Possibilities to reduce audit risk using the CFEBT model to identify creative accounting and fraud in term of Czech accounting standards

Zita Drábková

Abstract: The Explanatory power of financial statements is a fair and true view of reality. Accounting remains the main source of information about the company for most users of financial statements. The article deals with possibilities of the application of a selected identification model of creative accounting in order to reduce audit risk. The urgency of the issues of distortion of the true and fair view of accounting is manifested by both the consequences of frauds of big dimensions, and the frequency of activities of distortion of the data distributed to several areas in the major part of relatively small firms.

Our hither to research has verified the hypothesis of risk identification of manipulated financial statements by an analysed case study for 5 accounting periods by the CFEBT model in the context of Czech accounting standards. The following contribution analyses and evaluates certain aspects of identification of manipulated financial statements by integrating the basic methods of creative accounting and fraud into the CFEBT identification model. The CFEBT model was designed mainly with the view of reducing the auditor risk and users’ risk of manipulated financial statements in term of Czech accounting standards.

Key words: Creative accounting · Czech accounting standards · Detection of financial statements manipulation

JEL Classification: M41 · M42 · G 32

1 Introduction

The explanatory power of accounting information represents the key issue for deciding carried out by users of financial statements. A whole range of economic indicators is available to the users of financial statements to measure the firm productivity. When the accounting statements (and used / applied methods) are manipulated, economic indicators may yield clearly different results. Users of financial statements should have the possibility to assess the risk of manipulation of accounting statements in time and any potential risks of accounting fraud. At the same time, they should have at their disposal the details of explanatory power of accounting statements as defined according to Czech accounting standards.

Users of financial statements should apply methods which can support any suspicion of manipulation with the statements and potential fraudulent conduct. As the pressure from various entities for "adjustment" of data increases, one needs to define new procedures to identify this adjustment over and over again. Addressing these issues, one should provide new information and methods in this sphere and suggest new solutions.

2 Methods

National research studies around the world (Amat, Blake, 2006), (Brennan, McGrath, 2007) and (Jones, 2010) show that there is a growing pressure in enforcing transparency and business ethics, which is true not only for publicly traded companies, but also for example the misuse of subsidies by prominent entities, substantiation in accounting. Demands are namely imposed on administrative bodies whose responsibility is to guarantee the development of corporate culture and to promote shared values inside the company.

These issues have been addressed by a number of prominent authors. However, this has been done much less often than, for example, as regards creative management related to the explanatory power of accounting statements. Kovanicová has been concerned with the purpose and explanatory power of accounting statements for more than 10 years. She
maintains, among other things, that while processing data in the accounting statements, one should think about the difficulties of processing and transfer of such data to financial statements (Kovanicová, 2004). When processing accounting data, one may encounter their purpose-directed manipulation in many different forms of creative accounting. Krupová describes the sphere of creative accounting and its influence on accounting statements in her book published in 2001, claiming that reasons for that are mainly based on different interests of respective owners and managers.

Managers often try to “adjust” the amount of the reported profit in which they are financially involved, either towards the maximum or to extend their loss, and thus reach a higher profit in the following accounting periods. A bad management attempts to postpone the firm bankruptcy by distorting the real profit. Another possible reason is investors’ pressure or concealing a financial risk of the respective company, an effort to be awarded subsidies or loans or an effort to reduce the tax liability (for more information see Krupová, 200; Kovanicová, 2004). You can also find more information in publications available on the Internet (Ernst&Young, 2010; PriceWaterhouseCoopers, 2010) or other publications (Jones, 2010; Mulford, 2002, 2005), (Murphy, 2011) or (Schilit, 2002) and (Čaník, Řezbová, 2006).

Under Czech accounting legislation, the accounting entity is regulated by Act No.563/1991 Coll., on Accountancy, regulations implementing the said Act and Czech accounting standards. Among international regulating standards at least three examples should be mentioned, including: the Sarbanes-Oxley Act (Dodwell, 2008) passed in the USA in 2002, the Data Protection Act passed by the European Union in 1998, and Basel Capital Accord passed in 2006. These standards make firm managers responsible for the accuracy of corporate financial statements and their purpose is to improve the management of risks and assets.

In our research, we solved the issue of consequences of rigged accounting statements in the evaluation of financial health of a company and explanatory power of accounting statements. These issues are supported by a case study of creative accounting practices (windows dressing and off balance sheet financing methods) of two different ways of manipulation of accounting statements followed by different results of evaluation of financial health of the respective company. In addition, our objective was to set limits of manipulation of accounting statements based on the provisions of the Act on Accountancy and the Criminal Code in three stages of manipulation of accounting statements. Suggested sanctions have been consulted with auditors, tax advisors, and an employee of the audit division of the Revenue Office. This case study included specific techniques of creative accounting. The individual accounting transactions were divided into three proposed levels of financial statement manipulation.

Furthermore, we addressed the issue of how to identify rigged accounting statements or whether it is possible to recognize rigged accounting statements. The answer to this question would make work much easier for users of financial statements, but especially for auditors, who are independent professionals whose task is to increase the confidence of users of financial statements.

We laid down the hypothesis that there is a close relationship between the profit and loss account and the increase in cash flow in the period of 5 years, or that their total figures in the period of 5 years are more or less the same. In our opinion, the above-mentioned approach may serve as one of the tests performed by external auditors when they verify the true and fair view of an accounting entity, and also when applying International Standard on Auditing 240, specifying the auditor's responsibilities relating to fraud in an audit of financial statements of an accounting entity, help to significantly reduce the audit risk.

Subsequently, the Beneish model was proposed as a convenient model for identifying risks of manipulation of financial statements. The CFEBT model was analyzed and verified in comparison with the results of the Beneish Model in the case study of an accounting unit and financial statements based on Czech accounting standards.

The case study was prepared on the financial statements of entities and case studies respecting a true and fair view of the Czech accounting standards as defined in 5-year accounting periods, compared with intentionally manipulated financial statements of the entity, also in the five-year accounting period. The CFEBT model showed comparable results of risk manipulated financial statements based on Czech accounting standards. The CFEBT model was created for financial conditions by Professor Daniel Beneish Messod at Indiana University in Bloomington, USA (Beneish, 2001).

This paper analyses some aspects of the basic methods of creative accounting and fraud in relation to results of designed the CFEBT model identifying manipulation financial statements.
The CFEBT model is defined as follows:

\[
CFEBT = \sum_{t=1}^{5} \left| \frac{\Delta CF_t - EBT_t}{EBT_t} \right|
\]  

(1)

If \( CFEBT \geq \text{materiality} \)  

(2)

There is a high risk of breaching a true and fair view of the accounts.

Materiality, significance ranges between 5 and 10%, taking into account individual circumstances of the entity, as it did during the audit of financial statements by an external auditor. Materiality of 5% is considered in this paper.

3 Research results

Our paper is concerned with the query “how manipulated financial statements may be identified, or, as the case may be, is it possible to recognize manipulated financial statements.

3.1 The CFEBT model

The identification model CFEBT was based on the hypothesis maintaining that there is a close relation between the accounting economic result and cash-flow accrual in the period of five years.

Results of data analysed in the CFEBT model revealed that if an accounting unit adheres to a true and fair representation of its accounting in the context of Czech accounting standards, then it is not identified as creative (fraudulent) accounting. This paper, in the aggregate of accounting economic results and aggregate of cash-flow accruals for five years, should not deviate from the determined limit of significance level for the given accounting unit (5 to 10%). The materiality (significance) ranges between 5 and 10%, taking into account the individual circumstances of the entity, as it did during the audit of financial statements by an external auditor. There is considered materiality of 5% in this paper.

3.2 The case study of manipulated financial statements

The case study for option of manipulated financial statements (using windows dressing, fraud reporting) represented the financial statements maximizing turnover and assets). There was identified a high risk of manipulated financial statements in terms of Czech accounting regulations in the CFEBT model i.e. CFEBT exceeded the value of materiality.

The case study was designed an option of maximizing a fair and true view of accounting. Data was obtained in the CFEBT model. It showed that the result of CFEBT did not amount the value of materiality, i.e. there was a low probability manipulation of financial statements in terms of Czech accounting regulations. Afterwards, results of the case study were confirmed the M-score of Beneish Model in terms of Czech accounting regulations.

When further analysing aspects that influence a positive result of identification of manipulated financial statement, it is imperative to consider impacts of basic methods of creative accounting and fraud, which distort a true and fair view of accounting during accounting periods in terms of Czech accounting regulations.

<table>
<thead>
<tr>
<th>Strategies in five accounting periods</th>
<th>( \sum \frac{\Delta CF}{EBT} )</th>
<th>( \sum CF )</th>
<th>CFEBT (%)</th>
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</thead>
<tbody>
<tr>
<td>Increase income:</td>
<td>1838</td>
<td>1507</td>
<td>18</td>
</tr>
<tr>
<td>premature sales recognition, increase interest receivable, include non-operating profits, treat loans as sales, swaps</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Decrease expenses:</td>
<td>1838</td>
<td>1507</td>
<td>18</td>
</tr>
</tbody>
</table>
use provision accounting, reduce tax, Big bath, one-year write-offs, decrease expenses and increase assets, increase closing inventory, capitalise expenses, lengthen depreciation lives, be generous with bad debts

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**Increase assets:**
enhance goodwill, enhance brands and other intangibles, rvalue fixed assets, mark-to-market

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<th></th>
<th>1103</th>
<th>1507</th>
<th>37</th>
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**Decrease liabilities:**
off-balance sheet financing, reclassifying debt as equity

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<th>1470</th>
<th>1507</th>
<th>2</th>
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**Increase operating cash flow:**
maximise operating cash inflows, minimise operating cash outflows

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<th>1470</th>
<th>1884</th>
<th>28</th>
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Source: Jones (2011), own processing

Table 1 shows the main impacts of using methods of manipulation financial statements on the sum of profit/loss and an increase in cash flow in a five-year period. Further, the paper submits options of how to identify manipulated financial statements via the CFEBT model in terms of Czech accounting regulations.

It is necessary to consider impacts of basic methods of creative accounting and fraud, which distort a true and fair view of accounting during the accounting periods in terms of Czech accounting regulations, in relation to analysis of aspects that influence a positive results of identification of manipulated financial statements:

- **Increase income:** Individual accounting transactions leading up to an artificial increase in profit through recognition of revenue without the subsequent inflows of economic benefits do not reflect in an increase in cash flow. The CFEBT model identifies the manipulation of financial statements above the level of significance (materiality) in the following increase income strategy. The case study of the CFEBT model reports the value of 18%, or, as the case may be, a significantly higher value than the standard value of materiality. Following this strategy the CFEBT model identifies manipulated financial statements reliably for 5 accounting periods.

- **Decrease expenses:** If accounting entity pursues a strategy to reduce decrease expenses, the CFEBT model shows value of 18%, significantly a higher value than the standard value of materiality. The CFEBT model identifies reliably manipulated financial statements following this strategy for 5 accounting periods.

- **Increase assets:** Accounting entities that follow this strategy artificially increase the value of assets which are amortized in the form of depreciation. The depreciation then reduces the profit up to 100% of the artificially increased value of assets in the course of accounting periods. In this case, the CFEBT model has a value of 37%. Yet again, the CFEBT model identifies manipulated financial statements significantly.

- **Decrease liabilities:** A further method of creative accounting is changing the structure of liabilities, reclassifying a debt into equity often in the form of off-balance sheet financing techniques. These techniques are very difficult to detect for internal and external auditors, and for other users of financial statements too. The CFEBT model identifies manipulated financial statements in this case. Here, the CFEBT model has a value of 2%. In this case, it can be recommended to increase audit risk for auditors, respectively to reduce the materiality of some other detailed tests in relation to International Auditing Standard ISA 240.

- **Increase operating cash flow:** When accounting entities maximise operating cash inflows or minimise operating cash outflows, for example, in order to classify every inflow as operating cash flows or as many as possible of their outflows to classify as investing and financing outflows. Here the model CFEBT identifies significantly manipulated financial statements above the limit of materiality, or, as the case may be, it has a value of 28%.
4 Conclusions

Should we proceed from the perspective of professional scepticism in relation to the assessment of creative accounting, we will assume that accounting of each entity has used manipulated creative practices to some extent. This means that such terms as "correct", "impeccable", "unambiguous" - and similar - accounting, and accordingly, elements derived from this accounting, should be treated as relative. It is untrue that to apply methods of creative accounting is always wrong, at least, this is what most opinions and findings earned from practice demonstrate. The intention and scope of the use of creative accounting is appropriate for the given difficult and diverse nature of business transactions.

We believe that the suggested model CFEBT may be used by auditors for testing financial statements as a detailed test on the basis of which a risk of an accounting fraud may be identified, and moreover, it may be applied by all users of financial statements who are to consider the issue of reliability of financial statements submitted to them.

References


