MAIN FOREIGN COMPANIES
AND THEIR STRATEGY WITHIN
THE CZECH CONSTRUCTION MARKET

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Summary

This study describes the behavior of four important international construction companies within the Czech construction market. The chosen companies are following: SKANSKA CS, STRABAG, HOCHTIEF CZ and OHL ZS. The theoretical part of this paper dissertates about various methods suitable for market analyses, such as strategic maps or Porter’s diagram and foreign market entry modes in general.

The practical part begins with the general description of the Czech construction market and its history. The SWOT analysis of the Czech construction market also anticipates the future development of the Czech construction market in following five years.

The next chapters are devoted to the detailed description of chosen companies. The history and profile of the chosen international concerns and of the traditional Czech companies are described in this chapter. This part also characterizes the takeovers of Czech companies by international concerns of SKANSKA CS, STRABAG, HOCHTIEF CZ and OHL ŽS and their following development on the Czech construction market.

From the detailed description, economic data with the most predicative significance were chosen. This data was subsequently compared in the penultimate part of the study. The Economic data such as sales, profit, return on sales, number of employees, sales on employee and growth of the companies are significant for the comparison. The graphs clearly show the development of the companies since 2000.

The results of the analyses are concluded in the last chapter, which also contains a suggestion for the possible future research.

Key words: Czech construction market, competition, market entry, strategy
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1. Introduction

1.1. Problem background

The Czech construction industry has had a long and strong tradition, which was significantly influenced by central planning economy, which had been in the Czech Republic (former Czechoslovakia) until the beginning of 1990s. After the “Velvet revolution” in 1989, the Czech Republic started to transform from central planning economy to free market economy. The beginning of 1990s was disorganized. Companies owned by the state became private. But not all new private owners were able to manage their company effectively and afterwards the companies went bankrupt. During the 1990s the most successful companies started to strengthen their positions on the market. During this period the Czech construction market was being observed by international construction concerns. Around the year 2000 the Czech construction market started to rise and develop very fast, which was a great time for the international concerns to expand into the Czech Republic.

1.2. Research purpose

The purpose of this study is to investigate an approach of different construction companies when entering the Czech construction market and their future operating in it. The goal is to compare their behavior, find out which company operated more efficiently and consequently try to define the best strategy being used in such situations, taking into consideration the market trends as well.

1.3. Research question

Bearing in mind the topic background and the research purpose previously mentioned, the research questions were defined as:

Which strategy did the analyzed companies choose to enter the Czech construction market with?
What strategy did they implement to improve their performance on the market?
What is their strategy for further successful performance within the market?

1.4. Delimitations

This case study is limited to four construction companies, which belong among the biggest players on the market. The choice of those specific companies was influenced especially by the possibility of access to necessary data and information that would be relevant for the analyses. That is the reason why the analyzed companies are not the biggest ones available. On the other hand it resulted in describing companies across the top 10 industrial ranking.

Whatever company would have been chosen, there is still one dissimilarity affecting the analyses – different period of the companies’ market entry. On the other hand, however, this fact influenced the here-mentioned analyses, it is still what is mentioned in the introduction chapter – competition advantage.
1.5. Disposition

Chapter 1 – Introduction
The introductory chapter discusses briefly the subject of the study – the questions to be answered and the problem background and delimitations that occurred during the research.

Chapter 2 – Research methodology
This chapter presents the research method and approach to be used and ways how the necessary data were collected.

Chapter 3 – Theoretical framework
In this chapter a theoretical background relating to this study is presented; this is used for the analyses contained in this study later on. This chapter includes different sample methods for industry analyses both for external and internal analyses. Distinction between basic foreign market entry modes is involved in this chapter too.

Chapter 4 - Description of the market and sample companies
This chapter contains the overall description of the Czech construction market followed by brief descriptions of the four chosen companies to be analyzed.

Chapter 5 – Data analysis
The afore described data concerning the market in general and the specific analyzed companies are analyzed in this chapter. The analyses are mainly based on the findings based on the theoretical framework.

Chapter 6 – Conclusions
The final chapter concludes the findings gotten through the data analyses. The findings are compared with the research questions given at the very beginning, so that these can be answered.
2. Research methodology

2.1. Choice of subject

Since the Czech construction industry has performed boom in recent 15 years and due to many changes that caused opening of the Czech market to foreign markets, many foreign companies have come to seize the opportunity and operate on it. Since all of the authors have been civil engineering students, have experienced that period and are in close contact with the everyday life running on the market while working for construction companies, they have decided to do a research about it; about the foreign companies coming on the market – how they entered it, what was their approach to settle on it and penetrate it. No previous research on similar topic has been found, and they were curious about finding out more about this theme.

2.2. Preconceptions

In this study, the preconceptions are based on the knowledge of the authors reflecting their education, i.e. masters study of management in civil engineering, their working experience within construction companies operating on the Czech construction market, and last but not least the fact that they have been living their lives in the Czech Republic, observing the overall continuous progress. They assumed that without having the appropriate knowledge of the previous and current situation on the market, it would have been much harder to analyze it. On the other hand, this fact might have impacted their approach not to be absolutely open-minded and independent.

2.3. Research approach

Basically, there are two broad research approaches usually used when conducting a study: deductive and inductive.

The deductive approach, also called top-down, begins with a theory and through surveys it tries to find results, which either do or do not align with the hypothesis. This method emphasizes scientific principles and concentrates on quantitative and valid data to explain causal relationship between variables.

In contrast, the inductive approach, also called bottom-up, tries to develop a new theory through particular observations, which are more open-ended. This approach involves qualitative data and has less concerns with the need to generalize.

This thesis, in order to find answers for the research questions, the deductive scientific approach has been used. The research uses general theories to define results that can prove hypotheses, to find out a relationship between theory and the survey itself.
2.4. Research method

Research method is defined as a group of techniques that can be used for the investigation. Depending on the research objective or data availability, qualitative or quantitative methods can be recognized. The main difference between these two methods is the principle of data collection. In a simple way, the qualitative method deals with words while the quantitative method deals with numbers. In more complex words, the qualitative method deals with exploratory and inductive theory, while quantitative method involves confirmatory and deductive approach. This method gives answers for following questions: how much, how often, in what proportion, in what volume etc.

To answer the research question of this study, data mostly involving numbers and the overall analysis based on existing general theories have been used. Considering these presumptions, it is obvious that the quantitative method has been used for this study.

2.5. Data collection

Generally, two basic types of data can be recognized when doing a research: primary and secondary data.

Primary data involves information that has never been generated before; they are also called first-hand information. Such data is gained from diverse observations and monitoring, and in addition usually needs some professional interpretation to be valuable for non-professionals.

Secondary data, in the contrast, are characterized by the fact that they have been already generated by other researchers. Secondary data are usually something written about the primary source, including comments and interpretations of the original material. They are also called second-hand information.

In this study, mostly secondary data has been used, represented by statistics from the Czech statistical office or official data provided by the companies on their web sites, such as annual reports or written policies. All these data have been considered as meaningful and valid for the research purpose. Primary data used in this study come mostly from companies’ web sites or from interviews with different witnesses and concerned people.
3. Theoretical framework

3.1. Key words

Industry - group of productive organizations that produce or supply similar goods, services, or sources of income, (Britannica.com)

Construction industry - Sector of national economy engaged in preparation of land and construction, alteration, and repair of buildings, structures, and other real property, (BusinessDictionary.com)

Competition (economics) - intra- or intermarket rivalry between or among businesses trying to obtain a larger piece of the same market share, (Britannica.com)

Strategy – elaborate and systematic plan of action resulting to accomplish a specific goal, (Britannica.com)

Market - actual or conceptual place in commercial world where forces of demand and supply operate, and where buyers and sellers interact to trade goods, services, or contracts or instruments, for money or barter; market for a particular item is made up of existing and potential customers who need it and have the ability and willingness to pay for it, (BusinessDictionary.com)

Market leader - brand, product, or firm that has the largest percentage of total sales revenue (the market share) of a market, (BusinessDictionary.com)

Barriers of entry – economic, procedural, regulatory, or technological factors that obstruct or restrict entry of new firms into an industry or market, (BusinessDictionary.com)

Acquisition - taking control of a firm by purchasing 51 percent (or more) of its voting shares. (BusinessDictionary.com)

3.2. Industry Analysis

3.2.1. External environment analysis

ANALYSIS OF ECONOMIC CHARACTERISTICS

An analysis of economic characteristics of the industry is very important for definition of industry itself. This method is used especially during the decision process concerning the industry entry.

This analysis should cover:

- market size,
- intensity of rivalry among competitors,
- intensity of market grow,
- phase of life cycle,
- number of companies in the industry,
- customers,
- degree of vertical integration,
- difficulty of entry to the industry,
- technologies/ innovations,
- products portfolio,
- switching costs,
- profitability of the industry,
- load of capacities.

When analyzing structure of the industry branch, it is essential to consider also determinants of supply and demand.

The main features effecting supply are:

- raw materials,
- technologies,
- man power,

The main features effecting demand are:

- price elasticity of products and services,
- periodical characteristics of demand,
- purchase methods.

**PORTER'S DIAGRAM**

The essence of creating a competitive strategy is related to the company’s environment. Industry structure strongly influences determination of the competitive rules of the game and also the available strategies for the company. Forces outside the industry usually have an effect on all firms in the industry\(^1\).

The state of competition in the industry depends on five basic competitive forces which are described by Porter’s model of five forces (see Figure 1).

---

The five competitive forces - entry, threat of substitution, bargaining power of buyers, bargaining power of suppliers and rivalry among current competitors – reflect the reality that the competition does not affect only the established players. Customers, suppliers, substitutes and potential entrants all represent competitors to the company in the industry and could be more or less important depending on the particular circumstances. The strongest force or forces determinate the strategy formulation. Different forces take on prominence in shaping competition in each industry.

**Threat of entry**

New entrants bring new capacity, new ideas, the desire to succeed in the market and often substantial resources. Diversifying companies from other industries use their funds to create a “shake-up” as for example Davidoff with his cigarettes.

The threat of entry relies on the present barriers to entry and on the reaction of existing competitors that the newcomer can expect.

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Barriers to entry are unique industry characteristics that define the industry. From a strategic point of view, the barriers can be created and exploited to enhance the firm’s competitive advantage.

Barriers to entry arise from different sources:

- product differentiation,
- capital requirements,
- switching costs,
- access to distribution channels,
- cost disadvantages independent of scale,
- government policy.

**Intensity of rivalry among existing competitors**

Rivalry among existing competitors occurs due to tendency of each competitor to improve its competitive advantage. The intensity of rivalry varies across industries and strategic analyses are interested in these differences. If rivalry among firms in one industry is low, this industry is considered to be disciplined. The intensity of rivalry is based on the firms’ aggressiveness in attempting to gain the competitive advantage.

Rivalry becomes more intensive in following cases:

- numerous or equally balanced competitors,
- slow industry growth,
- diverse competitors,
- capacity augmented in large increments,
- lack of differentiation or switching costs,
- high exit barriers,
- high strategic stakes.

**Pressure from substitutes**

The threat of substitutes exists when the product’s demand is influenced by the price change of substitute product. The impact on industry is typically the price competition. Close substitutes limit the capacity of firms to raise prices. Identifying the substitutes is a method how to find other products that can perform the same function as the current product.

Substitute products that deserve the most attention are those that:

- offer better satisfaction by innovations of current products,
- are produced by industry with higher profits.

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3 SÖLVELL, Ö (1987), *Entry barriers and foreign penetration*, Stockholm school of economics, p. 38

Bargaining power of buyers

The power of the buyer groups is the impact that customers have on a producing industry. It depends on a number of market characteristics and on the relative importance of its purchases from the industry compared with its overall business. Buyers can influence the industry by demanding higher quality, more services and lower prices.

Buyers are powerful if:

- they are concentrated or they make a large volume purchase,
- product is standardized or not undifferentiated,
- product represents an important fraction of the buyers’ purchases,
- profit of suppliers is low,
- product is unimportant to the quality of the buyer’s products and services,
- they pose a credible possibility of forward integration,
- they have full information.

Bargaining power of suppliers

Suppliers can demonstrate their power by increasing prices or reducing quality of purchased goods and services. Power of suppliers depends on different features that determinate the position on the market and their importance.

Suppliers are powerful if:

- they are concentrated,
- supplied product is unique or is an important input to the buyers’ business,
- industry is not an important customer,
- they pose a credible possibility of forward integration,
- supplies are independent on other supplies from different industries.

STRATEGIC MAPS

Strategic maps represent an important part of the industry analysis. The strategic map shows the position of the company in the industry and also the position amongst other competitors. It gives an overview of the whole industry.

There are several possible methods for how to create a strategic map. One of them is described below⁵:

- the first step is defining the important characteristics which you want to measure and choose two of them (e.g. quality of services and specialization),
- the second step is marking these characteristics in relation on axes x and y,

⁵ TICHÁ, I., HRON, J. (2005) Strategické řízení, Česká zemědělská universita v Praze, p. 86
the third step is measuring for each company and drawing the position of company in the chart,
- the capacity of the company is shown by the size of the gap.

**ANALYSIS OF COMPETITORS**

This analysis follows the strategic maps and its objective is to evaluate and interpret the competitive position of the companies on the market and to recognize the key players on the market and the rest of competitors. Suitable strategy can not be formulated in vacuum without taking into consideration the competitor’s strategy and its role.

It is necessary to estimate (or determine) following attributes for each competitor:

- market share,
- sales,
- quality advantage,
- technological advantage,
- cost advantage,
- specific service or product,
- marketing strategy (pricing policy),
- supply basis,
- distribution channels,
- exposure next year(s).

Processing the above described analysis results in getting a global picture of a current situation in the industry. This shows a possible way how to gain a competitive advantage on the market. After analyzing the external features of the market, the next step is to analyze the internal situation in the company itself.

3.2.2. Internal environment analysis

**RESOURCES AND COMPETENCES ANALYSIS**

Resources and competences are the basis of the firm’s competitive power. The decision about purchase, sale, allocation and application of resources and competences belong to the strategic ones.

Company’s resources can be divided into following categories:

- tangible,
- financial,

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organizational,
- physical,
- technological,
- intangible,
- human resources,
- innovation,
- reputation.

The evaluation of the internal resources and competences should be proceeded in three following steps:

- resources and competences identification,
- analysis of their relevance for possible competitive advantage generation,
- comparison strategic significant resources and competences with other competitors.

**KEY STRUCTURAL FEATURES**

Key structural features influence the success in each industry, specific for different industries.

The four most important sources for key features are:

- industry characteristics – each industry has a specific key feature (depends on type of products, IT systems, stocking...),
- global environment – changes in the global environment could be hardly visible at the beginning, but they could in the principal influence company or even the whole industry (e.g. oil crisis),
- competitive position – relation to other competitors,
- organization development – changes within the company may have either a positive influence (new motivation for further success) or a negative impact (loss of the current motivation leading up to fluctuation of qualified staff).

The researches show that in most industrial branches 2 – 4 key features have the main impact on the competitive advantage of the firm. If these features are not fulfilled sufficiently, neither the company’s performance is successful.

**3.2.3. Foreign market entry modes**

When considering an expansion onto foreign markets, one has to choose an appropriate way how to proceed. The decision of how to enter a foreign market can have a radical impact on the results.

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The ways of possible market penetration can be divided into following basic categories:

- exporting,
- licensing,
- joint venture,
- direct investment.

**Exporting**

Exporting is the marketing and direct sale of goods produced in a domestic country leading into another country. This method does not require any investment in foreign production facilities, because there is no need for any production process in the target country. Most of the costs associated with exporting take the form of marketing expenses.

There are commonly 4 players involved in exporting:

- exporter,
- importer,
- transport provider,
- government.

**Licensing**

The point of licensing is to allow a company in the target country (licensee) to use the property of the domestic company (licensor). Such property is usually intangible, such as trademarks, patents and production techniques. The licensor gets a fee paid by the licensee in exchange for the rights to use the property and optionally also some technical support.

On one hand, only little investment required on the part of the licensor enables the licensee to gain a large ROI. On the other hand, while licensee produces and markets the product, a loss could be caused to the licensor as potential returns from manufacturing and marketing activities are lost.

**Joint venture**

Basically, there are five points in joint venture: market entry, risk/reward sharing, technology sharing, joint product development, and confirming to government regulations. Among the other benefits depending on relationships one can consider political connections and access to distribution channels.

Such alliances are favorable especially when:

- the partners’ strategic goals converge while their competitive goals diverge,

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- the partners’ size, market power, and resources are small compared to the industry leaders,
- partners are able to learn from each other while limiting access to their own proprietary skills.

The main questions to consider in a joint venture are ownership, control, length of agreement, pricing, technology transfer, local firm capabilities and resources, and government objectives.

Therefore the potential troubles include:
- conflict over asymmetric new investments,
- performance uncertainty,
- mistrust over trade secret,
- lack of parent firm support,
- cultural conflicts.

In most cases problem of individual benefit occurs. Although the companies in joint venture are supposed to share the performance, the individual companies want to gain as much advantage as possible, which may cause serious troubles and mistrust, sometimes constitute a threat for the joint venture itself.

**Foreign direct investment**

Foreign direct investment is represented by direct ownership of facilities in the target country. It involves the transfer of resources, i.e. technology, capital and personnel. This method of entering the foreign market may be through an acquisition of an existing entity or establishment of a new enterprise.

Direct ownership provides a high level of control in the operations undertaken in the target country as well as high level of resources and commitment.
4. Description of the market and sample companies

4.1. Czech construction industry

4.1.1. Characteristics

The construction industry belongs among key industries of the Czech economy. Its current performance represents 7% of the GDP and 9% of public sector employment. Figure 2 shows the dependence of construction output on GDP.

![Development of Czech economy](image)

**Figure 2 - Development of Czech economy**
*Source: Czech Statistical Office (www.czso.cz)*

4.1.2. Structural changes in recent 15 years

During the transformation from central planning economy to free market economy in 1990s, the Czech construction industry experienced a quick adaptation on changing demand and the overall market conditions. Shortly after the main process of transformation, the industry structure transformed onto the similar comparing to foreign construction industries. A natural hierarchical structure of small, mid-sized and big businesses has been created, precisely following needs of the demand.

Changes brought by the transformation of the economy, including privatization of state-owned companies, were reflected also in the companies’ structure. While the number of big businesses decreased as did the number of their employees, the number of small and middle-sized companies underwent a rapid increase. Table 1 shows the overview of companies with concern to number of employees.
Construction companies in 2007

<table>
<thead>
<tr>
<th>Number of employees</th>
<th>Number of companies</th>
<th>Share on production (%)</th>
<th>Share on employees (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-50</td>
<td>1682</td>
<td>20,7</td>
<td>30,8</td>
</tr>
<tr>
<td>50-100</td>
<td>472</td>
<td>14,8</td>
<td>19,9</td>
</tr>
<tr>
<td>100-200</td>
<td>190</td>
<td>13,4</td>
<td>15,8</td>
</tr>
<tr>
<td>200-500</td>
<td>43</td>
<td>14,5</td>
<td>13,4</td>
</tr>
<tr>
<td>500-1000</td>
<td>16</td>
<td>8,0</td>
<td>7,1</td>
</tr>
<tr>
<td>1000+</td>
<td>10</td>
<td>28,7</td>
<td>13,0</td>
</tr>
</tbody>
</table>

Table 1 - Construction companies 2007

Source: Czech Statistical Office (www.czso.cz)

Still, considering the number of big companies, their share of production, incomes and employment is significant. Taking into account their share of the production and employment, companies with 250+ employees perform an above-average productivity. Figure 3 shows the share of top 10 companies on the total construction market sales in 2006.

Top 10 share on total - sales(2006)

![Top 10 share on total - sales(2006) diagram]

- 1 Skanska CZ a.s.
- 2 Metrostav a.s.
- 3 STRABAG a.s.
- 4 Stavby silnic a _eleznic, a.s.
- 5 OHL _S, a.s.
- 6 GEOSAN GROUP a.s.
- 7 IMOS Brno, a.s.
- 8 HOCHTIEF VSB a.s.
- 9 TCHAS, spol. s r. o.
- 10 VCES a.s.

Figure 3 - Top 10 share on total - sales (2006)

Source: TOP-STAV 100 2006

Production

The amount of construction industry production fell dramatically during the first years of the economical transformation as a result of disintegration of the former system of central planning. It was still noticeable in the times of establishment of the independent Czech Republic in 1993.

In 1993 the amount of the construction production fell down to an all-time low of -20% compared to 1990, -10% compared to 1992.

In the following period 1993-1999, the whole economy underwent a process of debugging, which influenced positively also the construction industry. During this time, period of increase in 1994-1996 was followed by a period of stagnation and
slight decrease during 1997-1999\textsuperscript{10}. Despite of that, the level of production did not come as low as it was in 1990.

A period of constant increase trend started in 2000. It has been over 7 years now, furthermore the rate of increase is higher than the EU average. The overall development is shown in Figure 4.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{development_of_construction_output.png}
\caption{Development of construction output}
\end{figure}

\textbf{Structure of the production}

98-99\% of the production take place on the home market, i.e. in the Czech Republic. The fact, that only 1-2\% of the production of Czech companies are carried out into foreign countries\textsuperscript{11}, is such high share of foreign-owned companies. These are usually meant to perform in the "home" market, whilst in the other markets other affiliates operate.

The structure of the production has changed during the recent 15 years. The production can be roughly divided into 3 main groups:

- new construction, reconstruction and modernization (75-80\%),
- repairs and maintenance (20-25\%),
- other work (1\%).

New construction, reconstruction and modernization can be divided into following subgroups:

- residential buildings,


- non-residential buildings not designed for production,
- non-residential buildings designed for production,
- civil engineering works,
- water management works.

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>New construction, reconstruction and modernization (home production=100%)</td>
<td>70.7</td>
<td>72.8</td>
<td>78.3</td>
<td>78.3</td>
<td>78.6</td>
<td>78.5</td>
<td>75.6</td>
<td>74.4</td>
<td>73.5</td>
<td>73.7</td>
<td>74.0</td>
<td>74.9</td>
<td>76.5</td>
<td></td>
</tr>
<tr>
<td>Residential buildings (new construction=100%)</td>
<td>12.0</td>
<td>8.0</td>
<td>7.2</td>
<td>10.3</td>
<td>13.3</td>
<td>15.5</td>
<td>15.3</td>
<td>15.4</td>
<td>15.0</td>
<td>15.5</td>
<td>17.3</td>
<td>18.6</td>
<td>18.7</td>
<td>20.1</td>
</tr>
<tr>
<td>Non-residential buildings not designed for production (new construction=100%)</td>
<td>37.0</td>
<td>33.0</td>
<td>25.0</td>
<td>23.1</td>
<td>21.1</td>
<td>18.7</td>
<td>19.7</td>
<td>19.4</td>
<td>16.4</td>
<td>17.0</td>
<td>16.2</td>
<td>18.5</td>
<td>17.0</td>
<td>18.9</td>
</tr>
<tr>
<td>Non-residential buildings designed for production (new construction=100%)</td>
<td>22.0</td>
<td>28.0</td>
<td>33.3</td>
<td>29.8</td>
<td>26.3</td>
<td>28.5</td>
<td>28.7</td>
<td>27.5</td>
<td>33.7</td>
<td>30.4</td>
<td>29.5</td>
<td>22.5</td>
<td>21.0</td>
<td>21.2</td>
</tr>
<tr>
<td>Civil engineering works (new construction=100%)</td>
<td>25.0</td>
<td>28.0</td>
<td>32.2</td>
<td>34.3</td>
<td>36.3</td>
<td>35.1</td>
<td>33.9</td>
<td>35.6</td>
<td>33.7</td>
<td>35.8</td>
<td>35.4</td>
<td>38.9</td>
<td>41.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Water management works (new construction=100%)</td>
<td>4.0</td>
<td>3.0</td>
<td>2.3</td>
<td>2.7</td>
<td>3.0</td>
<td>2.2</td>
<td>2.4</td>
<td>2.1</td>
<td>1.2</td>
<td>1.3</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Repairs and maintenance (home production=100%)</td>
<td>27.4</td>
<td>24.8</td>
<td>20.0</td>
<td>20.3</td>
<td>19.1</td>
<td>20.8</td>
<td>20.9</td>
<td>23.7</td>
<td>23.7</td>
<td>24.6</td>
<td>25.5</td>
<td>25.2</td>
<td>24.7</td>
<td>23.0</td>
</tr>
<tr>
<td>Other work (home production=100%)</td>
<td>1.8</td>
<td>1.1</td>
<td>1.7</td>
<td>1.4</td>
<td>1.1</td>
<td>0.9</td>
<td>0.6</td>
<td>0.7</td>
<td>0.7</td>
<td>1.0</td>
<td>1.0</td>
<td>1.1</td>
<td>1.2</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Table 2 - Structure of the production


The main share with previous pronounced increase belongs to civil engineering works, which has been caused mainly by state investments into transportation network (motorways, modernization of railway trunks etc.). Residential buildings noticed quite significant increase too, whilst the trend of non-residential buildings has been mainly decreasing. The development of shares of specific segments on total production is shown in Table 2.

Employment

Since 1970s, the average number of employees in the construction industry has been more than 400 thousand people (comparing to the total population of the Czech Republic of 10 million). This number underwent only slight changes until now, even though it does not reflect terms of the shadow economy, which are impossible to evaluate precisely. Another problematic field is foreigners, where the estimated number is 20-40 thousand workers. The development of the number of workers in the construction industry is shown in Figure 5, the share of workers in the construction industry on the total number of workers is shown in Table 3.
Considering the fact that since 1993 the number of workers has not really changed, whilst the production rose of ca 50%, the main factor of the increase must have been increase in productivity.\textsuperscript{12}

<table>
<thead>
<tr>
<th>Number of workers in the construction industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Number of workers (thousand)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>455,4  468,0  481,0  472,0  443,2  438,0  428,4  435,6  438,6  435,6  457,5  437,9</td>
</tr>
<tr>
<td>Share on total number of workers (%)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>9,2  9  8,8  8,8  9,3  9,3  9  9  9,3  9,2  9,6  9,1</td>
</tr>
</tbody>
</table>

\textit{Table 3 - Number of workers in the construction industry}


Foreign capital

Direct foreign investments are considered as one of the main positive factors influencing the Czech economy, including the construction industry. Although only about 1,18% of all direct foreign investment in 2005 was addressed for the construction industry,\textsuperscript{13} its positive impact is significant.

Nowadays, majority of the biggest companies performing on the Czech construction market is owned by foreign entities. The foreign-owned companies are exceptional especially due to:

- increasing number and production and employment share (nowadays ca 136 companies, ca 60 milliard CZK/year),
- higher productivity (ca 60% higher than 20+ empl. companies average),
- higher salaries (ca 40% higher than 20+ empl. companies average).

\textsuperscript{12} POLÁN, P. (2007), Czech construction industry 2007, Ministry of Industry and Trade of the Czech Republic, p. 69

\textsuperscript{13} POLÁN, P. (2007), Czech construction industry 2007, Ministry of Industry and Trade of the Czech Republic, p. 37
Czech and European construction industry

In 2006, 27 EU members spent more than 1,2 billions EUR, out of which 72% belong to 5 main countries (Germany, UK, France, Italy, Spain). In comparison with 2005, the industry performed a slight growth of 3,6% in 2006. The main category affecting the increase were residential buildings (+6,2%) and civil engineering works (+7,3%). It is expected that further growth will be noticed even in following years.

Development of construction production 2002-2006 (%)

![Diagram showing development of construction production 2002-2006](image)

The Czech construction industry underwent its best performance, when the increase was the highest out of the 19 EU countries (members of Euroconstruct) during 2002 - 2006 (see Figure 6).

Development of construction production structure 1990-2006 (%)

<table>
<thead>
<tr>
<th>Western Europe</th>
<th>Residential buildings</th>
<th>Non-residential buildings</th>
<th>Civil engineering works</th>
<th>Eastern Europe</th>
<th>Residential buildings</th>
<th>Non-residential buildings</th>
<th>Civil engineering works</th>
<th>Czech Republic</th>
<th>Residential buildings</th>
<th>Non-residential buildings</th>
<th>Civil engineering works</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>45,5</td>
<td>34,2</td>
<td>20,3</td>
<td>1990</td>
<td>31,2</td>
<td>38,5</td>
<td>32,3</td>
<td>1990</td>
<td>12,6</td>
<td>38,8</td>
<td>28,8</td>
</tr>
<tr>
<td>1995</td>
<td>49,1</td>
<td>31,0</td>
<td>20,9</td>
<td>1995</td>
<td>20,1</td>
<td>44,0</td>
<td>35,9</td>
<td>1995</td>
<td>7,9</td>
<td>36,4</td>
<td>27,2</td>
</tr>
<tr>
<td>2000</td>
<td>47,5</td>
<td>31,9</td>
<td>20,3</td>
<td>2000</td>
<td>23,8</td>
<td>46,6</td>
<td>29,6</td>
<td>2000</td>
<td>15,1</td>
<td>50,4</td>
<td>34,5</td>
</tr>
<tr>
<td>2006</td>
<td>48,7</td>
<td>30,8</td>
<td>20,5</td>
<td>2006</td>
<td>25,0</td>
<td>40,1</td>
<td>34,9</td>
<td>2006</td>
<td>12,4</td>
<td>41,8</td>
<td>45,8</td>
</tr>
</tbody>
</table>

Table 4 - Development of construction production structure


In comparison with the EU average, the residential buildings are at the level of 39,9% of the EU average, non-residential buildings 49,7% above the EU average and civil engineering works even 55,3% above the EU average (see Table 4).

4.1.3. Potential threat and opportunities in following 5 years

Preferences in individual areas of construction production will be changing during the following times. The expected trends are shown in Table 5
Expected development of construction production structure 2008-2015 (%)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2008</th>
<th>2009</th>
<th>2012</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>New construction, reconstruction and modernization (home production=100%)</td>
<td>73,6</td>
<td>69,0</td>
<td>63,4</td>
<td>57,5</td>
</tr>
<tr>
<td>Residential buildings (new construction=100%)</td>
<td>20,1</td>
<td>22,1</td>
<td>25,2</td>
<td>27,0</td>
</tr>
<tr>
<td>Non-residential buildings not designed for production (new construction=100%)</td>
<td>14,0</td>
<td>15,2</td>
<td>14,1</td>
<td>15,5</td>
</tr>
<tr>
<td>Non-residential buildings designed for production (new construction=100%)</td>
<td>24,7</td>
<td>21,7</td>
<td>20,9</td>
<td>18,0</td>
</tr>
<tr>
<td>Civil engineering works (new construction=100%)</td>
<td>39,8</td>
<td>38,0</td>
<td>36,3</td>
<td>35,0</td>
</tr>
<tr>
<td>Repairs and maintenance (home production=100%)</td>
<td>24,2</td>
<td>27,0</td>
<td>32,1</td>
<td>37,0</td>
</tr>
</tbody>
</table>

Table 5 - Expected development of construction production structure 2008-2015


Workforce

To keep the construction industry at the level of sustainable growth and competitiveness, the basic condition is to satisfy the needs of qualified and productive workers. It is not only their number, but also the structure of their profession and motivation.

The average age of workers in the construction industry has been increasing, the situation is further worse among the manual workers. So, the necessary act to slow down this unpleasant trend is to attract more young people for working in this perspective industry. Nowadays, ca 50% less students study trowel trade at schools comparing to 1995, that is 12 500 in total. Every year, more than 10 000 workers retire or leave their job due to health problems. It means that there are 10 000 vacancies every year, but only 3 500 potential newcomers finishing their education\(^\text{14}\). This seems to be a real problem, which is not easy to resolve.

SWOT analysis

The SWOT analysis of the current situation of the Czech construction industry gives some tips and basic data for future strategy and helps to formulate goals.

SWOT for the future

Strengths
- ability to build constructions of high technical and quality demands,
- high professional qualification of civil engineers and architects based on traditional system,
- high qualification of craftsmen,
- good knowledge of the domestic market as well as the markets of Eastern Europe and Africa, where former Czechoslovakia supplied constructions,)advantage of lower prices comparing to the original EU countries,

- increasing labor productivity.

**Weaknesses**
- decreasing number and backlog of qualified craftsmen and therefore required employment of less qualified workers (mostly from Eastern Europe),
- unsatisfactory quality of legislation and its frequent changes, slow law enforcement,
- low foreign languages knowledge,
- low mobility of workforce, poor conditions for its improvement,
- stagnation of scientific and innovative research activities,
- limited possibilities of companies under foreign control for expansion abroad due to the policy of foreign owners focusing on the domestic market only,
- insufficient material usage and recycling, poor waste recovery.

**Opportunities**
- implementing new forms of financing (e.g. PPP), better usage of EU funds,
- entering EU market and consequently 3rd countries markets,
- large backlog, including foreign investments on the domestic market,
- development and reconstruction of the national and European transport infrastructure,
- large potential in environmental projects,

**Threads**
- prices increase (material, oil products, ecological tax etc.),
- salary increase connected with salary adjustment to other EU countries,
- other expenses connected with the workforce (insurance, bonuses etc.), whose standards within EU are different and the adjustment is highly probable,
- more strict rules to improve health and safety at work,
- higher expenses on attracting workforce in the industry,
- raw materials exhaustion, lack of construction lots.

The analysis of current needs and their expected development gives the following reflection for next 10 years (in milliard CZK)\(^{15}\):

The current capacity of the Czech construction industry is ca 500 milliard CZK, and it has the necessary potential to meet the needs. The basic presumption to do so are: to have a necessary capacity, to be competitive, to have the capital needed, to meet the environmental conditions and to have the overall friendly investment environment. It is also vital to be able to use the available EU subsidies and to master using private investors through PPP projects, which are now used only seldom.

### 4.1.4. Key market players and their characteristics

The following Figure 7 shows the annual sales ranking of construction companies operating on the Czech construction market (the detailed annual ranking is to be found in Appendix 1). It is obvious, that only minor changes occur in the year-on-year comparisons. Basically, out of those ten companies being annually among the top ten, eight are owned by a foreign company. An interesting fact is that all the top ten companies have been involved, more or less, in civil engineering works (e.g. freeways, roads, railroads, tunnels, bridges etc.). Nevertheless, all these companies perform wide variety of constructions.

It is remarkable that the share of the top four companies has increased from 59% in 2000 up to 74% in 2006. This means the key players not only sustain their positions, they even strengthen them.
Figure 7 - Top 10 construction companies
Source:www.urspraha.cz
4.2. Selected companies’ characteristics

The four chosen companies to be described and analyzed in this study were chosen from the top ten construction companies operating on the Czech construction market. The selection was made with respect to owners coming from different countries and different position within the sales ranking. The share of the top10 companies on the total shares is shown in the Figure 3. Finally, companies of SKANSKA, STRABAG, HOCHTIEF and OHL ZS were chosen.

4.2.1. SKANSKA

SKANSKA WORLDWIDE

SKANSKA is one of the world’s largest construction companies and is active in the fields of construction and project development, including commercial properties, residential projects and Public Private Partnership. In the Czech Republic is SKANSKA group substituted by SKANSKA CS Inc.

History of SKANSKA began in 1887 when Aktiebolaget Skånska Cementgjuteriet was established and started by manufacturing concrete products. After, it diversified into the construction company providing entire construction services. In 1984 the name “SKANSKA” became the Group’s official name.

SKANSKA Group is headquartered in Stockholm, Sweden and is made of 14 business units, operating in approximately 60 countries around the world, employing nearly 60 thousands employees. Main markets are Sweden, USA, Great Britain, Denmark, Finland, Norway, Czech Republic, Poland and Latin America.

Revenue of SKANSKA Group in 2006 reached 125,6 milliards Swedish crowns. Revenue by geographic area is following:

- Sweden 20%,
- Denmark 3%,
- Finland and Estonia 7%,
- Norway 9%,
- Great Britain 10%,
- Czech Republic 10%,
- Poland 6%,
- United States of America 32%,
- Latin America 3%.

SKANSKA IN THE CZECH REPUBLIC AND SLOVAKIA

SKANSKA Group is the largest construction company operating in the Czech market, in Slovakia it belongs among five largest companies. SKANSKA provides complete services connected with building constructions including ecological
constructions, transport constructions, concrete structures manufacture, technological services and also development and facility management.

**History**

The origin of the company dates back to 1953, when Zemstav Praha was established with specialization at ground works. In 1961 official name “Inženýrské a pozemní stavby” started to be used and also the scale of services was extended. In 1991 “IPS Inc” came into being by privatization from state ownership.

IPS group, headed by its parent company, clearly became a leader of the Czech construction industry during 1990s. The Group was able to virtually cover all important construction segments in the Czech Republic, thanks to its entrance into new construction sectors – through parent company’s extension of portfolio specializations as well as through acquisitions of major Czech companies, especially in the field of civil engineering. It enabled the company to successfully cope with the fall of construction production between 1997 and 1999. Among other things, this has been achieved because the company received many orders from private investors. IPS Group distribution into construction segments virtually reflects the amount of finance invested into the segments in the Czech Republic (civil construction, industrial construction, engineering and transport projects and other projects).

In 2000, IPS Group strengthened its position in the Slovakian construction market leading to ranking among top five construction companies with the highest turnover.

**Take-over by SKANSKA Group**

SKANSKA Group had been monitoring European construction market for many years before acquisition IPS Group. That was why in June 2000, when having free financial resources, SKANSKA chose just the strongest and largest construction company IPS Group in the Czech Republic. This company had recently developed very dynamically and had been awarded “Czech Construction Company of the year” several times and also had had very perspective future. The share of IPS Group in the Czech construction market was 9,2% in 2000, 7,8% in 1999 and 3,5% in 1996. In next two following years the official name was changed, firstly to “IPS SKANSKA Inc.” and afterwards to “SKANSKA Inc.”

**New Strategy**

The Stockholm headquarters designated the areas of the Czech and Slovak Republic as their home market. SKANSKA Group set the basic strategic goal to orientate the parent’s company on core business and constructions were determined to be managed from the position of general contractor. Machines, technical equipment and product personnel were moved to their related companies.

In the beginning of 2002, according to new strategy organizational changes were made in the structure of concern SKANSKA CZ (its economic performance rose by more than 10% year-on-year). These changes improved efficiency of particular organizational units (divisions), reinforced their sense of responsibility and enhanced the clarity of the structure. At the same time SKANSKA Group in the Czech and
Slovak Republic strengthened its position within the global SKANSKA Group. SKANSKA Group in the Czech and Slovak Republic was ranked fourth out of fifteen in an imaginary chart of all business units, thus becoming a truly integral part of the Group. This was also confirmed by a number of specialized conferences of SKANSKA executives from all parts of the world, and also by hosting the traditional Press days, which are always attended by major SKANSKA AB shareholders, financial analysts and journalists coming from abroad. Some of the systems and procedures used by of Czech SKANSKA management were at these meetings presented as examples for others in the SKANSKA.

The construction production in the Czech Republic has been continually growing since 2000, this positively affected business performance of SKANSKA in the Czech Republic and Slovakia (SKANSKA CZ), year on year growth against 2002 was 19.1%. According to the new strategy, that determined increased focus on core business, most of hotels and recreational facilities were sold, that brought immediate financial effect, decreasing need for administrative works and possibilities for better concentration on major activities.

In 2004, due to the global conception of SKANSKA Group – to be the first or the second on the market, next organizational changes were made, which should have helped in reaching the goal in Slovakian market. In the Czech Republic, company SKANSKA CZ is brightly keeping the position of largest and most successful construction company. To ensure the economical growth of the company it was necessary to expand effectively. This has been happening continually since 1999 by several acquisitions of construction companies. In 2003, SKANSKA CZ took over “Bánské Stavby Inc.” whose specialization was tunnel production, by what completed its portfolio of entire construction operations. During 2004 this company fully integrated into the activities of SKANSKA CZ.

Following progression

A significant factor that affected construction industry in the Czech Republic in 2004 was the Czech Republic joining the European Union. Increase of VAT rate for construction works from 5% to 19% was closely connected with the entry to the EU. The volume of housing constructions experienced further growth, uninfluenced by VAT change and driven by continually increasing demand and favorable interest rates. This took effect by a very significant increase of orders from housing and transportation construction industry.

In 2005, Slovakian economics became the fastest growing economics in the region, which positively affected growth of construction production. Strong growth of construction industry both in Czech and Slovak Republic is connected with significant attention of foreign concerns. Big multinational companies have been entering Czech and Slovakian market, later followed by smaller border zone subjects. In the Czech Republic, SKANSKA is further keeping its position of leader in Czech construction market, which it gained during the end of 1990s. However SKANSKA gains partial successes in Slovak Republic, it is still far from becoming the leader of local market.

During 2005 and 2006 problems in area of building constructions started to occur more and more often. Constantly strengthening competition and higher number of foreign investors, lead to complicated winning of profitable orders. By the end of
2006 and at the beginning of 2007 particular changes were made in the structure of company, which helped to year on year profit growth of about 34%. The development of SKANSKA CZ ratios is shown in Table 6.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>sales</td>
<td>23 521</td>
<td>27 536</td>
<td>23 938</td>
<td>28 511</td>
<td>29 462</td>
<td>33 903</td>
<td>36 455</td>
<td>35 380</td>
</tr>
<tr>
<td>profit</td>
<td>402</td>
<td>603</td>
<td>718</td>
<td>872</td>
<td>1 122</td>
<td>1 344</td>
<td>809</td>
<td>1 278</td>
</tr>
<tr>
<td>ROS</td>
<td>1.7%</td>
<td>2.2%</td>
<td>3.0%</td>
<td>3.1%</td>
<td>3.8%</td>
<td>4.0%</td>
<td>2.2%</td>
<td>3.6%</td>
</tr>
<tr>
<td>employees</td>
<td>7 608</td>
<td>7 370</td>
<td>6 513</td>
<td>6 435</td>
<td>6 676</td>
<td>7 043</td>
<td>7 249</td>
<td>7 078</td>
</tr>
<tr>
<td>sales on employee</td>
<td>3.1</td>
<td>3.7</td>
<td>3.7</td>
<td>4.4</td>
<td>4.4</td>
<td>4.8</td>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Table 6 - SKANSKA CZ – ratios
Source: annual report of SKANSKA CZ

To sustain the company’s competitiveness and keeping the position of the leader on the Czech construction market the management of SKANSKA CZ was made to prepare further wide organizational changes. In January 2008, SKANSKA in the Czech Republic and Slovakia changed its structure to a holding company. To the head of the holding has been appointed parent company SKANSKA CS (see Figure 8). Changes in more effective control, decreasing overhead costs and fastening communication throughout the company are expected by the top management.

4.2.2. STRABAG

**STRABAG WORLDWIDE**

STRABAG is a significant European construction company operating all over the world with fore position in construction industry in Central and Eastern Europe.
The origin of the company began in 1835, when family workmanlike company “Anton Lerchbaumer” was founded in Austria. This family business later developed into company ILBAU and later into BAU HOLDING AG.

Trade name STRABAG was used in the year 1930 for the first time, when it was introduced by company “H. Reifenrath Gesellschaft mit beschränkter Haftung” established in 1895 in Germany, which original sight was road cylinders production. In 1997 BAU HOLDING AG entered STRABAG AG Koln as major proprietor.

The revenues of STRABAG SE syndicate achieved 10,385 millions Euro in 2006. The revenue was 130 times multiplied in comparison with the year 1986. These revenues were from geographical standpoint realized subsequently:

- Germany 38,4 %,
- Austria 20 %,
- Hungary 7,8 %,
- Czech Republic 7,6 %,
- Poland 5,3 %,
- Slovakia 2,9 %,
- Croatia 1,8 %,
- Benelux 2,1 %,
- Switzerland 3,1 %,
- Russia 1,6 %,
- Africa 1,2 %,
- Asia 1 %,
- America 1,4 %,
- Other countries 5,8 %.

In 2007, STRABAG SE underwent an essential change in ownership. Regarding to expected growth of Russian construction market, connected with insufficient success at wining Russian state orders and other characteristics of the Russian marketplace, STRABAG SE decided to let the local capital enter into the company. Russian enterpriser Oleg Jerypaska is now 1/3 owner of the STRABAG SE syndicate.

**STRABAG IN THE CZECH REPUBLIC AND SLOVAKIA**

At present, STRABAG is the third biggest building company in the Czech Republic and the second in Slovakia, providing all constructional services in the area of transport, building and engineering constructions. Strategic aim is to become number two or one on the Czech construction market in near future.

**History**

History of the company dates to the year 1991, when “Bohemia asphalt Ltd” was established. The company provided road work as its main activity. The company’s
history can be divided into two parts; the first is operating of the Bau Holding AG and the second of STRABAG AG Köln.

Development of Bau Holding AG continued by acquisitions of several companies operating in the branch of transport constructions during the following years. Until 1997, STRABAG got the majority in such construction companies all over the Czech Republic as well as established several daughterly companies providing asphalt mixture production.

The second part was company STRABAG AG Köln which started operating in the Czech Republic in 1992, by privatization of state public company “Road České Budějovice”, thereby “STRABAG Bohemia” was created. Consequently “STRABAG Bohemia” made several acquisitions in the field of road constructions.

Consolidation and rise of STRABAG CR Inc.
At the end of 1997, Bauholding STRABAG AG entered STRABAG AG Köln as the major shareholder. By this step Bauholding STRABAG AG also gained control of group of subsidiary companies. In 1998 consolidation and rise of STRABAG CR Inc. proceeded. The headquarters was based in České Budějovice with revenues of over 3 milliards CZK. In 1999, a company CMO Ltd. (Czech and Moravian tarmacadam plant) producing asphalt mixture was established.

Organizational changes in 2000 were carried out, leading to consolidation of all firms in one company STRABAG CR Inc. Subsequently, branch offices according to regional activities were established. Because of these changes, STRABAG CR Inc. was classed among biggest construction companies operating in the Czech construction market with main activities in road constructions. Further on, the company came into the limelight and thanks to consolidated capacities was able to realize order in whatever range.

During the years 2001 and 2002 construction industry in the Czech Republic copied country’s economic growth, especially in the area of road constructions. Major part of company’s revenues was generated by road constructions.

Strong expansion into Slovak market
In the year 2003 the situation in the Slovak market changed essentially for STRABAG. So far STRABAG operated only in the area of road constructions and had carried out just road repairing works in extent of small orders.

By the end of that year STRABAG started privatization of company ZIPP Bratislava. This company was operating in the area of building constructions, where over the last year it reached revenue of 200 millions Euro with 1800 employees. Incorporation of the company had proceeded in 2004 after operation approval of the antitrust office.

In road constructions the company’s revenues increased essentially namely thanks to privatization of several companies operating in the road construction, and also significant companies on asphalt mixture production.
The expansion of STRABAG in the area of road constructions continued very successfully in the Czech Republic during 2003. In the area of building constructions essential reviviscence proceeded thanks to commercial investors.

Following progression

Entrance of both countries to the EU in 2004 had very positive impact on the evolution of building industry. Input money from the EU grants had positive effect on investment activities in the area of infrastructure from public budgets. Poor highway network and its unsolved connection on trans-European corridors especially in Slovakia started to develop much faster in comparison with previous years.

Development in the Czech Republic had been proven by increased achievements of about 30%. Decisive share was upon the building constructions, especially big projects for international investors in the surrounding area of the Czech capital city Prague. In the area of road construction industry STRABAG CR further strengthened its strong position. STRABAG CR was the third biggest building company in the Czech Republic in 2004.

In Slovakia, the company’s revenues were more than tripled. This growth was caused especially by the acquisition of the company ZIPP Bratislava, operating in the area of building constructions. In the area of road constructions the company’s activities moved from small orders to big projects.

In 2005 STRABAG in the Czech Republic attained growth of revenues of 41,7 %, which was caused partly by the acquisition of Heilit + Woerner. These companies operated in the Czech Republic through their subsidiary companies Dálniční stavby Praha (Highway Constructions Prague) and Viamont DSP both operating in road construction industry. STRABAG also carried out next acquisitions that helped to keep the company’s position in the area of road construction industry in the western part of the Czech Republic.

In Slovakia, the growth of revenues attained to 15,5 % in 2005. Branch office in Slovakia developed during 2 years from company providing production and laying asphalt mixture and small repairing works on local communications into big company providing complex realization of highway constructions including bridges, sewer systems and railway constructions.

The year 2005 was very successful also from the point of view of all STRABAG firms producing asphalt mixtures Bohemian asphalt (former CMO), Slovasfalt and Ilbau.

In 2007, the Slovakian organizational regional unit became legally independent regarding its essential growth in local market and simplifying its operating.

Strategic aim for the future in the Czech Republic was to preserve contemporary growth in building constructions and increase the growth in the area of road constructions. In Slovakia, the aim was specified to widen regional activities to the east of Slovakia and also to preserve contemporary growth.
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<td>9 687</td>
<td>14 465</td>
<td>18 522</td>
<td>22 363</td>
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<tr>
<td>ROS</td>
<td>5,7%</td>
<td>3,3%</td>
<td>3,1%</td>
<td>2,8%</td>
<td>2,4%</td>
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<tr>
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<td>2 808</td>
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<td>3 742</td>
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<tr>
<td>sales on employee</td>
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<td>4,5</td>
<td>4,9</td>
<td>5,7</td>
<td>5,4</td>
</tr>
</tbody>
</table>

Table 7 - STRABAG – ratios
*Source: annual reports of Strabag*

**Plans for the future**

The intention of STRABAG is to at least preserve the contemporary growth on Czechoslovak construction market. Especially in Czech Republic, where STRABAG would like to become at least number two on Czech construction market. The overall ratios of STRABAG are shown in Table 7. The organizational chart of STRABAG is demonstrated in Figure 9.

![STRABAG Organizational chart](source: Annual report Strabag)

4.2.3. HOCHTIEF

**HOCHTIEF WORLDWIDE**

International corporation HOCHTIEF AG originally comes from Germany. With more than 52,000 employees and a sales volume of EUR 16,45 milliard in 2007 is the fourth-largest provider of construction-related services in the world. It deals with all kind of construction projects, development projects, PPP projects, property management, facility management etc. Interestingness is HOCHTIEF Airport division that operates as an airport manager for example in Athens, Sydney and Hamburg. But construction services are the business core.
The company was founded in 1873 called "Helfmann Brothers" in Bornheim district of Frankfurt by Philipp and Balthasar Helfmann. In 1896 Philipp Helfmann became the managing director, and converted the company into a joint-stock corporation. He chose a new name “Aktiengesellschaft für Hoch- und Tiefbauten”, can be translated as 'Building Construction and Civil Engineering Corporation'. The company officially took the name of HOCHTIEF in 1923, or to give it is full value, "HOCHTIEF Aktiengesellschaft für Hoch- und Tiefbauten vorm. Gebrüder Helfmann". Until the mid 1990s, HOCHTIEF had been focused on German construction market and had had only a few international activities. In mid 1990s German construction boom slackened, therefore HOCHTIEF began with fast international growth, and opened new business fields such as project development, airport management and facility management. This needed company restructuring.

Nowadays HOCHTIEF AG has six main corporate divisions: HOCHTIEF Americas, HOCHTIEF Asia Pacific, HOCHTIEF Europe, HOCHTIEF Concessions, HOCHTIEF Real Estate, and HOCHTIEF Services. The corporation has its headquarters in Essen in Germany.

HOCHTIEF IN THE CZECH REPUBLIC

HOCHTIEF CZ Corp. belongs among top ten largest construction companies (it is the 8th) in the Czech Republic. It currently employs around 1500 staff, which carries out building projects within the construction market of the Czech Republic. Such work covers residential, commercial, administrative and institutional developments, as well as industrial, ecological and water management projects, also covering traffic and pipeline infrastructure. HOCHTIEF entered the Czech construction market in 1999 by purchasing of the major share of traditional Czech company VSB Corp.

History of VSB

In 1951 the original company was established called “Vodní stavby” (=“Contructions for water management”). It was a state enterprise for special purpose. Its aim was to construct a cascade of dams on the Vltava River in 1950s and 1960s. In 1985 a new company was detached from Vodní stavby for one big special project – the construction of nuclear power station Temelin. This new company was named “Výstavba JE Temelin” (=“Construction of NPS Temelin”). After the Velvet revolution state enterprises were privatized. Vystavba JE Temelin was incorporated in 1992 with new name “Vodní stavby Temelin”, and in 1994 began the change of organization to holding company with new name “Vodní stavby Bohemia”. That year controlling company and subsidiary companies were founded. The subsidiary companies had regional character or special production orientation. In 1998 the company changed its name again to short “VSB”. During 1990s VSB extended portfolio of construction services.

Takeover by HOCHTIEF

HOCHTIEF AG expanded to other countries during the end of 1990s and at the beginning of the 21st century. It led to investments in the Czech Republic as well. In 1999 HOCHTIEF AG became the majority shareholder of VSB Corp. It started an integration process of the traditional Czech company into a multinational concern in following years. The process was finalized in January 2002 by changing name to
HOCHTIEF VSB Corp. The result was a strong, effective construction company ready to do business in the European Union.

**New strategy**

The most important changes happened in 2001, when holding company VSB was restructuring into one company with divisions (branch offices). In July 2001, legal personality of subsidiary companies where VSB Corp. was the 100% shareholder was ceased, and they became a part of the controlling company as a branch office. The entire property of subsidiary companies was transferred to the controlling company HOCHTIEF VSB Corp. During the transformation regional character or special production orientation of the divisions was retained. These organizational changes contribute to more economical and more efficient organization, which can flexibly respond on market demands. HOCHTIEF VSB Corp. became a strong consolidated company. Further change was that shares of VSB Corp. were no longer available on the stock market. These shares were purchased by the majority shareholder HOCHTIEF AG. The multinational concern rose its share in HOCHTIEF VSB Corp. from 89.19% to 94.66%.

During the integration process HOCHTIEF VSB Corp. managed to take opportunities of the Czech construction market like rising government investment, foreign investment and the beginning of residential development, which resulted in big residential construction boom in 2005-untill now. Integration to the multinational concern brought better stability, strengthening of the position on the construction market and modern know-how from developed European markets. New vision and management principles were introduced. HOCHTIEF VSB Corp. is focused on technological development. A lot of money is invested in renewal of machinery and in information technology, especially program Aristoteles. The company wanted to be environment friendly, therefore it started preparation for certification ISO 14 000. In its portfolio of construction services are ecological constructions as well. HOCHTIEF VSB Corp. expected new good opportunities in segment of traffic infrastructure.

**Following progression**

Following years after the integration process were successful for HOCHTIEF VSB Corp. Table 8 shows rising trend in sales with some fluctuations, and the company had still net profit higher than 100 million CZK despite of high investments in renewal of machinery. HOCHTIEF VSB Corp. lowered company debt, and at the end of 2002 it has positive net bank conditions first time since 1994.

The preparation for environmental certification was finalized in February 2003 by successful audit and obtaining of certificate EMS ISO 14001. Health and safety management was successful as well. In 2002 HOCHTIEF VSB Corp. was awarded by title “Safe Company”. The effort of management carried on, and in 2005 HOCHTIEF VSB Corp. obtained the health and safety certificate OHSAS 18001. Concerning certificate ISO 9000, the company had had formerly, but in 2003 it gained certification ISO 9000:2001 following revised standards.

In 2003 HOCHTIEF VSB Corp. was a part of multinational concern with worldwide importance for five years. Within this holding it cooperates with related companies in Europe. For successful cooperation HOCHTIEF Construction AG (European
division of HOCHTIEF AG) opened its office in Prague. HOCHTIEF Construction AG focuses on building projects as well as special infrastructure projects, namely tunnels and bridges. It is active in many areas of Europe and has carried out a number of large and technically demanding projects. Examples of these include sections of the underground railway networks in Athens, Munich or Essen. The establishment of the organisation unit brings about multiple benefits. It makes it possible for specialists in the partner companies of the HOCHTIEF group to work together when preparing bids and carrying out large traffic infrastructure schemes, in addition to constructing tunnels and other traffic projects in the Czech Republic.

HOCHTIEF VSB Corp. continued in investment to renewal of machinery, and information technologies. Next it invested in development of company bases, and in expansion in traffic infrastructure. In 2003 the company had to prepare itself for entering the Czech Republic to the European Union in May 2004. HOCHTIEF VSB Corp. had no troubles with this big step of the Czech Republic, because it was well prepared thanks to membership in multinational concern, and took this advantage. In 2005 HOCHTIEF VSB Corp. expanded in Slovakia, and it established a branch office in Bratislava.

Cooperation with European division HOCHTIEF Construction resulted in entering of HOCHTIEF VSB Corp. in very perspective segment of traffic infrastructure. The EU started to support the Czech government through investing many milliards CZK in the traffic infrastructure.

In 2005, HOCHTIEF AG as major shareholder prospered from new legislative changes about buying-out shares from minor shareholders called “squeeze out”. This process started with exceptional general meeting in September 2005, and in April 2004 concern HOCHTIEF AG became 100% owner of HOCHTIEF VSB Corp.

The year 2006 brought another organizational change. The company changed its name to HOCHTIEF CZ Corp. The reason was to follow international organization of the concern, easier identification of the company within European construction market. Next divisions were renamed; a numeric system was replaced by worded titles, simplifying them for business partners. Very important step was to establish two new divisions. In January 2006 it was Traffic Infrastructure Division, and in August 2006 Division Moravia. The whole organization chart shows Figure 10. The majority of the top management was replaced. New people brought new attitudes, experience and energy. The last change was moving headquarters from faded building into a new modern commercial building in one of the fastest growing quarters in Prague.
Since these changes, HOCHTIEF CZ Corp. has become a modern, flexible, attractive construction business partner with international owner. Now many Czech traditional companies have strong international owners. Competitive environment in the Czech Republic is more and more complicated. In future, only technologically strong companies with high level of capital and modern management can succeeded. Universality and operation in all segments of the market will be their assurance of their success in the construction market. HOCHTIEF CZ Corp. has all the attributes to become one of the five largest construction companies in the Czech Republic. The overall ratios of HOCHTIEF CZ Corp. for the period of 2000 – 2007 are shown in Table 8.

### Table 8 - HOCHTIEF CZ – ratios

<table>
<thead>
<tr>
<th>(mio CZK)</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<td>5 125</td>
<td>5 090</td>
<td>4 539</td>
<td>5 571</td>
<td>8 292</td>
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<tr>
<td>profit</td>
<td>51</td>
<td>88</td>
<td>111</td>
<td>142</td>
<td>128</td>
<td>108</td>
<td>126</td>
<td>144</td>
</tr>
<tr>
<td>ROS</td>
<td>2,6%</td>
<td>2,1%</td>
<td>2,8%</td>
<td>2,8%</td>
<td>2,5%</td>
<td>2,4%</td>
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<td>1 544</td>
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<td>3,2</td>
<td>2,9</td>
<td>3,6</td>
<td>5,2</td>
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</tbody>
</table>

4.2.4. OHL ŽS

**OHL WORLDWIDE**

Spanish international group OHL is one of the biggest construction and services groups in Spain, with a track record of over ninety years not only in Spain but also abroad, where it is established in 18 countries on four different continents. With 14 000 employees and net sales 3,8 milliard EUR in 2007 the company does not
belong among the largest construction companies in the world, but it is focused on Latin America, because of using Spanish language there. The group’s main business lines are construction and infrastructure services, although, especially in recent years, it has successfully broken into construction-related sectors of great growth potential, such as environmental services, urban services, welfare and leisure services.

OHL grew out of the merger of three of the most dynamic companies of the last decade in Spain: Obrascón, Huarte and Lain. Sociedad General de Obras y Construcciones Obrascón, S.A was founded in 1911 in Bilbao to be a general construction company operating internationally. Huarte was set up founded in Pamplona in 1927 by the Huarte and Malumbres families. In 1996 Obrascón and Huarte became industrial partners and in 1997 both companies agreed on their merger, which was put into effect in January 1998, thus giving rise to the sixth biggest construction group in the country. Construcciones Lain was set up in 1963 as a subsidiary of the British group John Laing Construction. In 1988 a group of professionals bought 90% of the company, whereupon the name was changed to Construcciones Lain and in 1991 it went public. Its integration with Obrascón Huarte into OHL, formalized on 29 May 1999, marked a milestone in the concentration and sizing process of the construction and services sector in Spain becoming one of the largest construction companies in the country.

**OHL IN THE CZECH REPUBLIC**

Internationally OHL group is not as important as SKANSKA or HOCHTIEF, but in the Czech Republic it is the 5th largest construction company, even with larger volume of sales than HOCHTIEF ČZ Corp. The main activities of the company consist of the comprehensive supply of construction work in the field of railroad, road and civil engineering, ground structures and reclamation. According to its history, OHL ZŠ Čorp. is focused on railroad construction (in 2007 42,2% of sales come from railroad contracts). OHL has been operating on the Czech construction market since 2003, when OHL S.A. became the major shareholder of the traditional Czech company ŽS Brno (Železniční Staviteleství Brno = “Railroad constructions Brno”).

**History of ŽS Brno**

ŽS Brno, a joint stock company, was the direct successor of the state enterprise Železniční stavitelství Brno. This enterprise was established in 1952 and the business objectives thereof were construction, repair and modernization of both railroad tracks and buildings in Czechoslovakia. The state enterprise Železniční stavitelství Brno was part of the production and economic unit of Železničné stavebnictvo Bratislava from 1971. In the 1980s Železniční stavitelství Brno had about 3,200 employees. In 1991 the production and economic unit was cancelled and Železniční stavitelství Brno became an independent state enterprise for the period of three quarters of that year. As in April 1992 the state enterprise was transformed into a joint stock company which was included in the first wave of the voucher privatization. After completion of the privatization, the enterprise had more than 4,000 individual owners. For business reasons, the company changed its name to ŽS Brno in 1993. That year, the Government of the Czech Republic decided to implement a project of railway corridor modernization. Thanks to its long experience in railway construction, ŽS Brno managed to become an important supplier in this project. The company was the general supplier of corridor
construction activities in modernizing and optimizing tracks of the first and the second railway corridor or connections between these corridors. Since the commencement of the railway corridor project, the company has undergone a dramatic change. The company’s production prior to the commencement of the corridor project activities was below CZK 600 million; currently, the company reports production of more than 10 milliards CZK. The joint stock company also experienced large-scale internal reorganization. The original businesses had been gradually associated into divisions and in early 2000, four plants were established. The plants’ objective was to provide for the full development of the respective market segments. The plants thus perform sales, production and economic function in the following market segments:

- Plant 20 – Railroad Construction,
- Plant 30 – Road and Engineering Construction,
- Plant 40 – Civil Engineering (Ground Structures),
- Plant 50 – Power and Environmental Construction.

**Takeover by OHL**

Around the year 2000 many Czech traditional construction companies became members of strong international construction groups. At the end of 1990s, ŽS Brno Corp. realized, that it would need a strong international partner as well to be competitive with the largest companies on the Czech construction market. Another milestone was the entrance of the Czech Republic to the European Union in May 2004. Thus ŽS Brno Corp. started with preparation for these two crucial moments. It covered company restructuring, all ISO certificates (ISO 9000, ISO 14000, OHSAS 18000), decreasing of projects with high potential risk, investment in machinery and modernizing of offices, implementing of controlling, IT etc. Next in 2002 the National Security Office conducted the first level clearance check at the company which qualified ŽS Brno for participation in military engagements of the Czech Army and in projects financed by the Ministry of Defense or NATO.

In April 2003, the ownership structure of the company changed significantly. The major Spanish construction company, OHL (Obrascón Huarte Lain, S.A.), entered ŽPSV that was the majority share holder of ŽS Brno. In July 2003, Obrascón Huarte Lain, S.A. became obliged, together with entities acting in concert pursuant to Section 183b of the Commercial Code, to make a buy-out offer to all shareholders of ŽS Brno Corp. The big Spanish construction company OHL S.A. became the majority owner of the company holding 97,7% of the stock of ŽS Brno, partly directly and partly through the Czech construction company ŽPSV.

**New strategy**

The integration into an international group was beneficial from several points of view. The most important was the experience of the Spanish partner with EU funds and the PPP will be material for financing projects in Central and South-eastern Europe. Furthermore, OHL’s experience with licenses in investment construction of motorways and roads was decisive for choosing this strategic partner. That synergistic effects created by integration of the production and technical potential of the company with OHL’s experience with the PPP methods allow for development and growth of the Company in the Czech Republic and in Central and Eastern Europe, and in the field of railroad construction in countries, such as Croatia, Bosnia and Herzegovina, Montenegro, Slovakia, Bulgaria and Azerbaijan.
After the takeover OHL concentrated on management consolidation and the improvement of construction projects results. ŽS Brno Corp. prefers investments in equipment which is needed for work on the company’s most important constructions and in the refurbishment of the existing technical equipment. Special technologies used in constructing the substructure and superstructure allow the extraction of the existing ballast bed, the construction of a new one and the cleaning, maintenance and improvement thereof.

**Following progression**

The company’s strategy was to operate and maintain its position among the largest construction companies in the Czech Republic (see the ratios in Table 9) and extend its activities abroad. There was a new task of taking advantage of all synergistic effects and potential of co-operation with OHL, S.A. In January 2005, due to unfilled production capacity for 2005, Plant 50 was shut down and its tasks in the field of power engineering were taken over by Plant 20 and its tasks in the field of environmental engineering were taken over by Plant 40.

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<td>7 314</td>
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<td>10 226</td>
</tr>
<tr>
<td>profit</td>
<td>32</td>
<td>81</td>
<td>62</td>
<td>79</td>
<td>115</td>
<td>239</td>
<td>394</td>
<td>257</td>
</tr>
<tr>
<td>ROS</td>
<td>0.6%</td>
<td>1.2%</td>
<td>1.0%</td>
<td>1.2%</td>
<td>1.9%</td>
<td>3.3%</td>
<td>4.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>employees</td>
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<td>3.1</td>
<td>3.7</td>
<td>4.4</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Table 9 - OHL ŽS - ratios  
*Source: annual reports of OHL ŽS*

In 2005, ŽS Brno Corp. issued bonds that allowed the repayment of a substantial portion of the loan and at the same time reduced short-term payables significantly. Moreover, the issue produced long-term positive working capital which will be utilized in meeting the requirements of our municipal and government investors.

The change of the name from ŽS Brno Corp. to OHL ŽS Corp. in the first quarter of 2006 was a symbol of the merger of experience and tradition gained by the Company during its evolution with the international potential of the OHL Group, e.g. the use of its recommendations, production-technical potential and financial strengths, primarily in PPP projects, i.e. procurement contracts carried out by the Group in Spain and Latin America.

Another organizational change came in February 2007. The system of administration of the Company was simplified, and production was concentrated in two plants: Transport Structures (Dopravní stavby; was formed by the merger of the Plant 20 – Railroad Construction and Plant 30 – Road and Engineering Construction) and Ground Structures (Pozemní stavitele; former . Plant 40 – Civil Engineering (Ground Structures)), the organizational chart is shown in Figure 11.
OHL ZS Corp. used its know-how in transportation construction especially in railroad structures and has penetrated in eastern markets. The biggest volume of abroad sales is produced in Slovakia, of course. In 2007 25% of total sales were produced abroad comparing to year 2003, when it was only 1,7 % of total sales. Nowadays, OHL ZS Corp. has opened abroad branches in 6 countries (Slovakia, Hungary, Croatia, Bulgaria, Monte Negro and Azerbaijan).
5. Data analysis

5.1. Czech construction market analysis

5.1.1. External analysis

**ANALYSIS OF ECONOMIC CHARACTERISTICS**
- market size – ca 500 milliard CZK (7% GDP),
- intensity of rivalry among competitors – high competition level,
- intensity of market grow – ca 10% per year,
- number of companies (20+ employees) in the industry – ca 2500,
- customers – private, corporate, government,
- difficulty of entry to the industry – no barriers, but high rivalry
- technologies / innovations – new materials, new machinery, new managerial methods,
- products portfolio – wide range of construction works and services,
- switching costs – low - average (depends on contracts),
- profitability of the industry – above average (depends on segment and owner),
- load of capacity – unused capacity but decreasing number of workers.

**PORTER'S DIAGRAM**
This analysis comes out of the Porter’s diagram as shown in chapter 3.2.1., Figure 1:

**Suppliers**
- not concentrated (different suppliers for different works and materials),
- construction industry is the only customer,
- seasonal variation of supply (e.g. absence of basic materials in high season),
- strong connection with customers,
- threat of suppliers is low.

**Buyers**
- wide range – private, corporate, government,
- always try to negotiate better conditions (e.g. through tenders),
- in most cases oriented on price,
- possible vertical integration,
- threat of buyers is relatively high (depends on…).
Substitutes
- new technological process (new machines or materials),
- threat of substitutes is low.

Potential entrants
- no specific barriers for entry,
- threat of potential newcomers is low for top 4 companies, higher for the others.

Rivalry
- tough competition (many small companies, shortage of qualified employees, relatively small market),
- the first four companies in dominant positions (strategic market share),
- threat from current competitors (tough competition starting at the fifth place from the top 10)

STRATEGIC MAPS

The chosen criteria for the comparison of the four analyzed companies are ROS (return on sales) and productivity. The considered numbers correspond with 2006 data.

The result, as demonstrated in Figure 12, shows the distribution of those companies according to the criteria. It is remarkable, that the company with the unique market share - SKANSKA has both lower productivity and ROS comparing to STRABAG, which is the third ranked company. In contrast, OHL ZS having about 10% lower productivity than SKANSKA performs more than double ROS than SKANSKA.
5.2. Characteristics comparison

Sales
Sales of all companies have increased in long term period, but in year-on-year comparisons some decreases can be found. SKÁNSKA as the strongest company on the Czech construction market performs the largest amount of sales of almost 36 milliards CZK in 2007. HOCHTIEF and OHL ZS have similar amount of sales of about 10 milliards CZK in 2007. The increase of sales of construction companies corresponds with the growth of the Czech construction market and the growth of the Czech economy after the year 2000. Only sales of STRABAG rose four times due to the highest number and wide range of acquisition. The comparison of sales is shown in Figure 13.

Figure 12 - Strategic map
Profit
Profit of all companies in long term has mostly rising tendency copying the evolution of the companies on Czech construction market, see the profit progress in Figure 14. The decrease of STRABAG’s profit in the beginning is caused by the consolidation all firms in one company and relating organizational changes. In case of SKANSKA is the one-year decrease in 2006 caused by the big number loss-making surface constructions. SKANSKA has most surface constructions and slowly reacted to hardening the conditions from the side of investors.
**Return on sales (ROS)**

Generally, return on sales is low in most of construction companies in the Czech Republic. It means that the productivity and financial management is worse than in western European countries. It can be seen in Figure 15 that the companies have become slowly more effective thanks to the new foreign management. For example, OHL ZS had had less than 2% before OHL entered the company. Nowadays, the average ROS is more than 3%, which is similar to other companies. The decrease of STRABAG between years 2000 and 2004 is caused by huge organizational changes relating to consolidation of the company.

![Figure 15 - Analyzed companies comparison – return on sales](image)

**Sales on employee**

Figure 16 shows that sales on employees have increased from ca 3% in 2000 to ca 5% in 2007 in all companies. It corresponds with higher productivity of construction workers and with rising prices of construction works. In the future, a growth of this indicator is expected, but not as fast as in the last 10 years, because the prices and the productivity of workers are still growing.
Employees

In the long-term period, since 1970s, the total number of employees in the construction industry has not changed significantly. It has been nearly of the same level whilst sales have been rising; this means the productivity has been rising.

Figure 17 shows that the number of employees varied in accordance with the stage of evolution of every company on Czech construction market. The number of employees has been slightly oscillating in all the companies except STRABAG; this company has had rising tendency all the time. This is caused by its constant expanding through acquisitions on the market.
Growth

The fluctuation of growth of sales is connected with the differences of the amount of sales in one-year period. But in long-term period from 2000, the growth of sales has a rising trend. This is caused by longer than one-year life cycle of most construction projects. Generally, the amount of sales depends on the project phase. In average, the construction market rose by 10% a year since 2000, which is approximately twice faster growth than average growth of GDP of the Czech Republic in the same period. The average growth of each compared company corresponds with the average total growth of the construction market. Only STRABAG performs better results of rising mainly thanks to the acquisitions. The growth of sales compared with the overall growth of the construction industry and the GDP is shown in Figure 18.

Figure 17 – Analyzed companies comparison - employees
5.2.1. Companies’ chosen market entry mode comparison

Taking in consideration the main methods for entering a foreign market as described in chapter 3.2.3., all the analyzed companies applied basically the same method, which is direct investment. More detailed STRABAG used different strategy in comparison with the other analyzed companies.

The approach of SKANSKA, HOCHTIEF and OHL had the same basic scenario: a certain period of monitoring and analyzing the market and the main players on it. These three analyzed companies aimed on strong companies with a long tradition and advanced own know-how. The monitoring was followed with the acquisition of the chosen company, which was accompanied with immediate organizational changes. These included a sequential transformation of the company’s name.

STRABAG chose a different procedure for settling on the market. STRABAG founded new small company and subsequently started to develop by acquisitions of mostly regional road construction companies until becoming one of the key players in the field of road constructions on the Czech construction market. This is the major divergence of approaches in comparison with huge acquisition of big company operating all over the Czech Republic, as did the other companies. This resulted in the fastest growth from the analyzed companies, but also relating with much more demanding knowledge of the local environment and time-consuming way of managing the company.

Most of the companies had been, more or less, still influenced by the period of central-planning, rooted in their managerial methods. The connection of the technical know-how, tradition and skilled staff with the market-oriented know-how resulted in a balanced company increasing its profit through rationalizing its performance.
5.2.2. Companies’ chosen competitive strategy comparison

In every compared company proceeded some organizational changes after take-over by foreign concern. These organizational changes contributed to more economical and more efficient organization, which could flexibly respond on market demands.

If the company aims to be one of the strongest construction companies in the Czech Republic it has to operate in all segments of the construction market, especially in field of transport constructions. This part of Czech construction market is very specific in comparison with other Western-European countries (Germany, Austria, etc.) because of overpriced highways as several studies signalized. A study of world well-known consulting company mentions costs for building 1 km of highway, which are about 30% higher, whereas the input of material is almost of the same and the input of wages is even lower, approximately about $\frac{3}{4}$\textsuperscript{16}. All analyzed companies realized this fact and conformed their strategy to that.

The strongest position in this field of industry has SKANSKA (IPS group), which had been partly operating in transport constructions already before SKANSKA entered the Czech construction market. The second is STRABAG, which developed from a small road construction company to the second largest one. Both of these companies achieved this by acquisitions; in the case of SKANSKA it was several acquisitions to complete its portfolio, whereas STRABAG’s strategy is represented by variety of frequent acquisitions of companies of regional importance. OHL ZS had been operating in this segment before, the predecessor ŽS Brno had been specialized in railway constructions. But HOCHTIEF chose another strategy, and prospered from international experience of its mother company. It led to an establishment of the office of HOCHTIEF Construction (European division of HOCHTIEF) in Prague. HOCHTIEF Construction is focused on big technically demanding projects like infrastructure projects, namely tunnels and bridges.

From the point of view of operating abroad, all the analyzed companies have very similar strategy. They all are operating in Slovakia, which is caused by language similarity and familiar characteristics of the Slovakian market. Only OHL ZS is orientated more on Eastern Europe markets. Its Branch 20 Transport Construction operates for example in Slovakia, Hungary, Bulgaria, Monte Negro, Azerbaijan etc.

\textsuperscript{16} Mott MacDonald – study on price development in highway construction
6. Conclusions

The major aim of this chapter is to present the answers for the research questions defined in the introduction chapter based on the findings obtained through the data analyses. The accessory conclusion provides suggestions for further research.

6.1. Conclusions on companies’ strategy

The major method for entering the market used among the analyzed companies, i.e. through the acquisition of a well operating firm, is probably a sure and fast way how to settle on the market with an immediate readiness to face the competition (the case of SKANSKA, HOCHTIEF and OHL ŽS). The other method used, i.e. establishment of a new branch followed by massive acquisitions of local companies, has been in case of STRABAG surprisingly successful. The success has been balanced with long-term hard work. On the other hand, in accordance with acquisition strategy of one large well-established construction company, the most successful from remaining analyzed companies was SKANSKA. Generally all four companies chose direct investment as a method for entering the Czech construction market. Exporting and licensing are not mostly suitable for construction works, although sometimes occur in construction materials industry. Joint Venture could be used for very large projects, if there is no financially strong or hi-tech company on the market. But it is not the case of the current Czech construction market.

Concerning the companies’ managing strategy, the change individually reflects the strategy of their new owner. But all the strategies have more or less similar evolution steps such as companies’ consolidation, restructuring of companies’ organizational units and implementing the new company name.

Another criterion for further success is diversification of scope of the work, which is vital to sustain the position amongst the biggest companies in the country. Not only because of the branch demand variation but also because of the specifics of the Czech construction market; that is especially high profitability of civil engineering works in comparison with the other construction works. For instance, when HOCHTIEF CZ entered the Czech market, it did not enter the field of traffic infrastructure. But thanks to cooperation with well-experienced European Hochtief Construction unit in special infrastructure projects, the penetration to this segment was managed successfully.

6.2. Suggestions for future research

From the authors’ point of view, for a further increase of the predicative value of this study, focusing on one concrete segment of Czech construction market seems to be interesting. It means to analyze a specific construction market segment in deep detail and compare the chosen companies’ performance. In particular the segment of traffic infrastructure could be the most interesting one, because of the expected large development of this field supported by EU grants and from that resulting possibility of high profit. Subsequently also compare separately all the main individual fields of construction industry from the point of companies’ success in operating on chosen fields. The subject of this study was a comparison of the overall performance and
rates. Nevertheless, an individual market-segments comparison within the chosen companies would show more about their performance and the market conditions.
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## Appendices

#### Appendix 1 - Top 10 Czech construction companies - sales ranking

**TOP Czech construction companies ranking**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Company</th>
<th>Sales (thousand CZK)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>IPS Skanska a.s.</td>
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<tr>
<td>4</td>
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<td>PSJ holding, a.s.</td>
<td>4167000</td>
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<tr>
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<tr>
<td>3</td>
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<tr>
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<td>PSJ holding, a.s.</td>
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<td>Stavby silnic a_eleznic, a.s.</td>
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<tr>
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</tr>
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<td>S Brno, a.s.</td>
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Figure 19 - Top 10 Czech construction companies - sales ranking

Source: