions and sensitivity tests corresponding to the dependent variables

7. CONCLUSIONS

Following our analysis, we can draw the conclusion that a significant impact on the going concern of a company is represented both by its selected funding method and by the way the company manages the resources used in the operational activity. Therefore, although the usage of foreign funding resources with a due date below one year can determine an increase of the level of the own capital, on the long term it will also determine an increase of operational risk, which will have a negative impact on the company's going concern.

Even if a high level of the debts whose due date is higher than one year may represent an alarm signal (as the debt level) for the shareholders, the management of these debts and their placement in the area of operational investment may determine a reduction of operational risk and competitive results for the company. In the future, we aim at enlarging the work sample, as well as testing these hypotheses in separate activity fields, so that the work methodology and the results obtained may represent a real help for the financial audit task.

At the same time, we stress here the importance and interdependency between the three fields approached in this article, for the support of a new research direction (*auditometrics*), a subject that will study and will attempt to explain a series of phenomena and mechanisms encountered in financial audit, using statistical methods as well as indicators specific to financial analysis.

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