

Conference Paper

Tools to Identify Data Distortion in Information-Analytical Systems of Economic Subjects

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Abstract

Today managers and end beneficiaries of economic actors invent new ways of distorting the information provided in the accounting and financial reporting, which jeopardizes the safety of assets and investments. Because motivation determines the distortion methods targeting fraudulent action, the objective of any regulatory bodies becomes a proper, rational and efficient use of appropriate tools and methodologies of detection of distortion in accounting and financial reporting. The author attempts to systematize and generalize the existing instruments, identifying their strengths and weaknesses for the formation of informational-analytical systems of economic security organizations and based on them to develop methodology of distortion detection subsystem data and indicators of economic information. In this regard, questions about tools to identify such distortions are relevant and will be revealed in this article.

Keywords: fraud, misrepresentation in reporting tools identify distortions information-analytical system, economic security

1. Introduction

Studies show the variety of ways of distortion in information-analytical systems, affecting the reliability of financial reporting, which is one of the conditions for ensuring economic security of any organization. In these conditions motivation of data corruption identified fraud targeting: overstatement or understatement of assets and earnings; overstatement or understatement of obligations and expenditures; lack of reflection of evaluation and conditional commitments, guarantees and sureties; embellishment of true picture of the financial state of an economic subject, etc. However, research results have proved that phasing techniques for identifying fraudulent behaviour depends on the level of access to information and analytical systems of

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Received: 11 December 2017

Accepted: 20 January 2018

Published: 13 February 2018

Publishing services provided by
Knowledge E

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Selection and Peer-review under the responsibility of the FinTech and RegTech: Possibilities, Threats and Risks of Financial Technologies Conference Committee.

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economic entity, which is based on information provided by the analysis of information reporting, data reliability, availability of their confirmation and validation through other sources (partners, information arbitrage, information from tax authorities, etc.).

2. Methods

For detection of fraud committed in the economic entity, the owners can use the following tools: internal audit; external audit; documentary check; a comprehensive audit of economic entity; tax inspection; economic expertise; Benford's law, Boenisch coefficients, etc.

3. Results

Norms 240 IUT "Responsibilities of the auditor for the review of fraud and errors in the process audit of financial statements" (ISA 240) [1] are the bases for the application of listed instruments. The standard prescribes to assess the risks of material misstatement reporting, verify the accuracy of information influencing management decisions, identify and assess the effectiveness of the systems internal control. And while we are talking only about significant distortions of reporting, fraud detection probability increases. The procedures described in the ISA 240, may serve as a basis of the developed methods of fraud detection in information-analytical systems generated by economic actors.

In our view, a more common way of detecting facts of fraud becomes information obtained from informants. In Russia attitude to this method of detecting distortion is ambiguous, but this way is one of most effective methods to detect fraud. Practice of using informants among employees and freelance workers in the Western companies is considered normal. However with the adoption of codes of conduct among the Russian economic actors, particularly with foreign or more public participation, this way of detecting fraud aimed at concealing the evidence becomes widespread, and in our view, resource efficient.

The tools listed above to identify distortions of accounting (financial) statements are not exhaustive, however, they suggest another tool, an independent verification by the Special Commission, initiated by stakeholders. By the test, launched by stakeholders, we will mean the validation on the initiative of the related parties, major creditors, main investors, other contractors receiving accounting (financial) statements, having insight

into the current financial and investment activities of economic entity, its strategic objectives.

Speaking about tools detecting fraud in accounting (financial) statements, you should use the tools of international practice, which should include forensic services available today for the Russian organizations. The results of the translation of this notion from foreign literature [2–5] into the Russian language are mixed and give several options for the definition of "forensic": "forensic services-control", "forensic services accounting", "forensic expertise", "legal financial investigations", "financial investigations", "forensic expert" "forensic lawyer".

In our view, the content of these concepts is different, and depends more on the type and content of the services provided by organizations working in this area. However, forensic services is defined as activity for identification and resolution of non-standard situations which arise within the activity of economic agents, including investigation of employees of any level of management which do not comply with the corporate ethical principles. Forensic services is an independent economic (financial) investigation, which can take place both within the economic entity, and beyond. In saying that, the purpose of the application of forensic services may be different: identification of fraud by employees; definition of financial risks of fraud; getting information about the real situation in the economic entity; strengthening of the internal control system; implementation of anti-corruption compliance-control of employees of any level of management; increase in the level of corporate ethics and culture and much more.

The results of the study provide basic provisions of universal methods of fraud detection in financial statements used during any checks developed by the author which is also based on the basic auditing procedures.

The main provisions of the methodology to identify distortions in information and analytical systems caused by fraudulent actions to commit economic crimes, are as follows:

1. Use knowledge of the work of the Organization and its inner and outer environment. Using such information, including the internal control system, an analysis of the legal, accounting, financial, in-kind, other non-accountable documentation, changes in organizational structure and accounting service, lack of an Audit Committee, the internal control service of economic entity. The signs of distortion in reporting may be indicated by: frequent change of top management and of general director, detection of family ties or friendly relationships between them, negative business reputation of the head of an economic subject, etc.

2. Request to management and those responsible for the functions of the Office, as well as other members of the organization. Requests may be directed to lawyers, accounting staff, internal audit (monitoring), warehouses, security service technical staff to obtain information to be used subsequently for identifying material misstatement resulting from fraud, on the order of supervising the organization of the process of identifying the risks of distortion of accounting (financial) reporting, on the message protocol about the facts of fraud detection and response to it. These requests provide a source of information on any existing, alleged or suspected fraudulent activity, helping to identify business processes within the organization. Analysis of this information allows you to identify differences in information obtained from different staff and install schemes of illegal acts against property of economic entity.

3. Performing audit procedures to identify and report fraudulent activity related to the distortion of financial statements.

In our view, analytical procedures used to identify unusual facts of economic life (FHZh) should be considered the most important. The results indicate the risks associated with possible distortion of financial statements and serve as a condition for the use of additional (specific) procedures, change of audit procedures volume, additional detailed research of unusual FHZh. One of the techniques of analytical procedures is the analysis of the cash flow of the Organization, which is conducted not only to identify unusual transactions, unexpected interactions with related parties, but also to check contractors, identify short-term companies, etc. Currently such methods of detection of fraudulent acts as Benford's law, indicators, m. Boenisch are successfully used, allowing in short terms to handle large amounts of data, identify abnormal results and select suspicious FHZh for a more detailed check. Thus, the application of Benford's law allows you not only to find unusual FHZh, but also monitor the operating activities of the economic entity. We believe that, at this stage, it is also advisable to conduct a legal analysis of contracts for oppressive transactions, their bad faith.

The results of analytical procedures applying can show signs of the existence of distortions in accounting (financial) statements. Such factors include: the decline in the share of revenue from sales in the total income of an economic subject, which remain stable over several periods; the presence of significant quantities of uncovered loss by implementing unusual FHZh; high accounts receivable; conclusion of fictitious contracts and their payment; non-transparent procedure for selecting suppliers; a large proportion of financial investments that do not meet the requirements of current investing and financing activities of economic subjects; implausible accounting for assets and

liabilities, income and expenses is carried out; 100% prepayment in procurement; installed doubtful (concurrent) business practices, etc.

4. Getting external confirmation of the prerequisites for the preparation of the financial statements. At this stage, the results can reveal the presence of lawsuits and claims disputes. Subsequent analysis of their contents in order to find fictitious debts, withdrawal/theft of assets, insolvency of organization enables us to reveal signs of fictitious and deliberate bankruptcy. In addition, the above steps allow us to collect information from external sources, compare it with the available information, and reveal the hidden guarantees, guarantees to third parties in the form of payables as signs of accounting (financial) statements distortion, conducive to fraudulent actions of economic entity employees against the property.

5. Study of other non-accountable information from public and private sources, which can contribute to identifying material misstatement resulting from fraud.

6. The need to assess the information gathered during the final phase of the availability of distortion of accounting (financial) reporting, conducive to fraudulent actions against property by concealing evidence that affect management decisions.

In our view, in order to prevent fraudulent activity on the accounts, you have to implement preventive measures, which include: audit opinion request, the request to the tax service, check on the stage of conclusion investment treaty, a more thorough check of the business reputation of the owner Organization (Director-General). Also, on the part of the owner in order to reduce the risks of distortion of individual data in information-analytical systems it is necessary to have (or create) the internal audit service (control), compliance control, risk management and the others with the respective roles and responsibilities. However, the availability of such services does not always guarantee the detection of facts of distortion of information and analytical systems, Inc. accounting (financial) statements.

4. Conclusion

In spite of the diversity of schemes distorting data in financial statements, they are all, in one way or another, aimed at embellishing of the real property and financial situation of economic entity. We believe that even if you use only publicly available information, it is possible to detect signs of fraud in reporting and make your own opinion about the reliability of the information. The main provisions of the methodology to identify distortions in accounting (financial) statements, caused by fraud, listed above, can be

considered a valid tool for identifying and detecting facts of distortion of information and analytical systems, including accounting (financial) statements.

Acknowledgements

This work was supported by Competitiveness Growth Program of the Federal Autonomous Educational Institution of Higher Education National Research Nuclear University MEPhI (Moscow Engineering Physics Institute).

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