

THE POTENTIAL TO REDUCE THE RISK OF MANIPULATION OF FINANCIAL STATEMENTS USING THE IDENTIFICATION MODELS OF CREATIVE ACCOUNTING

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Abstract

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Explanatory power of accounting information is the key question for deciding of 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 applied methods) are manipulated, the economic indicators may reveal clearly different results. The users of financial statements should have the possibility to assess the risk of manipulation of accounting statements in time considering potential risk of accounting fraud. The aim of this paper was based on the synthesis of knowledge from the review of literature, the CFEBT model analysis and Beneish Model proposing a convenient model for identifying risks of manipulation of financial statements. The paper summarizes the outcomes of possibilities and limits of manipulated financial statements and their identification. The testing hypothesis is assessing whether there is a close relation of a loss and an increase in the cash flow in 3–5 years time; whether the sum of the amounts for 3–5 year's time would reveal the same results respectively. The hypothesis was verified on the accounting statements of the accounting entities of prepared case studies respecting the true and fair view of accounting based on Czech accounting standards.

creative accounting, fair and true view, detection of financial statements manipulation, Czech accounting standards

Creative accounting and accounting fraud as a violation of the true and fair accounts represent the current topic; it is certainly an interesting look at the creation and presentation of the financial statements.

This paper deals with a specific interpretation of the values obtained from the accounts; its second line includes understanding the creation of the financial statements itself or intentions of its creators. We believe that it is important to define the specific accounting legislation limiting the use of different accounting techniques and procedures used to represent intentions of an entity. At the same time, there is a need to recognize the risk of manipulated financial statements beyond the

definition of national accounting legislation and not least to manage to eliminate the problems in explanatory power and manipulation of financial statements in assessing the financial health of the company.

Worldwide national studies such as (Amat, Blake, 2006), (Brennan, McGrath, 2007), (Murphy, 2011) or (Jones, 2010) confirm the increasing pressure to promote transparency and ethical business.

Kovanicová has been dealing with the meaning and explanatory power of the financial statements for more than 10 years. She states inter alia, that within processing data in the financial statements, one must realize the issues connected with the processing and their subsequent transfer to of

financial statements; see (Kovanicová, 2004). In the current processing of accounting data a purposeful manipulation in various forms of creative accounting can be found. Area of creative accounting and its impact on the financial statements is discussed by Krupová (2001), stating that the reasons for this mainly arises from the differing interests of owners and managers. Managers often try to “adjust” the amount of reported income on which they are financially interested, either toward its maximum or to increase losses, thereby achieving significant amount of profit in future accounting periods. Bad management is trying to delay decline of the company by distortion in actual profit. Another reason may be pressure from investors or concealment of the financial risk of the company, obtaining grants or loans or effort to reduce their tax obligations, see (Krupová, 2001), (Kovanicová, 2004).

Opinions on the ethics of creative accounting can be divided in two general groups. The first group consists of those who perceive creative accounting as a part of normal practice. The second group perceive creative accounting as lying and inappropriate activities. What solution can be found regarding ethics and the limits of creative accounting? There are different opinions within states and authors. In the UK, the prevailing opinion is the one of Naser. Kamal Naser explains the creative accounting as a process of modifying the operating results, away from the actual picture and towards the desirable results. This can be achieved by improper use – or even abuse of some existing rules, or by omitting other rules – see details in (Naser, Pendlebury, 1992) or (Amat, Blake, 2006) in Spain, with the optimistic approach influencing accounting auditors. Griffiths revealed that companies reported results that are not fair and true representation of their transactions, but rather adjusted according to the desired objectives, see more in (Griffiths, 1995).

International research has confirmed the growing pressure to promote transparency and ethical business, not only for publicly listed companies. Emphasis is placed on administrative authorities, which are responsible for ensuring the formation of corporate culture and the promotion of shared values in society.

Mulford and Comiskey dealt with play on numbers in accounting and detecting creative accounting techniques influencing financial statements, including the statement of Cash Flow. The effect of using creative accounting methods to the individual items in the financial statements and the possibility of finding creative accounting practices for selected accounting field was discussed in detail, see (Mulford, Comiskey, 2002) and (Mulford, Comiskey, 2005). Using creative techniques and their impact on European governments at the fiscal level were discussed by Koen and Noord (e.g. Koen, Noord, 2005). Useful information was also published on the Internet

(Ernst & Young, 2010), (PriceWaterhouseCoopers, 2010) or in (Čaník, Řezbová, 2006), (Jones, 2010).

Regarding the Czech accounting legislation, an accounting entity is controlled by Act 563/1991 Coll., on Accounting, by regulations implementing this Act and by Czech Accounting Standards. Regarding international standards at least the following should be mentioned: the Sarbanes-Oxley Act (Dodwell, 2008), which was released in the U.S. in 2002, the Data Protection Act issued by the European Union in 1998 and Basel capital Accord in 2006. These standards stated the responsibilities for the accuracy of corporate financial statements and their aim is to improve risk management and asset management.

Some research questions and hypotheses can be derived considering the use of creative accounting techniques in relation to the financial statements resulting values. It is necessary to search answers to meet the basic requirement of a true and fair view of the accounts, in particular: “What are the acceptable limits to the use of creative accounting techniques at the national level?”, “Is it possible to define such limits?”, “What are the consequences of manipulated statements?” and “Is it possible to identify manipulated financial statements?” Due to the limited possibilities in this paper, the results of research determining the limits of creative accounting in terms of Czech accounting standards and the possibility of identification manipulated financial statements are summarized.

METHODS AND RESOURCES

This comprehensive study of the problem was based on Czech and international accounting and tax legislation and references related to different views and opinions on creative accounting techniques.

The aim of this paper is to evaluate and design appropriate models for identifying risk of manipulation of financial statements. In this paper, the hypothesis, whether there is a significant relation between the loss (VH, i.e. EBT) and the increase in cash flow in five years, was verified, based on the proposed CFEBT model. This hypothesis was verified 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.

For purpose of manipulated financial statement identification beyond true and fair view of accounting, as defined in the Czech accounting legislation, the following hypothesis was defined: “There is a relation between a profit/loss and an increase in cash flow in five-year period, while maintaining a true and fair view of the accounts there is not a significant difference between them in their sum (the CFEBT model).”

After verification of the hypothesis users of financial statements could evaluate the risk of

manipulated financial statements in the period of five years.

Suggested test of the risk of manipulated financial statements should help external auditors in auditing the financial statements in particular. External auditors carry audit risk i.e. the risk that they will not not issue a corresponding statement about the true and fair view of financial statements. Thus, the test should reduce their audit risk; the auditor can reduce the materiality (significance) when testing, increase range of tests and adjust the timing of tests in case of a high risk of manipulated financial statements. It would also help auditors when assessing the risk of accounting fraud, which are required to be assessed according to the ISA 240 – International Standard on Auditing.

Furthermore, data from the case studies already published in Beneish Model are assessed and verified for the conditions of the Czech accounting regulations. The Beneish M score was created for financial conditions by Professor Daniel Beneish Messod at Indiana University in Bloomington, USA (Beneish, 2001).

RESULTS AND DISCUSSION

1.1 Case Study – Manipulation with Financial Statements for Five Accounting Periods

The answer to the query if the economic result and cash-flow accrual lead to a similar value during the course of time may be presented on the basis of a simplified case study. For the given accounting unit, in variants A and C, complete accounting was processed for the period of five years, including financial statements, and cash-flow accruals were ascertained in individual periods.

We shall consider an enterprise for the accounting periods in the first to fifth years, with the following prerequisites and accounting transactions:

Amount of the authorized capital – paid-up by bank transfer: CZK 5,200,000.00.

Monetary contribution of CZK 200,000.00, non-monetary contribution: a building of the value amounting to CZK 5,000,000.00 (depreciation plan: in an even rate for 25 years – valuation as per an expert opinion).

Accounting for stocks by B method.

1.2 Representation of accounting transactions for variant A (windows dressing, fraud reporting)

- Amount of the authorized capital – paid-up by bank transfer: CZK 5,200,000.00.
- Monetary contribution of CZK 200,000.00, non-monetary contribution: a building of the value amounting to CZK 5,000,000.00 (depreciation plan: in an even rate for 50 years – valuation as per an expert opinion).

Accounting transactions:

- The given accounting unit is engaged in trading activities – sale with a 30% margin, dead stock is sold in the third year at the acquisition cost.
- The accounting unit took a specific bank loan to purchase long-term tangible assets in the amount of CZK 2,000,000.00 with interest of 5% p.m. in the amount of CZK 100,000.00 per year – in the first year, the interest is activated in the entry price of assets before they are placed in usage – the loan is payable at the beginning of the fourth year, interest is paid by bank transfer during the respective years, i.e. from the first to the third years – such assets are depreciated in accordance with the relevant depreciation plan for 25 years in an even rate in the acquisition price amounting to CZK 5,000,000.00.
- In the first year 2010 of long-term intangible assets, the accounting unit generated a trademark at its own cost as a result of research and development of goods innovation (for the purpose of trading with the same – through the mediation of producers, it becomes a part of goods that are the subject of trade) – the accounting unit does not depreciate such assets, the acquisition price of CZK 600,000.00 = direct wage costs. In the fifth year, the trademark such created was sold for CZK 800,000.00.
- The accounting unit has overdue receivables – 90% of nominal value of receivables collected in the current period.
- As of the balance day in the second and third years, the accounting units has in stock the low-turnover goods, “dead stock”, in the amount of CZK 500,000.00, such dead stock was sold in the fourth year at the acquisition price. Such low-turnover goods originated on account of goods that remained unsold in the first year.
- The accounting unit creates no adjustments for goods.
- In the second year, accounting unit performed a technical revaluation of a structure depreciated for 50 years (as per the account depreciation plan of the structure) in the amount of CZK 1,000,000.00 – paid by bank transfer in the second year.
- In the first, second and third years, the accounting unit created no accounting reserve for a general overhaul of the building. The overhaul was conducted in the fourth year within the budget planned at CZK 1,500,000.00. Such overhaul was reported by the accounting unit as technical revaluation – modernization of the building.
- In the first year, the accounting unit conducted an overhaul of the building in the amount of CZK 1,000,000.00 – paid by bank transfer in the first year. This overhaul was reported as technical revaluation – reconstruction of the structure.
- The accounting unit did not create an adjustment for the building in the first year – influenced by the above technical revaluation of the structure.

- The accounting unit creates no adjustments for receivables.
- The total monthly personnel costs of the accounting unit amount to CZK 500,000.00 – paid by bank transfer (for simplicity's sake, state health insurance and income tax of natural persons are not analysed).
- Goods purchased during accounting periods in the first, second and third years amount to CZK 24,000,000.00 – paid by bank transfer in the year of procurement, excepting the first year, when a maximum of obligations was paid-up with the view of a lack of funds on the bank account. The sale of goods with the average 30% margin – 90% of receivables collected in the given invoiced accounting period, receivables from the previous period were paid up in full in the given accounting period. The closing balance of receivables in the fifth year was not written off for the reason of uncollectibility regardless the fact that the insolvency proceedings were terminated. The goods purchased during the fourth and fifth accounting periods amounted to CZK 12,000,000.00 (affected by financial crisis). The sale of goods with the average 20% margin – 90% of receivables collected in the given invoiced accounting period, receivables from the previous period were paid up in full in the given accounting period.
- Out of free funds, a long-term loan was provided in the amount of CZK 1,000,000.00 with 10% p.m. – the interest paid in individual accounting periods, i.e. in the first, second and third years. The loan was paid up at the beginning of the fourth year.
- The sale of goods with the average 30% margin – 90% of receivables collected in the given invoiced accounting period, receivables from the previous period were paid up in full in the given accounting period.
- Proprietary securities were purchased for the purpose of long-term holding of the same, in the value of CZK 500,000.00; however, for the reason of high appreciation in the period from the first to the fourth year, these were reported by the accounting unit as securities held for trading – during this period, appreciation by 50% from the original value. The accounting unit sold these securities in the fifth year with 20% profit, i.e. the profit was paid in the fifth year along with the nominal value.
- The accounting unit transfers the profit earned in the undistributed profit from previous years.
- In the first, second and third years, the accounting unit creates no accounting reserve. The overhaul is performed in the fourth year in the amount of CZK 1,500,000.00.
- Funds on the bank account acc. to the balance as of 31.12. of the given period bear interest in the interest rate of 2% from the relevant amount.
- For the reason of increase in turnover, the accounting realises a circular trade in liaison

with another entity, pursuant to a business collaboration agreement, whereas in the first year, invoices were issued with a 100% margin, and in the third year, a corrective tax document was issued for such margin, and for the fourth and fifth year, a circular operation was conducted in acquisition costs – hence, the turnover increases by 200% for the first and second years, and by 100% for the third, fourth and fifth years. Goods are sold and purchased within the scope of this circular trade in the sum of CZK 24,000,000.00. In the third and fifth years, receivables and payables from this business collaboration were set off reciprocally.

- The accounting unit performs a parking transaction, i.e. a part of goods sold in the value of CZK 500,000.00 is sold in the second year with an increase of a 100% margin for CZK 1,000,000.00 (without consideration). In the fourth year, it repurchases the goods for CZK 500,000.00 and sells the same to another entity for this acquisition price.

1.3 Representation in accounting for variant C

- The accounting unit is engaged in trading activities – sale with a 30% margin, dead stock is sold in the third year at the acquisition cost.
- The accounting unit took a specific bank loan to purchase long-term tangible assets in the amount of CZK 2,000,000.00 with interest of 5% p.m. in the amount of CZK 100,000.00 per year, the loan is payable at the beginning of the fourth year, interest is paid by bank transfer during the respective years, i.e. from the first to the third years – such assets are depreciated in accordance with the relevant depreciation plan for 5 years in an even rate in the acquisition price amounting to CZK 5,000,000.00.
- In the first year 2010 of long-term intangible assets, the accounting unit generated a trademark at its own cost as a result of research and development of goods innovation (for the purpose of trading with the same – through the mediation of producers, it becomes a part of goods that are the subject of trade) – depreciation is done for three years in an even rate, acquisition cost CZK 600,000.00 = direct wage costs. In the fifth year, the trademark such created was sold for CZK 800,000.00.
- The accounting unit has overdue receivables – 90% of nominal value of receivables is collected in the current period.
- As of the balance day in the second and third years, the accounting units has in stock the low-turnover goods, “dead stock”, in the amount of CZK 500,000.00, such dead stock was sold in the fourth year at the acquisition price. Such low-turnover goods originated on account of goods that remained unsold in the first year.
- The accounting unit create adjustments in the second year in the amount of 30% of dead stock, i.e. CZK 150,000.00; financial accounts are not manipulated with for a specific purpose.

- In the second year, accounting unit performed a technical revaluation of a structure depreciated for 25 years in the amount of CZK 1,000,000.00 – paid by bank transfer in the second year.
- In the first, second and third years, the accounting unit created an accounting reserve for a general overhaul of the building in the sum of CZK 500,000.00 per year (tax reserve conditions were not met). The overhaul was conducted in the fourth year within the budget planned at CZK 1,500,000.00.
- In the first year, the accounting unit conducted an overhaul of the building in the amount of CZK 1,000,000.00 – paid by bank transfer in the first year.
- The accounting unit created an adjustment for the building in the first year in the amount of CZK 500,000.00 – due to a reduction in the building market value – the adjustment was dissolved in the second year – influenced by the above technical revaluation of the structure.
- The accounting unit creates adjustments for receivables in the amount of 20%.
- The total monthly personnel costs of the accounting unit amount to CZK 500,000.00 – paid by bank transfer (for simplicity's sake, state health insurance and income tax of natural persons are not analysed).
- Goods purchased during accounting periods in the first, second and third years amount to CZK 24,000,000.00 – paid by bank transfer in the year of procurement, excepting the first year, when a maximum of obligations was paid-up with the view of a lack of funds on the bank account. The sale of goods with the average 30% margin – 90% of receivables collected in the given invoiced accounting period, receivables from the previous period were paid up in full in the given accounting period. The closing balance of receivables in the fifth year was written off for the reason of uncollectibility (the insolvency proceedings were terminated). The goods purchased during the fourth and fifth accounting periods amounted to CZK 12,000,000.00 (affected by financial crisis).
- The sale of goods with the average 20% margin – 90% of receivables collected in the given invoiced accounting period, receivables from the previous period were paid up in full in the given accounting period.
- Out of free funds, a long-term loan was provided in the amount of CZK 1,000,000.00 with 10% p.m. – the interest paid in individual accounting periods, i.e. in the first, second and third years. The loan was paid up at the beginning of the fourth year. The sale of goods with the average 30% margin – 90% of receivables collected in the given invoiced accounting period, receivables from the previous period were paid up in full in the given accounting period.
- Proprietary securities were purchased for the purpose of long-term holding of the same, in the

value of CZK 500,000.00, which the unit resolved to hold in the long term – the accounting unit collected payment in the fifth year with 20% profit, i.e. the profit was paid in the fifth year along with the nominal value.

- The accounting unit transfers the profit earned in the undistributed profit from previous years.
- In the first, second and third years, the accounting unit creates an accounting reserve (conditions for depositing the reserve amount on a bank account were not complied with) for the building general overhaul in the sum of CZK 500,000.00. The overhaul is performed in the fourth year in the amount of CZK 1,500,000.00.
- Funds on the bank account acc. to the balance as of 31.12. of the given period bear interest in the interest rate of 2% from the relevant amount.

2 MODELS OF IDENTIFICATION OF MANIPULATED FINANCIAL STATEMENTS

2.1 The CFEBT Model

For the purpose of verifying the identification model CFEBT a case study was designed for the business entity (wholesale) in the variants „A“ and „C“. The entity model „A“ at the same conditions applied the techniques of creative accounting (windows dressing) to monitor turnover and maximize asset value. The entity model „C“ monitors in compliance with the goal of true and fair view as much as possible

The CFEBT model is defined as follows:

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

If $CFEBT \geq \text{materiality}$, 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 the 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.

Tab. I shows the results of a case study designed for an entity operating in the wholesale, for a period of five financial years. Entity under similar conditions had different objectives in the value of financial statements.

Option A, represents the financial statements maximizing turnover and assets. Option C's entity uses all opportunities to maximize the true and fair view of the accounts, including the precautionary principle in the form of provisions and reserves. Cash Flow of A and C variants was a null result in the first year because a maximum of obligations was paid-up with the view of a lack of funds on the bank account.

I: Profit/loss and cash flow increment in five years for the A option

option A	1. year	2. year	3. year	4. year	5. year	Σ
VH (EBT) thous.CZK	30576	31660	-41205	1999	1117	24147
CF thous.CZK	0	2785	6889	1805	3594	15073
Cash	0	2785	9674	11479	15073	

Source: author

II: Profit/loss and cash flow increment in five years for the C option

option C	1. year	2. year	3. year	4 year	5. year	Σ
VH(EBT) thous.CZK	2539	5150	4948	1369	700	14706
CF thous.CZK	0	2785	6889	1805	3594	15073
Cash	0	2785	9674	11479	15073	

Source: author

$CFEBT = 37.6\%$... significantly exceeds materiality, i.e. there is a high risk of manipulated financial statements in terms of Czech accounting regulations

Tab. II shows $CFEBT = 2.5\%$ does not amount the value of materiality, i.e. there is a low probability manipulation of financial statements in terms of Czech accounting regulations.

Intentionally prepared accounting transactions for accounting units under similar conditions, i.e. in conditions of Czech accounting regulations confirmed the model hypothesis. Thus, there is a significant relation between the accounting results and increase of cash flow in the longer term (5 years).

2.2 Beneish Model

Beneish Model is a mathematical model used for financial models. It contains eight variables that can detect manipulation of accounting data. This was based on statements, calculating the M score. M-score was created by Professor Beneish-Messod. In many respects, it resembles the Altman

Z score, but is optimized for the detection of profit manipulation more than bankruptcy.

The following variables are employed:

1. DSRI – Days' sales in receivable index in the t and t – 1 period.
2. GMI – Gross margin index as the ratio of gross margin and sales in the t and t – 1.
3. AQI – Asset quality index.
4. SGI – Sales growth index.
5. DEPI – Depreciation index.
6. SGAI – Sales and general and administrative expenses index.
7. LVGI – Leverage index of total debts to total assets in the t and t – 1.
8. TATA – Total accruals to total assets in the t-period.

M-score of less than -2.22 indicates that a company do not manipulate the financial statements in the accounting period. M-score

III: M-score, option A for the 1st and 2nd year

M-score for Media Vision		
The Full Beneish Model for earnings manipulation detection		
(Based on Eight Variables)		
Input variables	1st year	2nd year
Net Sales	78550	80200
Gross costs of Sales	47500	48944
Net Receivables	51055	100120
Current Assets (CA)	52305	104405
PPE(Net)	64681	117437
Depreciation	324	668
Total Assets	65005	118105
SGA Expense	500	500
Net Income (before taxes)	30576	31661
Cash flow from operations	0	2785
Current Liabilities	26905	48000
Long-term Debt	2000	2000

Source: Beneish Model, author

IV: M-score calculation, option A, in the 1st and 2nd year

DERIVED VARIABLES	1st year:	2nd year:
Other L/T Assets [TA-(CA+PPE)]	-51981	-103737
DSRI	0,521	
GMI	0,986	
AQI	0,910	
SGI	0,979	
DEPI	1,135	
SGAI	1,021	
Total Accruals/TA	0,470	
LVGI	1,050	

Source: Beneish Model, author

M-score calculation:

$M = -4.84 + .920 DSRI + .528 GMI + .404 AQI + .892 SGI + .115 DEPI - .172 SGAI + 4.679 \text{ Accrual to TA} - .327 \text{ Leverage}$

M-score
(8-variable model) -0,83

Note: $M > -2.22$, firm is likely to be a manipulator

V: *M-score, option C, in the 1st and 2nd year*

M-score for Media Vision		
The Full Beneish Model for earnings manipulation detection		
(Based on Eight Variables)		
Input variables	1.year	2. year
Net Sales	30550	31200
Gross costs of Sales	28711	26205
Net Receivables	2444	2496
Current Assets (CA)	3555	6405
PPE(Net)	13144	15889
Depreciation	1400	1442
Total Assets	15655	19505
SGA Expense	500	500
Net Income(before taxes)	2539	5150
Cash flow from operations	0	2785
Current Liabilities	2905	0
Long-term Debt	2500	3000

Source: Beneish Model, author

greater than -2.22 signals that the company will likely be a manipulator.

Beneish Model represents a different perspective on the manipulation of accounting data. When an entity reaches the M-score higher than -2.22 , calculated from the above eight variables, the model assumes that it is probable that the entity has manipulated accounting data for the accounting period or is strongly motivated to manipulate accounting data (Beneish, 2001).

Data processed by the above case study was verified in Beneish Model for the accounting period 1 and 2 for option A and option C.

Tab.IV revealed that an entity that pursues the objective of manipulating financial statements amounted the M-score of -0.83 , which is higher than -2.22 . According to this M-score, manipulation with the financial statements is likely in the 1st year. Beneish Model thus confirmed the CFEBT model, in conditions of Czech accounting regulations.

Tab. V revealed the financial data from the financial statements of a unit in the 1st and 2nd year for option C.

Tab.VI revealed that the entity that pursues the objective of achieving a true and fair view of the financial statements amounted the M-score of -2.26 , which is lower than -2.22 .

Beneish Model here confirms the CFEBT model with the fact that the entity is not a manipulator in the 1st year, in conditions of Czech accounting regulations.

VI: *M-score calculation, option C, in the 1st and 2nd year*

DERIVED VARIABLES	1. year	2. year
Other L/T Assets [TA-(CA+PPE)]	-1044	-2789
DSRI	1,000	
GMI	2,660	
AQI	0,466	
SGI	0,979	
DEPI	0,864	
SGAI	1,021	
Total Accruals/TA	0,162	
LVGI	2,245	

Source: Beneish Model, author

M = $-4.84 + .920 \text{ DSRI} + .528 \text{ GMI} + .404 \text{ AQI} + .892 \text{ SGI} + .115 \text{ DEPI} - .172 \text{ SGAI} + 4.679 \text{ Accrual to TA} - .327 \text{ Leverage}$

M-score (8-variable model) -2.26

Note: $M > -2.22$, firm is likely to be a manipulator

3 CONCLUSION

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

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 case study results for options A and C as obtained in the CFEBT model in the first and second years were compared with the M-score of Beneish Model. There was the same results in the Beneish Model.

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.

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.

SUMMARY

Essentially, financial statements must give a fair and true presentation to be employed in the corporate management and reporting checks. For most interest groups, accounting data remain one of the fundamental sources of information about companies. Accordingly, every interest group is bound to expect different values to fulfil its respective objectives. The accounting legislation must, therefore,

define certain limits of application of various accounting methods and procedures, as used by accounting units to represent their intentions. Such objectives, along with required values, are, as a rule, motivated in the particular approach to ratings of companies. The search for the most fitting representation of company ratings by form of a mathematical apparatus, decomposition of indicators and its subsequent usage on the basis of rather implausible numbers may not always bring with it a required accurate result.

Our paper is concerned with the query "how manipulated financial statement may be identified, or, as the case may be, if it is possible to recognize manipulated financial statements." This query, if answered, would considerably facilitate the position of not only financial statement users, but in particular, that of auditors, i.e. independent and professionally competent persons whose task is to enhance trust of users in financial statements.

The identification model CFEBT was designed to accommodate such purpose, which model is 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. The hypothesis was verified by the case study within the designed model CFEBT. Accounting and financial statements of an accounting unit in variant C was analysed, respecting a true and faith representation as defined by Czech accounting standards, for five accounting periods, in comparison with variant A, which included financial statements intentionally manipulated in pursuit of maximization of turnover and assets, for the identical accounting unit, and for five accounting units. Furthermore, our contribution verifies resulting accounting data of this case study in Beneish Model for the first and second years of variants A and C.

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, this representation, 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 (5–10%). Should such a deviation occur, the accounting unit ought to give a reliable explanation as to this discrepancy; contrariwise, its financial statements show a high rate of risk of manipulation in time.

The case study results for variants A and C as obtained in the CFEBT model in the first and second years were compared to the M-score of Beneish Model. The former was designed to identify risks of profit manipulation by Professor Messod Daniel Beneish, of Indiana University in Bloomington, for the accounting environment in the USA. Similarly, this model proved for the first and second years of variant A that in the context of Czech accounting standards, this model managed to identify financial statements with a risk of manipulation, and variant C considered, without a risk of manipulation. However, Beneish Model is based on an entirely different approach to manipulation with financial statements, mainly as regards risk motives that might have forced the accounting unit to manipulate its profit, or did force the accounting unit to do so. 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.

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