

DEFAULT RISK OF THE CONSTRUCTION COMPANIES IN RELATION TO THEIR FINANCIAL CONDITION

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Abstract

The construction industry is highly sensitive on economic cycle. So, construction companies have experienced hard times in the crisis period. The aim of the article is to identify, compare and evaluate financial position of companies with different payment habits in the Czech construction industry in the period 2008 – 2012 using individual data and suitable statistical methods (Kolmogorov-Smirnov test at the significance level of $\alpha = 0.05$). The article also focuses on evaluation of the default risk coming from construction companies. The overall financial condition is analyzed through prediction models IN05 and Altman's Z Score for emerging markets. Financial ratios of profitability, productivity, liquidity, indebtedness and turnover evaluate separately each area of financial situation. Based on the sample of 3 438 construction companies, the results show that payment habits increase with higher profitability (short-term and long-term), higher liquidity, lower debt ratio and higher liability turnover. Payment habits of construction companies could be better. Frequency analysis shows that 84.12 % of construction companies have proper, above-average or average payment habits with no later than 30 days delay in settlement of debt after maturity. However, 11 % of solvent companies have poor payments habits. Such companies are risky for their suppliers with respect to the secondary insolvency phenomenon.

Key words: Default risk, construction industry, secondary insolvency, payment morale.

Introduction

The construction industry is relatively risky business. It is highly sensitive on economic cycle. The global economic crisis has caused "domino effect" affecting construction companies worldwide. The public sector can support the construction industry through investment incentives. Regarding the year-on-year development of the Creditreform ranking of the construction industry, the situation was better in 2013 since the number of insolvency proceedings per 1000 registered companies fell from 3.46 (2012) to 2.12 (2013).

In the Czech Republic, the construction industry is one of the most threatened sectors. It is also relatively important sector of the economy, not only in the GDP (6.28 % in 2012) and employment (8.7 % in 2012) but also as the industry that improves the transport infrastructure. In the period 2008-2012, the number of terminations of companies in the construction industry increased three times. Although the economic recession has fully appeared since 2009, the sharp drop of the construction industry delayed one year because of long-term production cycle. The significant rise of the terminations of companies in the construction industry was in 2012. A decline of production in the construction industry has been for four years due to a lack of particularly large contracts that were previously funded from public sources. Thus, the large contracts had to be suspended or postponed (Dubská, 2013). The situation is getting slightly better. Nevertheless, output of the Czech construction industry is approximately by 25 % lower in 2014 than before 2008.

Business enterprises can go bankrupt either voluntarily (as a consequence of intentional acts of owners or managers), or involuntarily due to a decrease in demand for their product and services, or as a result of the inability or unwillingness of customers to pay invoices. Payment morale of business enterprises can be characterized either as insolvency or protracted default. Insolvency is the inability of a business enterprise to meet its obligations on time and in full (Kislingerová, 2009). In case of protracted default, the borrower has available resources but he is unwilling to pay obligations because he considers it as more beneficial for him (Kislingerová, 2009). An important task for the new Czech Insolvency Act is to strengthen the position of creditors who properly meet their obligations towards other parties and who simultaneously get into trouble due to the secondary insolvency (Štípek, 2013).

Payment behavior of companies is not only an important indicator of the financial situation but it also reflects business practices in each sector. Holečková (2008) states that operational risk of insolvency may be affected by (i) risk of failure to sell all finished goods or services and/or (ii) risk of inability to collect debts. Risk of failure to sell goods and services is often caused by drop in demand during the recession. Risk of inability to collect debt results from insolvency or protracted default of buyers and causes so-called secondary insolvency. The latter type of operational risk is assessed in the article.

Payment risk is a part of the risks in business relationships and arises due to the provision of trade credit (credit risk), as stated by Režňáková (2006). Debt and cash management are important tasks of the financial management (Tichý, 2006; Scholleová, Boukal, 2007; Nývtová, Marinič, 2010; Smejkal, Rais, 2013, Boukal, 2013). Jungmann and Sagemann (2011) reports that poor payment discipline of customers has perceived approximately one third of companies in the Czech Republic (34.4%) as the main cause of company crisis. Poor payment discipline of customers is the second most commonly reported reason of company crisis, just behind the drop in demand.

The aim of the article is to identify, compare and evaluate financial condition of construction companies with different payment behavior in the Czech Republic using company-level data during the period 2008 – 2012. The article also brings risk of secondary insolvency coming from the construction companies into special focus.

Material and methods

The financial indicators come from financial statement reports of the construction companies provided by Bisnode Company Ltd. in July 2014. Default risk is measured by default risk rating provided by the same company. The construction industry is defined as the group of businesses under the “F code” of the NACE rev. 2 classification. It includes 3 divisions:

- Construction of buildings (NACE 41);
- Civil engineering (NACE 42);
- Specialized construction activities (NACE 43).

Final dataset contains 3 438 construction companies with available financial statements and default risk rating in all years of the period 2008 – 2012. The sample represents most important construction companies in the Czech Republic. Small enterprises without obligation to publish financial statements are not included. The period 2008 – 2012 covers most serious crisis years of the construction industry in the Czech Republic (as well as other branches worldwide).

The financial statement analysis consists of the following indicators (the financial indicators are averaged through the period 2008 – 2012):

- a) Indicators of profitability and productivity:
 - Return on Assets (ROA) = EBIT/Total Assets;
 - Long-term Profitability = (Retained Earnings + Net Income After Tax)/Total Assets;
 - Share of total output per costs on material, energy and services.
- b) Indicators of the capital structure:
 - Debt Ratio = Total Debt/Total Assets;
 - Credit Debt Ratio = Bank Loans & Overdrafts/Total Assets.
- c) Indicators of liquidity:
 - Current Ratio (L3) = Current Assets/Current Liabilities;
 - Cash Ratio (L1) = Short-term Financial Assets/Current Liabilities.
- d) Turnover indicators:
 - Total Assets Turnover = Total Revenues/Total Assets;
 - Short-term Liability Turnover = Total Liabilities/Total Assets .
- e) Prediction models:
 - Index IN05;
 - Altman’s Z Score estimated for emerging markets (1999, published 2000).

IN05 formula for predicting bankruptcy was published in 2005 by Inka and Ivan Neumaier. The formula may be used to predict the probability that a firm will go into bankruptcy within next years. The IN05 was developed especially for Czech companies. It is similar to Altman’s models but it uses different equation parameters (weights). The IN05 is a linear combination of five common business ratios, weighted by coefficients. The coefficients were estimated by identifying a set of firms which had declared bankruptcy and then collecting a matched sample of firms which had survived, with matching by industry and approximate size (assets). The formula is defined as follows.

$$IN05 = 0.13 \cdot \frac{A}{L} + 0.04 \cdot \frac{EBIT}{I} + 3.97 \cdot \frac{EBIT}{A} + 0.21 \cdot \frac{O}{A} + 0.09 \cdot \frac{CA}{(SL + SBL)} \quad (1)$$

where

- A – Total Assets;
- L – Total Liabilities;
- EBIT – Earnings before Interests and Taxation;
- I – Interest Paid;
- O – Total Output (sum of all revenues);
- CA – Current Assets;
- SL – Short-term Liabilities;
- SBL – Short-term Bank Loans.

- IN05 > 1.6 - “Safe” zone
- IN05 < 0.9; 1.6 > - “Grey” zone
- < 0.9 - “Distress” zone

Index IN05 and Altman’s Z Score have the highest prediction reliability for the Czech construction companies (Maňasová, 2008; Čámská, Hájek, 2012; Čámská 2013; Machek, 2014).

The final dataset of 3 438 construction companies results from original dataset of 3 722 companies. The original dataset underwent cleaning process. Extreme values and outliers are removed both visually and by T² test based on Mahalanobis distance (Hendl, 2012) of each point from the variable means simultaneously using all above mentioned financial indicators (e. g. multivariate outlier).

The formula for T^2 is

$$T_i^2 = (n-1)(X_i - \bar{X})' \left[(X - \bar{X})(X - \bar{X})' \right]^{-1} (X_i - \bar{X}) \quad (2)$$

The following mathematical relationship between the T^2 and the F-distribution is used to calculate the probability levels:

$$T_{p,n,\alpha}^2 = \frac{p(n-1)}{(n-p)} F_{p,n-p,\alpha} \quad (3)$$

As the number of variables, p , approaches the sample size, n , the denominator degrees of freedom approaches zero. As $n-p$ approaches zero, the power of the test also approaches zero. The threshold $\alpha = 0.05$ is applied in this article for detection of extreme values and outliers.

Default risk of the construction companies is measured by default risk rating provided by Bisnode Company Ltd. Bisnode checks set of invoices in many companies including construction companies. Information about payment habits are surveyed directly from companies. The primary source of data about payment habits are invoices for goods sold or services rendered. So, it is possible to get an overview of how many days after / before the maturity companies pay their obligations. Moreover, Bisnode compares the payment behavior of individual companies with the industry values. Based on the assessment of individual payment habits of each company, Bisnode calculates the payment index which takes the form of credit rating marks, similar to the rating codes used by international rating agencies. For the purposes of this article, the rating scale by company Bisnode is reduced to three basic clusters according to the following scheme (Table 1). The reason for this reduction is a small number of subjects in some Bisnode rating classes, especially in classes with poor payment habits.

Table 1. Classification of payment habits and sample size in each class (Source: Bisnode, modified by author)

Bisnode default rating	Default (days after maturity)	Reduced classes
A – properly	0	A (N = 1294)
B1 – above-average	1 – 15	B (N = 1598)
B2 – average	16 – 30	
B3 – below-average	31 – 45	
C1 – tardy	46 – 60	
C2 – tardy	61 – 75	
C3 – tardy	76 – 90	
D1 – late	91 – 120	
D2 – late	121 – 150	
D3 – late	151 – 180	
E1 – extremely late	181 – 240	C (N = 546)
E2 – extremely late	241 – 300	
E3 – extremely late	> 300	

The comparison of differences in financial condition among the three groups (A, B, C) is the main goal of the article. Analysis of variance (ANOVA) should be the best method how to do it. However, the sample does not meet assumptions of ANOVA:

- The data are continuous (not discrete). ACCOMPLISHED;
- The data follow the normal probability distribution. Each group is normally distributed about the group mean. NOT FULFILLED. Tests of skewness, kurtosis, and omnibus test allowed testing the skewness, kurtosis, and overall normality of the data. If any of them reject the hypothesis of normality, the data should not be considered normal;
- The variances of the populations are equal. NOT FULFILLED. The modified Levene test has been chosen as tests for equality of variances;
- The groups are independent. There is no relationship among the individuals in one group as compared to another. ACCOMPLISHED;
- Each group is a simple random sample from its population. Each individual in the population has an equal probability of being selected in the sample. ACCOMPLISHED.

Since the sample does not meet assumptions for ANOVA, there is a need for two-sample comparisons using Kolmogorov-Smirnov test (K-S test). Two-sample K-S test is a nonparametric test of the equality of continuous, one-dimensional probability distributions that can be used to compare distance between the empirical distribution functions of two samples. The null distribution of this statistic is calculated under the null hypothesis that the samples are drawn from the same distribution. The research hypotheses about indicators are:

- H1: Size of construction companies with better payment habits is significantly higher than size of construction companies with worse payment habits;
- H2: Profitability and productivity of construction companies with better payment habits are significantly higher than profitability and productivity of construction companies with worse payment habits;
- H3: Debt ratios of construction companies with better payment habits are significantly lower than debt ratios of construction companies with worse payment habits;
- H4: Liquidity of construction companies with better payment habits is significantly higher than liquidity of construction companies with worse payment habits;
- H5: Total assets turnover of construction companies with better payment habits is significantly higher than total assets turnover of construction companies with worse payment habits;
- H6: Short-term liability turnover of construction companies with better payment habits is significantly higher than short-term liability turnover of construction companies with worse payment habits.

The article also considers features of specific group of construction companies with favorable financial conditions (according to the IN05 and Altman's Z Score) and poor payment habits. Such companies with obvious reluctance (not failure) to meet obligations are very risky for their suppliers - they could accidentally enter into secondary insolvency.

Results

Table 2 provides statistical information about total assets, equity and prediction models IN05 and Altman's Z Score. The differences between pairs are evaluated by the Kolmogorov-Smirnov test at the significance level $\alpha = 0.05$.

Table 2. Basic description of the sample (Source: author)

Indicator	Description	Group A	Group B	Group C
Total turnover (thousand CZK)	Mean	52,695.9	151,553.6	71,898.5
	Median	14,287.0	57,286.2	30,727.2
	Standard deviation	317,895.1	999,976.9	126,516.4
	Sig. difference ($\alpha = 0.05$)	A < B, B > C, A < C		
Equity (thousand CZK)	Mean	19,291.3	41,884.1	11,872.5
	Median	2,694.2	4,5397	3,117.0
	Standard deviation	191,200.0	289,570.7	30,055.7
	Sig. difference ($\alpha = 0.05$)	A < B, B > C		
IN05	Mean	21.985	20.386	6.591
	Median	21.793	20.285	11.441
	Standard deviation	53.477	43.292	40.173
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		
Altman's Z Score	Mean	37.728	35.161	10.875
	Median	37.514	34.619	19.166
	Standard deviation	91.568	74.195	69.013
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		

The group B contains companies with the largest size on average. The group B has higher total turnover and equity than groups A and C. Alternatively, there is a difference between size of the groups A and C from the turnover and equity point of view. Group C has higher total turnover than group A but group A has higher equity than group C. It is caused by negative equity of many companies in group C (11.36 %) because companies with poor payment habits are often overburdened with debt. Prediction models IN05 and Altman's Z Score clearly show that better payment habits are linked with better financial condition. There is the deepest gap in financial condition between group B and group C. So, the poor payment habits are associated with significantly worse financial conditions. Following tables provide more detailed information about differences in financial condition between groups.

Table 3 shows differences in profitability and productivity of the construction companies with respect to their payment habits. Since the indicator ROA has the highest weight in both prediction models, it is not surprising that default risk rating is better in the group of companies with better financial condition. Moreover, the positive relationship between payment habits and profitability is confirmed by long-term profitability and overall productivity of material, energy and services. The important finding is that the default risk is influenced not only by short-term profitability but also by long-term ability of construction companies to generate profit. The default risk can rise from failure to meet obligations as a consequence of low profitability. However, more detailed analysis of the group C is needed to identify companies with obvious reluctance to meet obligations. Before that, the remaining six financial indicators are evaluated.

Table 3. Results of profitability and productivity analysis (Source: author)

Indicator	Description	Group A	Group B	Group C
ROA (%)	Mean	5.192	4.864	1.464
	Median	5.214	4.849	2.599
	Standard deviation	13.357	10.831	10.041
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		
Long-term profitability	Mean	30.116	26.765	13.060
	Median	34.657	28.198	13.026
	Standard deviation	40.046	34.414	31.369
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		
Total output per costs on material, energy and services	Mean	1.827	1.759	1.590
	Median	1.449	1.400	1.339
	Standard deviation	1.569	1.371	1.271
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		

Table 4 provides information about differences of liquidity ratios, debt ratios and turnover.

Table 4. Results of liquidity, debt and turnover ratios (Source: author)

Indicator	Description	Group A	Group B	Group C
Debt Ratio (%)	Mean	55.332	60.146	75.915
	Median	48.851	57.957	75.351
	Standard deviation	37.117	31.491	29.158
	Sig. difference ($\alpha = 0.05$)	A < B, B < C, A < C		
Credit Debt Ratio (%)	Mean	6.150	7.721	12.048
	Median	1.032	2.813	8.868
	Standard deviation	10.509	10.803	11.721
	Sig. difference ($\alpha = 0.05$)	A < B, B < C, A < C		
Current Ratio	Mean	3.304	2.250	1.456
	Median	1.902	1.567	1.119
	Standard deviation	4.123	2.329	1.449
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		
Cash Ratio	Mean	1.520	0.826	0.336
	Median	0.579	0.358	0.153
	Standard deviation	2.530	1.559	0.725
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		
Total Assets Turnover	Mean	2.333	2.376	2.309
	Median	2.072	2.116	2.158
	Standard deviation	1.346	1.254	1.099
	Sig. difference ($\alpha = 0.05$)	A < B, B > C, A > C		
Short-term Liability Turnover	Mean	8.831	6.397	4.272
	Median	6.177	5.008	3.498
	Standard deviation	9.407	5.330	3.615
	Sig. difference ($\alpha = 0.05$)	A > B, B > C, A > C		

Companies with lower default risk have lower debt ratio and use less share of bank loans. The recommended maximum level of debt ratio is 50 %, the mean debt ratio of the group C is 75 %! The chief cause of poor payment habits of companies in the group C is a combination of high debt ratio and relatively low profitability. So, such companies are often unable to meet their obligations towards banks and other creditors. The current ratio and cash ratio are higher in the group of companies with lower default risk. The companies in the groups A and B have more conservative short-term financial management and their mean liquidity often exceeds the top threshold of recommended liquidity level. The higher level of current assets creates “safety financial pillow” against abrupt financial distress. Last but not least, companies with higher default risk have higher short-term liability turnover. In other words, the higher default risk is closely associated with longer short-term liability turnover in days.

Let's move towards the more comprehensive analysis of group C. It is interesting to find out potential discrepancy between financial condition and default risk (Tables 5 and 6).

Table 5. Contingency table of default risk rating and prediction of financial distress (index IN05) (Source: author)

Default risk rating	“Distress” zone	“Safe” zone	“Grey” zone	Total
A	8.76%	28.65%	0.23%	37.64%
B	10.33%	35.86%	0.29%	46.48%
C	4.74%	11.02%	0.12%	15.88%
Total	23.82%	75.54%	0.64%	100.00%

Table 6. Contingency table of default risk rating and prediction of financial distress (index Z Score) (Source: author)

Default risk rating	“Distress” zone	“Safe” zone	“Grey” zone	Total
A	8.81%	28.62%	0.20%	37.64%
B	10.06%	35.95%	0.47%	46.48%
C	4.62%	11.02%	0.23%	15.88%
Total	23.50%	75.60%	0.90%	100.00%

The results of two prediction models are very similar. About 75 % companies are ranked in “safe” zone which means that there is low probability of bankruptcy. Alternatively, slightly less than one quarter of the sample has bad financial condition and risk of bankruptcy in that group is relatively high. An important finding is that majority of companies in the “distress” zone has default rating B, not C. So, bad financial condition does not instinctively mean bad payment morale. Moreover, the sample of construction companies includes about 8.8 % companies in “distress” zone with proper payment habits.

The analysis revealed very interesting information that 11 % of companies in the “safe” zone have poor payment habits and high default risk. So, every ninth company has theoretically reluctance to meet obligations despite it is not in “distress” zone. However, such conclusion has to be properly verified in the next part of the article.

The group of construction companies in the “safe” zone with high default risk (C) consists of 379 enterprises. The group is hereinafter referred to as “risk group”:

- B3 34.56 %
- C1 24.54 %
- C2 13.46 %
- C3 7.65 %
- D1 6.33 %
- D2 5.01 %
- D3 2.37 %
- E1 3.17 %
- E2 0.79 %
- E3 2.12 %

More than 50 % of risk group has default risk rating B3 (31 – 45 days after maturity)/C1 (46 – 60 days after maturity). Relatively high share of risk group has default risk rating C3 (61 – 75 days after maturity). More than 6 % of the risk group has the lowest default risk rating E – there are companies with extremely bad payment morale (more than 180 days after maturity). It indicates that payment habits in the risk group are quite poor. The risk group can be described as a group of construction companies focused on construction of buildings and specialized construction activities (more 87.37 %). Civil engineering is a minority of the sample. The structure of risk group slightly differs from the total sample of 3 438 companies – there is a higher share of companies specialized in construction of buildings in the risk group (47.23 %) than in the total sample (42.58 %).

Table 7. Structure of risk groups (Source: author)

NACE Code	Risk group (N = 379)	Total (N = 3 438)
41	47.23 %	42.58 %
42	12,66 %	10.91 %
43	40,11 %	46.51 %
Total	100.0 %	100.0 %

The foregoing analysis revealed that companies in the group C have high debt ratio and relatively low return of assets. So, it is interesting to check risk group of 379 with respect to the relationship between indebtedness and profitability (ROA).

Figure 1 shows 19 companies with very good profitability (above 10 %) and debt ratio under 50 % in the risk group. So, such companies are able to cover costs of debt service without serious problems. Of course, there are many companies in the risk group with high debt ratio and relatively low profitability. Such companies can have true problems with debt service coverage.

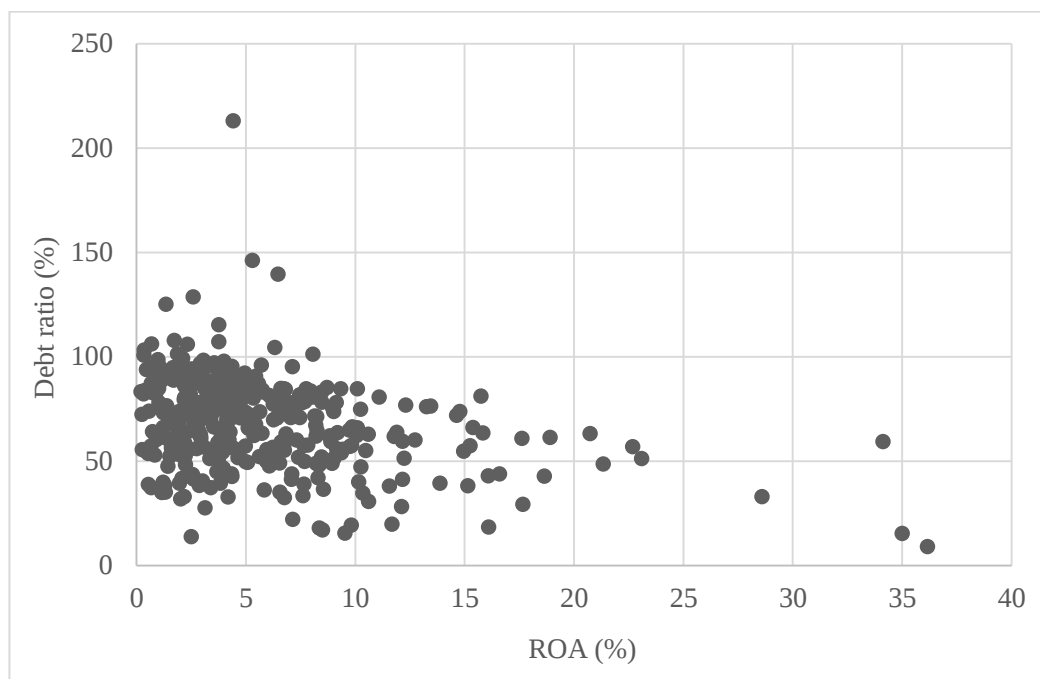


Figure 1. The relationship between debt ratio and ROA (N = 379) (Source: author)

Figure 2 provides more interesting information. In the risk group, the companies with default rating E (more than 180 days after maturity) have the highest average level of index IN05.

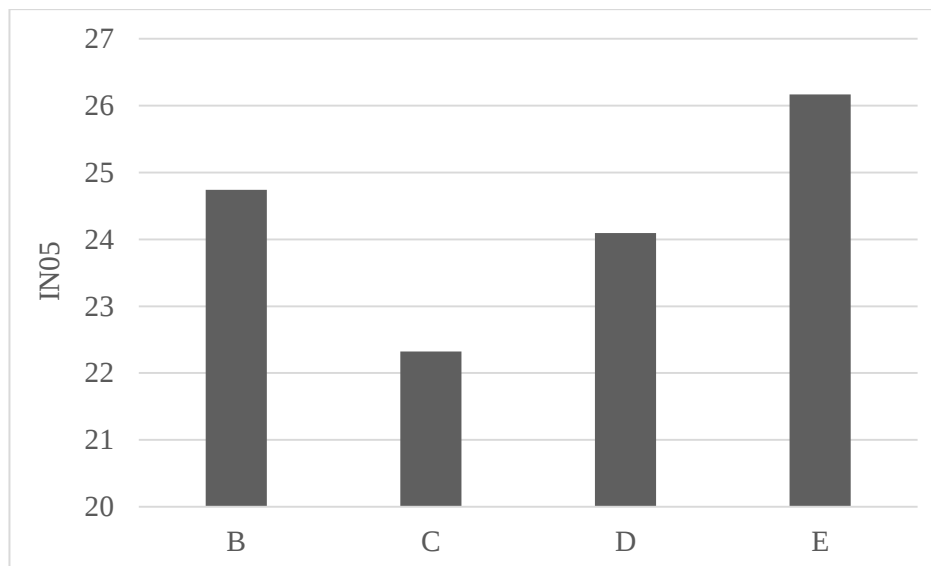


Figure 2. Frequency distribution of IN05 by default risk rating in the risk group (N = 379) (Source: author)

The same result is available for Altman's Z Score. It indicates that there are really companies with unwillingness to meet obligations. Such companies establish risk business environment because they cause financial problems for their suppliers (known as secondary insolvency). One of the incentive for improper business dealings can be improvement of cash flow (through deferring payments).

Conclusions

The aim of the article is to identify, compare and evaluate financial condition of construction companies with different payment behavior in the Czech Republic using company-level data during the period 2008 – 2012. Results are based on secondary data from financial statements and default risk rating provided by Bisnode Company Ltd.

Payment morale of the construction companies in the Czech Republic depends on the condition of the sector and economic cycle. The descriptive statistics show that 84.12 % of construction companies have proper, above-average or average payment habits with no later than 30 days delay in settlement of debt after maturity.

Results of the analysis confirm that construction companies with lower default risk (i. e. better payment morale) have lower probability of going bankrupt (higher IN05 and Altman's Z Score). Moreover, the statistical hypotheses testing reveals that companies with lower default risk have higher profitability and productivity (H2), lower debt ratio and credit debt ratio (H3), higher current and cash ratio (H4) and higher short-term liability turnover (H6). Two hypotheses are not confirmed. The size of construction companies with better payment habits is not significantly higher than size of construction companies with worse payment habits (H1). The largest companies operate in group B with above-average or average payment index. Large construction companies taking advantage of their market power can afford to delay payments to the suppliers but not longer than of 30 days after maturity. Hypothesis H5 is also not fully confirmed.

The frequency analysis reveals two extreme clusters in the sample of construction companies. On the one hand, there are companies with poor financial conditions ("distress" zone according to the IN05 and Altman's Z Score) and proper payment behavior (default rating A). On the other hand, there are 11 % companies in the "safe" zone with poor payment habits and high default risk. The more comprehensive analysis of the latter group (379 enterprises, "risk group") indicates that there are companies with real problems to cover costs on debt service (high debt ratio, low profitability) as well as companies with no objective reason for poor payment behavior (low profitability, high debt ratio). In the risk group, the companies with default rating E (more than 180 days after maturity) have the highest average level of index IN05 and Altman's Z Score. Such companies deliberately establish risk business environment towards their suppliers.

The article shows that financial ratios and prediction models are indeed effective tools for evaluating and predicting the financial situation of companies. Payment morale classified by default risk rating is an appropriate indicator illustrating the behavior of firms in the whole vertical.

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ĮSIPAREIGOJIMŲ NEVYKDYMO RIZIKA STATYBOS ĮMONĖSE ATSIŽVELGIANT Į JŲ FINANSINĘ SITUACIJĄ

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Santrauka

Statybų sektorius yra jautrus ekonomikos ciklo pokyčiams, tad krizės laikotarpiu statybos įmonės susidūrė su dideliais sunkumais. Šio straipsnio tikslas yra nustatyti, palyginti ir įvertinti Čekijos statybų sektoriaus įmonių su skirtingais atsiskaitymo įpročiais finansinę situaciją 2008-2012 m. Tyrimui naudojami atskirų įmonių duomenys ir tinkami statistiniai metodai (Kolmogorovo-Smirnov testas su 0,05 reikšmingumo lygmeniu). Straipsnyje vertinama statybos sektoriaus įmonių bankroto rizika. Įmonių finansinė būklė vertinama skaičiuojant pelningumo, efektyvumo, likvidumo, įsiskolinimo ir apyvartumo rodiklius ir naudojant IN05 ir Altman Z prognozavimo modelius besivystančioms rinkoms. Ištyrus 3438 statybos įmones nustatyta, kad jų atsiskaitymo įpročiai gerėja didėjant pelningumui (trumpalaikiam ir ilgalaikiam), didėjant likvidumui, mažėjant skolos rodikliui ir didėjant įsipareigojimų apyvartumui. Nepaisant to, statybos sektoriaus įmonių atsiskaitymų įpročiai turėtų būti geresni. Dažnumo analizė atskleidžia, kad 84,12 proc. statybų sektoriaus įmonių būdingi tinkami, geresni nei vidutiniai ar vidutiniai atsiskaitymų įpročiai su ne vėlesniu kaip 30 dienų atsiskaitymo vėlavimu. Nepaisant to, 11 proc. mokių įmonių būdingi prasti atsiskaitymų įpročiai. Tokios įmonės yra rizikingos tiekėjams dėl šalutinio nemokumo reiškinių.

Reikšminiai žodžiai: įsipareigojimų nevykdymo rizika, statybų sektorius, šalutinis nemokumas, atsiskaitymų moralė.