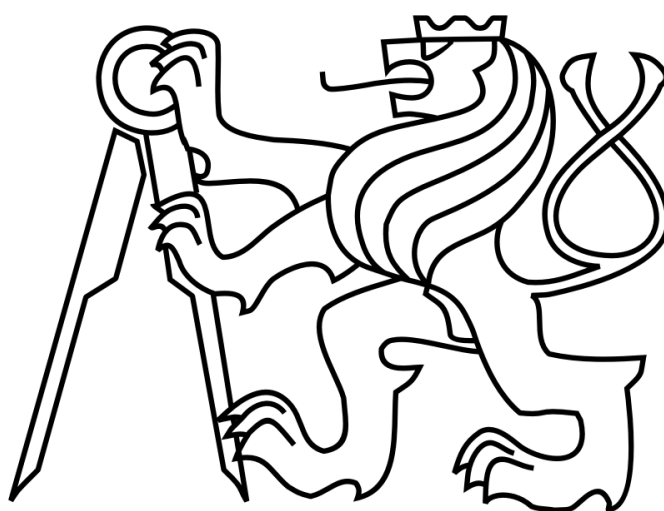


CZECH TECHNICAL UNIVERSITY IN PRAGUE

FACULTY OF CIVIL ENGINEERING

Department of Economics and Management in Civil Engineering



MASTER'S THESIS

**Comparative analysis of company
management**

Bc. Michal Hyben

2020

Thesis supervisor: **doc. Ing. ALEŠ TOMEK, CSc.**

Statutory Declaration

I hereby declare that the thesis submitted is my own unaided work, that I have not used other than the sources indicated, and that all direct and indirect sources are acknowledged as references.

In Prague, January 2021.

.....

Bc. Michal Hyben

Acknowledgment

I would like to thank the Thesis supervisor, Mr. doc. Ing. ALEŠ TOMEK, CSc.,
For professional guidance, for help and advice in preparation of this work, and also,
of course, to all those who fully supported me during my studies at all times.

VLOŽIT ZADÁNÍ!

Komparativní analýza řízení podniku

**Comparative analysis of
company management**

Abstrakt

Tato diplomová práce je zaměřena na analýzu stavebního trhu a vybraných stavebních podniků v České republice a v Spojených státech amerických. V teoretické části se popisuje současná situace na stavebním trhu s ohledem na specifické rysy ve stavebnictví. Praktická část této práce obsahuje zhodnocení situace vybraných stavebních společností pomocí interní a externí analýzy a porovnává vývoj trhu ve dvou odlišných částech světa. Výsledkem je určení a predikce vývoje trhu v nejbližších letech.

Klíčová slova

Stavební průmysl, stavební trh, marketing, komparativní analýza, finanční analýza, strategie, účetní výkazy.

Abstract

The aim of this Master's thesis is focused on the analysis of the construction market and selected construction companies in the Czech Republic and in the United States of America. The theoretical part describes the current situation in the construction market with regard to specific features in construction. The practical part of this work contains an evaluation of the situation of selected construction companies using internal and external analysis and compares the development of the market in two different parts of the world. The result is the determination and prediction of market development in the coming years.

Key words

Construction industry, construction market, marketing, comparative analysis, financial analysis, strategy, financial statements.

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1. Introduction

This Master's thesis presents the results of a complete analysis of selected companies. The aim of the work is based on theoretical background and analysis of a selected company using selected methods of financial analysis to evaluate the current state and forecast for the future development of the company, focusing on management and leadership of company.

Nowadays, it is increasingly necessary to perform a deeper analysis of the company's management. Financial analysis is an assessment of the past, present and projected future of the company. Its goal is to identify financial health, identify problem areas that could lead to bankruptcy in the future and determine the strengths on which the company could be build. Based on the data obtained from the financial statements, a system of indicators has been constructed, which enables a complete view of the objective financial situation of the company. It reflects information on liquidity, activity, debt, profitability and other areas. Through the understanding of this measures, complete analysis can helps to achieve business goals. It will also serve well as a basis for strategic business development planning.

The key sources of knowledge for this Master's thesis were Czech and foreign literature, financial statements of selected companies for individual periods, as well as consultations with economic representatives and a professional consultant, Mr. Tomek. The work contains theoretical knowledge about the analysis of business management, information about sources, strategies, methods and indicators of financial analysis. The practical part contains a complete analysis of the selected company Metrostav a.s. and Fluor Corporation for the period 2016-2019. Main source for this analysis were company's annual reports for recent years, which included the balance sheet, profit and loss statement, cash flow statement, statement of changes in equity and notes to the financial statements.

The final part of the thesis provides an overall assessment and complete analysis of selected companies. The expected benefit of this work lies in the comparison of two construction companies in different parts of the world and a possible prediction for the construction industry. The work is divided into two consecutive parts, theoretical and practical.

1.1. The aims of the Thesis

This Master's Thesis aims to identify the strategies of selected multinational companies in the field of construction. Furthermore, the partial goal is to compare the strategies applied in practice with the procedures recommended by the literature in order to find out whether the methods and elements of basic strategies are still applicable in business practice.

The Thesis examines strategic management in the Jacobs Engineering Group, Fluor Corporation and Metrostav a.s. organizations. Companies have been selected from two different environments, from Czech (European) market and United States.

The comparison is made on the basis of publicly available sources, such as annual reports of selected companies. A contribution to the elaboration was also the study of professional literature related to strategic and financial management in the construction industry.

1.2. The Purpose of the Thesis

Within the last few years, the way businesses operate has been changing constantly and evolution of new strategies happened. Striving to receive the best results, companies face a high number of challenges and after all want to perform superior compared to their competitors.

The Thesis is strongly focused on strategic analysis and research to gain more understanding of the industry structure, of the other factors that determine the gain or loss of competitive advantage other than creating a strategy or plan for them.

Current trends suggest that construction professionals, especially management level may be "behind the curve" in effectively applying the competitive intelligence approach, which is a crucial knowledge in the research and analysis stage in building a business strategy. The Global leaders as Jacobs Engineering Group or Fluor Corporation are subjects of this Thesis research.

1.3. Research Questions

Successful companies have a good level of strategic management. In this case, successful companies are considered to be companies operating in the global construction market and showing long-term profitable operations.

The hypothesis responds to the assumption that strategic management can indeed very effectively and positively affect the performance of the organization, but only if it is implemented in the right way.

The research aims and arising questions are identified below:

- Why strategic management and strategic analysis is important in construction industry?
- What are the most popular strategic analysis and business strategy tools used to implement the strategic plans and achieve a sustained competitive advantage?
- Can a change in perspective of strategic analysis have impact on the company's business strategy and its implementation?
- How have economic, political and social factors affected selected companies
- What can be the biggest threat to selected Companies

2. Construction industry, overview

What construction is? Construction is a diverse field that creates the world in which we operate. We are grateful to him for the roof over our heads, for the roads we travel on, for the shops we shop in, in short term, for everything that had to be built.

According to the Ministry of Industry and Trade, the construction industry has been contributing to the development of territorial units for a long time. Through its activities, it not only creates conditions for doing business in other economic areas, but also creates a large number of jobs during construction and after the completion of the construction work in the form of its subsequent use.

A significant ability of the construction industry is to absorb a large part of workers with lower professional qualifications or even with qualifications not corresponding to the field. Construction has many specifics and characteristics. Probably the biggest specificity of the construction industry is the dependence on investments from public funds. The entire construction industry depends on the annual investment of the state in the development and repair of transport infrastructure, as well as on the announcement of other public state construction contracts. Another specific feature is the weather, because construction work is largely dependent on weather conditions. In principle, the shorter or warmer the winter season, the better the numbers of construction companies. Not only the short winter, but also subsidies from European and regional funds have a positive impact on the construction industry.

On the other hand, although construction is irreplaceable and unquestionably needed, it does not produce services and goods that are absolutely necessary. Development and growth therefore depend on the possibilities and willingness of investors (state, companies, households) to invest in new buildings or modernize existing buildings.

According to CZ NACE¹ (classification of economic activities of the European Union), we distinguish three basic types of construction - construction of buildings

¹ CZ-NACE (Nomenclature statistique des activités économiques dans la Communauté européenne) is an abbreviation for the classification of economic activities issued by the European Commission since 1970. <http://www.nace.cz/F-stavebnictvi>

(CZ NACE 41), civil engineering (CZ NACE 42) and specialized construction activities (CZ NACE 43) [1]. Building construction, civil engineering and specialized activities do not only differ within the CZ NACE, but of course also in their purpose.

Building construction deals with the construction of new residential and non-residential buildings, as well as the renovation of existing buildings and development activities. It is then up to civil engineering to bring roads or tracks to these buildings and connect the buildings to electricity, water, gas, sewerage, internet or telephone. Civil engineering also deals with buildings for industrial use and other engineering parts. Specialized construction activities include demolition, site preparation, electrical installation work, plumbing work and other construction installation work, including assembly and finishing work.

2.1. Purpose and goals of construction industry

The ultimate goal of construction should be the needs of man and his society. The construction industry has a significant impact on the public interest and its results are significantly applied in public space. In order not to violate the interests of the parties involved and the public interest, the Czech Chamber of Authorized Engineers and Technicians² and the Czech Chamber of Architects³, test and successfully authorize experts who are allowed to work in construction and pay attention to their best possible performance during the examination. They also monitor their professional performance.

There are two types of sectors in the construction market, private and public. Each one represents a different behaviour of construction companies. Public procurement is driven mainly by price. Contracts in the private sector are overwhelmingly governed by quality, price and deadline. Clients from the private sector expect equal attention to quality, value and deadline [2].

² ČKAIT is directive board on recognition of professional qualification of a person established or on verification of professional qualification of a visiting person. <https://www.ckait.cz/>

³ ČKA is a self-administrated professional association responsible for the professional, thus practical and ethical performance of the profession of architect profession in the Czech Republic. <https://www.cka.cz>

3. Strategic management in construction

The construction industry is one of the driving industries in the world economy. The traditional philosophy of management in construction, both in academia and in industry, places great emphasis on the ability to plan and execute projects [3].

In contrast, a similar emphasis on strategic management has received less attention in the construction industry. Although the pressures of project performance can often obscure the broader social, economic, and professional context in which strategic management is undertaken, it is these broad contextual areas that make strategic management an essential issue for construction organizations.

Rapidly changing social and technological issues are creating a professional environment that will look very different in the coming decades than that experienced in today's organizations.

3.1. Why Strategic Management

Technology, communication, and market advances are fundamentally changing the global perspectives of time, distance, and spatial boundaries. Two decades ago organizations could identify themselves as local, regional, national, or international in scope and expect that these definitions were clearly defined.

However, with the emergence of technological innovations, these boundaries have been blurred to the point where any organization can theoretically participate in a design or construction project in any location. Concurrently, the concepts of company loyalty, traditional competitors, and employee development are changing at a pace that has not previously been encountered in post-industrial times.

Of particular interest is the emergence of three issues that form the need for a strategic management perspective by construction organizations - knowledge workers, new markets, and information technology [3]. Organizations must re-examine their attention to these technologies as a component of their long-term development. Strategic management is necessary to any organisation particularly those working in construction where there is a rapidly changing environment with adverse competition and surprises which may act as serious threats to organisation stability.

Knowledge Workers

Today's work place is evolving from a skill-based environment to one that is knowledge-based. Construction industry is witnessing the emergence of knowledge-based tasks as a central focus of organization operations. Previously, professionals were educated in specific disciplines and encouraged to remain with a single employer for an extended period of time in the tradition of professional apprenticeships.

However, this trend is changing with the emerging focus on expertise in areas such as technology, automation, economics, and market development. The ability to access information from sources such as the Internet, government and corporate databases, and private agencies has become a crucial as information exchange is now a fundamental component of the business operation [4].

New Markets

The new challenge for the construction industry is the area of emerging markets and competition. Historically, the construction industry has divided markets into the traditional classifications of heavy, industrial, commercial, or residential clients. This division provided the opportunity for organizations to entrench themselves into narrowly defined competitive markets [4].

Through this entrenchment, the industry elevated the leaders, challengers, and followers into an organized division of companies that battled for projects in an intense, but ordered, field of competition. Since competition from outside organizations was a secondary concern, security was defined through closely held market areas.

Unfortunately, this stability is slowly changing. With pressure increasing on profit margins and market boundaries, the evidence is mounting that construction organizations address alternatives to traditional markets. Boundaries accepted as the limits of market focus can no longer constrain the organization from exploring alternative income opportunities.

The entire life cycle of a construction project represents opportunities for professional services. However, the knowledge to identify, find, and pursue these opportunities must be developed as part of an expanded construction organization strategy [5].

Information Revolution

While the developments in human resources and markets demand that construction organizations respond to changing circumstances in the employee and customer marketplace, the information revolution is impacting all aspects of the construction profession.

Current computing technologies are providing construction professionals with access to rapidly expanding information repositories and evolving communication pathways. This access has profound implications for the construction industry in several areas including intra-office communications, client relations, and site management [6].

3.2. An Environment for Strategy

The development of strategic concepts, whether from a military perspective or a modern business perspective, does not occur spontaneously. The development of strategic concepts requires an environment that fosters strategic thinking and focus. The establishment, continuation, and enhancement of this environment settle focus of strategic management. Strategic management models have been evolving in the business domain on a continuous basis since the late 19century [5].

Combining input from these models with the results of interviews conducted by the authors with civil engineering executives, the construction industry comprises the following seven areas [3]:

- Vision, Mission and Goals – The starting point for all organization and establishments, a vision provides each member with a direction to follow in all business practices.
- Core Competencies – The business boundaries for an organization, core competencies establish what an organization does best and where its strength resides.
- Knowledge Resources – The combination of human and technology resources that provide the backbone for completing organization projects.
- Education – A focus on the informal and formal requirements for lifelong learning and understanding of evolving business conditions.

- Finance – A broad focus on monetary concerns beyond the project-to-project concerns of budget and schedule control.
- Markets – The analysis of expanded business opportunities within domains that are related to core competencies.
- Competition – A focused analysis and understanding of existing, emerging, and future competitors in both existing and potential market segments.

Underlying this entire structure is the understanding that the purpose of these focal points is to provide the environment that allows organizations to formulate strategic concepts.

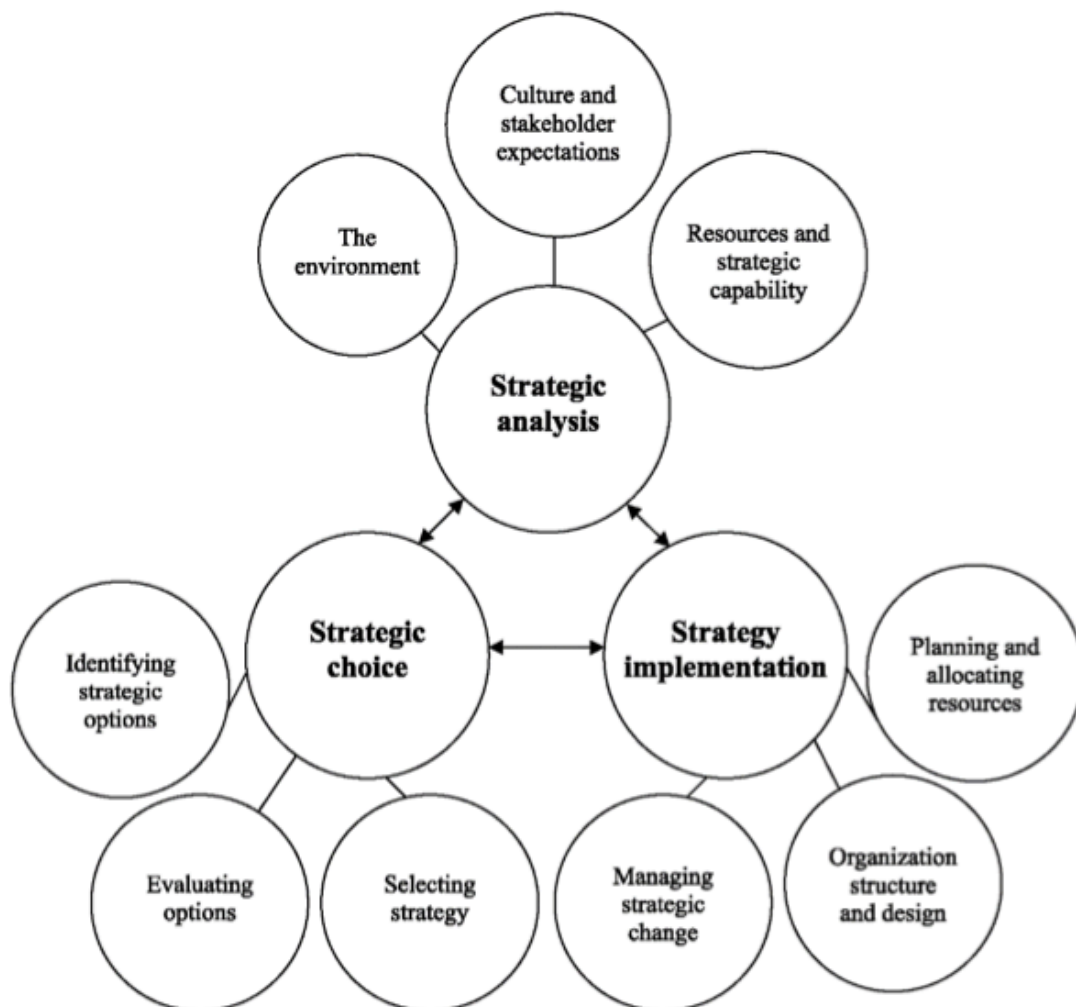


Figure 1 Johnson and Scholes model of elements of strategic management
 JOHNSON, G. a K. SCHOLE. *Exploring corporate strategy* [7]

Johnsons and Scholes [7] define three main elements which they refer to as strategic analysis, formulation and selection of strategies, and implementation of strategies. Each of these elements is based on various factors from the company's surroundings and its internal environment, which include, for example, the company's vision and goals, the interests of its surroundings, the skills and qualifications of the company's employees or the available organizational structure.

3.2.1. Levels of Strategic Management

In larger companies, we can distinguish several levels of management, at which the process of strategic management takes place. At the same time, each of these levels pursues the achievement of its own goals, which, however, as mentioned above, must be in line with each other's higher-level goals and must not contradict each other. Just as there is a set of goals that lead to the fulfilment of company-wide goals, we can also define a certain hierarchy of strategies, which are mutually concretized and further developed from top to bottom. From this point of view, we can distinguish between a strategy at the corporate level, a strategy at the business unit level, a strategy at the functional level and finally a horizontal strategy that coordinates existing relationships and thus helps to ensure coherence between different unit strategies [9].

3.3. Strategic Analysis

Strategic analysis is the initial element of the strategic management process, which serves managers and management of the company to obtain and evaluate information about the position of the company, its opportunities and possible further development and its relations with the environment. Its thorough implementation is essential for the whole strategic management process, because without this information it is not possible to formulate strategies correctly - as mentioned above, there is no universal strategy applicable to all companies.

On the contrary, a quality strategy must be based on the specific position of the company and its opportunities for development and situations that threaten it. It is the finding of a connection between the company and the environment that is the basis for formulating a strategy leading to the achievement of a competitive advantage and ensuring the competitiveness of the company [8].

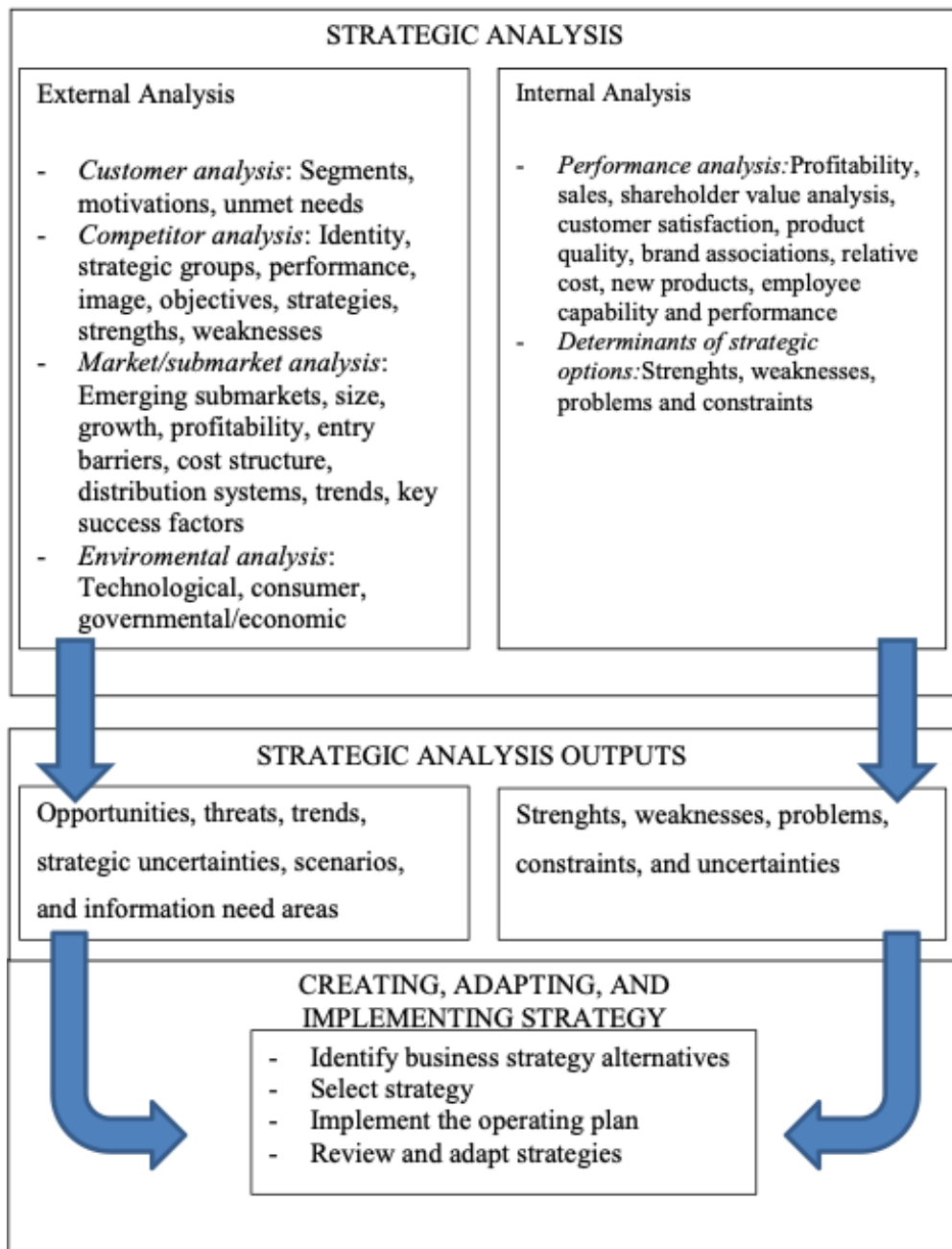


Figure 2 Overview of Strategic Management, Aaker, David. 2009. *Strategic Market Management 9th Edition*. West Sussex: John Wiley & Sons, In [12]

During the strategic analysis, the company's relations with the environment, as well as its position, are gradually broken down into simpler facts, while the individual internal and external factors affecting the company are recognized. These are further compared and evaluated, while assessing whether and, if so, how some of them are related and how they interact. To this end, a number of techniques and procedures have been developed. The strategic analysis is not only based on historical data, but

on the contrary must also include information on current developments around the company, or even the most likely estimates of future developments. The result is a summary of information about the current state of the company and its surroundings, as well as the identification of possible future opportunities and threats.

The results of the strategic analysis are the basis for all other strategic management and planning, it means for deciding whether the current strategy of the company is appropriate, as well as for the formulation and selection of a new strategy, and therefore new goals.

At the same time, a quality strategy should make maximum use of all the opportunities found arising from the company's strengths, and on the contrary should minimize the impact of the identified threats, as well as eliminate the company's weaknesses [12].

3.4. Objectives

The intentions and goals of the company represent another important part of the integrated model of strategic management. Strategic goal can be defined as a desirable state to be achieved in the future [10]. From these goals, strategic operations are subsequently derived, which ensure the achievement of these goals. Business goals can be described as the required future results that the company wants to achieve and which are derived from the company's mission. It is therefore a set of specific and achievable goals of the company.

The strategic goal is the desired future state, which can be measured by qualitative or quantitative methods. Business goals can be classified according to various criteria [11]:

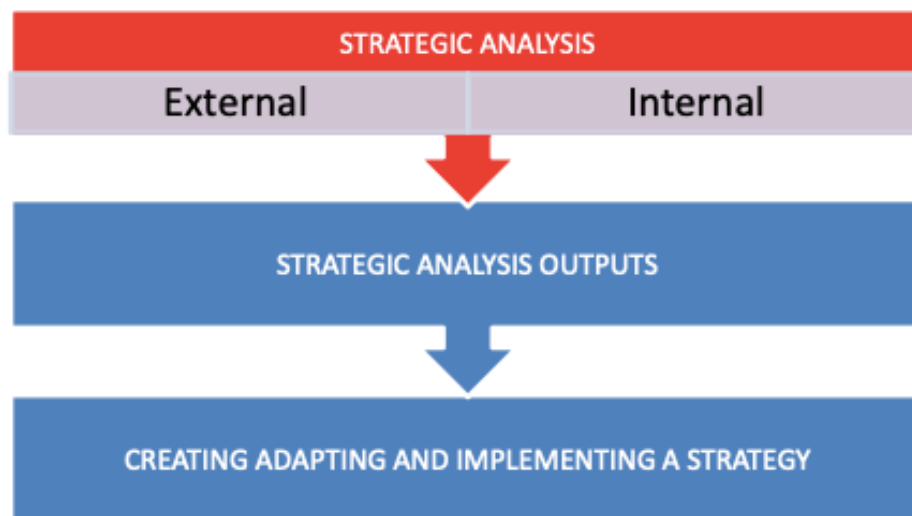
- the order of importance of the objectives
- size - unlimited versus limited, vertex versus subordinate
- time aspect - short-term, medium-term, long-term
- relationship between goals - complementary, competitive, opposite
- content - economic, financial, results, technical, social

Specific goals must be clearly defined (formulated), based on a realistic assessment of the company's capabilities and possibilities, the market situation, competitive position, needs and requirements of interest groups [13]. In the literature we find the condition SMART⁴.

3.5. First Phase of Strategic Planning

The strategic analysis can be divided into two parts - the analysis of the internal environment and the analysis of the external environment. However, the two parts are not separate, but on the contrary they can often interact with each other, and it is therefore necessary to pay attention to their interrelationship and consider their interconnectedness [8].

Table 1 First phase of strategic planning



3.5.1. External analysis

External analysis is examination of elements external to a business. These elements according are customers, competitors, markets and submarkets, and the environment or context outside of the market. The external analysis should have a focus and a limited scope [12].

⁴ SMART in definition means that business goals must be specific (can be described in detail), measurable (using quantitative or qualitative methods), achievable, realistic and time-bound (until the goal is to be met) (Harvard Business School, 2013)

Figure 3 suggests that external analysis can contribute to strategy directly by suggesting strategic decision alternatives or influencing a choice among them. Additionally, the external analysis can support the strategy indirectly by identifying significant trends and future events, threats and opportunities, and strategic uncertainties that could affect strategy outcomes [12].

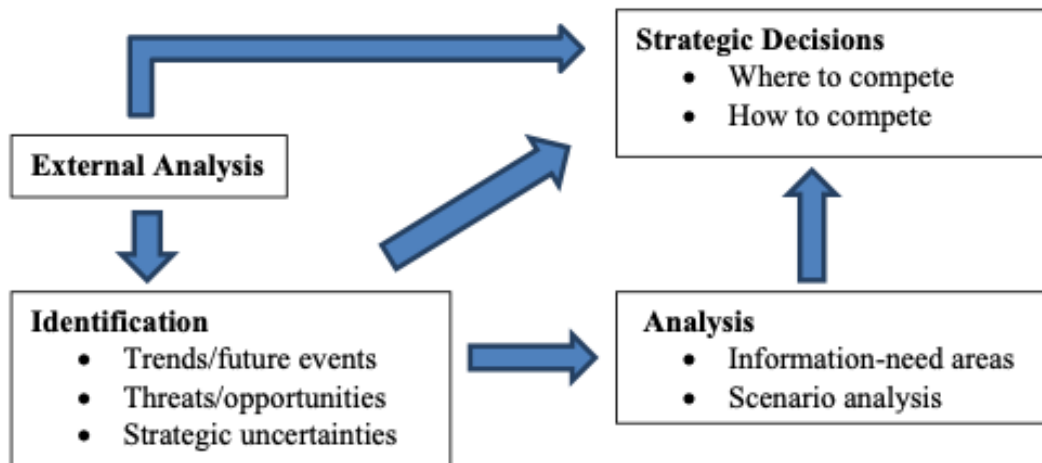


Figure 3 The role of External Analysis, *Overview of Strategic Management*, Aaker, David. 2009. *Strategic Market Management 9th Edition*. West Sussex: John Wiley & Sons, In [12]

3.5.2. Internal analysis

The internal analysis aims to provide a detailed understanding of strategically important internal aspects of the organization. There are four aspects of internal analysis [12]. An internal analysis examines your organization's internal environment in order to assess its resources, competencies, and competitive advantages. Performing an internal analysis allows you to identify the strengths and weaknesses of your organization.

This knowledge then aids the strategic decision making of management while they carry out the strategy formulation and execution process.

SWOT Analysis

The SWOT analysis is one of the most well-known and used business analysis tools around. It gained popularity due to its simplicity (covers both an internal and

external analysis), though equally for its effectiveness. The name SWOT is derived from the factors in its grid, namely - Strengths, Weaknesses, Opportunities, and Threats [12].

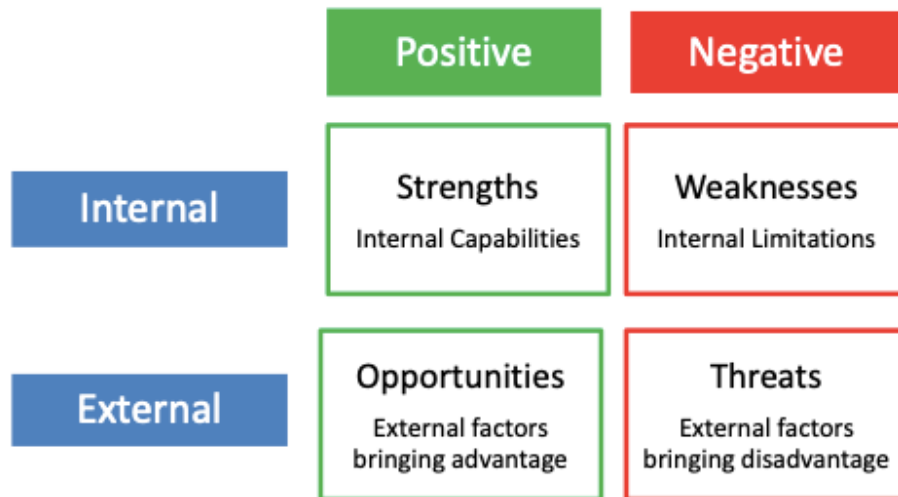


Figure 4 SWOT Analysis: Strengths, Weaknesses, Opportunities, and Threats, P. Kotler & G. Armstrong (2010), "Principles of Marketing", Marketing, Communication, and Human New Jersey: Pearson Prentice Hall. [14]

4. Financial Management

The subject of interest in financial management is primarily obtaining the necessary amount of financial resources and the management of the company's capital structure, ensuring the optimal amount and structure of assets, financial planning or profit distribution.

Financial management also deals with bookkeeping and controlling and, last but not least, financial analysis and measurement of company performance. Financial management also provides owners and outsiders with an overview of the financial situation and overall management of the company [15].

4.1. Management of assets

All assets of the company are reported in the balance sheet⁵, specifically on the assets side. Assets or assets are then divided into long-term and current:

The specific structure of assets depends on a number of factors, especially the growth of business performance, which increases the requirements for the size of assets, asset price or focus of the company (manufacturing company will have a different asset structure than the company providing services).

Of course, the company's assets must be financed in some way. An overview of the corporate structure of financial resources from which the assets are financed is provided by the other side of the balance sheet, the liabilities side. Total liabilities are then divided into own and external sources [15]:

- equity - includes share capital (monetary and non-monetary deposits), capital funds (received gifts, subsidies, share premium, etc.), profit funds (reserve fund and other funds formed from profit) as well as the result of the current and previous accounting period (retained earnings, unreimbursed loss)

⁵ A balance sheet is a financial statement that reports a company's assets, liabilities and shareholders' equity at a specific point in time, and provides a basis for computing rates of return and evaluating its capital structure. It is a financial statement that provides a snapshot of what a company owns and owes, as well as the amount invested by shareholders.

- external sources - include provisions (eg for repairs of fixed assets), short-term liabilities (bank loans, liabilities to employees, etc.) and long-term liabilities (long-term bank loans, issued bonds, etc.)

The composition of corporate capital, of course, depends on the form of business (for different legal forms, the law may stipulate different amounts of share capital), but the specific composition is also affected by the costs (prices) for its acquisition and use. It is often the case that debt is significantly cheaper than equity, for example because interest on loans is tax deductible, while the cost of equity (dividends) is not.

However, companies using a large amount of external resources can be risky, especially from the point of view of creditors. It is therefore in the interest of financial management to maintain the capital structure so that the costs and risk associated with it are as low as possible [16].

4.2. Financial analysis and ratios

Evaluating and measuring a company's financial performance is an important part of financial management.

Financial analysis can be defined as a systematic analysis of the data obtained, which are contained primarily in the financial statements. Financial analyses include an assessment of the company's past, present and forecast of future financial conditions [17].

The purpose of financial analysis is to evaluate the current development and create a basis for financial planning in the short and long term. The source of information for financial analysis is mainly financial statements [16]:

- balance sheet – display of assets and sources of their coverage
- profit and loss statement - overview of costs, revenues and profit
- cash flow statement - overview of income and expenses, resp. real cash flows.

"The ratio is calculated as the ratio of one or more accounting items of the basic financial statements to another item or to a group of them." [17]

Ratios are the most commonly used analytical procedure for financial statements. The analysis by ratios is based exclusively on data from the basic financial statements, so it uses publicly available information and is also accessible to an external financial analyst.

Table 2 Financial ratios and their uses to understand financial statements

Category	Description
Activity Ratios	Measures how efficiently a company performs day to day tasks, such as the collection of receivables and management of inventory
Liquidity Ratios	Measures the company's ability to meet its short term obligations
Solvency Ratios	Measures a company's ability to meet long term debt obligations. Subsets of these ratios are known as "leverage" and "long term debt" ratios
Profitability Ratios	Measures the company's ability to generate profitable sales from its resources (assets)
Valuation Ratios	Measures the quantity of an asset or flow associated with ownership of a specified claim
Coverage Ratios	Measures a company's ability to pay its liabilities

4.2.1. Profitability Ratios

Profitability or return on invested capital is a measure of a company's ability to create new resources, to make a profit using the invested capital. Profitability indicators therefore compare profit with the company's resources used to achieve it. Within the financial analysis, we work mainly with these profitability indicators [17]:

- **return on total assets (ROA)** - expresses the return on assets, it measures profit against the total assets invested in the business, regardless of the sources from which they were financed
- **return on equity (ROE)** - expresses the return on capital invested by shareholders or business owners. With its help, investors can find out whether their capital is reproduced with the appropriate intensity corresponding to the investment risk. As a rule, therefore, it compares profit with equity

- **return on sales (ROS)** - expresses the company's ability to achieve a profit at a given level of sales, how much the company can produce an effect on 1 unit of sales. It therefore compares profit with sales.

Calculation (formula)

Return on assets is calculated by dividing a company's net income (usually annual income) by its total assets and is displayed as a percentage. There are two acceptable ways to calculate return on assets: using total assets on the exact date or average total assets [18]:

$$\mathbf{ROA = Net\ income\ after\ tax / Total\ assets\ (or\ Average\ Total\ assets)}$$

Return on assets gives an idea as to how efficiently management use company assets to generate profit but is usually of less interest to shareholders than some other financial ratios such as ROE.

Return on equity⁶ is calculated by taking a year's worth of earnings and dividing them by the average shareholder equity for that year, and is expressed as a percentage:

$$\mathbf{ROE = Net\ income\ after\ tax / Shareholder's\ equity}$$

Return on equity may also be calculated by dividing net income by the *average* shareholders' equity; it is more accurate to calculate the ratio this way:

$$\mathbf{ROE = Net\ income\ after\ tax / Average\ shareholder's\ equity}$$

Average shareholder's equity is calculated by adding the shareholder's equity at the beginning of a period to the shareholder's equity at the period's end and dividing the result by two.

A common way to break down ROE into three important components is the DuPont formula, also known as the Strategic Profit model. Splitting the return on equity into three parts makes it easier to understand the changes in ROE over time.

⁶ Historically, the average ROE has been around 10% to 12%. For stable economics, ROEs more than 12-15% are considered desirable. But the ratio strongly depends on many factors such as industry, economic environment (inflation, macroeconomic risks, etc.).

ROE (DuPont formula) = (Net profit / Revenue) * (Revenue / Total assets) * (Total assets / Shareholder's equity) = Net profit margin * Asset Turnover * Financial leverage

When calculating return on sales, investors might notice that some companies report net sales while others report revenue. Net sales are total revenue minus the credits or refunds paid to customers for merchandise returns. Net sales will likely be listed for companies in the retail industry, while others will list revenue. Below are the steps to calculate return on sales.

ROS = Net income after tax / Sales

The calculation shows how effectively a company is producing its core products and services and how its management runs the business. Therefore, ROS is used as an indicator of both efficiency and profitability.

Investors, creditors, and other debt holders rely on this efficiency ratio. It shows the company's ability to repay debt [18].

4.2.2. Liquidity Ratios

Liquidity generally means the ability of a company to pay its liabilities on time. Therefore, liquidity is very important in the financial health of the company, in the absence of it, it could get into trouble with paying liabilities, which could ultimately lead to its bankruptcy. The company should therefore be sufficiently liquid in terms of financial balance, but on the other hand, too high a level of liquidity can reduce the company's profitability, as the free funds bring essentially no return. It is therefore in the best interest of the company to maintain liquidity at an optimal level, which will enable the timely payment of the company's liabilities and at the same time will not reduce its profitability [17]:

The current ratio, also known as the working capital ratio, measures the capability of a business to meet its short-term obligations that are due within a year. The ratio considers the weight of total current assets versus total current liabilities. It indicates the financial health of a company and how it can maximize the liquidity of its current assets to settle debt and payables. The Current Ratio formula (below) can be used to easily measure a company's liquidity.

Current ratio = Current assets / Current liabilities

The Acid-Test Ratio, also known as the quick ratio, is a liquidity ratio that measures how sufficient a company's short-term assets are to cover its current liabilities. In other words, the acid-test ratio is a measure of how well a company can satisfy its short-term (current) financial obligations. This guide will break down how to calculate the ratio step by step and discuss its implications.

$$\text{Acid-test ratio} = \text{Current assets} - \text{Inventories} / \text{Current liabilities}$$

The cash ratio, sometimes referred to as the cash asset ratio, is a liquidity metric that indicates a company's capacity to pay off short-term debt obligations with its cash and cash equivalents. Compared to other liquidity ratios such as the current ratio and quick ratio, the cash ratio is a stricter, more conservative measure because only cash and cash equivalents – a company's most liquid assets – are used in the calculation.

$$\text{Cash ratio} = \text{Cash and Cash equivalents} / \text{Current Liabilities}$$

The Operating Cash Flow Ratio⁷, a liquidity ratio, is a measure of how well a company can pay off its current liabilities with the cash flow generated from its core business operations. This financial metric shows how much a company earns from its operating activities, per dollar of current liabilities. Since earnings involve accruals and can be manipulated by management, the operating cash flow ratio is considered a very helpful gauge of a company's short-term liquidity [19].

$$\text{Operating cash flow ratio} = \text{Operating cash flow} / \text{Current liabilities}$$

4.2.3. Leverage Financial Ratios

The company uses not only its own capital for its activities, but also other sources. Leverage ratios then express the extent amount of financing of assets by foreign sources. The subject of interest of the company / financial management of the company is to ensure the optimal composition of capital. In the case of equity, the amount also plays a role by the law.

⁷ **Cash flow from operations** can be found on a company's statement of cash flows. Alternatively, the formula for cash flow from operations is equal to net income + non-cash expenses + changes in working capital.

Current liabilities are obligations due within one year. Examples include short-term debt, accounts payable, and accrued liabilities.

Although a higher level of indebtedness carries a greater risk of financial instability, on the other hand, it may contribute to higher profitability. In financial analysis, these indicators of leverage are used in their basic form [17]:

The Debt to Asset Ratio, also known as the debt ratio, is a leverage ratio that indicates the percentage of assets that are being financed with debt. The higher the ratio, the greater the degree of leverage and financial risk.

The debt to asset ratio is commonly used by creditors to determine the amount of debt in a company, the ability to repay its debt, and whether additional loans will be extended to the company. On the other hand, investors use the ratio to make sure the company is solvent, is able to meet current and future obligations, and can generate a return on their investment.

$$\text{Debt ratio} = \text{Total liabilities} / \text{Total assets}$$

The Debt to Equity ratio, also called the “debt-equity ratio”, “risk ratio”, or “gearing”, is a leverage ratio that calculates the weight of total debt and financial liabilities against total shareholders’ equity. Unlike the debt - assets ratio which uses total assets as a denominator, the D/E Ratio uses total equity. This ratio highlights how a company’s capital structure is tilted either toward debt or equity financing.

$$\text{Debt to equity ratio} = \text{Total liabilities} / \text{Shareholder's equity}$$

The Interest Coverage Ratio, is a financial ratio that is used to determine how well a company can pay the interest on its outstanding debts. The ICR is commonly used by lenders, creditors, and investors to determine the riskiness of lending capital to a company.

$$\text{Interest coverage ratio} = \text{Operating income} / \text{Interest expenses}$$

The debt service coverage ratio reveals how easily a company can pay its debt obligations. The Debt Service Coverage Ratio (DSCR) measures the ability of a company to use its operating income to repay all its debt obligations, including repayment of principal and interest on both short-term and long-term debt.

$$\text{Debt service coverage ratio} = \text{Operating income} / \text{Total debt service}$$

This ratio is often used when a company has any borrowings on its balance sheet such as bonds, loans, or lines of credit [19].

Table 3 Financial ratios and their uses to understand financial statements, BENDER M., *Financial Management and Accounting for Construction Industry*, release no. 17, London 2005 [19]

Solvency ratios	Ratio calculation
Debt-to-assets	$\frac{\text{Total debt}}{\text{Total assets}}$
Debt-to-capital	$\frac{\text{Total debt}}{\text{Total debt} + \text{Total shareholders' equity}}$
Debt-to-equity	$\frac{\text{Total debt}}{\text{Total shareholders' equity}}$
Financial leverage	$\frac{\text{Average total assets}}{\text{Total shareholders' equity}}$

Financial Leverage

Financial leverage is the use of borrowed money (debt) to finance the purchase of assets with the expectation that the income or capital gain from the new asset will exceed the cost of borrowing.

In most cases, the provider of the debt will put a limit on how much risk it is ready to take and indicate a limit on the extent of the leverage it will allow. In the case of asset-backed lending, the financial provider uses the assets as collateral until the borrower repays the loan. In the case of a cash flow loan, the general creditworthiness of the company is used to back the loan [25].

Dynamics of debt and equity

Debt investors take less risk because they have the first claim on the assets of the business in the event of bankruptcy. For this reason, they accept a lower rate of return and, thus, the firm has a lower cost of capital when it issues debt compared to equity.

Equity investors take more risk, as they only receive the residual value after debt investors have been repaid. In exchange for this risk, investors expect a higher rate of return and, therefore, the implied cost of equity is greater than that of debt.

In order to optimize the structure, a firm can issue either more debt or equity. The new capital that's acquired may be used to invest in new assets or may

be used to repurchase debt/equity that's currently outstanding, as a form of recapitalization [26].

Table 4 Dynamics between debt and equity from the view of investors and the firm.
 Corporate finance institute. [online] [cit.2016-09-29]. Available at
<https://corporatefinanceinstitute.com/resources/knowledge/finance/> [26]

A company		Investment dynamics			
Capital Structure		Risk	Return	Ownership	Performance
Assets	Debt	Low risk	Low return • Interest • Capital back	No ownership rights	Temporal
	Equity	High risk	High return • Dividend • Capital growth	Ownership rights – voting rights	Permanent

4.2.4. Market Value Ratios

Market value ratios are used to evaluate the share price of a company's stock. Common market value ratios include the following [25]:

The book value per share ratio calculates the per-share value of a company based on the equity available to shareholders:

$$\text{Book value per share ratio} = (\text{Shareholder's equity} - \text{Preferred equity}) / \text{Total common shares outstanding}$$

The dividend yield ratio measures the number of dividends attributed to shareholders relative to the market value per share:

$$\text{Dividend yield ratio} = \text{Dividend per share} / \text{Share price}$$

The earnings per share ratio measures the amount of net income earned for each share outstanding:

$$\text{Earnings per share ratio} = \text{Net earnings} / \text{Total shares outstanding}$$

5. Marketing

The success of any company depends, among other things, on quality customer - oriented marketing management, and the attention of these companies should be focused on sensing and subsequently fulfilling customer wishes in well-defined target markets [14].

In essence, marketing is everywhere, its activities are hidden behind countless activities and profoundly affects the daily lives of all people. Good marketing is one of the key factors that determine business success. In order to achieve their goals, marketing activities should be used by all companies, regardless of their size or market share.

Successful companies are strongly committed to marketing management. However, marketing is either misunderstood or completely neglected in many construction companies, mainly due to the difficulty of applying conventional marketing in the industry, accompanied by the lack of sufficient research on the nature of marketing and tailored marketing theories and strategies for the construction [21].

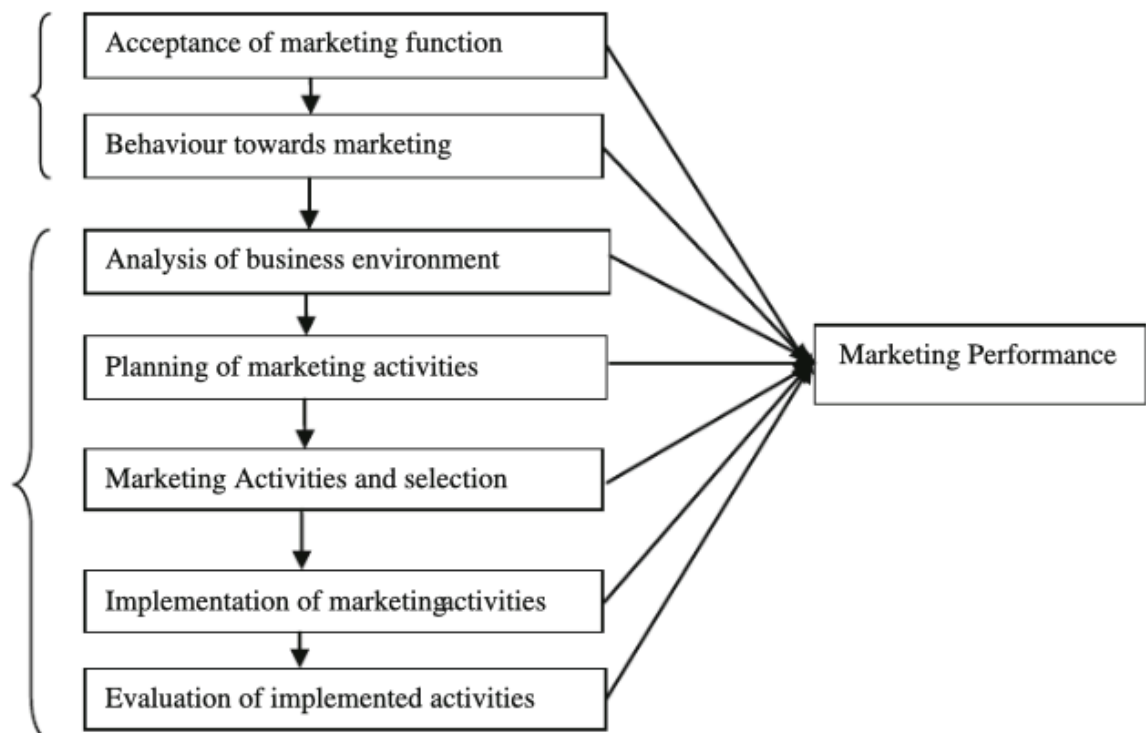


Figure 5 Human factor-based construction marketing framework.

In Figure 5, the proposed conceptual model for construction marketing is given. The first set of factors is the human factor related issues that must be considered first before the strategic management factors. The second set of factors is the strategic management factors whose success depends largely on the human related factors [21].

5.1. The Market

The essence of marketing is providing client satisfaction and value. Marketing, as a business effort to successfully enter the market and develop successfully and in the long run, arises when people decide to satisfy their needs through exchange. The exchange is an act of obtaining the desired object for the offered consideration. The exchange of values between the two parties, including the agreed terms, time and place of the agreement, is then referred to as the "transaction".

Increasingly, marketing is a core business philosophy, the most important management method and the main competitive tool in all types of business [20].

The concept of exchange leads to the concept of market. Market is people or organizations with a current or potential interest in a product or service who are ready to buy them for money or other consideration [22].

The construction market can be distinguished according to several "sub-markets":

a) **the market of construction works** - the focus of the entire construction market, where the construction work is carried out (new construction, reconstruction or modernization)

b) **market of building materials** - represents the production and sale of basic production factors of construction of construction works

c) **the market of construction services** - represents a wide sphere of provided tangible and intangible service activities (special machines, marketing special consultancy, brokerage activities, ...)

d) **real estate market** - a non-construction segment in which existing and potential property owners and investors operate, whose behaviour retroactively influences the development of the construction market.

5.2. Construction Marketing Frameworks and Human Factors

Marketing in the context of construction management has been defined as All activities involved in obtaining future work [22]. The definition seeks to suggest that marketing in construction is a function that is made up of a number of activities. The objective of these activities is to obtain future work.

This definition is in consonance with the position of many construction management researchers who sees marketing in construction as strategic management. This view, to a large extent has influenced the key factors in construction marketing frameworks.

The marketing process in construction comprises of knowledge of market trends, market analysis, and company analysis as the key facet. The key attributes of construction marketing can therefore be said to consist of marketing analysis, marketing planning, marketing activities, implementation of marketing activities and evaluation implemented activities [23].

The main steps for marketing planning:

- Analyse the changing business environment
- Identify the options relevant to the firms' core competences
- Establish firm business strategy and define marketing objectives
- Set marketing strategies and performance targets
- Confirm achievable by undertaking market and client research
- Formulate tactical initiatives and action
- Seek individuals' commitment to implementing their part of plan
- Create monitoring controls to evaluate performance.

5.3. Marketing Strategy for Construction

The form of a specific strategy will vary from company to company, but there are three generally applicable types of strategies, which are also among the best known [24]:

Low-cost leadership, in this strategy, the company sets itself the goal of becoming a well-known manufacturer in its own industry with low production and distribution costs, which is then reflected in lower prices. At the same prices or at lower prices than competitors, company with the lowest cost will transform late into higher profits. However, there is still some risk that other companies will compete with even lower prices.

Therefore, a company cannot completely ignore the basis of differentiation (if buyers do not perceive the product as comparable or acceptable, the company with the lowest price will be forced to reduce prices much below competitors' prices in order to obtain the sales).

Differentiation strategy, the company strives to be unique in its industry in some dimensions, which are highly valued by buyers. He carefully selects one or more product features that many industry buyers perceive as important and builds a unique position to meet those needs. He is rewarded with a higher price for his uniqueness.

Differentiation can be based on the product itself, on the distribution system through which it is sold, on the marketing approach and on a wide range of other factors. However, company cannot ignore its cost position (because a worse cost position will deprive its higher cost prices of efficiency).

Focus strategy, the company selects one or more segments and adjusts its strategy exactly to serve only these segments. In doing so, it seeks to gain a competitive advantage in its target segments, even if it does not have an overall competitive advantage. This strategy has two variants:

- *cost focal strategy - the company strives for the lowest cost advantage in its target segment*

- *differentiation focal strategy - the company in the target segment strives for differentiation*

Both variants of the targeting strategy lie in the differences between the segments on which the company focused its attention and other segments in the given sector.

5.4. Marketing Communication

In the construction industry, reference buildings, which the company has completed, and which form the material environment of all people's lives, play an important role in raising the company's profile. Visual style of the company, information about the course of construction in the media, they form the basis for creating the image and identity of the company. [23]:

For construction companies, more than other tools, reputation and good name are the key. Classic advertising is relatively expensive and especially in public procurement, where the price is the most important, it is not very effective.

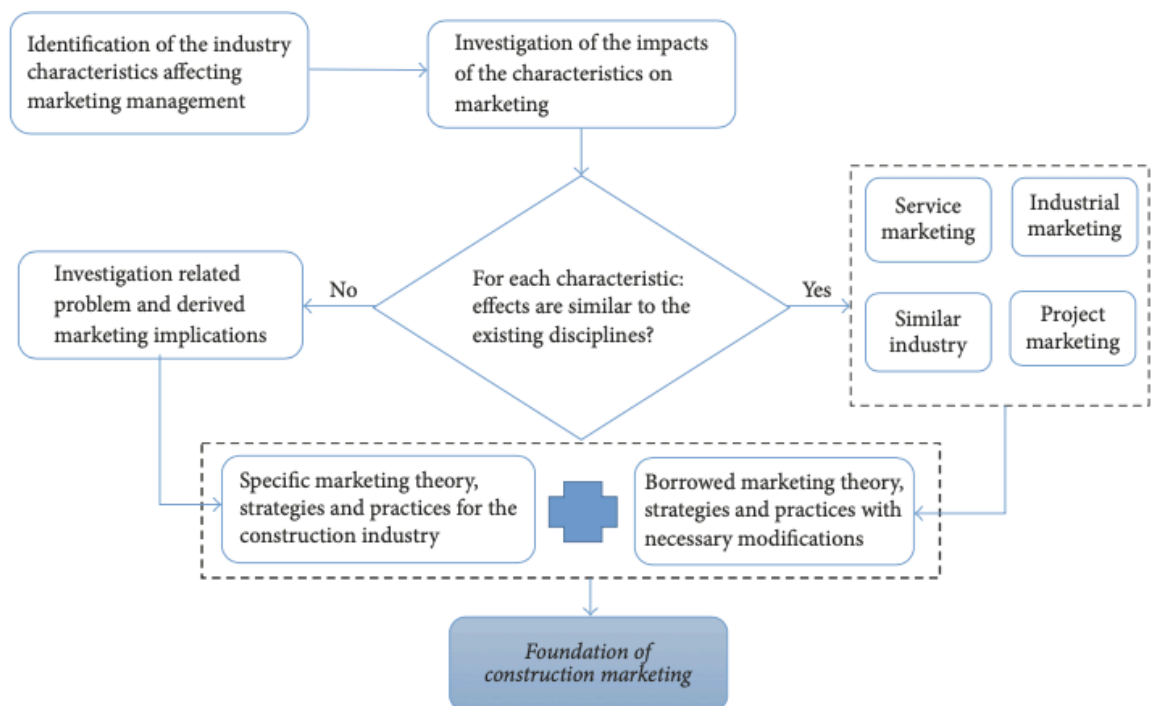


Figure 6 Basic construction marketing knowledge development⁸. [21]

In conclusion, construction is a “major service with accompanying minor goods” based on tangibility and durability. According to the users of the products and the project-driven nature of the industry, it can be categorized as industrial and project marketing.

⁸ According to Figure 6, there are two main sources for construction marketing development, including the existing related marketing disciplines and implications from the specificities of the construction industry. Implication from other industry: It is of great value to take advantage of the best practices found in other industries with similar characteristics, in order to decide which strategies should be adopted

5.5. Modern tools of Marketing Communication

Marketing is constantly evolving and with it come new forms of marketing communication. The needs of customers are also changing, and they are becoming more and more immune to traditional advertising. This is one of the reasons why companies have started looking for new communication ways to best reach their target groups.

- a) **Product placement** - the capture of a product or service in an audio-visual work, books, etc., which does not in itself have an advertising character
- b) **Guerrilla communication** - hitting in an unexpected place, focusing on precisely selected goals and quickly withdrawing, with the primary goal to attract attention, not to create the impression of an advertising campaign
- c) **Mobile marketing** - any form of marketing using mobile communications targeted at consumers
- d) **Viral marketing** - an interesting message with advertising content that the recipient disseminates by their own means on some kind of social medium⁹ (entertaining videos promoting the product on the YouTube website, Instagram application, Facebook or LinkedIn website)
- e) **Buzz marketing** - creating excitement and debates about a brand or product in the form of topics that themselves attract the attention of consumers and the media.

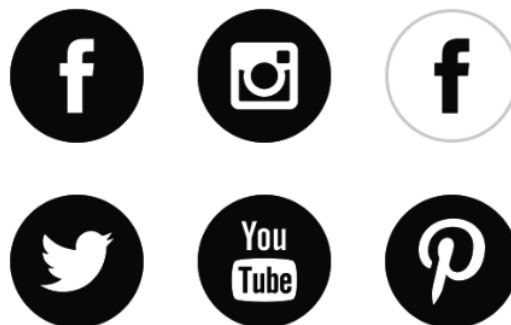


Figure 7 The most popular social medias Icons, Pinterest [online] Available at <https://br.pinterest.com/iconfinder>, [27]

⁹ Social media is computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. By design, social media is internet-based and gives users quick electronic communication of content. Content includes personal information, documents, videos, and photos.

The Practical Part

The practical part follows the part of the first section of this thesis and presents approaches to strategic management in selected global construction organization and a domestic leader in the construction industry - the Metrostav Group. This domestic organization also carries out its activities abroad and strives to become part of the global market. The contribution of the work is a comparison of the approach of a domestic company to strategic management with companies in the global market.

As demonstrated in the previous section, strategic management is a necessary condition for achieving market success and stabilizing the market position. This is double true in the construction sector, which is highly volatile and requires a strategic management approach that allows for rapid change (including transformational change). Globally successful companies can then be an inspiration for the domestic leader in construction.

The following chapter includes the introduction of Company, description of its history, current situation, its activities, marketing communication, organizational structure and capital management. The company is consequently analysed through SWOT analysis and the financial analysis of the company. Analysis is based on the financial statements of years 2016, 2017, 2018 and 2019.

In order to work the overall analysis, I used the knowledge from the theoretical base mentioned in the previous chapter, further from main types of the financial statements and sources necessary to an analysis:

- The statement of income
- The balance sheet statement
- The cash flow statement
- The notes to financial statements
- Other sources (consultation, official website)

6. Basic information – Metrostav a.s.

Company Name: Metrostav a.s.

Headquarters: Koželužská 2450/4, Libeň, 180 00 Praha 8

CEO: Ing. Jaroslav Heran, MBA

Founded: 23. května 1991

Employees: 2,998

Metrostav a.s. is one of the most important construction companies in the Czech Republic, which focuses primarily on transport and underground constructions, including the construction of Prague metro lines, civil engineering, residential and industrial construction, water management constructions and other engineering constructions. It has been operating on the construction market for more than 40 years. The organizational structure of Metrostav a.s. is given in appendix In appendix you can also find the mission, vision and basic strategic goals of this company.

Metrostav a.s. is a part of the Metrostav Group, within which it is the managing person. In addition to the managing entity, a significant member of the Metrostav Group is the company Subterra a.s., which deals mainly with underground construction or railway infrastructure construction. Another important member of the Metrostav Group is Metrostav Development a.s. focusing on development projects and their management.



Figure 8 Metrostav Icone, Metrostav. [online]. Available at http://www.metrostav.cz/cz/profil/ke_stazeni.

Important customers of the company include the Transport Company of the Capital City of Prague, the Railway Infrastructure Administration, the Directorate of Roads and Motorways and other public and private clients.

The company, under the trade name Metrostav a.s. was entered in the Commercial Register in May 1991 with registered office in Prague 8 and a registered capital of CZK 790,668,800. The majority shareholder of the company is the construction company DDM Group a.s. with a share in the registered capital of 51.3%. The company has a dualistic internal management structure consisting of the Board of Directors and the Supervisory Board.

Table 5 An overview of shareholders is given in the table, 2020. Source: Own.

Shareholder	Number of Shares	Share in Registered Capital
DDM Group a.s	4 059 580	51,34%
DOAS SK, a.s.	1 832 407	23,18%
DOAS CZ a.s.	1 347 489	17,04%
Other domestic legal entities	6 201	0,08%
Other foreign legal entities	108 326	1,37%
Domestic natural persons	507 522	6,42%
Foreign natural persons	45 143	0,57%
Total:	7 906 668	100%

6.1. History

Metrostav a.s. was established in 1991 as the legal successor of the national, later state-owned company Metrostav, which was founded in 1971 as a specialized company for the construction of the Prague metro.

After 1990, however, due to declining expenses for this activity, the company had to significantly expand its portfolio and Metrostav became a highly versatile company, which in addition to underground construction (within which it still covers almost half of the market) began to focus on all other segments of engineering. construction (road, railway, water management) and also began business in the field of construction and reconstruction of residential, civil and industrial buildings.

An important milestone of the company is the year 2000, when the company DDM Group a.s. became the majority shareholder, which is backed by the managers of the Slovak Doprastav and the Czech Metrostav.

For almost 20 years, the company has held an internationally valid quality management certificate according to ISO 9001 for the general supply of buildings and

civil engineering, which is awarded by Bureau Veritas based in London. Company also holds the OHSAS 18001: 2008 certificate, which demonstrates the company's ability to manage and minimize risks in the field of safety and health at work.

6.2. Organizational structure of the Company

At the head of Metrostav a.s. is the General Assembly, under which is the Supervisory Board, the Audit Committee and the Board of Directors. The company is mainly divided into divisions, each of which specializes in a different type of activity.

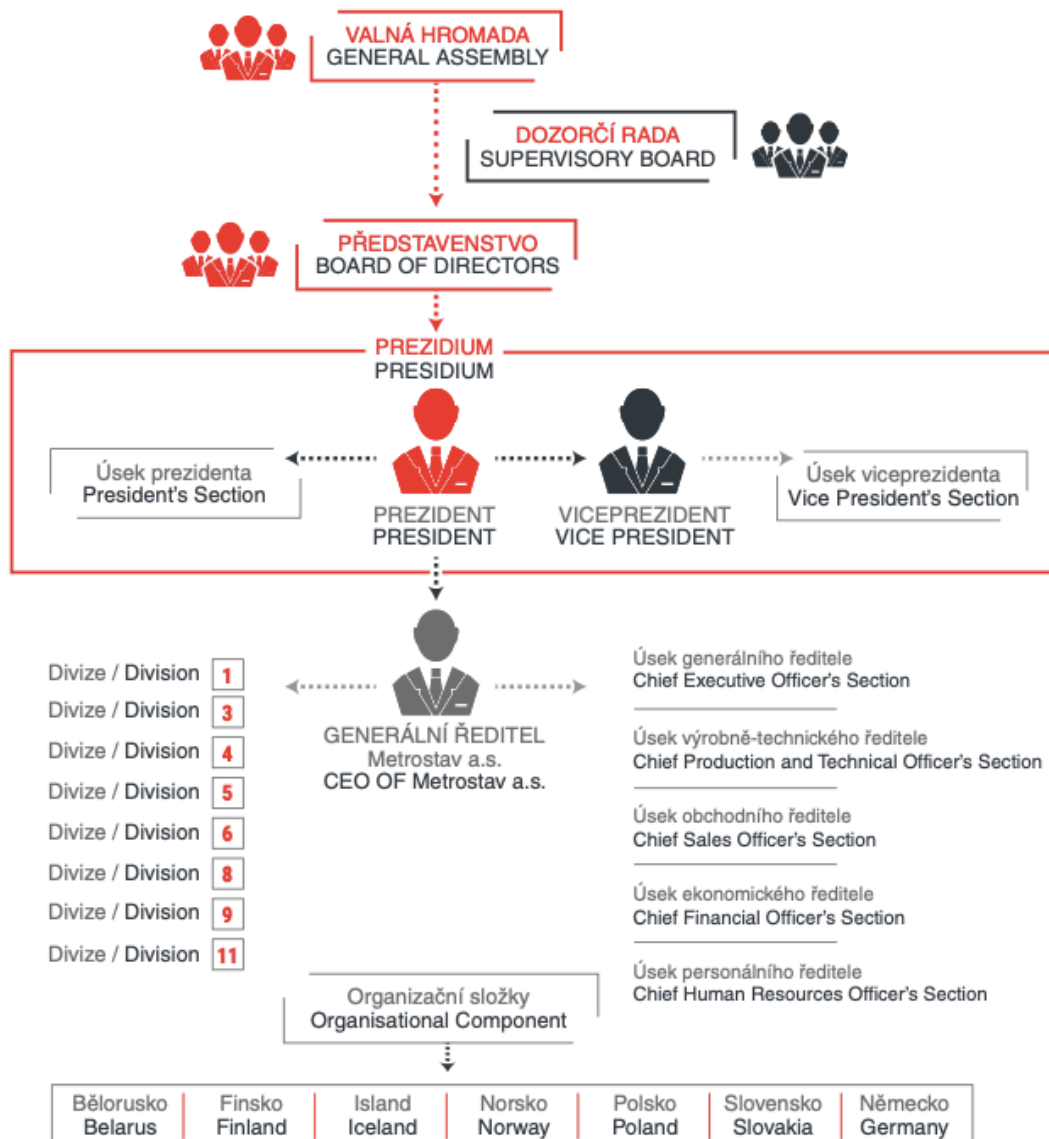


Figure 9 Metrostav Organizational Structure, Metrostav. [online]. Available at http://www.metrostav.cz/cz/profil/ke_stazeni.

6.3. Marketing

As a construction company, Metrostav a.s. in its marketing communication, it strives primarily to evoke positive public attitudes towards its activities. In addition, of course, the company uses the classic forms of presentation through websites, which are visually average in terms of visual processing, but contain all the key information about the company and its activities, including reference contracts and awards. This website is also optimized for display on mobile devices, which has been very topical in recent years.

Furthermore, of course, it hangs information tarpaulins on its buildings and company cars are affixed with the "Metrostav" logo. Of course, there are also gift items with a printed logo or presentation profile, press releases and high-quality (in terms of clarity and visual processing) annual reports.

Metrostav a.s. he even regularly publishes his own newspaper (fortnightly), which is also available for download on his website. The newspaper always briefly informs about current events and changes in the company, current projects and other interesting things related to the company's activities. This can be considered as an important element by which the company can ensure positive relations with the public.

6.3.1. Public relations and sponsoring

Metrostav a.s. has been one of the major corporate donors in recent years. In the ranking of the most generous donors, which is regularly published by the Business for Society platform, he was regularly ranked among the 15 largest contributors to charitable purposes. However, due to the negative development of the Czech construction industry, he had to significantly reduce this activity.

Metrostav a.s. however it is, continues to support a number of charitable, cultural and social activities not only in Prague, where the company's headquarters are located, but also in the regions in which the individual organizational units of the company operate. He did not remain indifferent to the flood-affected inhabitants of the Balkan countries, to whom she sent technical assistance in the amount of CZK 700,000

The company also runs the "Donate Blood with Metrostav" event, in which dozens of employees provided blood according to the needs of the Central Military Hospital in Prague - Střešovice.

Metrostav a.s. it also regularly invests in the education of new collaborators within the Skilled Apprentices project or with the support of selected universities. He also takes care of deserving employees associated in the Senior Club Metrostav.

Metrostav a.s. cooperates with several important medical facilities and institutions, such as the Bone Marrow Transplant Foundation. He provided funding to the Primary School and Kindergarten Prointepo s.r.o., Hradec Králové, FR Foundation. Faltus, the sheltered housing Sluneční domov, the Klíček Endowment Fund, o.p.s. Auxiliary paws, which uses the care of disabled people animals, also contributed to compensatory aids for the disabled, etc.

Employees spontaneously join these company activities, so payroll accounting records a number of one-off and standing orders for contributions for SOS Children's Villages, the UNICEF Children's Fund, the BARRIER account, and the o.p.s. Medical clown, the Firefly event of the Czech Radio Endowment Fund and other charitable projects.

Metrostav a.s. it also helps athletes. The most famous names among the supported athletes were badminton player Petr Koukal, speed skater Martina Sáblíková and beach volleyball players Kristýna Kolocová and Markéta Sluková. Football or hockey clubs, both amateur and professional, also received a financial contribution in the places where the regional directorates of the individual divisions operate.

6.3.2. Modern tools of Marketing

Even Metrostav a.s. did not forget to keep up with the times and created its profile on the well-known social network Facebook, where he places new photos of ongoing buildings or other comments almost daily.

In general, it can be said that the articles, suitably supplemented by photographs, are published very regularly (daily or every other day) and you can often come across some that are really interesting (even humorously) formulated. In most

cases, however, the contributions are highly professional, whose main task is to inform. The contributions on this social network also include videos related to some completed constructions or demolitions.

Social networks are generally a very modern and effective tool for bringing the company's activities closer to the public, specifically Facebook is now used by the vast majority of people of almost all ages and these people can publish their comments on posts on the company profile, or even outside. These comments are usually in the form of questions and ambiguities, but there are also those that are more similar to complaints. In order for Metrostav a.s. has maintained its positive attitude towards the public, it is in its interest to respond appropriately to such contributions, which it does. As a result, the company has a strong interest in positive public opinion, when it really tries to respond to all user comments, even negative ones. This can be perceived very positively.

Metrostav a.s. also runs its own profile on YouTube.com, where it publishes videos related to the construction or presentation of existing projects. However, these videos are not published as often as, for example, posts on the social network Facebook, but approximately twice a year. They also owns profile on LinkedIn, where they publishes posts less often (about once a month).



Figure 10 Metrostav Social media, Instagram [online]. Available at <http://www.instagram.cz/Metrostav>

Since the beginning of year 2019, they also owns and runs profile on Instagram. First post has been posted on 27th February 2019. Nowadays they have 88 posts and 1155 followers.

6.4. SWOT Analysis

The following points describes strengths, opportunities, weaknesses and threats of company. Table 6 lists the key strengths and weaknesses of Metrostav a.s. including opportunities and threats from the external environment.

See further text:

Table 6 SWOT Analysis of Metrostav a.s.

SWOT analysis of Metrostav a.s.

Metrostav a.s. Segmentation	Czech Republic, Slovakia, Poland, Germany, Hungary, Sweden, Norway, Belarus
Metrostav a.s. Target Market	Predominantly Czech Republic

Metrostav a.s. Strengths	<ol style="list-style-type: none"> 1. Universal focus 2. The largest construction company by revenue 3. Covers almost half of the underground market construction. 4. Market operation for more than 40 years 5. Rich experience with metro construction holder of a number of awards for his projects 6. Strong and well-known brand Metrostav 7. Relatively high level of liquidity 8. Penetration of foreign markets 9. Use of modern marketing tools communication
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Metrostav a.s. Weaknesses	<ol style="list-style-type: none"> 1. Weakened reputation related to the construction of the Blanka tunnel complex 2. High sensitivity to the development of the national economy 3. Relatively high dependence on the availability of public resources (especially transport constructions) 4. Decreasing number of employees
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Metrostav a.s. Opportunities	<ol style="list-style-type: none"> 1. Improving economic situation and growing demand for construction production 2. Growth of demand for construction production on foreign markets 3. Growing interest in the so-called "green" buildings 4. Focus of grants and subsidies in the field of construction 5. Release of public funds in the field of construction
-------------------------------------	--

Metrostav a.s. Threats	<ol style="list-style-type: none"> 1. Another drop in demand for construction output 2. Reducing the interest of the population in construction industries 3. Aging of craft workers 4. Change of legislation, especially the Building Act 5. Restrictions on investment by the state, cities and municipalities 6. Decrease in private investment 7. Entry of new competitors from abroad (mainly from the EU) 8. Changes in income tax or VAT rates 9. Unpredictable climate change.
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Table 7 Metrostav top 8 Competition on the Market.

Metrostav a.s. Competition	
Competitors	<ol style="list-style-type: none"> 1. Strabag 2. Skanska 3. Swietelsky stavební 4. Eurovia CS 5. Porr 6. OHL ŽS 7. Hochtief CZ 8. Geosan Group a.s.

6.5. Financials

The financial situation of the Metrostav a.s. is considered to be a complex output of their whole performance. This output is presented through the ratio indicators of activity, profitability, liquidity, indebtedness and market value.

These indicators are based on the synthetic indicators of financial accounting and they demonstrate the complexity of the business subject's performance interpretation

The Company's financial statements have been prepared in accordance with the accounting regulations in force in the Czech Republic for large entities and are prepared at historical cost, derivatives and securities are stated at fair value.

Table 8 Metrostav financial summary 2016 - 2019

Index	2019	2018	2017	2016
Total operating income, in thousands CZK	41 823 036	35 092 151	31 205 937	27 809 900
Total operating expenses, in thousands CZK	39 676 097	34 265 947	30 810 936	27 373 311
Net profit, in thousands CZK	1 615 921	743 243	177 550	329 374
Number of employees	2998	4 903	4459	5098

6.6. Evaluation of the company Metrostav a.s.

Metrostav a.s. undoubtedly has the greatest experience on the Czech market with the construction, especially with Prague metro lines, which was also the primary focus of this company, operating on the construction market for 45 years. Since then, it has significantly **expanded its portfolio of services** to the other areas of civil engineering and can compete with other universally focused giants in the construction industry.

The company has been relatively **financially stable for a long time**, its revenues did not change significantly during the years 2006-2019 and did not fall below CZK **25 billion** in any of this year. From this point of view, Metrostav a.s. is currently one of the largest construction company in the country, with a **market share of around 10%** and in the field of underground construction even almost **50%**.

The company also uses some **modern tools of modern communication** (social networks, product placement), although it maintains relations with the public mainly through high-quality PR and sponsorship. From the point of view for communication, **Metrostav newspapers**, which are not published by the other competitors, are also important.

On the other hand, the weakened reputation associated with the construction of the Blanka tunnel complex more or less puts it at a competitive disadvantage, as this construction, especially from the general public. Company **received quite negative responses** at the time of its development.

However, the company is actively trying to refute these negative attitudes of the public (**the "Blanka is not a tunnel"** campaign). The weak point is also the fact that the company is relatively much dependent on the availability of **public resources**¹⁰, as especially transport structures (including the subway) are ordered by contracting authorities.

From this point of view, however, there is also an opportunity to release more public funds to this area or growth in demand for construction production and interest in "green" buildings, which have been strongly emphasized in recent years.

¹⁰ On 31st of January, 2020 a non-final judgement was passed by the Regional Court sentencing the joint stock company Metrostav to a financial penalty of CZK 10 million and three-year ban on participating in public tenders. **During the writing of this essay.**

7. Basic information – Fluor Corporation

Company Name: Fluor Corporation

Headquarters: Irving, Texas, USA

CEO: Carlos Manuel Hernandez

Founded: 1912

Employees: 53,349

Shares: 140,715,205

Fluor Corp. is a holding company, which engages in providing engineering, procurement, construction, fabrication and modularization, operations, maintenance and asset integrity, as well as project management services, on a global basis. It operates through the following four segments: Energy & Chemicals, Mining, Industrial, Infrastructure & Power, Diversified Services and Government. The Energy & Chemicals segment focuses on opportunities in the upstream, midstream, downstream, chemical, petrochemical, offshore and onshore oil and gas production, liquefied natural gas and pipeline markets.



Figure 11 Fluor Corporation Icone, Fluor [online]. Available at <https://newsroom.fluor.com/multimedia/logos/default.aspx>

The Mining, Industrial, Infrastructure & Power segment provides design, engineering, procurement, construction and project management services to the mining and metals, transportation, life sciences, advanced manufacturing and power sectors. The Diversified segment provides a wide array of asset services, asset integrity services, equipment solutions and staffing services. The Government segment provides engineering, construction, logistics, base and facilities operations

and maintenance, contingency response and environmental and nuclear services to the U.S. government and governments abroad. The company was founded by John Simon Flour, Sr. in 1912 and is headquartered in Irving, TX.

Fluor corporation is driven by core values of safety, integrity, teamwork and excellence, Fluor has long been a leader in the global construction industry and is ranked No. 181 on the FORTUNE 500® 2020 list. Company set the standard for safety and sustainability, ethical performance, operational excellence and industry innovation, providing clients and partners the confidence that only a global leader can deliver.

Fluor also partners with government agencies to support their missions and build-out infrastructure around the world. About 30 percent of Fluor's revenues are based in the United States as of 2011.

Table 9 Fluor Corporation, overview of shareholders is given in the table, 2020.

Source: Own

Top 10:

Shareholder	Number of Shares	Share in Registered Capital
Bernhard Capital Partners Management LP	13,671,478	9,72%
BlackRock Institutional Trust Company, N.A.	13,058,737	9,28%
The Vanguard Group, Inc.	10,762,060	7,65%
Hotchkis and Wiley Capital Management, LLC	7,535,105	5,35%
Fidelity Management & Research Company LLC	5,647,190	4,01%
State Street Global Advisors (US)	4,500,169	3,20%
Two Sigma Investments, LP	4,374,932	3,11%
D. E. Shaw & Co., L.P.	2,793,771	1,99%
Lazard Asset Management, L.L.C.	2,348,935	1,67%
Northern Trust Investments, Inc.	1,962,458	1,39%

Fluor Corp. has 560 institutional owners and shareholders that have filed bag log forms with the Securities Exchange Commission. These institutions hold a total of 135,586,484 shares. Largest shareholders are shown in the table 9. The Fluor family owns a 3.5 percent interest in the company, while employees own six percent through its profit-sharing program.

7.1. History

Fluor's roots extend back to the turn of the 20th century, when a family of Swiss immigrants set up a construction business in the western United States. Over time, that business evolved from Fluor Construction Company in 1912 to the Fluor Corporation of today. Fluor has expanded its expertise across industries and around

the world. In 1920s Fluor Construction Company expands into oil and gas, building plants and patenting technologies. From the Buddha Tower in the 1920s to the trans-Alaska Pipeline in the 1970s to the current Gordie Howe International Bridge, Fluor is at the forefront of innovation in engineering, procurement, fabrication, construction, and maintenance.

7.2. Organizational structure of the Company

Fluor's Board of Directors has "Independent Directors" and the CEO. The Independent Directors elect a Lead Independent Director every three years that acts as a liaison to the CEO. Each Independent Director is on two or more of four committees: audit, executive, governance, and organization and compensation.

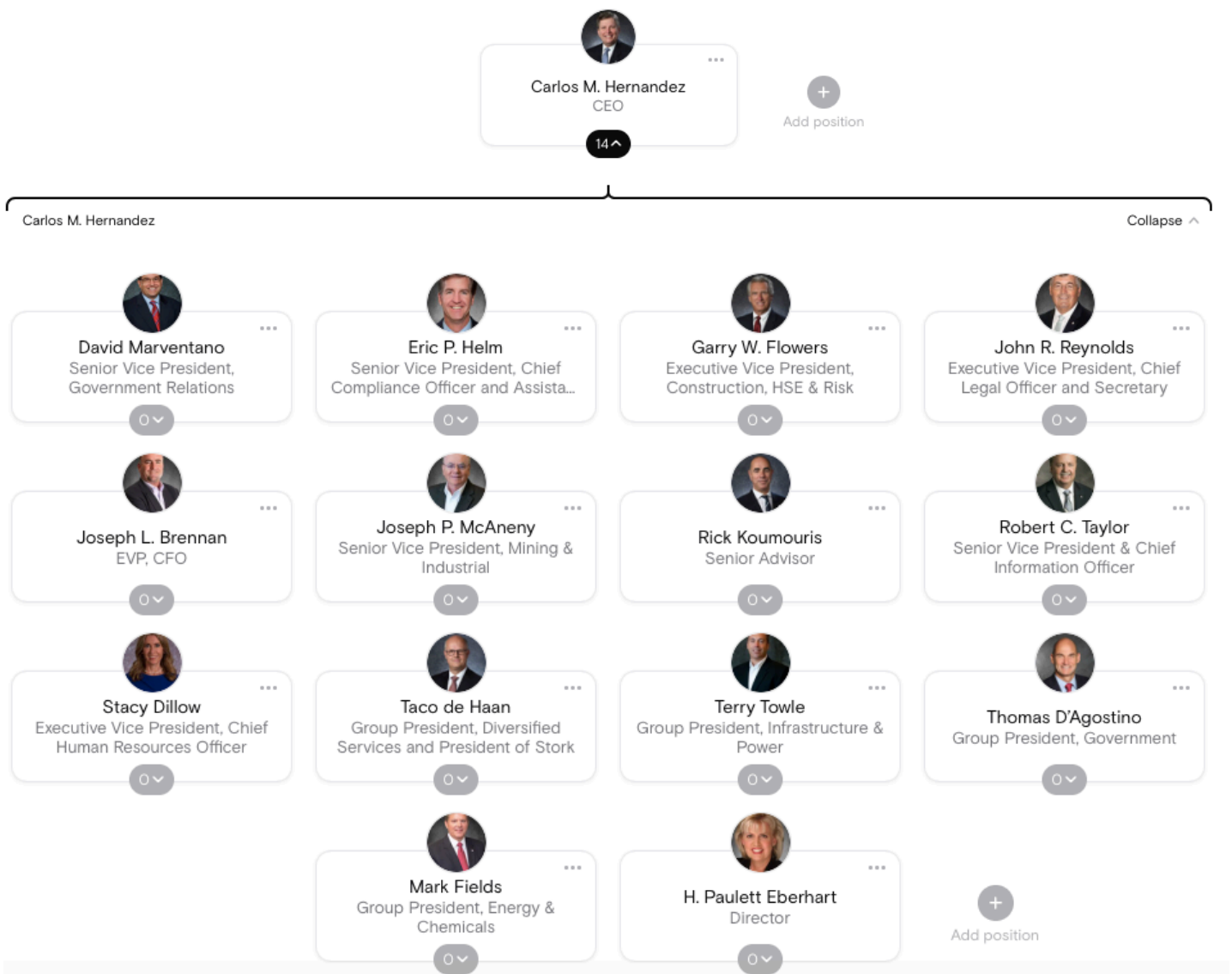


Figure 12 Fluor Corporation leadership. 2020 [online]. Available at <https://investor.fluor.com/static-files>.

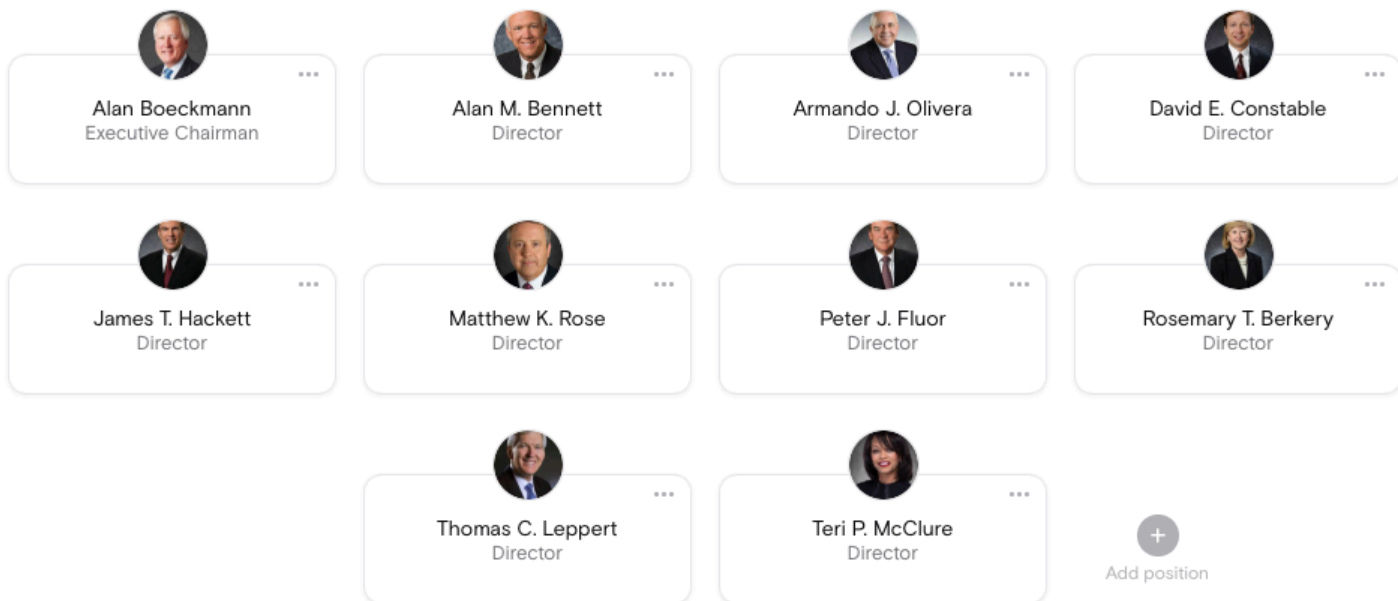


Figure 13 Fluor Corporation Board & Advisors. 2020 [online]. Available at <https://investor.fluor.com/static-files>.

Directors serve a three-year term and are elected by shareholders. Corporate officers, such as the CEO, are elected each year by a vote of the board. Fluor received an "A" ranking in Transparency International's 2012 anti-corruption study. The company hosts online and in-person anti-corruption training sessions for staff and operates an ethics hotline.

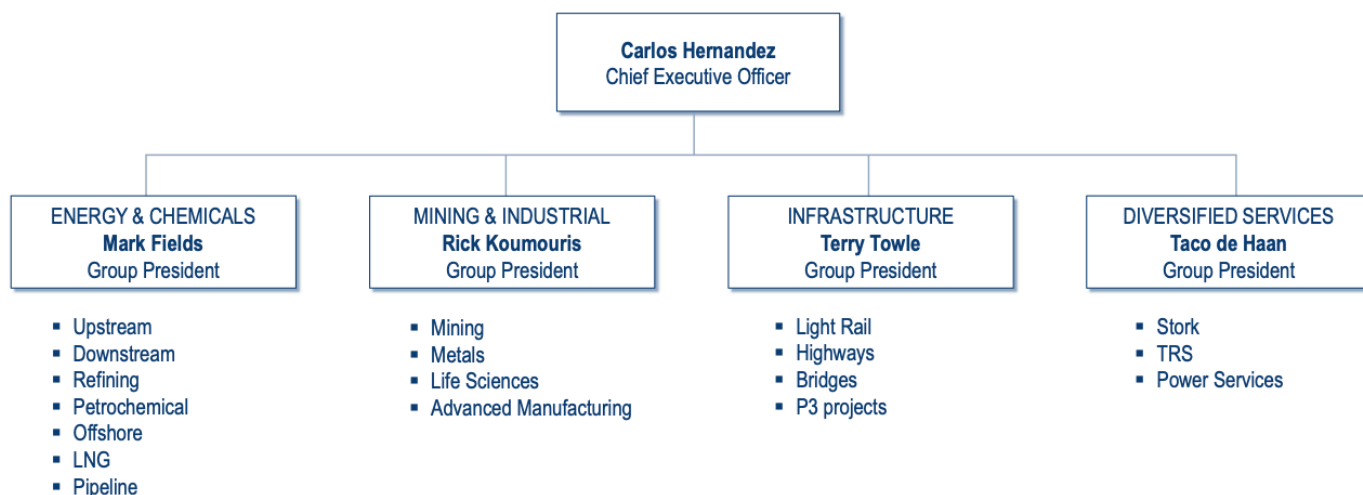


Figure 14 Fluor Corporation Structure. 2020 [online]. Available at <https://investor.fluor.com/static-files>.

7.3. Marketing

Fluor Corporation is a construction company and its marketing communication tools focus more on maintaining good relations with the public through PR and sponsorship. The company's website contains all important information about its origin and business segments, including current orders and awards. An integral part of the company's marketing communication are also excellent annual reports, press releases and a presentation profile located on the company's website.

Using modern tools of marketing, Fluor has expanded its social media presence by launching a corporate Twitter account to better communicate company news and events to a global audience. The Twitter account shares timely news releases, celebrate project milestones, highlight community relations activities and announce company events like job fairs, conferences and speaking opportunities.



Figure 15 Fluor Corporation Social media, [online].

Fluor Corporation also runs its own profile on YouTube.com, where it publishes videos related to the construction or presentation of existing projects. These videos are published usually once in a month. They are very active on the social network Facebook, where I have been following them for more than a year now, and the post are very useful for someone who is interested in construction field. They also own profile on LinkedIn, where they publish posts less often (about once a month).

Ankur Kumar explains that, at Fluor, safety is a team effort.
<https://bit.ly/2lbxtYc> #FluorBuildsABetterWorld #SaferTogether

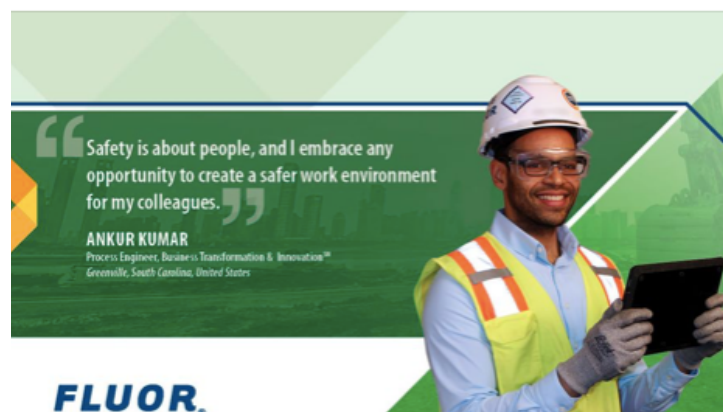


Figure 16 Fluor Corporation Social media, Facebook post [online].

7.4. SWOT Analysis

The following points describes strengths, opportunities, weaknesses and threats of company. Table 10 lists the key strengths and weaknesses of Fluor, including opportunities and threats from the external environment.

See further text:

Table 10 SWOT Analysis of Fluor Corporation.

SWOT analysis of Fluor Corporation

Fluor Corporation Segmentation	Asia Pacific, Europe, Central and South America, Middle East and Africa, USA and Canada
Fluor Corporation Target Market	Predominantly USA and Canada

Fluor Corporation Strengths	<ol style="list-style-type: none"> 1. Geographic and industry diversity which mitigates business risk related to a particular industry - Fluor primarily serves industries such as chemicals and petrochemicals, commercial and institutional, government services, health-care, life sciences, manufacturing, microelectronics, mining, oil and gas, power, renewable energy, telecommunications, and transportation infrastructure. Geographically, besides USA, it also has operations in Asia Pacific, Europe, Central and South America, and Africa 2. Strong order backlog - The company maintained a consolidated order backlog. Further, Fluor recorded a year-on-year increase of in its overall projects backlog 3. Improved focus on sustainability which enhances the company's brand image - to help clients reduce greenhouse-gas-emissions, Fluor has developed patented carbon-dioxide (CO₂) recovery technologies such as Fluor Solvent, Econamine and Econamine FG Plus 4. Over 40,000 employees are a part of the workforce 5. Has been named one of the most ethical companies
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Fluor Corporation Weaknesses	<ol style="list-style-type: none"> 1. Litigations tamish company's image - Fluor received an adverse decision from an arbitration panel regarding its claims for additional compensation related to the Greater Gabbard Offshore Wind Farm Project. There have been other instances as well 2. Limited global presence means dependency on one economy only
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Fluor Corporation Opportunities	<ol style="list-style-type: none"> 1. Expansion into nuclear energy segment - According to Energy Information Administration (EIA), world's nuclear energy consumption is expected to increase 2. Strengthening presence in renewable energy market - would corroborate its market position and pave the way for it to become a strong player in the market
Fluor Corporation Threats	<ol style="list-style-type: none"> 1. Intense competition likely to erode profits – number of local and international competitors, especially in the engineering and construction sector 2. Government regulations - Fluor has to comply with FAR, the Truth in Negotiations Act, CAS, ARRA, the Services Contract Act and DOD security regulations, and many other laws and regulations. In addition, the company is also subject to other government regulations related to employment practices, environmental protection, health and safety, tax, accounting and anti-fraud.

Table 11 Fluor Corporation top 8 Competition on the Market.

Fluor Corporation Competition	
Competitors	<ol style="list-style-type: none"> 1. Bechtel Group 2. CH2M Hill Companies 3. Jacobs Engineering Group 4. KBR 5. The Shaw Group 6. URS Corporation 7. AMEC 8. Chiyoda Corporation

7.5. Financials

The financial situation of the Fluor Corporation is considered to be a complex output of their whole performance. This output is presented through the ratio indicators of activity, profitability, liquidity, indebtedness and market value.

These indicators are based on the synthetic indicators of financial accounting and they demonstrate the complexity of the business subject's performance interpretation. The Company's financial statements have been prepared in accordance with the accounting regulations in force in the USA for large entities and are prepared at historical cost, derivatives and securities are stated at fair value. The following tables are the Company's financial results from last years. The main source for this statement were annual reports of Fluor Corporation.

Table 12 Fluor Corporation Income statements, period 2016 - 2019.

Period Ending:	2019	2018	2017	2016
Total Revenue	\$14,348,018	\$15,172,454	\$14,806,511	\$19,036,525
Cost of Revenue	\$14,775,399	\$14,803,234	\$14,528,782	\$18,246,209
Gross Profit	-\$427,381	\$369,220	\$277,729	\$790,316
Sales, General and Admin.	\$159,089	\$118,428	\$183,697	\$191,073
Other Operating Items	\$0	\$0	\$0	\$0
Add'l income/expense items	-\$83,526	\$14,352	\$27,235	\$17,046
Earnings Before Interest and Tax	-\$1,202,596	\$265,144	\$121,267	\$616,289
Interest Expense	\$74,104	\$77,144	\$67,458	\$69,689
Earnings Before Tax	-\$1,276,700	\$188,000	\$53,809	\$546,600
Income Tax	\$440,982	\$132,250	\$16,356	\$219,151
Minority Interest	\$0	\$0	\$0	\$0
Equity Earnings/Loss Unconsolidated Subsidiary	\$30,960	-\$59,385	-\$73,093	-\$46,048
Net Income-Cont. Operations	-\$1,686,722	-\$3,635	-\$35,640	\$281,401
Net Income	-\$1,522,164	\$173,468	\$153,671	\$281,401
Net Income Applicable to Common Shareholders	-\$1,522,164	\$173,468	\$153,671	\$281,401

The values of the indicators reached top in 2016, since then they faced a steady decline until 2018 and in 2019 values reached negative numbers due to the loss achieved, which was reflected in a further decline in profitability, as you can see.

Table 13 Fluor Corporation Cash flow, period 2016 - 2019.

Period Ending:	2019	2018	2017	2016
Net Income	-\$1,522,164	\$173,468	\$153,671	\$281,401
Cash Flows-Operating Activities				
Depreciation	\$206,556	\$259,685	\$265,938	\$265,999
Net Income Adjustments	\$932,557	-\$102,642	\$83,321	-\$22,922
Changes in Operating Activities				
Accounts Receivable	\$0	\$0	\$0	\$0
Changes in Inventories	\$0	\$0	\$0	\$0
Other Operating Activities	\$0	\$0	\$0	\$0
Liabilities	\$633,029	-\$227,732	\$25,948	\$135,393
Net Cash Flow-Operating	\$219,018	\$162,164	\$601,971	\$705,919
Cash Flows-Investing Activities				
Capital Expenditures	-\$180,842	-\$210,998	-\$283,107	-\$235,904
Investments	\$179,134	\$131,672	-\$290,792	-\$352,329
Other Investing Activities	\$82,180	\$80,709	\$89,621	-\$153,118
Net Cash Flows-Investing	\$80,472	\$1,383	-\$484,278	-\$741,351
Cash Flows-Financing Activities				
Sale and Purchase of Stock	\$66,112	-\$37,636	\$15,777	\$3,012
Net Borrowings	\$0	\$95,437	-\$53,455	\$184,419
Other Financing Activities	\$8,336	-\$10,974	-\$12,614	-\$18,369
Net Cash Flows-Financing	-\$77,299	-\$140,491	-\$215,502	-\$10,350
Effect of Exchange Rate	\$10,262	-\$62,385	\$51,448	-\$53,668
Net Cash Flow	\$232,453	-\$39,329	-\$46,361	-\$99,450

Table 14 Fluor Corporation Balance sheet summary, period 2016 - 2019.

Period Ending:	2019	2018	2017	2016
Current Assets				
Cash and Cash Equivalents	\$1,997,199	\$1,764,746	\$1,804,075	\$1,850,436
Short-Term Investments	\$7,262	\$214,828	\$161,134	\$111,037
Net Receivables	\$1,075,254	\$1,237,248	\$1,602,751	\$1,700,224
Inventory	\$0	\$0	\$0	\$1,537,289
Other Current Assets	\$2,436,557	\$2,153,781	\$2,033,297	\$411,284
Total Current Assets	\$5,516,272	\$5,370,603	\$5,601,257	\$5,610,270
Long-Term Assets				
Long-Term Investments	\$574,421	\$903,136	\$992,485	\$883,938
Fixed Assets	\$543,040	\$1,122,541	\$1,093,681	\$1,017,223
Goodwill	\$450,386	\$466,452	\$564,683	\$532,239
Intangible Assets	\$0	\$0	\$0	\$0
Other Assets	\$478,616	\$312,907	\$377,288	\$370,151
Deferred Asset Charges	\$403,923	\$706,916	\$698,298	\$802,596
Total Assets	\$7,966,658	\$8,882,555	\$9,327,692	\$9,216,417
Current Liabilities				
Accounts Payable	\$2,351,359	\$2,350,152	\$2,672,773	\$3,733,786
Short-Term Debt / Current Portion of Long-Term Debt	\$38,727	\$26,887	\$27,361	\$82,243
Other Current Liabilities	\$1,541,975	\$1,282,189	\$874,036	\$0
Total Current Liabilities	\$3,932,061	\$3,659,228	\$3,574,170	\$3,816,029
Long-Term Debt	\$1,651,739	\$1,661,565	\$1,591,598	\$1,517,949
Other Liabilities	\$715,471	\$581,509	\$669,525	\$639,608
Deferred Liability Charges	\$83,295	\$0	\$0	\$0
Misc. Stocks	\$96,340	\$146,128	\$150,089	\$117,640
Minority Interest	\$0	\$0	\$0	\$0
Total Liabilities	\$6,478,906	\$6,048,430	\$5,985,382	\$6,091,226
Stock Holders Equity				
Common Stocks	\$1,399	\$1,396	\$1,399	\$1,393
Capital Surplus	\$1,700,912	\$3,294,154	\$3,654,931	\$3,582,150
Retained Earnings	\$0	\$0	\$0	\$0
Treasury Stock	\$165,314	\$82,106	\$88,222	\$38,317
Other Equity	-\$379,873	-\$543,531	-\$402,242	-\$496,669
Total Equity	\$1,487,752	\$2,834,125	\$3,342,310	\$3,125,191
Total Liabilities & Equity	\$7,966,658	\$8,882,555	\$9,327,692	\$9,216,417

Total sum of current assets has been stable for the past few years. We can see some loss in recent years, since all indicators reached top in 2016. In the area of assets and constructions, investment activity has slowed down, the value of these assets is declining. In 2019 Fluor started down the path of making tangible, actionable changes to business strategy and structure to position Fluor for long-term success. This can be seen in balance sheet summary, in the significant drop-in long-term investments, as fixed assets as well. The decrease in backlog during 2019 resulted primarily from new award activity being outpaced by work performed as well as the removal of certain contracts

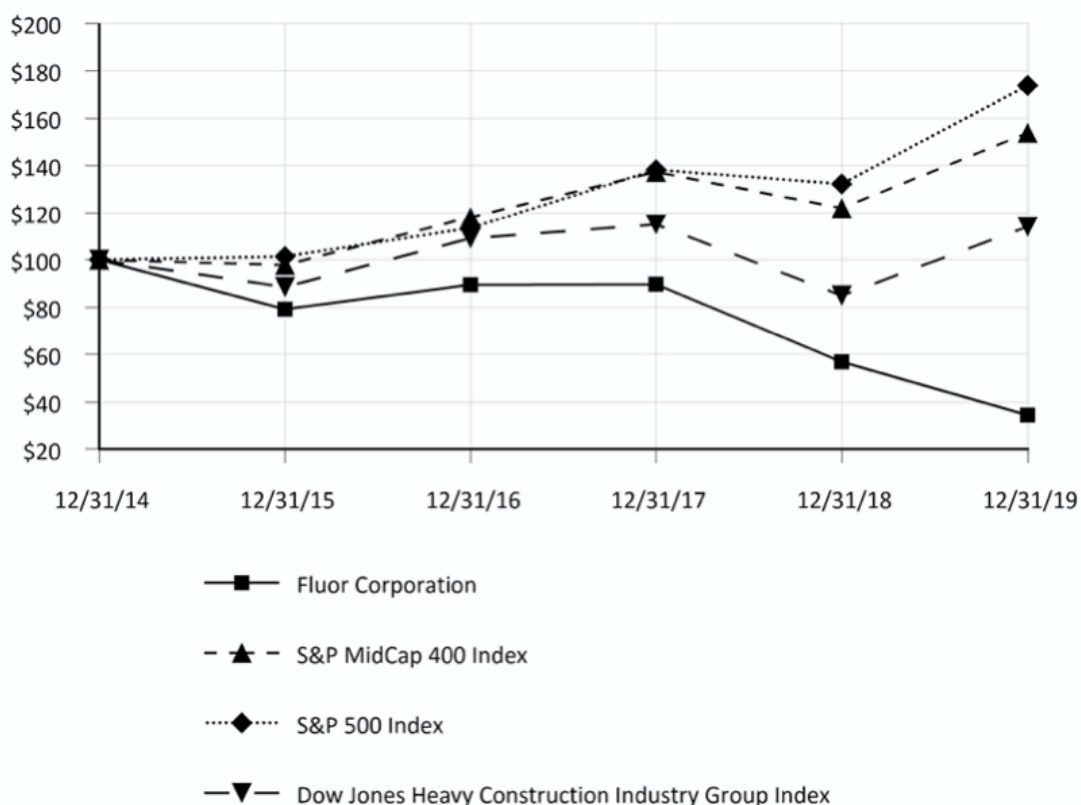
7.5.1. The stock of Fluor Corporation

Within this subchapter the Thesis is dealing with financial stability, the company will be analysed using the stock price index. In the table 15 there is a comparison within the three main index funds in the recent four years.

Table 15 Fluor Corporation Index fund summary, period 2016 - 2019.

\$	2019	2018	2017	2016
Fluor Corporation	34.36	56.82	89.63	89.51
S&P MidCap 400 Index	153.77	122.03	137.26	118.10
S&P 500 Index	173.80	132.19	138.26	113.49
Dow Jones Heavy Construction Industry Group Index	109.10	115.00	84.97	114.10

Graph 1 Index fund comparison, period 2016 – 2019.



Fluor's stock price has decreased more than 50 % between 2017 and 2019. There was visible weakness in the financials before the pandemic hit. Fluor's revenue had decreased -3.1% from \$14,807 Mil in 2017 to \$14,348 Mil in 2019. Its margins were suffering too. Fluor could barely net 1.5% of revenue as margin in 2017 and 2018, and this figure plummeted to -10.8% as a result of a slight decline in revenue.

8. Basic information – Jacobs Engineering Group

Company Name: Jacobs Engineering Group

Headquarters: Harwood Center, Dallas, United States

CEO: Steven J. Demetriou

Founded: 1947

Employees: 52 000+

Shares: 133,850,00

Jacobs Engineering Group Inc. is a technical professional services firm. The Company provides a diverse range of technical, professional, and construction services to a number of industrial, commercial, and governmental clients. The Company provides four categories of services: Project Services, Process, Scientific, and Systems Consulting services, Construction services, and Operations and Maintenance services.



Figure 17 *Jacobs Engineering Inc. Icon, F [online]. Available at <https://www.jacobs.com/sites/>*

The company provides services to various industries and markets including oil and gas, chemicals, mining and minerals, pharmaceuticals and biotechnology, pulp and paper, infrastructure and telecommunications, power, technology and manufacturing, and food and consumer products. It also participates in programs for various national governments, including aerospace, defense, and environmental.

The company operates worldwide across North America, South America, Europe, the Middle East, Africa, and Asia Pacific. Jacobs is headquartered in, Texas, the US.

Institutional investors hold a majority ownership of Jacobs Engineering through the 89.69% of the outstanding shares that they control. This interest is also higher than at almost any other company in the Engineering & Construction industry.

Table 16 *Jacobs Engineering, overview of shareholders is given in the table, 2020.*

Source: Own

Top 10:

Shareholder	Number of Shares	Share in Registered Capital
The Vanguard Group, Inc.	13,401,349	10,30%
SSgA Funds Management, Inc	8,744,870	6,75%
PRIMECAP Management Co.	7,166,202	5,53%
Select Equity Group LP	6,560,044	5,06%
Capital Research & Management Co. (Global Investors)	6,172,500	4,76%
Capital Research & Management Co. (World Investors)	5,881,921	4,54%
Ruane, Cunniff & Goldfarb LP	4,123,907	3,18%
T. Rowe Price Associates, Inc. (Investment Management)	4,050,608	3,12%
Capital Research & Management Co. (International Investors)	4,005,551	3,09%
Camignac Gestion SA	3,369,927	2,60%

The Company employs the engineering, architecture, interiors, design, planning, and related disciplines necessary to design and engineer modern process plants, buildings, infrastructure projects, technology and manufacturing facilities, consumer products manufacturing facilities, power plants and stations, pulp and paper plants, and other facilities.

8.1. History

Jacobs Engineering Company was found by Lebanese descent, Joseph J. Jacobs in 1947, in the midst of the Great Depression. In 1942, he earned a doctorate in chemical engineering and took a position as senior chemical engineer at Merck & Company in Rahway, New Jersey, where he was involved in the development of vitamin processing and the manufacture of DDT and penicillin.

Strongly influenced by the Lebanese tradition of being in business for oneself, Jacobs started his own business in 1947 following a stint at Chemurgy Corporation in Richmond, California. Founding the Jacobs Engineering Company as both a consulting agency and as a manufacturers' representative for makers of large-scale

equipment in the processing industry, Jacobs relocated the firm to Pasadena in anticipation of the phenomenal growth that would soon occur in Southern California.

In 1956 Jacobs Engineering landed its largest contract to date. In 1960, Jacobs Engineering won another important contract, this time from Southwest Potash for the design and construction of a potash flotation plant. Until this point in the company's history, Jacobs Engineering had not taken on any construction work, regarding the industry as unprofessional. However, the job for Southwest Potash dispelled that idea for Joseph Jacobs, and his company then offered a full range of both engineering and construction services.

Sales in 1972 reached \$70 million and Jacobs Engineering began to pursue international as well as domestic contracts. Merging with the Pace Companies of Houston, Texas, in 1974, Jacobs Engineering recorded skyrocketing sales of \$250 million in fiscal 1977, quadruple that of five years earlier.

In the early 1990s, Jacobs Engineering Group enjoyed a balanced sales mix, having long since shed its former dependence on the petroleum industry. Again, with the emphasis on smaller, high-tech, higher margin contracts, Jacobs Engineering provided a broad variety of engineering services. From its earlier work in the minerals, fertilizers, and petrochemical segments, Jacobs Engineering had diversified into the areas of pharmaceuticals, biotechnology, and sterile facilities, along with the already mentioned opportunities in environmental protection projects. The company was the third largest domestic hazardous waste contractor, with 25 percent of its professional staff dedicated to environmentally driven projects.

Jacobs Engineering was moving in the 1990s from a medium niche in the world of industrial engineering to compete with such giants as Fluor Corporation and Bechtel Corporation on major domestic and international projects. Jacobs Engineering provided an unmatched rate of return on equity for its shareholders in the late 1990s and, most remarkably, carried no long-term debt.

As Jacobs Engineering grew in size, it maintained an impressive performance record. In 1997 it boasted an almost 16 percent five-year return on capital, and it beat out its rivals in terms of sales growth: a five-year average of 12.4 percent. For fiscal year 1998 the company reported record revenues of \$2.1 billion and record net

income of \$54 million. The company expected a continued rise in revenues and income based on its backlog of \$3.33 billion.

8.2. Organizational structure of the Company

Jacobs Engineering has a Executive Leadership Team, with the head CEO followed by Board of Directors for each independent sector. Head is Chair of the Board & Chief Executive Officer Steve Demetriou, President & Chief Financial Officer Kevin Berryman and Bob Pragada.

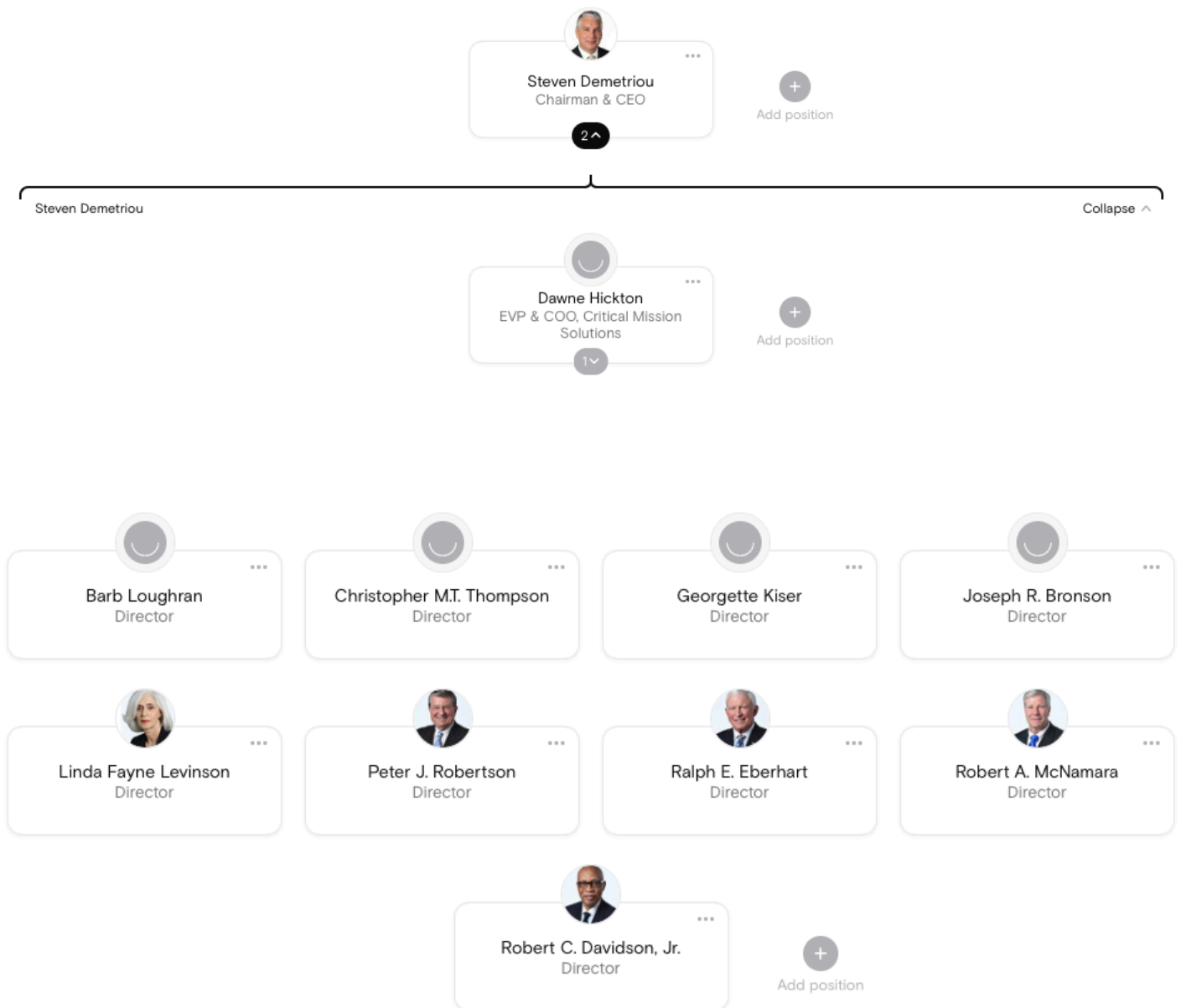


Figure 18 Jacobs Engineering Group leadership. 2020 [online]. Available at <https://www.jacobs.com/about/executive-leadership-team>

8.3. Marketing

Marketing Strategy of this company reflects the solution to the customers' needs. Jacobs Engineering Group developed unique product design, name and features to stand out in the competitive market. The main factors are considered in their marketing strategy - quality, variety, features, packaging, brand name and augmented services. Annual reports press releases and a presentation profile located on the company's website are an integral part of the company's marketing communication.

Jacobs Engineers Group is well involved in viral marketing. However, it should be added that Company is mainly a construction company focused on public procurement and this form of communication is not widely used in this activity, as the end customers are mainly public contracting authorities and not private persons.

In 2019, Jacobs Engineers Group received the Climate Leadership Award and EBI also recognized their work with 11 Business Achievement Awards for Environmental and Climate Change Innovations for leadership and outstanding performance in our environmental and climate change work in 2018.

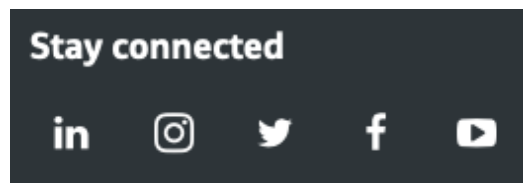


Figure 19 Jacobs Engineering Group Social media, [online].

Using modern tools of marketing, Jacobs Engineers has expanded its social media, owning their corporate Twitter account, LinkedIn account and Facebook account, to better communicate company news and events to a global audience. The Twitter account shares timely news releases, celebrate project milestones, highlight community relations activities and announce company events like job fairs, conferences and speaking opportunities.

Jacobs Engineering Group also runs its own profile on YouTube.com, where it publishes videos related to the construction or presentation of existing projects. These videos are published very often, almost in weekly intervals. They are very

active on the social network Facebook and Instagram also, where they have been followed by more than 8000 people, with 1300+ posts.

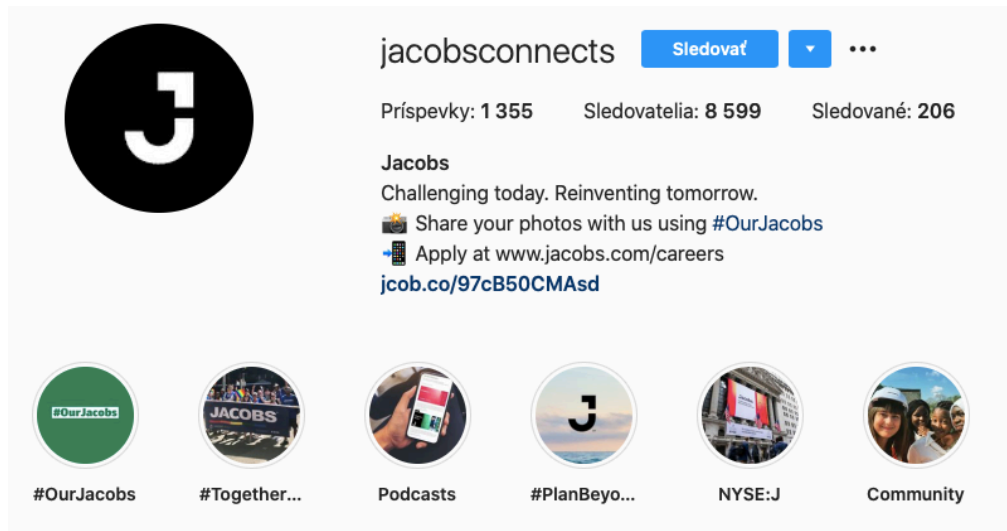


Figure 20 Jacobs Engineers Social media, Instagram profile. 2020 [online].

8.4. SWOT Analysis

The following points describes strengths, opportunities, weaknesses and threats of company. Table 10 lists the key strengths and weaknesses of Jacobs Engineering Group, including opportunities and threats from the external environment.

See further text:

Table 17 SWOT Analysis of Jacobs Engineering Group.

SWOT analysis of Jacobs Engineering Group

Jacobs Engineering Group Segmentation	Asia Pacific, Europe, Central and South America, Middle East and Africa, USA and Canada
Jacobs Engineering Group Target Market	Predominantly USA and Canada

<p>Jacobs Engineering Group Strengths</p>	<p>1. Distribution and Reach: Jacobs Engineering Group has a large number of outlets in almost every state, supported by a strong distribution network that makes sure that its products are available easily to a large number of customers in a timely manner. 2. Dealer Community: Jacobs Engineering Group has a strong relationship with its dealers that not only provide them with supplies but also focus on promoting the company's products and training. 3. Financial Position: Jacobs Engineering Group has a strong financial position with consecutive profits in the past 5 years, along with accumulated profit reserves that can be used to finance future capital expenditures. 4. Jacobs Engineering Group has a large asset base, which provides it with better solvency. 5. Jacobs Engineering Group has a large asset base, which provides it with better solvency. 6. Entering new markets: Jacobs Engineering Group's innovative teams have allowed it to come up with new products and enter new markets. It has been successful in past, in most of the initiatives it has taken in new markets. 7. Social Media: Jacobs Engineering Group has a strong presence on social media with more than millions of followers on the three most famous social media platforms: Facebook, Twitter and Instagram. It has high levels of customer engagement on these platforms with low customer response time.</p>
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<p>Jacobs Engineering Group Weaknesses</p>	<p>1. High employee turnover rates: Jacobs Engineering Group has a higher employee turnover rate compared to competitors. This means that it has more people leaving the job, and as a result, it is spending more on training and development as employees keep leaving and joining. 2. Investment in Research and Development is below the fastest growing players in the industry. Even though Jacobs Engineering Group is spending above the industry average on Research and Development, it has not been able to compete with the leading players in the industry in terms of innovation. It has come across as a mature firm looking for a market based on tested features in the market.</p>
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<p>Jacobs Engineering Group Opportunities</p>	<p>1. Internet: there has been an increase in the number of internet users all over the world. This means that there is an opportunity for Jacobs Engineering Group to expand their presence online; by using the internet to interact with its customers. 2. There has been an increase in average household income along with an increase in consumer spending following the recession. This will result in growth in Jacobs Engineering Group's target market with new customers that can be attracted towards the business. 3 Green government drive: this provides an opportunity for Jacobs Engineering Group for the sale of Jacobs Engineering Group's products to federal and state government contractors.</p>
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Jacobs Engineering Group Threats	<p>1. Technological developments by competitors; New technological developments by a few competitors within the industry pose a threat to Jacobs Engineering Group as customer attracted to this new technology can be lost to competitors, decreasing Jacobs Engineering Group's overall market share. 2. Regulations on international trade keep changing, and this requires compliance by companies if they are to operate globally.</p>
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Table 18 Jacobs Engineers Group top 8 Competition on the Market.

Jacobs Engineering Group Competition	
Competitors	<p>1. Bechtel Group 2. CH2M Hill Companies 3. Fluor Corporation 4. KBR 5. The Shaw Group 6. URS Corporation 7. AMEC 8. Chiyoda Corporation</p>

8.5. Financials

With almost \$13 billion in revenue and a talent force of approximately 52,000, Jacobs provides a full spectrum of professional services including consulting, technical, scientific and project delivery for the government and private sector.

Table 19 Jacobs Engineering Group Income statements, period 2016 - 2019.

	2019	2018	2017	2016
Results of Operations:				
Revenues	\$ 12 737 868	\$ 10 579 773	\$ 6 330 126	\$ 6 257 478
Net Earnings (Loss) Attributable to				
Jacobs from Continuing Operations	\$ 290 960	\$ (4 185)	\$ 170 167	\$ 159 998
Financial Position:				
Current ratio	1.34 to 1	1.45 to 1	1.56 to 1	1.61 to 1
Working capital	\$ 1 038 062	\$ 1 410 891	\$ 1 069 953	\$ 1 081 784
Current assets	\$ 4 111 768	\$ 4 556 584	\$ 2 996 180	\$ 2 864 470
Total assets	\$ 11 462 711	\$ 12 645 795	\$ 7 380 859	\$ 7 360 022
Cash	\$ 631 068	\$ 634 870	\$ 607 821	\$ 507 169
Long-term debt	\$ 1 201 245	\$ 2 144 167	\$ 235 000	\$ 385 330
Total Jacobs stockholders' equity	\$ 5 714 691	\$ 5 854 345	\$ 4 428 352	\$ 4 265 276
Return on average equity	5,03%	-0,08%	3,91%	3,74%
Backlog:	\$ 22 569	\$ 19 955	\$ 13 147	\$ 11 535
Per Share Information:				
Basic Net Earnings (Loss) from Continuing				
Operations Per Share	\$ 2,11	\$ (0,03)	\$ 1,41	\$ 1,33
Diluted Net Earnings (Loss) from				
Continuing Operations Per Share	\$ 2,09	\$ (0,03)	\$ 1,40	\$ 1,32
Stockholders' equity	\$ 41,05	\$ 42,21	\$ 36,78	\$ 35,26
Cash Dividends Declared Per Common Share	\$ 0,68	\$ 0,60	\$ 0,60	\$ -

The values of the indicators reached top in 2019, as you can see in the table 19. Total Revenues reached 12,737,868 Billion, with Total Net Earnings 290 960 Million. Current Ratio has been best for the past few years, at the 1.34 point in 2019. Return on Average Equity reached 5,03 percent in 2019.

8.5.1. The stock of Jacobs Engineering Group

In the table 15 there is a comparison within the three main index funds in the recent four years.

Table 20 *Jacobs Engineering Group Index fund summary, period 2016 - 2019.*

	2016	2017	2018	2019
Jacobs Engineering Group Inc.	138,18	156,97	208,45	251,00
S&P 500	115,43	136,91	161,43	168,30
S&P 1500 IT Consulting & Other Services	114,30	125,05	146,93	142,84

Jacobs's stock price has increased almost more than 50 % between 2016 and 2019. In 2016 it was at 138,18 index and in 2019 it reached 251, almost twice as in the past. In comparison with two main index funds, the rise was quite significant, as you can see in the table 20.

9. Evaluation

9.1. Evaluation of Metrostav a.s.

Metrostav a.s. Undoubtedly, he has the greatest experience on the Czech market with the construction, especially from Prague metro lines, which was also the primary focus of this company, which has been operating on the market for **45** years.

Since then, it has significantly expanded its portfolio of services to the other areas of civil engineering and can compete with other universally focused giants in the construction industry.

The company has been relatively financially stable for a long time, its revenues did not change significantly during the past years and did not fall below CZK 20 billion in any of this year. From this point of view, Metrostav a.s. Currently is one of the largest construction company in the country, with a market share of around 10% and in the field of underground construction even almost 50%.

On 31st of January, 2020 a non-final judgement was passed by the Regional Court sentencing the joint stock company Metrostav to a financial penalty of CZK 10 million and three-year ban on participating in public tenders. This ban puts Metrostav in very difficult situation for next year, possibly decade.

The strong point of the company is the results of the financial analysis and the relatively high level of liquidity, which also exceeds the industry values. The relatively satisfactory values of profitability also speak in favour of the company, which have not undergone too critical fluctuations compared to the competition since 2009.

The company also uses some modern tools of modern communication (social networks, product placement), although it maintains relations with the public mainly through high-quality PR and sponsorship. From the point of view of communication, Metrostav newspapers, which are not published by the nearest competitors, are also important.

On the contrary, the weakened reputation associated with the construction of the Blanka tunnel complex more or less puts it at a competitive disadvantage, as this construction, especially from the general public, received quite negative reactions at the time of its development.

9.2. Evaluation of Fluor Corporation

Fluor Corporation has been the part of construction market for a very long time, compared to the competition. It has been operating on the market for more than 100 years, during this period it has gained a high market share in the construction market and is one of the largest construction companies in terms of sales and number of employees. The company also has a relatively good reputation. Company also has a fairly good payment morale, it pays its liabilities for a significantly lower period than the industry average.

The company is a very important construction supplier, especially of oil and gas segment of industry.

The company's sales have declined in recent years, and although 2018 market results was quite good for most companies, this change was not enough to be reflected and compared to the previous year and there was again a decrease in both sales and the economic result itself. In 2019 the Company reached the lowest values in Revenues.

Gaps in marketing communication can also be observed, the company relies mainly on public relations and sponsorship in marketing, however, in this area it had to introduce to much better and faster evolving measures due to the negative development of the construction market and significantly reduced expenditures on these activities.

However, it would not hurt the company to start presenting itself through some less expensive communication tools, especially social networks, which most of its competitors have been focusing on for some time. .

The main threat is the reduction of investments by the state (especially in infrastructure), a further decline in the construction sector or a reduction in the population's interest in construction industries, which may also reduce the supply of labor in this field.

9.3. Evaluation of Jacobs Engineering Group

The Jacobs Engineering Group Company has been operating on the construction market (gradually under various trade names and in various legal forms) for more than 60 years and is universally focused on all segments of civil engineering in the United States and in some foreign markets.

This long-term experience, including the world-famous brand, is undoubtedly its greatest strength. Jacobs Engineering is financial very stable in the last few years and it puts this company at significant advantage compared to the competition.

Company achieved results at the high-end of 2019, from financial outlook we can see that company provided good results for shareholders. Jacobs posted net revenue growth of 13% for the year, with full-year earnings per share up double-digits year-over- year.

Both lines of business also achieved double-digit growth in operating profit. And Company outperformed industry peers on measures of shareholder value, with a one-year total shareholder return of 20% and a three-year return of 82%, this places Jacobs in the top quartile of our peer group and above the S&P 500 index for both periods.

Consistent with profitable growth strategy, Jacobs pursues acquisitions, divestitures and other transactions to maximize long-term value by continuing to reshape its portfolio to higher value solutions. The Company has deployed capital to accelerate its profitable growth strategy through the many important acquisitions:

During fiscal 2019 the Company repurchased \$853.7 million of shares and paid \$106.4 million in dividends to shareholders.

The company also uses some modern tools of modern communication (social networks, product placement). From the point of view, Jacobs Engineering Group can be an example with its manipulation with Social Media marketing.

10. Summary of findings

The Thesis was to examine the importance of strategic management and strategic analysis, the concepts of sustained competitive advantage, and to present the most fundamental strategic analysis tools used in business strategy, given the context of the construction industry where there is an identified lack of strategy research and analysis. Competitive advantage in construction industry can be gained or lost based on how well a construction firm is aware and able to apply different important strategic analytical tools.

Selected construction companies were analysed and compared through selected financial indicators and marketing activities, and subsequently their current position on the market and their current development in terms of financial stability was evaluated.

From the text above this Thesis can tell us that selected construction companies give a lot of attention to sustainable development issues and they present their approaches to sustainable development. They give attention to the above mentioned environmental and social aspects in their business activities and also in their decision-making processes and strategical and tactical operational level. They consider their customers, their employees and local communities to be their key stakeholders, which is fully in agreement with previous studies implemented in construction companies operating in developed countries.

All three selected companies belong to large companies in their industry. For any further research into this field it would be interesting to focus on small and medium sized construction companies and compare their approaches with approaches of large construction companies.

To answer the research questions:

Strategic management is necessary to any organisation particularly those working in **construction** where there is a rapidly changing environment with adverse competition and surprises which may act as serious threats to organisation stability.

SWOT analysis is one of the most popular strategic analysis models. It involves looking at the strengths and weaknesses of your business' capabilities, and any opportunities and threats business.

A deeper focus on foreign markets, environmental policy and the greatest possible universality will be key to the future success of the compared companies. Their future will depend primarily on the overall development of the economy.

Governments **can** raise or lower corporation tax, which will **impact** on profits. They **can** also **affect businesses** by increasing value-added tax on products or **business** rates. They **can** bring in new laws

One of the biggest threats to selected construction companies is that they are always under risk from **savings from public budgets** and the **scepticism** of private investors.

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