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COMBATING FRAUD WITH INFORMATION TECHNOLOGIES. E-ACCOUNTING DOCUMENT ... A SOLUTION?

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Abstract

Knowledge society led, simultaneously, to the globalization of fraud potential. In this purpose, numerous tools and computer techniques have been created in order to combat fraud. Analyzing the main characteristics and specific operations we consider that all have a great drawback: they don't allow the identification of irregularities or fraud in real time, exactly when they occur. From this perspective, the purpose of this article is to introduce a new concept of software which, once implemented, will not only allow access to such data in real time, but, at the same time, will facilitate the work of auditors. The article presents the basic principles for the functioning mode of such applications.

Located at the concept stage, the design and implementation of this program involves collaboration between many national bodies (CECCAR, CAFR, MFP) and adapting accounting legislation in the field. However we consider that this can be the future of a small percent of economic frauds and less work for auditors or state institution in this field.

INTRODUCTION

Economic fraud phenomenon knows a large negative maturation process in Romania. Evidence for this are companies reported losses from economic crime activities, amounting annually to more than ten million.

According to studies conducted by specialized companies [1], over 40% of companies operating in Romania have been victims of economic fraud on average each reporting about seven such incidents annually. Unfortunately, from the previous period, the number of reported incidents has doubled or even tripled. In 2005, 28% of companies had reported economic fraud, in 2008, 36% of companies have been victims of such actions, while in 2011 the percentage of companies that have suffered such incidents reached 40%.

In this regard, in 2011, total reported losses from economic crime activities was approx. 14 million Euro, 300,000 euro per company fraud (the amount is two times higher than in 2005).

The concept of fraud refers to a deliberate act of a single person or several people in management or of those charged with governance of the employees or third parties, involving the use of deception to obtain an unjust or illegal advantage.

The most negatively affected by this phenomenon are large companies with over 5,000 employees (62% of all companies suffered fraud), while companies with less than 200 employees were less affected (36%). In terms of industries involved, a high percentage of fraud is found in companies from insurance and retail - 57%, followed by the automotive industry - 44% and pharmaceuticals - 27%.

Among the most common means of fraud reported by Romanian companies include: misappropriation of assets (23%) copyright infringement (15%), accounting fraud (15%) and corruption (10%). In only

6% of cases it was possible to identify fraud through internal control system, most of them are detected at random times (12.9%) or resorting to external sources for this purpose (35.5%).

Next we will focus on accounting fraud, the embodiments and potential authors.

1. SOME KEY ASPECTS OF ACCOUNTING FRAUD

Without insisting on definitions and opinions developed in the literature but also by the accounting practice about the significant differences between fraud and error, we emphasize that the line between these two concepts is very fine, the only difference being the intention (willful in the case of fraud, unintentional for error) to carry out an action which would lead to a misrepresentation in the financial statements.

Fraudulent misrepresentation in financial reporting involves intentional misstatements including omissions of amounts or disclosures of information in the financial statements to deceive users. This can be achieved mainly by: [2]

- Manipulation, forgery, counterfeiting, alteration of accounting records or supporting documentation on which the annual financial statements are prepared;

- Misstatements in the financial statements of events, transactions or other significant information, including their deliberate omission;

- Misapplication, intentionally, to accounting principles on valuation, classification, presentation or providing information.

Established concept, fraud occupies a special concern for the audit, the auditor being concerned with fraud that generates a significant misstatement in the financial statements. [3] In this sense we see the manifestation of fraud detection tool

auditor from the idea to prevent such acts in the future. But it would not relieve the auditor's work if this prevention was done automatically by the accounting? He could use this time to work more efficiently, eliminating repetitive activities that require resources of all kinds (human, material, financial, time)?

As highlighted in the literature and according to its authors, fraud can be achieved by driving an economic entity or by employees. Management involvement in fraudulent activities requires that fraud be committed by one or more of management or those charged with governance, while the fraud committed by employees manifests for those people who are in an employment relationship with the company hijacked .

Fraudulent financial reporting generated by members of management involves the use of techniques such as [4]:

- Recording of fictitious entries in accounting book, especially towards the end of the year to manipulate operating results or achieve other objectives;
- Changing improper assumptions and changing judgments used to estimate account balances;
- Omitting, advancing or delaying recognition in the financial statements of events and transactions that occurred during the reporting period;
- Hide or failure of facts that might affect the values recorded in the financial statements;
- Engaging in complex transactions that are structured to present erroneous the position or financial performance of the entity;
- Modify any recording and conditions related to significant and unusual transactions.

In any of the situation mentioned above, there is collusion between employees of the entity or third parties outside the company.

Considering these aspects, the intention of reducing these activities should have the starting point source the

event, the accountant/economist tasked with recording economic transactions undertaken by the company whose employee is in the accounting information system. At present, the development of information technology has eased considerably accounting work, but simultaneously increased the chances that it can hide certain transactions or pimp the system.

But, in our opinion, if information technologies have increased accounting fraud (among other factors), with their help, we can find also effective solutions for combating them.

2. USING INFORMATION TECHNOLOGIES FOR INVESTIGATING FRAUD

With globalization and knowledge society, the potential for fraud has grown. In this respect, there have been created new tools and computer techniques to combat the extension of this phenomenon. In order to detect data with high fraud potential, the investigator/person responsible for this task can turn to three tools: [5]

- Software specializes in data mining - exploring a tool to determine the database structures and data relationships;

Data mining software is the result of advanced research in the use of expert systems technology in accounting/audit, providing multiple options for identifying fraud in financial transactions of companies. Based on data analysis, the investigator can develop different profiles of fraud in the existing structures in a database. Identifying and understanding profiles facilitates fraud investigator access to fraudulent activity within the organization.

Data mining software have a number of common characteristics: sorting - arrange the data from the database based on some key field, select records which are repeated - database query in order to retain certain securities recorded under

investigation, gathering files data - combine some files to obtain records for analysis, duplicate search - files for duplication, in order to determine, for example, duplicate payments, analysis of economic and financial indicators - making a correlation analysis of vertical and horizontal to uncover anomalies in the financial statements and/or accounting records.

A number of data mining software tools used for the discovery of fraud are: WizRule, Financial Crime Investigator, IDEA ® - Data Analysis Software, Analyst's Notebook.

- Public databases - contain numerous records available to the public free or for a fee, which can be easily accessed to investigate fraud when there are no other tools/sources available;

When the investigator cannot identify the information they are interested in available databases, it can locate the necessary information from the databases of the Court, Commercial Register, primary, official sites of other companies etc..

Moreover, Business Intelligence literature (Economic investigations with informatics tools) shows that 95% of the intelligence work use as reliable sources public databases.

- The Internet.

The Internet is used by investigators in accessing commercial databases/online. Even if the search on the Internet is often imprecise, the adept investigators are interested in commercial databases such as LexisNexis or Dialog when doing research on international scale.

Accessible online database have also international journals and magazines, which provide access to valuable data for investigators. The most common sites for international fraud investigation are: KnowX - provides access to many public information; Switchboard - identifies entities, people, addresses or Zoominfo - working with intelligent agents.

3. ACCOUNTING FRAUD PREVENTION USING INFORMATION TECHNOLOGIES

We saw earlier that the investigator concerned on fraud detection has more tools and information technologies. Nevertheless they examine whether fraudulent activities have occurred, not whether it is possible to produce. But what if the use of information technology could prevent fraud, ceasing action source (employees, management, and third parties)?

Preventing fraudulent activity starts from one of the reasons of its propagation, namely the use of information technology. We saw that diversification of IT is the source of exacerbate increasing of fraudulent records. Precisely for these reasons we consider that using IT to prevent this activity would be a success measure to stop this negative phenomenon.

How would such a system or computer program work? From the outset point out we underline that the development of such a program, even at the conceptual level, involves the hard work of countless specialists from many fields: accounting, audit, information technology, management, and networking. The accounting specialist is one who has deep knowledge of circulation and registration of accounting documents, the auditor is one who knows which accounts are most likely to contain errors, in other words, knows where to look for any instances of fraud, system analyst is the link between accounting and IT developers of the program itself, the network specialist is the one which will make the junction between different databases and data transmission solutions online, while the manager will manage the entire project, setting tasks, solving problems and finding solutions.

In short, they are the main actors involved in the development of software (so far we confer this status, but in the

future we will see the category in terms of software).

The program objective is to prevent fraud by verifying the truth of accounting records. We consider that about 99% of the accounting is currently computerized and that economic transactions made are entered into an accounting program or related module. In this respect, the program user has two options: to record properly economic transactions and operations based on documents issued or received, or the option in which he fails to record or records erroneously those operations, destroying, altering or "extinct" certain documents.

Although dispreferred, the second option occurs quite frequently, either at the initiative of the employee who hopes to supplement his income or at the request of management, which intends to create a certain image (positive/negative) on company's financial situation. In any of these situations, there is the possibility of these phenomena.

In order to stop them, an easy solution is the introduction and widespread use of electronic documents. Even if in Romania there have been adopted a series of regulations on issuing and archiving electronic financial accounting [6], we believe that this should be just the beginning.

What we propose in this regard? Each document underlying a record of economic transactions in accounting to be issued electronically, automatically being recorded in the computer system / database of the two participants in the transaction. Basically, when a supplier issues, for example, an invoice to a customer, it will appear in the system waiting partner. This in turn has two options: accepting the invoice in the system after verifying the accuracy of the supplier or resend, if it finds irregularities, omissions, miscalculations. Achieving this requires the consideration of several issues. Each economic entity has the possibility of choice of accounting software used,

although we take into consideration transmitting electronically documents between different databases, between programs developed in different programming languages. It also occurs the problem of identifying the correct partner. How will know the program exactly to which partner to issue the document, or, in other words, to which database to send it? Also, it has to be taken into account that there may be 20 partners, for example, using the same program (WinMentor). All these issues need to be considered at conceptual stage when developing the program.

What is the idea behind this software? When a supplier issues to a customer an invoice we believe that it is registered or not in the partner's system. But, in the same time, the program warns that: (1) customer recorded the bill in the system so the transaction is completed, (2) the client has not registered it yet, having the "pending" status, for example, (3) at the end of the month, the invoice hasn't been registered yet by the client, therefore we are dealing with a case of fraud, being clear the client's intention not to register the transaction that has already taken place.

In this respect, if we consider the financial auditor's work, which at one point in his approach checks the records of the audited company and its partners, it is easy to understand that the program allows the accurate knowledge of those transactions or economic transactions who were not registered through the program.

This situation is just an example, illustrating the principle and operation of this possible software. However, generalized, it should be considered a full range of documents that can be issued/received by a company, the variety of economic transactions that can take place between economic agents, a variety of factors affecting the possibility of developing and implementing of such program (socio-economic, political, legal,

and even natural). These issues will, however, be the subject of future research.

Also in this regard, we emphasize the importance of involving all actors in the political and economic scene for the success of such software. If we consider the benefits that would bring the development and use of such a program both for operators, but also for the state and its agencies and other organizations and professions (accountants, auditors, evaluators), we believe that teamwork between all stakeholders is the "recipe for success" for the development and implementation of this idea.

Accounting profession would not be blamed anymore for potentially fraudulent actions (any ordinary person, not familiar with the financial and accounting activities, believes that "accountant steals"); auditors would not be finger pointed that they haven't done their work (if we take into consideration the financial scandals that rocked the globe and are convicted, moreover, for the financial collapse and economic crisis in which we are nowadays); the State would not be convicted because he knows only to collect taxes and doesn't understand the taxpayer; companies, represented by management and employees, would not be so tempted to defraud the state and its organs in order to reduce taxes.

To achieve this goal we appreciate the collaboration between all the above categories essential: teamwork between the state and economic operators would stop the fraudulent phenomenon – according to Romanian mentality "the state is the biggest thief" while the openness and transparency of information transmitted between different bodies of accounting profession and the state, auditors and firms would increase the capacity of decision and finding the best solutions to the problems faced by companies.

CONCLUSIONS

The world is constantly changing (nothing is more permanent than change!). Economic literature developed more diverse explanations to problems that economy faces (global, national). The only point on which all these views converge is that socio-economic changes are reflected in the way in which the transactions are concluded, business are made and the economy grows.

If we consider the existing relationship, by any law of nature, a part to the whole, we agree with the idea that all the micro elements, from the level of a company as a whole, using the snowball technique, amplified, have repercussions and influence global economy of a country, a nation, and ultimately, the entire global economy.

In this regard, we note that the very development and diversification opportunities and manner of doing business were those that led to the propagation of this phenomenon and all fraudulent activities that can occur under. And if we don't take measures to reduce and ideally halt this phenomenon, we witness the so-called "natural cycle" in which there will be nothing to be stolen or defrauded. It may sound a little "futuristic", emerged from Science-fiction scenarios, but any phenomenon has certain phases of manifestation, like everything in nature (birth, youth, maturity, old age, and finally extinction). The problem with fraud is that it will reach the last stage only when there will be no subject of action, namely, nothing to be defrauded. This will mean the collapse of business and the economy in general, with serious incident on whole human activities.

We mark that all means, techniques, programs, actions undertaken by different professional bodies (accountants, auditors), state (DNA) or at international level (IFAC, IASB) aimed at combating fraud by investigating economic operations and transactions carried out in the past, of

course, in the idea of stopping the manifestation of similar actions in the future. The effort is enormous but not enough, fraud being continued unhindered. Ingenious human mind with the latest technologies that are available creates a "success" combination, resulting in more and more scenarios and possible fraudulent activities.

Precisely for these reasons, we consider that the prevention and not further discovery of fraudulent accounting activities will stop this phenomenon. And we consider those facts which may occur with the actual recording of financial transactions before preparing financial reports that, if during a financial year when these events took place, of course, do not render anymore a true view upon economic reality inside the company.

Benefits that would bring the development and widespread adoption of such a system are undeniable. Accounting profession should be regarded differently, both by public opinion and state bodies as well, and auditors work would be visibly relieved, specific checks of audit approach being easier both in terms of time and workload, resources used and so on.

Increased transparency involves risks as well: it is possible that companies will not agree to such a program, saying that there would be a breach of privacy and so

on, it should be introduced by a law or national act in this regard, but not contrary to the rules and laws of the European or global level. Therefore there has to be taken into account all the factors and all situations that may arise from the development and widespread adoption of such a program, for which we are going to develop other papers in the future.

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