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# Internal Fraud as a Threat to the Liquidity of a Commercial Organization

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**ABSTRACT: This study carried out an empirical analysis of the impact of liquidity and its main components on the market value of the largest domestic companies in various industries and regions. We analyzed complex reports of companies from different industries and countries and used 200 observations for 2013-2017. For the purposes of our research, we put forward the following hypotheses:**
**Hypothesis 1: The efficiency of using the working capital of the organization, which includes indicators on the basis of which the level of liquidity is calculated, positively affects its value.**
**Hypothesis 2: the liquidity level of the organization positively affects its value. It is assumed that the higher the value of the organization's liquidity ratio, the higher its value. Both our hypotheses have been confirmed. The obtained results make it possible to conclude that a qualitatively conducted audit in the organization provides reliable financial indicators that can guide the adoption of key financial decisions.**

**Keywords:** Quality of audit, internal control, going concern, liquidity, fraud.

## I. INTRODUCTION

In commercial organizations, characterized by a constant flow of funds, there is often a falsification of accounting (financial) reporting for the alleged improvement of key indicators that affect liquidity and solvency. It seems illogical to commit such actions, in view of the fact that they damage the organization itself, but nevertheless a necessity arises - especially for large corporate organizations experiencing an unprofitable financial condition - in a distortion leading to maximization of liquidity risk, because they are misleading external users of financial statements because they make decisions based on fraudulent data.
Identify such distortions helps an audit based on reliable audit evidence. The auditor is responsible for obtaining reasonable assurance that the financial statements do not contain material misstatements caused by fraud or error. The risk of detecting material misstatements due to fraud is higher than as a result of an error, because it may include combined schemes for the purpose of following concealment or being committed by several persons in collusion or even involving management personnel - management can manipulate accounting records or to override the control procedures.

## II. THEORY

This article deals with internal fraud, which is defined by the Basel Committee as "losses due to actions with the intent to commit fraud, to seize property or circumvent regulatory acts, legislation or policies of organizations, excluding cases of discrimination, involving at least one internal party" [1]. Fraud as an economic category covers a fairly wide range of illegal activities; it includes the redirection of receipts to private bank accounts, theft of assets or intellectual property (inventory data, sales), payments to fictitious suppliers, the use of assets for personal use, and many other common acts that are subject to quantitative costs.

The high risk of fraudulent activities jeopardizes the internal control system, the condition of which should be checked by the auditor. It is the quality of the audit that controls the financial condition of the enterprise during the audited period, as well as the subsequent drafting of liquidity risk forecasts, including operational ones, to which the same Basel Committee includes fraud.
ISA 240 establishes an obligation of the auditor concerning unfair actions, including and fraud in the audit of financial statements in terms of ensuring reasonable confidence in their absence [2]. However, it would be incorrect to believe that an audit involves checking only financial statements and accounting records. All the data necessary for managing working capital are in the financial statements and accounting (financial) records, which need constant monitoring to verify compliance with IFRS and ISA. Working capital management is the main objective of liquidity management in the organization's financial management system.
Research in the framework of audit of financial reporting falsification in modern works is in most cases theoretical in nature based on the methods conducted in the form of the mathematical model of Benish in the late 1990s, which makes it possible to identify the falsification of financial statements. M.A. Stefan, studying both theoretical and practical parts of the audit of financial reporting falsification, wrote that in addition to general theoretical aspects - goals, objectives and objects - "other audit of financial reporting falsification issues are of interest, for example, the content of its information base, the specifics of the assessment of audit risk and level of materiality, content an audit plan; audit of financial reporting falsification as a kind of audit fraud is a new object of modern science, the study of its content and methods of conducting has both scientific and practical value [4]. He also investigated the impact of various financial and non-financial factors on the likelihood of fraud. The biggest negative impact came

from sales factor, as well as its components - gross profit, cost of sales costs and sales volume. According to the author, "when changing to the organizational form of a joint-stock company, the probability of fraud is reduced by 0.28% because of the separation of powers between owners and managers, who are usually different people" [5]. The factors considered by the author are unconditionally interconnected with such items of financial reporting as stocks, cash, financial investments, accounts receivable and accounts payable, which are integral components of the organization's liquidity ratios. We agree with the position of M. A. Stefan, since even the owners and management of the organization may be interested in collusion in order to form a positive reputation and ability to be in going concern.

ISA 570, by citing examples of events or conditions that alone or in combination may raise significant doubts about the organization's ability to continue to operate continuously, suggests that the consequences of significant events or conditions can in many cases be leveled off by other factors [3]. The same consequences of the organization's failure to make scheduled payments to pay off its debt can be offset by management's plans to maintain sufficient cash levels through alternative means, for example, by selling assets, restructuring debt, or raising additional capital, refer to maintaining an acceptable level of liquidity . However, there are a lot of ways and ways to achieve such goals in practice, which once again proves the truth of the opinions of scientists and the relevance of this study.

## III. METHOD

Our research is aimed at examining whether it is important to effectively manage working capital in organizations with a certain industry affiliation and whether the amount of state participation affects the market value of the organization. The main hypothesis of our study is that liquidity is a factor that positively affects the value of the organization.

The study was carried out on the basis of consolidated reports of national organizations due to their publicity. We analyzed the consolidated reporting of organizations from various industries, including construction, trade, oil production, as well as communication services and get 200 observations for 2013-2017.

For the purposes of econometric analysis, we used the economic value added (EVA) as the dependent variable Y.

For the purposes of our study, the following hypotheses were formulated:

**Hypothesis 1:** The efficiency of using the working capital of the organization, which includes indicators on the basis of which the level of liquidity is calculated, positively affects its value. It is suggested that with effective application and management of the company's assets, its value increases. Providing the organization with positive net working capital has a positive impact on the liquidity of the organization. The nomination of this hypothesis is not spontaneous and is based on the fact that the net working capital is the most important factor of financial stability, which directly affects liquidity and solvency. The presence of fraudulent activities adversely affects the liquidity of the organization. We put forward this hypothesis on the basis of the facts that, firstly, the risk of fraud includes actions such as theft of assets from the organization, the manipulation of reporting, which can be very diverse, up to the distortion of indicators in all forms of reporting, since they are interrelated with balance sheet. Thus, the cumulative influence of the factors of provision with own capital, highly liquid assets - cash positively affect liquidity, the presence of fraud facts adversely affects it.

We put forward this hypothesis on the basis of the facts that, firstly, the risk of fraud includes actions such as theft of assets from the organization, the manipulation of reporting, which can be very diverse, up to the distortion of indicators in all forms of reporting, since they are interrelated with balance sheet. So, the report on financial results contains a net profit, which has a relationship with undistributed earnings of the balance sheet; the same articles, as well as statutory, reserve and additional capital, on the basis of which the report on changes in capital is drawn up. Article "cash" in the balance sheet is reflected after the statement of cash flows. And such items of the balance sheet as financial investments, short-term and long-term accounts receivable and accounts payable are also reflected in the notes to the balance sheet.

**Hypothesis 2:** The liquidity level of the organization positively affects its value. It is assumed that the higher the value of the organization's liquidity ratio, the higher its value. The prerequisite for the formulation of this hypothesis is the fact that large public organizations that have the form of a joint-stock company fall into the sample. That is, it is assumed that there is a financial service in the organization's data structure, whose functions include liquidity management. In practice, for external investors, this means that an organization that is able to pay off its obligations in the short term has sufficient current assets, and the liquidity indicator is calculated on the basis of qualitative data reasonably indicated in the reporting (at least in the audited financial statements). The description of independent variables is given in Table 1.

**Table 1: Description of independent variables.**

| Variables | Description |
|---|---|
| Cash (X1) | Absolute indicator, characterizing the amount of money of the organization |
| Accounts receivable (X2) | Absolute indicator, characterizing the amount of accounts receivable of the organization |
| Inventory (X3) | Absolute indicator, characterizing the amount of the organization's reserves |
| Current liquidity ratio (X4) | The relative indicator characterizing the company's ability to repay liabilities for a period of up to 12 months (1 year) |
| Self-sufficiency ratio (X5) | Relative indicator characterizing the sufficient availability of own funds from the organization to ensure its financial stability; represents the ratio of the current assets of the organization and its short-term liabilities |
| Net profit (X6) | An absolute indicator characterizing the net profit of the organization, which can be included in the model as a regulating factor |
| Fraud (X7) | Dummy variable, characterizing the presence or absence of fraudulent actions |

**Table 2: Estimates of the regression coefficients for model 1 (formula 1).**

| Variable | Coefficient | St. error | t-stat | P-value | Significance |
|---|---|---|---|---|---|
| const | 8,78613 | 0,278222 | 31,58 | 5,86e-078 | *** |
| X1 | 1,01232 | 0,0712402 | 8,220 | 4,63e-07 | *** |
| X2 | 0,0586685 | 0,0199032 | 12,683 | 3,95e-027 | *** |
| X3 | 0,0335666 | 0,0158115 | 2,123 | 0,0350 | ** |
| X5 | 0,0934348 | 0,0229842 | 4,065 | 7,00e-05 | *** |
| X6 | 0,0801766 | 0,0128935 | 6,218 | 3,07e-09 | *** |
| X7 | -0,0942546 | 0,035783 | -7,623 | 0,00003 | *** |
| *** p<0.01, ** p<0.05 | | | | | |
| $R^2$ | | | 0,640694 | | |
| Adj. $R^2$ | | | 0,637683 | | |
| P-value | | | 73,76647 | | |

**Table 3: Estimates of regression coefficients for model 2 (formula 3).**

| Variable | Coefficient | St. error | t-stat | P-value | Significance |
|---|---|---|---|---|---|
| const | 8,78613 | 0,278222 | 38,58 | 2,86e-078 | *** |
| X1 | 0,0586685 | 0,0112402 | 5,220 | 4,63e-07 | *** |
| X2 | –0,0798883 | 0,0205919 | –3,880 | 0,0680 | * |
| X3 | –0,0335666 | 0,0158115 | –2,123 | 0,0350 | *** |
| X4 | 1,01232 | 0,0799032 | 12,67 | 3,95e-027 | *** |
| X5 | 1,32617 | 0,178765 | 7,419 | 3,72e-012 | *** |
| X6 | 0,034753 | 0,0112402 | 5,220 | 4,63e-07 | *** |
| X7 | –0,0498883 | 0,0205919 | –0,880 | 0,0783 | * |
| *** p<0.01, ** p<0.05 | | | | | |
| $R^2$ | | | 0,850072 | | |
| Adj. $R^2$ | | | 0,843185 | | |
| P-value | | | 136,3836 | | |

**Table 4: Elasticity of variables.**

| Variable | Coefficient of elasticity | Ranking of factors by influence power on Y |
|---|---|---|
| X5 | 0,1268 | 1 |
| X2 | 0,0798883 | 2 |
| X4 | 0,0704 | 3 |
| X1 | 0,0586685 | 4 |
| X6 | 0,034753 | 5 |
| X3 | -0,0335666 | 6 |
| X7 | -0,0009 | 7 |

Some factors in the model can be logarithmic in view of obtaining correct regression estimates. Thus, we obtain the following model:

Ln(X5)=const+a*Ln (X1)+b*Ln(X2)+c*Ln(X3)+d*X5+e*Ln(X6)+f*X7(1)

Now we need to check the impact of these factors on the liquidity of the organization. In the first model (Table 2), the explanatory variable (Y) will not be the economic added value, but the current liquidity ratio (X4). From it, we can already see that the largest impact on liquidity was provided by the amount of cash and receivables, then the presence of fraudulent actions affected negatively. This model is characterized by the absence of multicollinearity, heteroscedasticity and autocorrelation of the residues in view of the fact that they are distributed according to the normal law.

## IV. RESULTS

The influence of specific factors on the company's liquidity helps to identify empirical data analysis. Since the indicators of cash and receivables were taken logarithmic data, the elasticity coefficient for them is 1.01232 and 0.0586685%, respectively. To influence the factor of fraudulent actions on liquidity, elasticity is calculated by the formula [9]

$Eyx = b^{*}\frac{x}{y}$(2)

Where: $E_{yx}$– average coefficient of elasticity; b – coefficient value for variable;x – mean factor of the independent variable;y – mean value of the dependent variable.

Thus, the coefficient of elasticity for factor X7 (fraud) is equal to:

$E_{yx7}$ =-0,0942546* $\frac{0,215}{0,475245}$= - 0,0428,

that is, liquidity will decrease in this case by 0.0428%.

In our regression analysis, the company's determinants of value were examined using a multiple regression model. We've got the following model:

Ln(Y)=const+a*Ln(X1)+b*Ln(X2)+c* Ln(X3)+d*Ln(X4)+e*X5+f*Ln(X6)+g*X7(3)

Table 3 presents the results of the regression analysis, adjusted for heteroskedasticity, with respect to the impact on the economically added value and all the factors presented in model 2.

In this model, the factors X2 and X7 are close to the indicators of statistically significant indicators, the multicollinearity is absent, the corrected determination coefficient is 0.843185 (the model describes 84.31% variation of the effective score), Fisher's F-criterion is 136.3386.

The remnants of this model are distributed according to the normal law according to the test, the normality of the residues.

To estimate the elasticity of the model, we perform the transformation of formula 3:

$Ln(Y)=Ln(6543,45)+Ln(X1^{0,0586685})+Ln(X2^{-0,0798883})+Ln(X3^{0,0335666})+Ln(e^{1,01232})+Ln(e^{1,32617})+Ln(X6^{0,093438})+Ln(e^{-0,0498883})$(4)

Applying the rules of operations with logarithms from Formula 4, we obtain a model of the following form:

$Y=6543,45*X1^{0,0586685}*X2^{0,0798883}*X3^{0,0335666}*e^{1,01232}e^{1,32617}*X6^{0,093438}*e^{0,0801766}$(5)

We calculate the elasticity for estimating the sensitivity of the economic added value to the change in factor variables.

Calculation of elasticity for factors X4 and X5:

$E_{yx}4=1,01232*\frac{0,8}{11,5}=0,0704$

$E_{yx5}=1,32617*\frac{1,1}{11,5}=0,1268$

$E_{yx7}=-0,0498883*\frac{0,215}{11,5}=-0,0009$

For other factors, the elasticity is equal to the power index, denoted in Formula 5. The results of calculating the elasticity for all factors are presented in Table 4.

## V. SUMMARY

The economically added value of the organization was influenced by the ratio of current (general) liquidity, which confirms the hypothesis 2. The net working capital positively affects both liquidity and the economic value of the organization. The higher is this indicator, the better. And since the composition of this indicator includes own capital, which directly affects the EVA and current assets of the organization, the value of the organization is higher the higher its solvency.

Despite the fact that increasing sales with a deferred payment, and therefore increasing the receivables, is one way to increase the profit of the organization, in fact, there is a diversion of funds from the turnover, even if such debt is not overdue, since it is probable that it will not be repaid. Therefore, the negative impact on the dependent variable of this factor is quite understandable, as well as the inventories, since most of the organization's liquidity is formed from cash recognized as the most liquid of current assets.

Net profit also positively affects the economically added value of the organization. It affects the overall profitability of the business chosen as an investment object, as well as the level of payment of dividends and affects the growth of stock quotes on the stock exchange, which has a direct impact on the management of the working capital of the organization, as money in circulation in the case of increased investment becomes more.

In spite of the fact that fraud practically did not affect the value of the enterprise, it is possible to say with certainty that any fraudulent actions carry a distortion or concealment of the true accounting and other economic information bearing signs of illegal facts and events and, accordingly, arising from them consequences.

Liquidity management in the financial management system is expressed through the management of each of its components - stocks, cash, receivables and payables, which together constitute a so-called audit of business processes. It may include an audit in addition to the audit, for example, in the management of receivables, it is used about the amount of receivables that are both subject and not subject to collection by conducting a review of the financial position of debtors on the continuity of their activities, where fraudulent cases can be identified by contacting a receivable debt and revenue, which can be increased solely at the expense of this indicator.

## VI. CONCLUSIONS

Thus, the quality control system, which includes the operational fraud management policy and the procedures necessary to implement and follow the monitoring procedures, is aimed at obtaining reasonable assurance that the organization and its personnel comply with professional standards, and the auditors' conclusions are appropriate in specific circumstances.

Audit of business processes is quite a labor-intensive, which should be subject to each organization in order to maintain reliable financial indicators. Even the smallest risk of fraud is a direct threat to the liquidity of the organization as an economic entity and must be timely eliminated by conducting a qualitative and comprehensive audit, the results of which management must take as the basis for the development of corporate culture, when its quality is the most important. Of course, for such a responsibility, realized through the relevant statements of management, it must have sufficient experience and abilities and have the appropriate authority for this.

## VII. DISCUSSION

Messod D. Beneish at article “The Detection of Earnings Manipulation” [4] preferred a sample of earnings manipulators, identifies their distinguishing characteristics, and estimates a model for detecting manipulation. Either the model’s variables are designed to capture the effects of manipulation or preconditions that may prompt firms to engage in such activity. The results suggest a systematic relation between the probability of manipulation and financial statement variables. This evidence is consistent with the usefulness of accounting data in detecting manipulation and assessing the reliability of reported earnings. The model identifies approximately half of the companies involved in earnings manipulation prior to public discovery. Our model includes balance sheets and shows that fraud negatively affects the liquidity of the organization.

Maria L. Roxas in article “Financial Statement Fraud Detection Using Ratio and Digital Analysis” [6] used Beneish method and probit model did a better job of identifying 62% of the companies (using the 5 coefficient model) in the year of manipulation and an additional 15% of the companies could be identified when analyzing manipulation indicators in the year before the manipulation. Beneish’s model’s coefficients could be calculated periodically to recalibrate the benchmarks. Digital analysis or Benford’s law should be further studied to see if it is an effective detector of earnings manipulation. One way is to look at more datasets or monthly data. Auditors can easily perform analysis with both of these analytical procedures. Analysis to see if data conforms to Benford’s law is included in IDEA and ACL so it would be relatively easy to use. Revenue recognition is an important issue to accounting professionals, FASB and the IASB. The new IFRS revenue recognition rules will impact US and international companies. International companies are allowed to use IFRS rules by the SEC without reconciliation to GAAP. This allows some revenues to be recognized earlier which would disadvantage U.S. firms. GAAP pronouncements covering the technology industry arose partly because of the revenue recognition problems and the complexity of the various revenue streams in this industry. The advantage of this article is that this might change with pressure for companies to show higher earnings especially in this economy. However, in Russia laws are often broken not to pay taxes and manipulate by not only profit activities but also liquidity once. We use 200 oversights to make sure theliquidity ratio is reversed depending on the presence of fraudulent activities.

Thus, it can be concluded that the results of our studies are largely close and indicate the importance of taking into account the factor of fraud in the accounting (financial) reporting of a commercial organization and allow taking measures to eliminate all the prerequisites that generate the genesis of any falsification of

economic factors occurring in a commercial organization.

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