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Financial Health Of Original Company Year After Splitting Real Estate Property From Construction Company

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Abstract

Intention of the paper is to verify that the real estate assets transfer did not negatively influence financial health of the original construction company. Influence of company splitting (transfer of real estate assets) to financial health of the original company is tested with the usage of Altman´s and IN05 indexes. Verification is realized 1 year after splitting. Both indicators give similar results. From the calculation is visible that real estate transfer did not cause negative influence. The fact, that the real estate assets are not needed for core business of the original company, is probably one of the reasons.

Keywords

bankruptcy models; financial health; summary indexes

Introduction details

Intention of this paper is to verify one year after, that splitting real estate property from Construction Company did not negatively influence financial health of the original construction company.

Methodology details

Financial health of the company is measure by indicators (indexes). Summary Indexes are suitable for due to fact, that they involve several aspects in one index. These indexes are often called bankruptcy indexes.

Summary Indexes are calculated from the data extracted from Financial Statements (Balance Sheet, Profit and Loss Account, and Statement of CF). Indexes chosen in this paper speak mainly about profitability, liquidity and capital structure.

Altman´s index and index IN05 were used due to fact that splitting affected significant part of the Balance Sheet (outflow of significant part of fixed assets and retained earnings from previous periods).

*Altman´s analysis*

Altman´s analysis works with summary index called Z-score. Z-score is consisted from 5 indexes from the field of profitability, liquidity and capital structure (debt inclusive). Each sub-index received weight based on empiric research [4].

Usage of Altman´s analysis brought her improvement (one of the improvements is in differentiation between companies traded on capital market and not traded). Variant applicable for company staying outside the capital market is used in this paper.

Version of this model from 1983 is applicable for Czech environment.

Z-score formula is below [2]:

$Z=0,717\* X1 + 0,847\* X2 + 3,107\* X3 + 0,420\* X4 + 0,998\* X5$ (1)

 Where: X1 = Net working capital / total assets (NWC/TA)

 X2 = Retained Earnings from Previous Years/ total assets (RE/TA)

 X3 = EBIT / total assets (EBIT/TA)

 X4 = Booking value of shares / liabilities (S/L)

 X5 = Sales / total assets (S/TA)

The value of Z-score oscillates from -4 till +8

Criteria for evaluation are: Z > 2,9 financially strong company

 1,23 < Z < 2,89 some financial difficulties, unclear next trend

 Z < 1,2 bankrupt candidate

*Index IN 05*

*Mr. and Mrs.* Neumaier developed model analogical to *Altman ´s model, adjusted for Czech conditions with usage of* database of Ministry of Trade. Authors gradually developed models: IN95, IN99 a IN01 (numbers correspond to year when model was presented) [5]. It was chosen IN 05 foe verification in this paper.

*Index IN05 – formula for calculation*

$IN05= 0,13 x A/CK + 0,04 x EBIT/IC + 3,97 x EBIT/A + 0,21 x TR/A + 0,09 x OA/KRZ$ (2)

Where:

A = Assets

CK = Liabilities

EBIT = Earnings before interest and taxes

IC = Interest costs of liabilities

TR = Sales

OA = Current assets

KRZ = Short-termed liabilities

*Interpretation of IN05 results* [5]*:*

IN05 < 0,9 company does not create the value and moved towards the bankrupt (with probability of 86%)

IN05 > 1,6 company creates the value (with probability of 67%)

0,9 < IN05 < 1,6 twilight zone

If the company has low level of debts (or any debts), it is recommended to replace the ratio EBIT/IC by number 9 to get proper result.

*Indexes interpretation*

It is strongly recommended to interpret indexes in wider context (company insight, macroeconomic situation, industry, etc.).

Results details

*Introduction of case study (company situation)*

Verification is provided on middle sized construction company 1 year after splitting the real estate property from the company. Object of the splitting was real estate property, all assets related to this property and all contracts related to assets (employee contracts inclusive).

*Transferred part of the original company – definition*

Definition of transferred part was the object of Project Splitting by merger (in line with the Act no 125/2008 statue book about company transformation, as subsequently amended).

Transfer from the assets*:*

* Plants, Buildings, Equipment – net value

Transfer from the equity and liabilities:

* Retained earnings from the previous years
* Other long termed liabilities
* Deferred tax liabilities (related to transferred fixed assets)
* Deposits received (related to lease contracts)

*Splitting Consequences*

One company was replaced by two legal entities. The original company continues in construction business; the new one is concentrated on property and facility management. Both companies operate independently to each other and both generate profit (based on 2014 final and 2015 preliminary results).

*Verification - influence of real estate assets transfer to financial health of the original company*

Data from Financial Statements (2011, 2012, 2013, 2014) were used for summary indexes calculation.

1.1.2014 was defined as the Decisive day, so the main focus is concentrated between two dates, 31.12.13 and 31.12.14 (due to fact that specified assets, equity and liabilities were moved between this two dates).

From *Altman´s index calculation* (see Tab no 1 next) is clear that the process of splitting did not negatively influence the financial health of the original company, on contrary the Z-score increased from 1,42 to 1,62. This increase does not move the original company from the grey zone, but demonstrate improvement thanks to fact that Construction Company does not use transferred assets for own core business (sales and profit generation), so keeping of assets had negative effect to Z-score. This transaction also helped in assets optimization (keeping only assets that are useful for core business). One sub-part of the Z-score (X4) is slightly worse after splitting (due to fact that part of Retained Earnings from previous years had to be moved to balance the moved assets).

*IN05 index calculation (see Tab no 2 next)* gives similar results as Altman´s Z-score, it keeps the company before and after the process of splitting in grey zone (see Figure no 1).

*It is clear that the process of splitting the real estate assets (and all related assets, equity and liabilities specified above) from the construction company did not negatively influence the financial health of the original construction company.*

**Table 1: Z-score calculation (source: author)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |   | *Altman´s* |   |   |   |   |
|   | Altman´s index |   | *index* | 31.12.14 | 31.12.13 | 31.12.12 | 31.12.11 |
| X1 | NWC/TA |   | 0,717 | 0,3375 | 0,3381 | 0,2074 | 0,2504 |
| X2 | RE/TA |   | 0,847 | 0,0000 | 0,0716 | 0,0699 | 0,0755 |
| X3 | EBIT/TA |   | 3,107 | 0,0463 | 0,0449 | 0,0613 | 0,0754 |
| X4 | Equity/Liability |   | 0,42 | 0,2278 | 0,3700 | 0,3541 | 0,4061 |
| X5 | S/TA |   | 0,998 | 1,1395 | 0,8211 | 1,2381 | 1,3268 |
|  |  |  |  |  |  |  |  |
| Z | Altman´s index |   |   | 1,62 | 1,42 | 1,78 | 1,97 |
| Z > 2,9 | *Financially health company*, not in danger of bankruptcy in short period  |
| *1,23 < Z < 2,89* | *grey zone* – not clear decision related to financial health |
| Z < 1,23 | *Company is not financially healthy*, in danger of bankruptcy |  |

**Table 2: IN05 calculation (source: author)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IN index |   | *Index* | *31.12.14* | 31.12.13 | 31.12.12 | 31.12.11 |
|   |   | *IN05* |  |   |   |   |
| A/CK |   | 0,13 | 1,23 | 1,47 | 1,40 | 1,45 |
| EBIT/IC |   | 0,04 | 4,09 | 3,85 | 2,75 | 3,43 |
| EBIT/A |   | 3,97 | 0,05 | 0,04 | 0,06 | 0,08 |
| TR/A |   | 0,21 | 1,1143 | 0,8715 | 1,3948 | 1,4804 |
| CA/KRZ |   | 0,09 | 1,65 | 1,84 | 1,57 | 1,68 |
|  |  |  |  |  |  |  |
| Index IN05 |   |   | 0,890 | 0,871 | 0,970 | 1,087 |
| IN05 > 1,6 |
| 0,9 < IN05 < 1,6 |
| IN05 < 0,9 |

**Figure 1 – summary indexes Z-score, IN05 (source: author)**

Conclusion

The project of splitting was chosen as optimal solution for risk elimination and organizational improvement. One of the key demands of shareholders to project of splitting was to avoid negative influence on financial health of original company. It was verified based on financial results 1 year after the splitting that the project has not negative influence. The original company generates slightly higher profit and slightly improves summary indexes. One of the main reasons is that transferred property was not used for core business.

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