# The Project for Penetrating Brazilian Market by a Czech Engineering Company

Bc. Wagner Xavier Junior

Master thesis 2013



Tomas Bata University in Zlín Faculty of Management and Economics

## Tomas Bata University in Zlín

## Faculty of Management and Economics

Department of Management and Marketing Academic Year: 2012/2013

## MASTER'S THESIS ASSIGNMENT

(PROJECT, ARTWORK, ARTISTIC PERFORMANCE)

Degree, First Name and Surname: Wagner Xavier Junior

Personal Code:

M110508

Degree Programme:

N6208 Economics and Management

**Degree Course:** 

Management and Marketing

Thesis Topic:

The Project for Penetrating Brazilian Market by

a Czech Engineering Company

Thesis Guidelines:

#### Introduction

#### I. Theoretical part

Prepare all the information and procedures about a market entry.

#### II. Practical part

- Analyse of external factors, market, competitors and costumers in Brasil.
- Analyse of internal factors.
- Prepare the implementation of strategic plan for penetrating brazilian market.

#### Conclusion

Thesis Extent:

70 stran

Appendices:

Form of Thesis Elaboration:

printed/electronic

#### Bibliography:

ALBAUM, Gerald a Edwin DUERR. International Marketing and Export Management. 6th ed. Harlow: Pearson Education Ltd., 2008, 711 s. ISBN 978-0-273-71387-6. CZINKOTA, Michael R. a Ilkka A. RONKAINEN. International Marketing. 8th ed. OH, USA: Thomson Higher Education, 2007, 720 s. ISBN 0-324-31702-6. KOTLER, Philip a Kevin Lane KELLER. Marketing management. 13th ed. Upper Saddle River: Pearson Prentice Hall, 2009, 662, 124 s. ISBN 978-0-13-600998-6. USUNIER, Jean-Claude a Julie Anne LEE. Marketing across cultures. 5th ed. Harlow, England: Pearson Education, 2009, 479 s. ISBN 978-0-273-71391-3. WETHERLY, Paul a Dorron OTTER. The business environment: themes and issues. 2nd ed. Oxford: Oxford University Press, 2008, 495 s. ISBN 978-0-19-920305-5.

Thesis Supervisor:

Ing. Michal Pilík, Ph.D.

Date Assigned:

22 February 2013

Thesis Due:

2 May 2013

Zlín, 22 February 2013

prof. Dr. Ing. Drahomíra Pavelková

Dean

Ing. Pavla Staňková, Ph.D.

Head of Department

## BACHELOR'S/MASTER'S THESIS AUTHOR STATEMENT

#### I hereby acknowledge that:

- Upon final submission of my Bachelor's/Master's Thesis, I agree with its publishing in accordance with Act No. 111/1998 Coll., on Higher Education Institutions and on Amendment and Supplements to Some Other Acts, (The Higher Education Act), without regard to the defence result<sup>1</sup>;
- My Bachelor's/Master's Thesis will be released in electronic form in the university information system,
- To my Bachelor's/Master's Thesis fully applies Act No. 121/2000 Coll., on Copyright, Rights Related to Copyright and on the Amendment of Certain Laws (Copyright Act) as subsequently amended, esp. Section 35 Para 3<sup>2</sup>;
- In accordance with Section 60<sup>3</sup> Para 1 of the Copyright Act, TBU in Zlín is entitled to enter into a licence agreement about the use of the Thesis to the extent defined in Section 12 Para 4 of the Copyright Act;

<sup>&</sup>lt;sup>1</sup> Act No. 111/1998 Coll., on Higher Education Institutions and on Amendment and Supplement to Some Other Acts (Higher Education Act), as amended by subsequent legislation, Section 47b Providing Public Access to Theses:

<sup>(1)</sup> Higher education institutions are obliged to make public, at no profit to themselves, the doctoral, Master's, Bachelor's and advanced Master's ("rigorous") theses that have been defended at their institutions, including the readers' reports and results of the defence. The institution will do this by making available a database of these theses. The means of providing access to these theses is stipulated in the internal regulations of the higher education institution.

<sup>(2)</sup> Doctoral, Master's, Bachelor's and advanced Master's ("rigorous") theses that have been submitted by candidates for defence must also be made available to the public at least five days before the defence at a place designated for this purpose in the internal regulations of the higher educations institution, and where this is not the case, in the department or other place at the higher education institution where the defence of the thesis will be taking place. Any individual is entitled, at his/her own expense, to make extracts, copies or photocopies of theses thus made available.

<sup>(3)</sup> By handing in a thesis, its author automatically gives assent to its being made public pursuant to the provisions of the Act, irrespective of the result of the defence.

<sup>&</sup>lt;sup>2</sup> Act No. 121/2000 Coll., on Copyright, Rights Related to Copyright and on the Amendment of Certain Laws (Copyright Act) as subsequently amended, Article 35 Para 3:

<sup>(3)</sup> Copyright shall also not be infringed by the school or school or educational establishment if they use for non commercial purposes for their own internal needs a work created by a pupil or student as a part of their school or educational assignments ensuing from their legal relationship with the school or school or educational establishment (school work).

- In accordance with Section 60<sup>4</sup> Para 2 and 3, I can use my Bachelor's/Master's Thesis, or render the licence to its use, only with the prior expressed written agreement of TBU in Zlín, which is in such case entitled to require from me appropriate financial compensation to cover the cost of creating the Bachelor's/Master's Thesis (up to the total sum);
- If the software provided by TBU or other entities was used only for study and research purposes (i.e. for non-commercial use) in the development of the Bachelor's/Master's Thesis, it is not possible to use the Bachelor's/Master's Thesis commercially.

#### I herewith declare that:

- I have created this Bachelor's/Master's Thesis on my own and cited all used sources;
- The contents of the Bachelor's/Master's Thesis handed over are identical with the electronic version entered in the IS/STAG.

Zlín 02/05/13

date

signature

<sup>&</sup>lt;sup>3</sup> Act No. 121/2000 Coll., on Copyright, Rights Related to Copyright and on the Amendment of Certain Laws (Copyright Act) as subsequently amended, Article 60 School Work:

<sup>(1)</sup> A school or school or educational establishment shall have the right to conclude, under habitual terms, a licence agreement on the utilization of a school work (Article 35 Para 3). Where the author of such work has refused to grant his permission without stating a serious reason, such entities may claim compensation for the absence of manifestation of will in court. The provision of Article 35 Para 3 shall remain unaffected.

<sup>&</sup>lt;sup>4</sup> Act No. 121/2000 Coll., on Copyright, Rights Related to Copyright and on the Amendment of Certain Laws (Copyright Act) as subsequently amended, Article 60 School Work:

<sup>(2)</sup> Unless agreed otherwise, the author of a school work may use his work or grant the licence to another party if this is not in contravention of the legitimate interests of the school or school or educational establishment.

<sup>(3)</sup> The school or school or educational establishment shall be entitled to claim from the author of the school work, from the income earned by him in connection with the utilization of the work or granting of the licence pursuant to paragraph 2, an appropriate contribution to the reimbursement of the cost incurred by them due to the creation of the work, and that, depending on the circumstances, up to the full amount of this cost; the determination of the amount shall take into account the proceeds from the utilisation of the school work pursuant to paragraph 1 received by the school or school or educational establishment

#### **ABSTRAKT**

Brazílie je šestou největší ekonomikou na světě dle nominálního HDP a sedmou dle zakoupené parity. Od roku 1990 dosáhla země ekonomickou stabilitu, a začala lákat zahraniční investice.

Jedna z nejrychlej rostoucích sportovních stavebních firem v České republice, PSK-ASM, snaží se rozšířit své aktivity a dobýt dominantní postavení na latinskoamerickém trhu a planují začit pravě od Brazílie.

Cílem této práce je připrava a anlýza výzkumu pro uvdenou společnost proniknout na brazilský trh s výužítim moderních metod řízení za účelem zjistění, zda je projekt realizovatelný nebo ne.

Kličová slova: internacionalizace; ekonomické ukazatele; finanční indikátory; pronikání na trh; realizaci projektu.

#### **ABSTRACT**

Brazil is the sixth largest economy in the world by nominal GDP and seventh by purchasing parity. From the 1990s, the country achieved economic stability, and started to attract foreign investment.

One of the fastest growing sport construction companies of the Czech Republic, PSK – ASM, seeks expand its activities and conquer a dominant position in the Latin American market, entering first into Brazil.

The purpose of this thesis is to prepare and analyze a study to, the referred company, penetrate the Brazilian market utilizing modern management methods in order to determine whether the project is feasible or not.

Keywords: internationalization; economic indicators; financial indicators; market penetration; project implementation

#### **ACKNOWLEDGEMENTS**

I would like to dedicate a special thank to my parents, Wagner Xavier and Elisabete Maia Xavier, for supporting me wholeheartedly. I would be nothing without their love and care.

I thank my girlfriend, Roberta Perrone, for being so patient and supporting me throughout my journey of two years in the Czech Republic.

Without forgetting to mention my extended family, uncles, aunts and cousins, especially my sister and brother in law, Leticia and Felipe, for all support.

I offer my sincerest gratitude to my supervisor, Mr. Ing. Michal Pilik, PhD. who has supported me throughout my thesis with his patience and knowledge whilst allowing me the room to work in my own way.

I am also grateful to all teachers and other employees of the Tomas Bata University, for all attention and dedication given to me and my colleagues.

I thank the employees and directors of PSK - ASM, to support and believe in this project.

I hereby declare that the print version of my Bachelor's/Master's thesis and the electronic version of my thesis deposited in the IS/STAG system are identical.

Zlín, Czech Republic, May 2<sup>nd</sup>, 2013

Wagner Xavier Junior

## **CONTENTS**

INTRODUCTION	10
I THEORY	12
1INTERNATIONALIZATION OF COMPANIES	13
1.1DETERMINANTS OF THE INTERNATIONALIZATION PROCESS	16
1.2Motives to Go Abroad	17
2MODES OF INTERNATIONAL MARKET ENTRY	22
3THE IMPORTANCE OF DISTRIBUTION CHANNELS ABROAD	
4COMPETITIVE ADVANTAGE	
4.1THE PROCESS OF VALUE CREATION	
4.2Effects of competitive advantage on financial performance	
II ANALYSIS	
5PROFILE OF THE CZECH CONSTRUCTION COMPANY "PSK – ASM"	
5.1Product Lines	35
5.2SHORT PROFILE OF THE LOCAL COMPETITORS	37
6PROFILE OF BRAZIL AND PEST ANALYSIS	43
6.1Political Situation in Brazil	44
6.2ECONOMICAL SCENARIO	45
6.2.1Tax and Regulatory Regime	
6.2.2Policies for Foreign Investment	
6.3Human Resources (Social)	
6.4Innovation Environment (Technological)	
6.4.1Sustainability	
6.5 CONSTRUCTION SECTOR.	
6.5.1Short Profile of the Potential Competitors in Brazil	
7PROJECT FOR ENTERING THE BRAZILIAN MARKET	
7.1Transforming Strategy into Action	74
7.1.1Financial Perspective	75
7.1.2Customer Perspective	
7.1.3Business Process Perspective	
7.2FINANCIAL PLAN	
7.2.1Tax Expenses.	
7.2.2Calculations Of Labor Costs And Social Charges	84
7.2.3Depreciation.	
7.3FINANCIAL ANALYSIS	
7.3.1Internal Rate of Return	
7.3.3Break Even Point.	
7 3 4Payback Period	90

7.4POTENTIAL RISKS OF THE PROJECT	91
7.5Project Phases and Time analysis	93
CONCLUSION	97
BIBLIOGRAPHY	98
LIST OF ABBREVIATIONS	106
LIST OF FIGURES	109
LIST OF TABLES	110
APPENDICES	111

#### INTRODUCTION

Over the past 40 years, several theories have emerged trying to explain a phenomenon that came to draw the attention of researchers since when this event began to enter a phase of unprecedented expansion: the internationalization of enterprises.

Historically, a company reorganizes itself as it goes international to accommodate the new strategies. The structure continues to change over time with the growth and increasing levels of investment or diversification and as a result of the types of entry strategy chosen.

Internationalization is the process by which a firm gradually changes due to international competition, saturation of domestic markets and the need for expansion, new markets and diversification. Executives need to weigh the alternatives and choose the most appropriate entry strategies.

The company may start exporting or acting as licensor/licensee, and then over time move towards internationalization to participate in joint ventures or establish facilities services, production or assembly, or alliances abroad, thus evolving to a global strategy.

In each of these stages, executives redefine the company's organizational structure to optimize the chances of success of the strategy, making the necessary changes to jobs and relationships of the company and determining authority, responsibility, communication lines, geographic dispersion of units etc.

The process of internationalization of a firm is influenced by internal and external factors to the company, thus, for a company to succeed in its internationalization, this planning stage is extremely important. The economy and the markets are constantly changing, which influences the inclusion of companies in new markets. This study examines, first, the factors influencing the internationalization so that we can achieve a clearer understanding of the whole process.

Firstly, this thesis goes through a short revision of the classical theory of internalization of firms, the key determinants of its processes and the behavioral theory that discuss the motives which push and pull companies to go abroad. Following the theory, this research open a discussion about the modes of market penetration, from the classic approach to the alternatives such as the application of the "Optimal Entry Mode Matrix" proposed by Johans-

son, (2009). Later on, the first part goes direct to the discussion of the distribution channels in the international market, to the classical approach of Competitive Advantage. Which presents and describe the creation of value to the whole chain: supplier, company and customer.

As for the second part, this thesis aims to create a project to the young and fast growing Czech construction company PSK – ASM penetrate the Brazilian marketplace. The referred part begins scanning the current situation of the company, starting from a short history profile, going through its activities in Czech Republic, until mapping its local competitors.

In the next chapter begins a complete study of the Brazilian market, the advantages and disadvantages of investing in that country. This work promises to explain the main reasons of which Brazil has been under the international spotlight and has increasingly become a major destination for multinational companies.

In addition to an analysis of the general scenario, the thesis goes toward the creation of a strategic plan to penetrate the Latin American market, opening a comprehensive analysis of the Brazilian civil construction, mapping the current players in the niche of sport construction and providing a full SWOT analysis for the company's subsidiary on Brazilian soil, suggesting strategic positioning that the company should adopt in the South American country.

In the seventh and final chapter of this master thesis, the project begins to take shape, and begins an analysis of how to put together a management plan, which will translate the strategy adopted by the company, through four key perspectives: financial, customer, business processes, and growth and learning. This analysis brings management metrics in order to monitor and evaluate the performance of the company since its early days of activities.

And finally, there is a financial research, based on real data from the Brazilian market, to assess the financial potential of this project, together with its economic viability. This allows open space for discussions such as the potential risks that PSK may face, which creates a basis for future studies of prevention, and a temporal analysis of the project, covering the main phases in which it consists and using advanced methods such as PERT analysis.

## I. THEORY

#### 1 INTERNATIONALIZATION OF COMPANIES

Internationalization is of major importance for nations and companies, since it contributes to the economic development of the country and makes companies less dependent on the domestic market. The dominant theories originating in industrially developed countries, have limited applicability for replication in developing countries, mainly due to the omission of recognizing the context of activities, or even by presenting generalizations with low levels of abstraction due to high dependence on context (RAMAMURTI, 2013).

In the recent past, authors have recognized that the existing literature on internationalization of firms from developing countries was meager when compared to developed (CONDO, 2000) and was still in the embryonic stage (KUADA and SORENSEN, 2000). Indeed, the literature on the internationalization process of companies from emerging countries is in the process of structuring (RAMAMURTI, 2004) and there is a need for a better understanding of these markets because of its importance (CAVUSGIL, DELIGONUL & YAPRAK, 2005), which creates the need to develop more appropriate models to its reality (MORAES, KOVACS, OLIVEIRA, 2006).

Research in Brazil have generated important contributions that reflect the reality of emerging countries. Versiani and Rezende (2009), for example, found that the continuity and deepening in the international market are related to causal sets that change over time and that the market has a strong influence on the continuity of exports. Given this susceptibility to temporal position, it is necessary a longitudinal analysis to understand the process. Meanwhile, Rock *et al.* (2005) found that efforts to export may not be as beneficial to the firm when it operates in turbulent environments. Oliveira (2007) and Barbosa (2008) revealed evidence of simultaneous association of different sizes models of internationalization, from the moment in which neither alone was able to explain this process.

According to Barretto and Rocha (2003), internationalization is a process by which a company engages with countries other than the domestic, can give in two ways: inward through imports, manufacturing licenses, franchise agreements, or technology, or outward through exports, licensing of manufacturing, franchise agreements or technology or foreign direct investment.

Similarly, Hill (2012) defines strategy as international product sales in regions outside the domestic market in which the firm operates, in order to produce new leads. According to Hitt *et al.* (2008) the international strategy of a company can also be defined in the corporate or business unit, ranking at the corporate level as multi-domestic, global, or transnational, whereas in business unit strategy follows the generic definitions of Porter (2001): cost leadership, differentiation, or focus.

Second definition Goshal (1997), the multi-domestic strategy the company seeks to adapt its products to meet the needs of customers in each country, requiring that decisions be decentralized in each business unit that operates in these countries. On the other hand, this author points out that the company adopts global strategy to compete globally standardized products and the definition of competitive strategy is centralized and controlled by the central office. Yip (2009) differentiates the two strategies in multi-domestic stating that the company seeks to maximize global performance by maximizing the benefits, revenues and profits local. The author points out that the global strategy the company seeks to maximize the performance world through the sharing and integration of resources.

Bartlett and Ghoshal (2012) define the concept of transnational strategy as the search for both the overall efficiency as local flexibility. According to Hitt *et al.* (2008) This strategy is a combination of multi-domestic to global. There are two distinct lines of research on internationalization: "Economic Approach", where the process of internationalization is analyzed rationally in economics and optimal allocation of resources, and "Behavioral Approach", which evaluate subjective factors in the decision making process of internationalization, with this sequence of gradual adjustments to factors of the firm and its environment (BARRETO & ROCHA, 2003). On economic approach highlight the eclectic paradigm defined by Dunning (1999) in which the process of internationalization would be determined by three types of benefits: "Advantages of Ownership" (ownership) such as technology, products, skills, "Advantages of Location" (location) of the country of origin or destination and "Advantages of Internalization" (Internalization). This model is also known as OLI (Ownership, Location and Internalization).

In the behavioral approach is the Uppsala School (classical studies on internationalization of firms), known primarily from the publication of Johanson and Vahlne (2007). This model is based on the learning process, considering some assumptions such as: lack of knowledge

is the greatest obstacle in the process of internationalization, the knowledge acquired through experience is the most important process in internationalization, and investment in the internationalization process occurs gradually. This model is based on the idea that the company invests more resources in the international market as it acquires more knowledge about this market thus reducing their risk perception.

According Hemais and Hilal (2002) behavioral model uses the concept of psychological distance, defined by differences in culture, language, governance structure and other variables that affect the company's communication with the market and customers. Also according to these authors, the internationalization of companies starts on sites similar to existing operations (less psychic distance). However the Uppsala School has limitations due to its linear view, incremental schematic deterministic, not considering the possibility of burning steps or the sequence and speed the process of internationalization can be dictated by different types of environments or industries (BARRETTO, 2002).

An evolution of the Uppsala school is the Theory of Networks and Social Networks, which emphasizes that the internationalization process may be due to intra-organizational relationships between subsidiaries of the company, and inter-organizational relationships between subsidiaries and external stakeholders such as suppliers, customers and competitors (BJÖRKMAN & FORSGREN, 2000).

The proposal of new theories, however, is not defended by Rugman (2009), which considers the current multinationals from emerging countries similar to those of Western countries in the 1960s, concluding that those advantages are dependent only on the specific advantages of the country. It is considered, however, that the mainstream approaches are likely to support the search for theories most appropriate for understanding the process of internationalization of late entrants, the case of Brazil (FLEURY and FLEURY, 2007), since the context is also analyzed (RAMAMURTI, 2013).

In line with the thinking of Rugman (2009), companies are influenced by the characteristics of the location, and there are differences between the context of developed countries and the developing world. Greater attention needs to be given to the importance of location *per se* as a variable that affects the overall competitiveness of enterprises in research on internationalization (DUNNING, 1998). However, longitudinal analyzes are necessary to verify

the influence of different location over time, for example, the impact of the country of origin of the competitive advantages of companies is larger in the internationalization incipient stages than in later stages as proposed by Ramamurti (2013). This issue of location is recognized by Porter (2001) argues that a country offers better environment for competition in some industries than in others. O'Grady and Lane (1996) present the paradox of psychic distance, in which they consider that physically close operations in countries are not necessarily easy to manage, since the similarities between the countries can avoid learning about cultural differences. It also appears that, within the same country, the impact of the geographical location of the business can lead to different results in the internationalization process. Companies located close to international borders can obtain superior performance due to "climate of internationalization" brought or "fad" among the companies in the region, who begin exporting based on an imitative behavior (DIMITRATOS, 2002). However, Guillen (2003), in their longitudinal study, found that imitation between competitors in the choice of mode of entry into international markets tends to occur in the same strategic group.

In Brazil, is possible to find a large discrepancy between the regions, where the South and Southeast accounted for approximately 75% of total exports in 2009 (MDIC, 2010). Distant international borders, companies located in the Northeast exported only 7.6% in the same period. Notably, the number of companies with foreign subsidiaries Northeastern is unrepresentative compared to the national amount. This little participation in the internationalization process becomes, in a way, the vast majority of companies Northeastern isolated from global competition.

## 1.1 Determinants of the internationalization process

From the opening of the market, which strongly in Brazil happened in the 90s, the company identified the need to become competitive globally, targeting new markets abroad (ALEM, CAVALCANTI, 2005).

Another determinant of the internationalization process is the strategy adopted by the company for its activities of Research and Development (R&D). Alem and Cavalcanti (2005) emphasize that, from the operation in several countries, the company will have access to

new technologies, access to this hitherto inviable only local operation. In addition, larger scale production reduces costs of technological forecasting.

According to Vernon (2006) companies seeking international diversification should extend the life cycle of its products by marketing these in the foreign market principle from domestic production and, with increasing demand from of foreign direct investment in production capacity.

In a study of companies in Taiwan and Singapore, Sim and Pandian (2003) identified that these internationalized for the following reasons: lower cost of skilled labor; joint venture with suppliers to ensure supply of raw materials; acquisitions or joint venture to gain access to technology, and expansion of the market for access to the NAFTA (North American Free Trade Agreement) and Europe. In addition, companies seeking certain countries due to cost and advantages offered by them such as logistics facilities, advertising and regional relationships. Dunning (2008) identifies new reasons to direct investments of foreign companies, mainly from the 90s, with the explosion of the phenomenon of globalization. Among these reasons can be highlighted: the growth of regional integration, a result of the maturation of economic blocs like the European Union and NAFTA, and greater number of policies to attract foreign direct investment. According to Alem and Cavalcanti (2005) internationalization enables companies to expand their markets, obtain economies of scale, increase your expertise, get learning and strengthen its financial base allowing new investments and technological developments.

#### 1.2 Motives to Go Abroad

According to Czinkota *et al.* (2011) a company will only consider to establish its activities abroad when it has some extra stimulus to do it so. The author also defends that there are a large variety of motives that may boost firms interest into internationalization processes. However, all these motives can be grouped in two main groups: proactive and reactive motivations. The Table 1 provides few example of the classical motives that push or pull the international movement behavior. Where the reactive motivations are those which causes enterprises to response or adapt to changes or trends coming from the external environ-

ment, and in analogy, the proactive motivations are the ones that make firms to seek the foreign market because the have to, due internal reasons.

**Table 1:** Major Motivations to Firms (CZINKOTA, RONKAINEN & MOFFET, 2011)

Proactive Motivations	Reactive Motivations
Profit advantage	Competitive pressures
Unique products	Overproduction
Technological advantage	Stagnant or declining domestic sales
Exclusive information	Excess capacity
Tax benefit	Saturated domestic markets
Economies of scale	Proximity to customers and ports

In this direction, Cateora *et al.* (2011) indicates the Latin America as a contemporary destination to the companies that are passing through the process of identifying the motives to internationalize. According to the author's statements, it is possible to identify both proactive and reactive motives why companies are expanding to the Latin American market.

"Today many Latin American countries are at roughly the same stage of liberalization that launched the dynamic growth in Asia during the 1980s and 1990s. In a positive response to these reforms, investors have invested billions of dollars in manufacturing plants, airlines, banks, public works, and telecommunications systems. Because of its size and resource base, the Latin American market has always been considered to have great economic and market possibilities. The population of nearly 600 million is nearly twice that of the United States and 100 million more than the European Community." (CATEORA, GILLY & GRAHAM, 2011, p. 270)

Therefore, Czinkota *et al.* (2011) explains the following key motivations to go abroad in each category:

#### Proactive motivations

Profit advantage

This is considered to be the most common proactive motivation to start an international business. The company's management may seek the international marked to obtain higher profit. The expected profitability is not connected to the current profitability of the company, but linked to the growth of the new market. And in general, the profitability of international startups are not different than locals, once they also will have losses due extra costs of getting ready or the internationalization and as a result of eventual mistakes.

#### Unique products/Technological advantage

This comes as a second most frequent stimulus. The firms which produce goods or services that are not available in certain markets, will feel attempted to have a temporary monopoly in the new marketplace. However, the author remembers that this advantages must be differentiated. Many companies use to believe that they have an unique product, however, it is not true in the foreign market. Another important point is to have in mind the duration of this advantage, once the technological advantage will be mitigated when the competitors have access to similar appliances.

#### • Exclusive information

Also known as 'special knowledge' or 'market situations', this is another common case of proactive stimulus. This information can be resulted from some particular perception of the company, from some special contact abroad, from any deep research or simply from being exactly in the right place at the right time. However, this is only a starting point stimulus to go abroad once it will not provide, in most of the cases, exclusivity in a long term.

#### Tax benefit

Due several preferential tax treatments used by many governments to encourage exports, this is considered to be one of the major motivational roles. Due such benefit, companies can either launch their products with a lower price in the international market or obtain a higher profit margin. Nevertheless, international trade rules can create various barriers to those governments that try to use such tax approach.

#### Economies of scale

The international experience can make the company increase its output in order to quickly gain a better position on the learning curve. Several researches have already proved that when you double the firm's output, there is a gain of 30 percent on cost reduction. In addition, recent researches have found that centralizing the production, carry enough benefits to overcome the shipping costs. In this way, increase the international production can help to decrease the cost of production and raise the competitiveness in the domestic market.

#### • Reactive motivations

#### Competitive pressures

As mentioned before, reactive motivations push firms to respond to the external environment instead of pressure it into an innovative process. Companies get afraid of losing the domestic market share, because the competitors may benefit from economies of scale rose from international activities. In addition, the firm may fear losing potential market share in the international field to the domestic competitors.

#### Overproduction

During depression of the domestic demand, the international market can provide a perfect outlet to excess inventories. Normally, the expansion to the international market motivated by overproduction, is a temporary safety valve to the company's management.

#### Stagnant or declining domestic sales

Similar to the previous motive, the stagnation of the domestic market can also stimulate firms to internalize their products. Goods market can be at the declining point of the cycle and instead of create a strategy to force a way back in the cycle in the domestic market, companies may prefer to encounter a foreign market to prolong the product's cycle. An example of this practice can be found between high-technology products, such as computers and smart phones, which

are firstly released in the developed markets to later on be expanded to the others to extend its short life cycle.

#### • Excess capacity

For those companies which suffer with idle installed production capacity, the internationalization can be the way of optimize the fixed cost structure of the productions plants. In addition, if the firm has already all fixed costs assigned to the local market sales, the company can entry a new international market with a sales price based on the variable cost.

#### Saturated domestic markets

Very similar to the declining domestic sales motivation, the saturated domestic market motivation push companies to the foreign market to seek for prolongation of products life cycle and/or to find a way to keep growing its activities and financial results.

#### Proximity to customers and ports

This factor many times is a natural process of company's growth, once the firm can be located close to some other country boarder and not even notice that they started working in the foreigner market. Most of the European companies go abroad automatically simply because they are so close to the neighbors countries.

#### 2 MODES OF INTERNATIONAL MARKET ENTRY

According to Buckley and Casson (1998), localization costs, factors of internationalization, financial variables, cultural factors, market structure, competitive strategy, adaptation costs (the local environment) and costs of doing international business have been identified in the literature as factors that influence the decision to enter the foreign market.

From the analysis of the interaction between these variables, Buckley and Casson (1998) defined a model that describes 12 different alternatives of entry into international markets, such as international direct investment (means of production and distribution themselves), international direct investment in media production, subcontracting, international direct investment in distribution facilities, export (for independent distributors) and Joint Venture production (distribution subcontracts), among others.

However, Cateora *et. al.* (2011) defend that there are only the four classical entry modes approach (exporting, contractual agreements, strategic alliances and direct foreign investment) and the different entry modes should be classified into two main subcategories of each mode: equity and non-equity categories. Besides, the authors explain that the amount of equity which the company requires to use each mode will affect the risk, control and the return that the enterprises will gain in each mode. An example of the extremities of this scale are the indirect exporting and direct foreign investment. Being the indirect exporting the mode which requires the least amount of equity, with a low risk and low return, and the direct foreign investment being the mode which requires the largest equity size and the greatest risk, however, with the highest control and potential return.

According to Kim and Hwang (2002), entry into foreign markets usually occurs through export because it requires no experience in overseas production, only investing in ways to market and distribute their products. However, the export implies high logistics costs and import taxes and control over the marketing and distribution is limited, which may restrict the competitiveness of the product in that market.

It is possible to distinguish between several strategic scenarios, and for each of those, there are a preferable, or more suitable, mode of entry. According to this idea, Johansson (2009) introduced a matrix with several situations to suggest an optimal mode of entry for each of them. The author suggests that the entry strategy is affected by two key factors, company

and market. Therefore, is possible to group the company factors into three strategic postures. While the factors determined by the market can be grouped into an entry mode matrix with four variables.

Product/Market Situation Company **Strategic Posture Emerging High-Growth** Mature **Services** Incremental Indirect Exports Indirect Exports **Direct Exports** Licensing/Alliance **Protected** Joint Venture **Indirect Exports** Alliance/Licensing Licensing Acquisition/ Wholly Owned Wholly Owned Franchising/ Control Alliance Subsidiary Subsidiary Alliance/Exporting

**Table 2:** Optimal Entry Mode Matrix (JOHANSSON, 2009)

The Table 2 represents the optimal matrix with the suggested entry modes for the crossing company and market factors, where they are represented by:

#### Company Factors

- Incremental is considered to be those companies which has few resources to dedicate to entry the new market and it is the first step of the company's internationalization process. One of the main characteristics of these companies entry strategy is that they tend to go through tentativeness steps and they desire to hold as much as possible future options.
- **Protected** is the strategic posture that represents the company which possesses some well-protected trade secret or holds some know-how patented whose the potential abroad is clear, but does not have enough knowledge about the market and need to develop more local familiarity. In another words these are those firms which heavily invest in innovation either in technology or new approaches to common procedures. In few cases, there are some resources limitation destined to the market entry.
- o In the third strategic situation, so called Control posture, the firm has a well-established company-specific advantages and is fairly large to allocate enough resources to the market entry, in order to overcome all possible obstacles of the expansion and offer its products with definite potential in the foreign market.

This can also be considered the "global" situation, where the firm is willing to expand its activities abroad without jeopardize any of its company-specific advantages.

#### • Product/Market Situation

- According to Johansson (2009), at the market factors the first thing that is needed to be distinguished among sundry product/market conditions that can be expanded into the foreign market is between products and services. It is done due the distinct particularities of each of this market segment. While the product brings most of the company-specific advantages in its physical body, and it can be perceived by the customer even after the purchase experience, the service can only transmit its quality and benefits during its execution, *i.e.*, during the purchase transaction or the consuming experience. That is the reason why services are exported through people's traveling, in order to perform the service locally.
- OHowever, among the segment of products, it is possible to distinguish between three different situations. Emerging are those markets which use to be closed and was set open recently due some political changes or for the creation of the international interest to invest. These markets use to have a weak infrastructure level, several difficulties in accomplish the market-based exchanges, it has a considerable higher risk of default of payments when compared to the developed markets and it lacks alternatives of distribution. One can consider the BRIC countries (Brazil, Russia, India and China) the classical modern example of the emerging markets.
- The second type of market introduced to the matrix is the high-growth. These category is represented by those high-technology markets located in the advanced economies, in most of the cases, the newly industrialized countries. In a general vision, the strategy adopted to this market should include a quick presence establishment of the company in the country, in order to support the product sufficiently in the marketplace to avoid being overtaken by the competitors. Besides that, the sales growth tends to go quickly to those firms who firstly en-

- tered this market and manage to establish a leadership position, capturing the first-mover advantages.
- As for the mature stage markets is considered to be those markets which the predominant marketing strategy is to hold its position in the market share, even when the firm works in only one niche of a well-differentiated marketplace. Most of the countries with an advanced and developed economy are located in this market situation. The suggested marketing strategy approach of entering a mature market is not based on speed of penetration as compared to the total amount of marketing investment needed to establish locally the company and build customer's loyalty.

#### 3 THE IMPORTANCE OF DISTRIBUTION CHANNELS ABROAD

According Ventorini (2004), the definition of the distribution channel is essential task for successful process of exporting and trading in the international market. For Stern *et al.* (2006), distribution channels are sets of interdependent organizations involved in the process of making the product or service available for consumption or use.

According to Bradley (2005), the management of international distribution channels involving the various means available for transfer of goods and services a manufacturer located in a particular country to the customer located in another. The author stresses that the same channels of distribution used in the domestic market can not always be considered due to the complexity involved in international logistics. The choice of distribution channel will directly influence the company's costs and therefore the price of the final product. Also, has a fundamental role in stimulating demand through promotional activities of wholesalers, retailers and representatives (MACHADO and LIBONI, 2004). For Stern et al. (2006), distribution channel should be aligned with the strategy of product / market adopted by the organization, i.e., the distribution system can only be designed appropriately if the company already has clearly defined the product and the target audience in question. According Ventorini (2004), the most significant factors in the process of choosing the best distribution channel are: nature of the product (size, weight, etc..), Market characteristics (location, buying habits, purchasing power, etc..) qualification of intermediate agents and advantages and disadvantages of negotiating directly with end consumers without intermediaries. Machado and Liboni (2004) noted that the distribution can be exclusive, selective or intensive. Exclusive distribution, the intermediary can not work with competing brands, since the distribution is intensive focus on maximizing sales, ensuring greater market coverage, convenience, space and spreading risk. Finally, the selective distribution seeks to preserve the image of the product and better customer service through the choice of a small number of intermediaries.

According Forner (1999), the types of channels and agents that collaborate with the distribution and placement of the product in different international markets are trading companies, export consortium, representatives of overseas sales, importer, distributor and retailer (Dealers). An alternative to the marketing and distribution of products is sold directly to

Coughlan (2002) defines as the sale of a product or service to the consumer face to face, away from a fixed retail location. For the Brazilian Association of Direct Selling Companies - DSA (2007) direct selling is a system of marketing of consumer goods and services differently based on personal contact between sellers and buyers, out of a fixed shop.

#### 4 COMPETITIVE ADVANTAGE

A fundamental goal of business strategy is to study the heterogeneity of firms, in its origins, components and the performance metrics. Companies with superior performance is attributed to the existence of a competitive advantage, that is, an ability to create value above the average of its competitors (PORTER, 2001). Competitive advantage is a latent construct and logical precedent superior performance, why empirical studies are based on the observation of the performance variables to measure the competitiveness of enterprises. However, the most important issue is knowing which aspects and performance variables reveal the value created by the company and can faithfully reflect its competitive position, *i.e.*, how to assign competitive advantage to a company by the study of their performance (POWELL, 2001).

The theoretical debate about competitive advantage does not offer a definition clearly operationally or complete (PORTER, 1989). The docking models of observation variables return simplifies the concept of performance and despise the other effects of value creation. Moreover, the operationalization of performance for random variables leads to different results and conclusions in a large variance, limiting the ability of knowledge accumulation (HITT 2008). Therefore, it is necessary to relate the performance measures with the theoretical approach and the concept of competitive advantage.

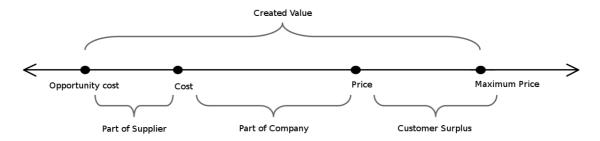
According to Richard *et al.* (2009), companies that create value above the average for their industry should provide superior results, however organizational performance can be affected in various shapes and dimensions. The performance analysis should reflect the directions derived managerial capacity of the manager to make choices under uncertainty and friction processes in their social context. And the results of research should understand the various aspects affected by strategic decisions and reveal the results of business management.

## 4.1 The process of value creation

A more complete definition for the construct of competitive advantage is initially offered by Brandenburger and Stuart (1996), as the range of value created between the boundaries of the willingness to pay by the customer and the opportunity cost of suppliers. This under-

standing subsequently deepened by other authors, implies that the measurement of competitive advantage depends on the context of insertion of the company and its relationships in the vertical chain (ADEGBESAN, 2009). Due to interactions with suppliers and customers, the company can create more value and expand the boundaries of willingness to pay and opportunity cost. Dynamic aspects and social influence in the form of recognition of the value created by the actors involved.

Value created is not necessarily appropriate value, while the opportunity cost and willingness to pay define the value created, price and cost define the appropriate value (Figure 1). The appropriate part of the company is materialized in profit, the most direct manifestation of value creation. However, beyond these limits, there are other implications of the creation of value. According Newbert (2008), in interaction with customers, the difference between willingness to pay and the price sets the overhang of the client, *i.e.*, the value captured by the customer. When generating greater surplus to its customers, the company can exploit the asymmetry between their products and the market average, charging a premium price. This policy will result in higher margins, as a strategy of value appropriation, since the negotiation with suppliers do not sacrifice the opportunity cost of the company. On the other hand, a company with competitive advantage can choose to maintain price parity with its competitors, getting the preference of buyers and expanding their market share (CHATAIN, 2011). Thus, the excess of the client may or may not be appropriate for the company as profit, but, anyway, is not irrelevant to her performance.



**Figure 1:** Value created versus appropriate value (BRANDENBURGER & STUART, 1996)

Across the value chain, Adegbesan (2009) points out that the bargaining process with partners, the appropriate values are set by suppliers, employees, managers, among others. Virtually every participant is able to appropriate the entire amount contributed in the process,

however the difference in context between actors influence the perception of value and negotiation skills of each participant. The value appropriation is guided by rent seeking behavior, but also by interest in building and maintaining partnerships and alliances, important factors operating performance, reflected in innovation and quality that can also bring impacts to the willingness to pay.

The effects of competitive advantage will depend on the performance of organizational aspects and strategic management decisions, contemplating moments of creation and other monetization of the value created. Besides manifest in profitability, competitive advantage can affect the market share and the company's operating performance, in different times and situations. At this point, it is critical to the agency manager, who must seek to maximize the results and at the same time adjust the utility function of the partners involved in the sharing of value (HARRISON, BOSSE & PHILLIPS, 2010). Therefore, the study of competitive advantage by observing performance measures should be guided by causal logic between value creation and performance in each context.

#### 4.2 Effects of competitive advantage on financial performance

According to Powell (2001), the causal relationship between the constructs reveals that competitive advantage is insufficient condition for the performance, it is possible to verify superior performance without the company provides competitive advantage. In relation to financial performance, competitive advantage may not result in profitability, depending on the capacity value appropriation by the company. However, many of the statements and analysis on the relationship between competitive advantage and performance are limited to the observation of the effects on profitability.

As discussed, companies that create value above the average for their industries can exploit the difference between the price and the maximum willingness to pay, the excess of the customer in different ways. Consequently, the direct results of competitive advantage in financial performance are as follows:

- superior profitability and maintain market share;
- average profitability and growth in market share;
- superior profitability and growth in market share.

This is the company that creates value above the average of its industry may perform combined top, making an efficient frontier below which all other companies would be (DEVINNEY, YIP, JOHNSON, 2010). The combination of these variables shows the results of different business strategies, differentiating the success of failure and emphasizing the focus adopted by companies, either in results or profitability growth (STEFFENS, DAVIDSSON & FITZSIMMONS, 2009).

## II. ANALYSIS

## 5 PROFILE OF THE CZECH CONSTRUCTION COMPANY "PSK – ASM"

Company PSK - Industrial buildings and structures, is one of the major construction companies in Czech Republic. It is a valued partner and a respected competitor in the field of industrial, civil and residential construction. PSK range of services includes everything from small contracts to large projects.

For his many years of history, the company has managed to build a very good market position. The base is a high professional skills of workers, the ability to meet the most demanding requirements. Business activities are multifaceted and always focused on the customer and their individual requirements.

The company business principles and know-how guarantee the ability to meet the most demanding requirements. Project management system based on the principles of a clear definition of the organization and responsibilities of custom team throughout construction guarantees efficiency, service quality, economy and transparency of financial flows. The company uses proven management tools to achieve the contractually agreed objectives.

Company PSK - Industrial buildings and structures, as operates in the following fields:

- Industrial construction
   factory buildings and factories, warehouses, office buildings, conglomerated units
- Public Buildings

Public buildings, office buildings, shopping centers, hotels, sports facilities, schools, theaters, multi-purpose buildings

- Traffic construction
  - Roads and paved areas, pathways
- Housing construction
  - family houses, apartment buildings
- Engineering Structures

Communication, demolition, earthworks and landscaping

The company was founded in 1996 in a restructuring of the Community as PSG Zlín monolith, as a historically linked to the construction department of Bata, as Zlín, founded in 1924, and then to the Community PSG.

In 2002, the company is completely independent and continues successful business continued under the name PSK - Industrial buildings and structures, as.

**PSK-ASM** is part of the PSK – Industrial Buildings and Structures, as and its mission across the group is the top range of services from design to the complete supply of sports buildings, the aim being to dynamically monitor developments and to meet the most demanding requirements in the construction of sports facilities, their modifications and refurbishment.

Company policy is high quality implementation of the investment plan, which is provided by the work of professionally qualified staff. Desired level is reached, among others, cooperation with prominent and established foreign partners, which include the world's leading manufacturers and designers of surfaces, structures and other capital projects.

PSK-ASM is one of the main players in construction of sports facilities in the Czech Republic. In a relatively short time they have gained a significant position in the market. The basis of its success lies with high professional skills of the staff and its workers allow them to meet the most demanding requirements, their versatility, customer orientation with ability to implement all individual requirements. Due to a close and strong relationship with the foreign partners – producers of high quality sports surfaces, PSK-ASM can always benefit from the latest technologies and systems in this field. Certifications of international sports organizations such as ITF, IAAF, FIBA, IHF, etc. are a natural part of the company's offer.

PSK - ASM Ltd provides comprehensive services necessary for preparation, implementation, coordination and control of your investment plans.

- Design proposals and preliminary cost and resource analysis;
- Feasibility studies;
- Preparation of document submissions to local authorities' planning departments and for building permissions;
- Preparation of design, technical and H&S documentation;

- Provision of 'as-built' information;
- Supervision.

#### 5.1 Product Lines

#### Gravel surfaces

This product line consist in a Sport surface with a very universal use and minimal maintenance. It is a multilayer system based on acrylate or polyurethane with fillers. This solution is formed by two basic groups: (1) HARD surfaces without elastic layer and (2) HARD surfaces with a flexible layer.

#### **Bonded Rubber Flooring**

Sports surfaces with a very wide range of usages. Great choice of thickness, hardness, upper pattern and color, *i.e.*, the choice can be optimized for any particular purpose, either indoor or outdoor.

#### Rubber cast surfaces

Sports through hills for performance purposes, with the highest standards of comfort and accuracy games.

#### Tartan

Sport surface consisting of one or more layers rubber granulate mixed with polyurethane binder excellent properties in terms of impact attenuation and ideal to preserve muscles and joints.

#### **Textile Membranes - Pavitex**

PSK ASM is the exclusive distributor of indoor and outdoor surfaces of carpet Pavitex for racing and recreational tennis. Surfaces are classified by ITF speed classification and all of them are officially certified. Unique product is Pavitex Clayton artificial carpet right backfilling clay, indistinguishable from the court of clay, but with less technical and price maintenance.

#### **Artificial Grass**

Artificial turf can be used not only for the implementation of multi-use sports, which serves as a universal function, but can be customized and specific activities that emphasize the specific characteristics of the lawn for the sport. Among such surfaces include special surface for field hockey, soccer, tennis, golf and rugby.

Artificial turf is not only a great sports surface, it can also be used to decorate your surroundings-on the terrace, to the swimming pools, the children's play area or in nearby buildings. More and more people prefer just artificial grass that does not dry up in the summer months and makes no claims as to the daily maintenance. You can select from a wide range of colors.

#### **Badminton Surfaces**

At present, among other things, the company also offer a mobile badminton courts, the implementation conforms to the rules for racing IBF badminton game. Delivery is also possible with accessories, *i.e.*, networks and columns.

#### **Sports Wood Flooring**

Primarily made of plywood and the wear layer of noble trees - for gyms mainly beech or oak, ash and other trees floor components are deposited on a flexible grid, which provides an ideal properties sports flooring for basketball, volleyball, handball and multi-sport.

#### Prefabricated PVC plate surface

Sports surface of plastic precast folded to "lock". A wide range of thicknesses, colors and designs outerwear-selection is driven by purpose. Thanks to its modularity, the possibility of easy installation and removal, this system is used primarily for operational requirements to change the purpose of the surface or the sport. At the same time, this type of surface to use as a permanent single or multi-purpose sports field. Toughness surface allows the use, in addition to ball games, as well as for in-line skating, hockey and floorball.

## **5.2** Short Profile of the Local Competitors

## Linhart sport

- more than fifteen years of experience in the design and construction of sports facilities (over 600 completed projects)
- economic approach with an emphasis on practicality and utility areas
- collaboration with world leaders in the production and certification of artificial surfaces
- ensure complete construction of their own capacity (consulting, projects, earthworks, laying surfaces)
- emphasis on service and maintenance of artificial surfaces
- high life with a minimum warranty claims.

Each building holds many important details, the failure to reduce the usefulness of the sport, his life and safety and increase the cost of its maintenance. Sport therefore propose and build with regard to the full functionality and long service life. It is all about attention to these details:

- drainage (surface should be always after the rain without puddles)
- the underlying layer (substrate ideal choice due to location, type of surface, load intensity and budget)
- fencing sport (neglected but important part of sports, which significantly affects the functionality, durability and maintenance costs)
- technical equipment (columns tennis and volleyball, gates, bins, etc., their functionality, durability, safety and a storage place for the game)
- artificial sports surface.

The Linhart sro goal is still be a leader in the construction and renovation of sports. The company always planted on a sophisticated design and top quality materials, ensuring maximum enjoyment of sports activities, careful workmanship and price responsiveness.

This website is intended for all those who want to improve sports facilities, inquire about the carefree movement throughout the year to minimize the risk of injury to athletes, reduce the cost of maintenance of sports surfaces, sports activities more attractive and attract more adults and children to meaningful leisure.

Here you will find information on the planning, construction and maintenance of sports, there are even interactive list, where you can calculate calculate on-line.

## Tubeko sport

The company operates in the field of sports buildings since 1994. The dominant production program is the delivery of artificial sports surfaces. It has a team of qualified permanent employees.

The company has established a quality management system according to DIN EN ISO 9001, DIN ISO EK 14000, OHSAS 18000th

The company is a certified supplier of systems of artificial sports surfaces CONIPUR, LAYKOLD, Field Turf Tarkett, JUTA grass

The company a wide range of artificial sports surfaces for:

- Athletic tracks with sectors for technical disciplines
- Multi-purpose sports field for ball games
- Tennis Courts
- Sports hall and gym
- Safety surface for playgrounds
- Work to conceptual design of sports facilities
- Prepare you itemized budgets as a basis for grant applications

#### **Tennis Zlin**

TENNIS Zlín a.s., the holder of ISO 9001, ISO 14001 and OHSAS 18001 certificates, would like to offer you cooperation with your intended repairs, reconstructions and building of sport facilities. The company focus on construction and assembly works together with mounting of outdoor tennis pitches and artificial surfaces. Furthermore Tennis Zlin is oriented in mounting of strip flooring or artificial flooring in gymnasiums, sports halls and fitness centers. The company also carry out squash courts construction - brick as well as mounted.

The company is authorized agents of following renowned companies in sport surfaces and flooring industry:

- JUNCKERS, Denmark- sport strip floorings
- STOCKMEIER URETHANES, France- sport polyurethane floorings
- LIMONTA Sport, Italy- artificial turfs
- SNAD POLYURETANE, France- polyurethane surfaces
- McWIL COURTWALL, USA mounted squash courts
- PROSPEC, Great Britain- classic brick squash courts

The company offer counsel and consultancy services including inspection and examination of the construction site, elaborate preliminary studies and contract documentations, deal with designs and civil engineering works, guarantee quality of realization, perform guarantee checks and provide operational and maintenance services

According to Tennis Zlin, another proof of the fact that artificial surfaces are becoming more and more popular replacement of natural surfaces is not only the constantly growing number of reconstructed football fields (not only training ones) but also the rising number of multifunction fields. The company has purchased measuring equipment over the years 2005 to 2006 from specialized laboratory in France, thus achieving performance verification of sports systems- both indoor and outdoor.

#### **Demicarr**

The main subject of the company is build playgrounds with artificial sports surfaces (including project preparation and advisory services), production and installation of sports structures for outdoor sports and gyms. The multi-functional artificial pitch and artificial tennis courts can be found throughout the Czech Republic. The company is ready to supply artificial sports surfaces - artificial grass companies Radici (Italy) and Jute (Czech Republic). Athletic field today are a normal part of schools, urban and rural sports hotels and guest houses. maintenance and cleaning courses are also minimal, and even that is important for these devices.

The company is in the market since 1996 and holds a quality system ISO 9001 and ISO 14001.

## Sportovni Travniky

The company offers complete services in building, reconstruction and regeneration of sport fields since 2001.

The provided services also include installation of automatic watering systems, distribution of special grass seed mixtures, fertilizers and sport equipment. They also offer all-season maintenance of sport fields.

## **Sport Technik Bohemia**

The company has an excellent reputation in the twenty short years of its existence. They have built more than 1.600 sports stadiums, arenas and fields in all parts of the Czech Republic. The company's expertise is based on an experienced and professional team of employees, lead by Mr. Milan Vopička, Director of "Sport Technik Bohemia" and Mr. Paul baptized, Chief Designer. They are both former and active athletes have More than 40 years of experience. They Cooperate Closely with local and foreign sub-contractors. The company's design and production Departments Allows Realize it's a large variety of sports structures, including reconstructions for private clients, school gymnasiums, hotels and sports facilities.

Their main goal is to Satisfy their customers through complex realization of buildings, continuous extension of assortment and performing top quality buildings. Professional Realization of orders is the main goal in the business philosophy - starting with marketing, followed by design and realization and ending with operation services. The company keep trying to meet all demands of the customers, small or big. Some orders are state-sponsored.

The mainstays of the supply program are the construction of sporting fields, operational buildings, multi-purpose sports structures for tennis, soccer, track and field, school exercises, or hotel centers. The company specialize the programmes on building Classic Clay courts or artificial surface ones of the best international quality. The company also offer several types of indoor tennis and multi-purpose halls construction and a broad assortment of artificial outdoor and indoor surfaces. Lately, siliceous sand-poured artificial grass has Become very popular. The company supply this surface in many varieties and it is suitable for all kind of sports. The company supply artificial soccer grass of a third generation, where the M. Vopička in 2007 became president of the Association of Contractors guild in the Czech Republic. The customers and investors will be gratified by the professional advisory services including preparation of sketches, economic analysis and construction projects. The institution realize these projects using their own engineer and designing teams. The company is also authorized to demarcate the IAAF track and field and handicaps including attestations for official events. Thanks to close contacts with foreign companies and producers, STB have many exclusive acquired business representation and assembling authorizations for areas of the Czech and Slovak Republics.

## **Pragosport**

The company has been operating on the Czech market for many years and all activities are the same as in the past associated with the sport. Currently in the Czech Republic represents the German firm Polytan, which is one of the most famous companies-laying artificial sports surfaces in the world. Another activity Pragosport is currently selling the TV rights to the broadcasts of sporting events of all kinds.

Pragosport Company, Inc. has established, implemented and maintained Integrated Management System - IMS, which meets the requirements of international standards ISO 9001

for quality and ISO 14001 in environmental. Certification audit was conducted in July 2005. Through IMS and Pragosport company effectively implements its policy management.

#### J.I.H.

Introducing construction, design and engineering company specializing in the construction of sports facilities. Founded in 1991, counts among the first companies of modern history, with a focus on sports facilities with modern artificial surfaces. Since its establishment, has built more than 600 sports a total area of 550.000 m<sup>2</sup>.

The company is an authorized supplier of polyurethane surface Conipur and artificial turf company EDEL GRASS.

The offer includes a wide variety of sports surfaces for indoor and outdoor sports.

Artificial surfaces complement some traditional outdoor surfaces (such as beach volleyball) and internal wooden floors.

Sports provide turnkey construction, or can perform only a specific part of the construction and installation of the selected surface.

When implementing the key is supplied complete substructure, but the sports surface and sports equipment, accessory structures such as fencing, lighting, etc.

The company performs consulting, financial statements and economic processes of project documentation.

## 6 PROFILE OF BRAZIL AND PEST ANALYSIS

Federative Republic of Brazil, is the largest country in Latin America, and it is the fifth largest country in the world. It is the only country speaking Portuguese language in America and one of the most multicultural and multi-ethnic nation in the planet. The country has boarders with practically all nations of South America, except by Chile and Ecuador. Brazil is also one of the founders members of United Nations, G-20, Community of Portuguese Language Countries, Latin Union, Organization of American States, Organization of Ibero-American States, Southern Common Market (MERCOSUL) and Union of South American Nations (USAN), besides being one of the BRIC countries.

## • **Pros** of investing in Brazil:

- At the national level, the strengths of Brazil are its political stability, market opportunities and investment policies generally open. Investor perceptions about Brazil are reinforced by the prospect that the country enjoys a comfortable level of political stability.
- The opportunities in the Brazilian market are a major attraction for investors. Not surprisingly, the states of the south and southeast regions comprise the largest consumer markets and have a higher household income. Although many states in the north and northeast continue to lag, we can get some stimulus with its rapid economic growth rates. Brazil is also experiencing a period of expansion of foreign direct investment, with the entry of more than \$ 50 billion in the country between January and September 2011. And many states have well-developed promotion agencies, which help to attract more investments.

## • **Cons** of investing in Brazil:

At the national level, the main weaknesses in Brazil are the heavy burden of the tax system, bureaucracy, infrastructure deficiencies and lack of skills. These shortcomings are visible in varying degrees at the state level. And although there are areas of international innovation, there is still much to be done to Brazilian companies reach the nations leaders in these segments. The renaming of the Ministry of Science and Technology and Ministry of Science, Technology

and Innovation, in mid-2011, suggests that policy makers are giving more importance to innovation. Still, it is more important that measures are taken to achieve tangible progress in policies at the federal and state levels. For companies that already operate in Brazil or are considering establishing operations, policies to support R&D are key.

After raising levels of school attendance in the past decade, the urgent need is now improved the quality of education to prepare the next generation for the labor market. Moreover, there are many steps to be taken to train and retrain the existing work force, so this meets the growing demands of business and the most dynamic sectors of the economy. The challenge to hire and train lowskilled workers is very common for companies.

### 6.1 Political Situation in Brazil

As the country is handling a program for economic growth, investors can access the support of the government in both financial and advising aspects. One potential barrier for the foreign companies is the presence of state-level federations. These are association of industrial companies that cooperates to achieve operational success and also to lobby effectively to the government. MERCOSUL is supportive to direct investments in the country that even non-members such as Czech Republic would be benefited.

Although the general stance of the government is to favor investments, once construction is a labor-intensive industry. As this is an explicitly point stipulated by the Brazilian Constitution and serve as the "passport" for investors, it can be a facilitator to the foreign investor. In addition, the justice system in the country is cumbersome and slow which would make any efforts from the firm to lobby its position and services difficult and costly. In contrast, in consideration of the state and federal officials, a foreign firm can own the company 100%. The absence of government share of corporate power is an incentive to management.

Most Brazilian states enjoys a good or moderate political environment. But all states require improvement, especially in fighting corruption and raising the quality of bureaucracy; issues that create substantial obstacles to doing business. Moreover, bureaucracy and cor-

ruption reduce the ability of the government to provide public programs, which creates barriers to socioeconomic developments.

The country has a reasonable degree of political stability. The considerable budgetary powers of the governors contribute to the stability of the state legislatures. As a result, even those states whose governors took office in 2010 without the support of a major political alliance, the governors in office can often approaching legislators from other parties to form majorities active. This helps to facilitate the approval of state laws. Governors without the support of a majority may experience initial difficulties in maintaining a coalition. This applies especially at the end of a term of four years if the governor is not capable of running for reelection, or if his popularity is low. Almost half of the states currently have a strong political stability, and five of them face political stability low or very low.

Corruption is not something new, and Brazil is the only developing country with serious problems in this area. However, an active press and audits more developed led to a fanfare of corruption cases in several states last year. The states with more developed audits, as some of those in the regions south and southeast, with greater economic development, tend to perform better. The strengthening of the audits will be critical for states to raise their performance in this area.

### 6.2 Economical Scenario

The combination of innovative social policies of income distribution, stability and financial transparency and policy, sustainable growth and fiscal responsibility led Brazil to take hold among the major economies of the planet of the 21st century.

The country is the sixth largest economy since 2011 (Table 3), when it overtook the United Kingdom. With this placement, the Brazilian economy is second only to the United States, China, Japan, Germany and France. The position takes into account the Gross Domestic Product (GDP), which is the sum of everything that a country produces.

**Table 3:** Top 10 countries by Nominal GDP (United Nations, 2011)

Rank	Country	GDP (MM of USD)
1	United States	14.991.300
2	China, People's Republic of	7.203.784
3	Japan	5.870.357
4	Germany	3.604.061
5	France	2.775.518
6	Brazil	2.476.651
7	United Kingdom	2.429.184
8	Italy	2.195.937
9	India	1.897.608
10	Russian Federation	1.857.770

Another international recognition of the economic strength is given by winning for the first time in 2008, the label "investment grade insurance" rating given by agencies overall risk rating. This status signals to foreign investors that it is safe to invest money in the country also shows that the state is able to meet the payment of the public debt, fiscal policies and good practice collects more than it spends, *i.e.*, the risk of default is small.

The investment grade insurance helps the country to attract more investment from rich countries, whose rules apply to prevent high-risk economies. Only in 2011, foreign direct investment in Brazil reached U.S. \$ 69.1 billion or 2.78% of GDP.

This volume of foreign investment tends to remain strong to the nearest international events held in Brazil - as the World Cup (2014) and the Olympics (2016) - and the exploration of pre-salt layer, the coastline of 800 km between the Espirito Santo and Santa Catarina where they are deposited oil (thinner, higher value-added) and gas at 6000 meters below a layer of salt in the Atlantic Ocean.

Already self-sufficient in oil production (produces more than it consumes), projections indicate that, with the Pre-Salt Brazil will be the sixth largest producer of oil in 2030. Still in the energy area, the country stands as the largest exporter of ethanol in the world, biofuel made from cane sugar.

Confidence in Brazil is also known for the way the country faced a financial crisis that hit many countries since 2008, to stimulate domestic consumer market. Brazilians began to

buy more to enjoy greater access to credit, tax cuts - as the Tax on Industrialized Products (IPI) on the white line (stoves, washing machines and refrigerators, car and computer) - in addition to government programs promotion for industry and micro-entrepreneurs.

The following year, the International Monetary Fund (IMF) invites Brazil to join the group institution's creditors. The country passes from debtor to creditor. Result, among others, the strength in the external accounts and reserves for previous years.

Total Reserves (B of USD)

#### 

**Figure 2:** Brazilian Total Reserves [including gold] (World Bank, 2011)

As shown on Figure 2, Brazilian international reserves hit new record of \$ 350 billion in 2011, according to the Central Bank. The reserves serve to protect against international crises. With this level, Brazil reaches the sixth largest foreign reserves in the world, behind China, Japan, Russia, Saudi Arabia and Taiwan.

Thanks to these and other countries, Brazil has managed to hit successive records to export increasingly diverse (more than U.S. \$ 256 billion), mainly minerals and food.

The production of iron ore, oil, soy, sugar, ethanol, mix of meat (beef, chicken and pork) and pulp accounted for nearly 50% of all exports. China, United States, Argentina, Netherlands, Japan, Germany, Italy, Chile, the UK and Spain are the ten countries that receive products from the Brazilian exports.

The strength of the Brazilian economy is still represented in the adoption of more stringent standards than the world standard for the financial system, the consolidation of the system of targets and control inflation, the floating exchange rate, the maintenance of unemployment in one of the lowest levels history and increasing purchasing power of the population (up 19% between 2003 and 2010), secured by the policy of valuing the national minimum wage, adjusted for inflation the previous two years, plus the percentage of the GDP growth the immediately preceding year.

Although the Brazilian per capita income remains low compared to rich countries (U.S. \$ 12.500 in Brazil versus \$ 40.000 in the United Kingdom, for example), it has tripled in the last decade.

In nearly 20 years, more than 29 million Brazilians left poverty. The members of the class E (family income up to 373 USD) and D (families between 373 USD and 597 USD per month) declined from 93 million in 1993 to 63 million in 2011, according to the FGV (2013). Have the class C (597 USD to 2.572 USD) has grown from 46 million to 105 million Brazilians in the same period IBGE (2013).

Also contributed to the reduction of inequality increased health care coverage to the elderly and disabled, and expansion of income transfer policies like Bolsa Familia and Brasil sem Miséria (Brazil without Poverty).

Not only individuals, but also businesses have increased their earnings in general in recent years, when more than doubled profit of about 260 companies listed on the BM&FBovespa, the main stock exchange of the country, the second largest in the Americas and the third largest in the world. State companies followed the same line. In 1997, for example, profits reached US\$ 409 million. In 2009, rose to US\$ 14 billion. Values that, depending on the pace of recent years, tends to grow.

Combined the number of inhabitants, data on market size, average household income and the Gini coefficient offer investors insight on market opportunities in each state. The market size varies widely among states. The state of São Paulo alone reaches a point of emphasis for this indicator, with a gross regional product (GRP) above 1.2 trillion reals (722.9 billion dollars) in 2010 (accounting for nearly a third of Brazilian GDP). Thus, with the exception of smaller states - Acre, Amapá and Roraima - each with market size less than 15

billion reals (\$ 9 billion), most Brazilian states offer attractive market opportunities, mainly because family incomes continue to grow (IBGE, 2013).

Five states - Minas Gerais, Rio de Janeiro, Paraná, Rio Grande do Sul and Bahia - come next in the category Market Size. Bahia is the only state outside the south or southeast to the GRP on the landing 150 to 499 billion reals (90.4 to 300.6 billion dollars). However, the high rate of GRP reflects, in part, its large population. In fact, the state has a low performance in relation to median household income levels, indicating a low level of economic development. The Federal District has the highest levels of average household income in the country, although it is not surprising, considering the large concentration of well-paid workers in the federal public sector living there.

Followed the Federal District, a group of four states of south and southeast - Rio de Janeiro, São Paulo, Rio Grande do Sul and Santa Catarina - maintain levels of income per capita relatively high (12,000 to 15.000 BRL, or 7.230 to 9,036 USD). Reflecting regional disparities, the states of North and Northeast have the level of average household income lower. Moreover, 11 of these states have an average income level between 6.000-8.999 actual, and the rest of the states in these two regions have a lower level of average income to 6.000 dollars. The poorest state in Brazil's per capita income is Maranhão, where individuals receive on average only 4.860 dollars per year (405 dollars per month). The GDP per capita of roughly the Maranhão the small island nation of Tonga.

The great inequality of income (and wealth) is a tradition in Brazil, but there have been notable improvements in the last decade, thanks to the acceleration of economic growth (which led to job creation), a policy to increase the minimum wage above inflation and to a lesser extent, social programs, such as Bolsa Familia, a program of conditional cash transfers. The states of the north and northeast were especially benefit from these policies and programs. Income inequality is measured by the Gini coefficient, where zero represents perfect equality and one indicates maximum inequality. The state-level data provide a useful overview of the general trends. Santa Catarina, traditionally the most egalitarian state in relation to income, consolidated his position with a Gini coefficient of 46, while the Paraná and Rondonia have a Gini coefficient of 50. The Gini coefficients of other states are between 50 and 59. The exception is the Federal District (62), which reflects the concentration of highly paid employees of the federal public sector, who live alongside segments of

society who earn much lower wages. However, even the most egalitarian state is far from equal when compared to OECD countries or in other large emerging markets. Indeed, the Gini coefficient in Germany is 28, while the Netherlands is at 31 - both very typical in OECD countries. Meanwhile, the Gini coefficient in China mark 47, in India 33 and in Russia reaches 40 (Table 4).

**Table 4:** Gini Index (World Bank, 2011)

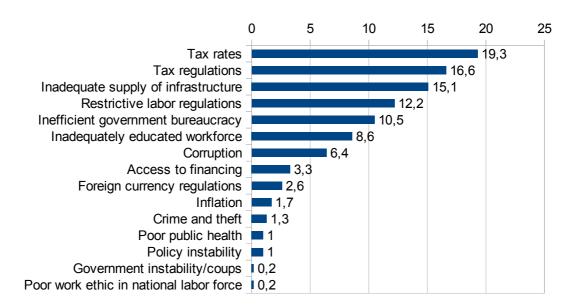
Country	Gini Index
Austria	26
Brazil	55
China	47
Denmark	24
France	33
Germany	28
India	33
Netherlands	31
Portugal	39
Russia	40
South Africa	63
United States	45

Data on real GDP growth allow companies to compare economic growth across states. However, it should be noted that the average growth of real GDP was exceptional in 2010 (the economy grew by 7.5% YoY). Moreover, the strong resumption of growth resulted in large part from the stimulus measures at national level to help the economy recover from the 2009 recession. The heady growth rate also reflected the impact of certain expenses related to the elections. According to the estimates of UEI, all but three states had an average annual growth of over 5%. The states: Rio Grande do Sul, Rio de Janeiro and Santa Catarina had an average annual growth of 4 to 5% in 2010.

## 6.2.1 Tax and Regulatory Regime

The tax system in Brazil is quite complex, unstable and expensive, representing one of the main disadvantages of the business environment. According to the World Economic Forum (2011), the two most problematic factors for doing business in Brazil are the Tax rates levels and Tax regulations (Figure 3). While large companies consider most viable absorb the administrative costs of tax returns, the burden is relatively higher in small and medium en-

terprises (SMEs), despite efforts to simplify the tax regime for the latter category in recent years. According to the FGV (2013), more than 85,000 state tax rules were announced since 1988, which indicates a high degree of instability. The state tax is the main ICMS (Tax on Circulation of Goods and Services), whose rates differ from state to state. The ICMS is also the main tool used for tax deduction by the state government as an incentive to attract investment. Tax revenues resulting from the ICMS as a share of GDP in the state range from 3.2% (the Federal District) to 11.4% (Mato Grosso do Sul). All states have low scores with regard to the consistency of their tax systems, except for a group of seven states that have better performance, in terms of their institutional tax relatively simpler (IBGE, 2013).



**Figure 3:** The most problematic factors for doing business (World Economic Forum, 2011)

The time it takes to start a business varies greatly from state to state. In reality, it takes more than 30 days in Acre, Amapá, Maranhão, Santa Catarina, Piaui and Rio Grande do Sul; least 10 days in Alagoas, Sergipe and Roraima. This assessment uses data from a survey of 2007 the Board of Trade, held by the National Registry of Commerce (DNRC). It should be noted that over the past four years, several states have undertaken commendable efforts to simplify the process of starting a business, establishing the so-called complete on-

line stores. These facilities on-line help coordinate and accelerate the entire process of establishment of companies. Three notable examples are in Santa Catarina, Espírito Santo and Rio de Janeiro. These advances tend to be reflected in the next review of the DNRC.

## **6.2.2** Policies for Foreign Investment

Brazil is experiencing a large expansion of foreign direct investments, with the entry of more than \$ 50 billion in the country between January and September 2011. Investors are attracted by substantial market opportunities and the availability of natural resources. They attempt to measure which states have the best performance to encourage investment. Although the main foreign companies contemplating large investments receive special treatment and resources devoted by any state government, the investment promotion agencies are particularly important for small and medium companies that plan to invest. Despite large investments usually benefit the state's economic development, state governments seek to attract a considerable number of smaller investments, because they know its importance for the development of the state. It is considered that the states of Minas Gerais, Rio Grande do Sul, Rio de Janeiro and Sao Paulo have excellent investment promotion agencies. However, a few states have made efforts to improve its institutional capacity in this area, Pernambuco and Ceará are exceptions. Nevertheless, in many cases an investment promotion agency of a state is part of a state board and often do not have dedicated resources. The lack of resources and tools for easy identification of business opportunities is a disadvantage for companies that are seeking to invest in the state.

Research on incentive programs for investments states are many problems. The difficulty of obtaining clear information is usually attributed to competition of states to attract businesses. No state wants to disclose the level of incentives previously offered or to be offered in the future to the next interested party. Tantamount to disclose a state secret and could undermine the position of a state in bargaining with the companies. For over two decades, the so-called fiscal war has been waged, and with the recent wave of foreign investment, this war has intensified. Indeed, the Supreme Court recently ruled unconstitutional a dozen incentives offered by six states. It seems that the Federal Ministry of Finance will offer tax amnesty if states refrain from offering additional incentives that have not been approved by the ministry (as the law requires). The amnesty would contribute in some way to reduce fi-

nancial uncertainty for some companies, which, in theory, would be obliged to return the equivalent amount of incentives received. The federal government is also seeking to harmonize the ICMS tax on imports of products in all states, so that they do not use ICMS rates as bargaining tool.

All states offer some incentives for investors, but three of them - Minas Gerais, São Paulo and Rio de Janeiro - top the list of states offering the highest number of incentives. The states with the lowest number of incentives are the Paraiba and Piaui.

## 6.3 Human Resources (Social)

The recent economic recovery in Brazil after the 2009 recession reduced unemployment to historic levels. A tight labor market has shown some skill deficits, especially in technical fields and engineering. This research provides an overview of availability, productivity and human resource skills. In general, two states have excellent human resources - São Paulo and Rio de Janeiro, while three states offer satisfactory human resources - Federal District, Minas Gerais and Santa Catarina. However, the remaining 22 states were rated in poor or moderate level of improvement. An interesting finding was that although the Bahia and Ceará have low level of productivity of labor and a limited supply of skilled labor, these states have the largest groups of university graduates. This may indicate a trend of such graduates migrate to the main commercial centers of other states in search of employment opportunities.

# 6.4 Innovation Environment (Technological)

The future of Brazil's economic performance depends in part on how successful the country is in relation to innovation. This way, one can see several indicators related to innovation: Spending public and private sector in research and development (R&D) infrastructure tax incentives for R&D; spending patent applications R&D. In general, only the innovation environments of two states can be classified as "very good": São Paulo and Rio de Janeiro. However, the remaining states are below this level, revealing an environment of innovation moderate or unsatisfactory.

Items such as infrastructure, R&D expenditures of private sector R&D and patent applications, tend to be concentrated in São Paulo, Rio de Janeiro, Minas Gerais and Rio Grande do Sul In a way, this reflects the presence of state-owned enterprises (or recently privatized) in these states. Indeed the state enterprises count for over 25% of private sector spending on R&D by state.

The state governments have some leeway to increase spending on R&D, including offering incentives for innovation. There are a few states that already have a structure that enables the provision of incentives for R&D; but others remain behind. The current leaders in this regard are Minas Gerais, Rio de Janeiro, Rio Grande do Sul, Santa Catarina and São Paulo.

## 6.4.1 Sustainability

In general, the Brazilian environmental legislation is more suitable for the establishment of the legal basis for the conservation, protection and monitoring of the environment, as well as to establish punitive actions for environmental offenses. All states have a relatively good performance in this category. Over 80% of states have legislative documents for general topics on the environment, such as land use, forestry, water management and protection areas. However, only about 30-50% of the states maintain a specific legislation for matters such as management and protection of coastal areas, desertification and mitigation of the effects of drought, air pollution, recycling, genetic modification, climate change, sustainable tourism and areas of fishing. These themes are more specific and largely reflect the natural resources and environmental problems of each state. Almost 50% of states have legislation related to combating climate change.

States in the South, Southeast and Midwest hold top-rated about the sustainability, followed by two states in the North and Northeast, the Amazon and Pernambuco, respectively. However, the states of North and Northeast in general are the worst about the sustainability ratings.

By analyzing the various state incentives, fiscal and environmental legislation of most states has a clause which states that economic and fiscal instruments should be used to encourage environmental protection. However, the survey found that few states actually provide tax incentives or tax deductions to encourage positive environmental practices. The prime ex-

ample of environmental tax incentive is the revenue sharing scheme called Ecological ICMS tax. This instrument appeared in legislation in 1989, first introduced by the state of Paraná and then by several other states. The purpose of this scheme is to compensate local governments for the loss of potential tax revenue because of the delimitation of protected areas (primarily state and federal government). It is also used to encourage better management of existing protected areas. Currently, there are 13 states using the Ecological ICMS, mainly the states in the South, Southeast and Midwest. Other incentives include exemption from VAT on certain environmentally friendly products.

### 6.5 Construction Sector

The Construction sector is expected to grow 4% in 2013, according to the coordinator of construction of the Getúlio Vargas Foundation (FGV, 2013). The analysis was presented at the meeting of the Board Survey of the Union of Construction Industry of the State of São Paulo (SP-SindusCon; SIDUSCON, 2013).

Regarding the Brazilian economy in general, the analysts believe that growth in 2013 will be between 3.5% and 4%. The change in the interest rate was very important and the prospect is that it remains low. Government signals it wants to keep investments and expected that the industry, after falling 2% in 2012, recover in 2013. The Gross Domestic Product (GDP) is expected to grow more than 3% in 2013. Is also expected that the Federal Government is using partnerships and concessions to the private sector to invest in infrastructure. However, she states that the rate of investment in the economy must be greater than 22% for growth to be sustainable.

The economists also recommended measures such as the reduction in taxes timely and reduction of social security charges. The construction sector contributes 3.9% of its revenues to Social Security - a number that could be lower in your vision.

Brazil is a paradise for anyone who invests in construction. Now, the expansion of the sector is more standardized, but the country still remains one of the most favorable places for investment in the construction sector, which already accounts for 6% of GDP. There are a lot of credit in the square and available resources of BNDES (Brazilian Development Bank). It is a place where cheaper is raise money. The real interest rate is still very high,

but much lower than it once was. The per capita income in Brazil increased considerably. Nearly one Germany, 80 million people migrated to the class A, B and C.

The growth is clear: in June 2011, cement consumption was 61,831 tons. In June 2012 was 66,688 tons. Just to give an idea of that strength, are being built this year 21 shopping malls, some of them introducing the concept of outlet. However, the great challenge of Brazil, is to train skilled manpower for the industry at all levels. The construction is made by people. And no shortage of workers and engineers. These professionals have had their salaries increased by double digits in the last six years. The engineers have never been valued in the market as now.

The slogan for the construction companies should be: always training and investment in technology. The biggest criticism of the great Brazilian entrepreneurs who have "a step higher than the leg" and face financial shortfall. They had 180 construction sites at the same time. Manage them is not easy. Failed to deliver the property within the term. And everyone knows that a work sloppy neutralizes well done. The average company use to have around 35 works in progress simultaneously.

## 6.5.1 Short Profile of the Potential Competitors in Brazil

## Ampliar Engenharia

The company Ampliar Engenharia Esportiva was created from the need of the market. Based on this vision the company was founded in 1997 in Belo Horizonte, aiming to offer the best options for those who want to build and renovate sports areas with speed and excellence.

The company, at the beginning of its activities, had a differential release of two products, being one of them the development of mechanized ground level laser with suede finish (non skid) for sports fields and fencing system with patented exclusive connections that allow the assembly and disassembly and maintenance, with the guarantee of an excellent end result the extreme professionalism and technology used in the construction of sports fields.

## Game Quadras

A Game Quadras is commercially recognized in the construction and renovation of sports fields, fences, lighting and accessories with guaranteed proven their services for over 34 years.

The company offers the following services:

- Construction and renovation of sports fields.
- Fences for blocks and closing areas.
- Lighting blocks and external areas.
- Safety nets and sports networks.
- Sports accessories.

#### **Gramados Sintéticos**

The Gramados Sintéticos e Assessoria Esportiva - is a company specializing in the application of synthetic grass for different environments and interests. For more than 10 years in the market, has a skilled team selects the highest quality materials, aims to give attention to the research and development, technical consultancy and advisory services to commercial and economic feasibility study and business.

In 2011, by applying synthetic grass to the professional field of the football club São José in Porto Alegre / RS, the company was responsible to pave the first stadium of football club tested and approved by international federation. This was one of the great achievements within the company's expertise in sports projects, with an emphasis on football fields. In addition, the Gramados Sintéticos serve various sports, and have a full line of accessories.

The company has developed a system, based on international norms and standards, in order to quality installation and leveling proper material of the damping system, reducing the risk of injury and providing more comfort and safety to practice physical activities.

### **HD Quadras Esportivas**

The company was founded in August 1986 with the intention of reaching a market share of construction of sports facilities, which hitherto depended solely of local businesses in the central-south of the country. The HD has since been improving and building blocks, tracks and special floors for various sports activities. HD customers over the years were multiplying and the company currently has more than 1000.000 m2 of new sports fields performed only in Rio Grande do Sul, excluding, of course, the recovery block that may occur. There are also works made in Santa Catarina, Paraná, Uruguay and Mato Grosso. In 2005 HD improved technology for the development of some products. Also developed flooring for gyms that slowly is being a piece of very important market. The HD today is sure to be contributing to those who require special flooring for sports practice.

The HD runs tennis clay courts, also floors synthetic tennis courts and paddle courts, gymnasium flooring, fencing and lighting for all types of blocks. One should also mention that the work that the HD runs are not only construction, modification and there are jobs recovery blocks worn by time of use.

The HD sells its products based mostly, by appointment, but has targeted marketing practitioners sports especially tennis which are the largest customers. They can be private institutions, public and individuals who simply want to enjoy the leisure in their private homes or provide other blocks through academies or rental.

## **Jquadras**

The JQuadras, with its 30 years of experience in the industry, is a company that stands out among competitors, for competence, personal attention to their customers, ensuring quality and prices lower than other companies.

The JQuadras specializes in renovations, restoration of floors, building multi-sports courts, fencing, screens and accessories, lighting.

The company's aim it to provide practical and intelligent solutions, with the best cost / benefit ratio. Providing service all over Brazil.

## Kango

The products division of Kango Brasil is a nationwide company with world-class quality. Founded in 2004, has as principles technology, innovation, ergonomics, safety, modernity, design and comfort to soccer stadiums, multi-sport gyms.

Ready to meet the needs of the market, from the first design sketch to the last finishing details, the Kango offers:

- Sports Fixed Chairs;
- Righting Sports Chairs;
- Chairs for Auditoriums:
- Reserve Banks;
- Lockers for changing rooms;
- Cabinets;
- Signalling Projects, Allocation and Sectorization;
- Products Installation.

## **Pequita**

The Pequita is a company engaged in the sports segment for over 27 years, serving the domestic and international markets.

In its product mix, manufactures and markets more than 200 sport items, in addition to designing products and custom equipment.

In the segment, in addition to manufacturing and installation, the company offer all assistance in area sports. The company also work in the construction and renovation of areas related to the sport through the Sports Engineering larger partner company.

The company's professionals are technically updated and committed to customer satisfaction. The products are present in large gyms, sports clubs, sports clubs, gyms, supermarkets, places, condominiums and sport shops.

The Pequita stands out for the diversity and quality of the solution in sports, providing the customers the best there is in sports systems. The company has adopted modern manufacturing techniques and more effective working methods.

## **Poly Esportiva**

In 17 years operating in the sector of sports courts, the PolyEsportiva specialized itself in construction of sports fields and synthetic lawns, running the complete design of the courts: flooring, fence and fencing, lighting and sports accessories.

Relying on the most current materials technology, skilled manpower and technical support from suppliers, the company present a service that fully meets the expectations of the customers: Clubs, Condos, Builders, schools, companies, etc.

### Racckety

The RACCKETY is a company established in BH, MG which acts specifically in construction and renovations sports in general, founded in 1994, has extensive experience in engineering projects and sports is always researching and improving their techniques and services. The RACCKETY has its own manufacturing equipment and accessories for sports fields and courts, being manufactured by teams of trained professionals, resulting in products with excellent workmanship, strength and durability required by the rules of sports federations and modern society.

#### Rower

For 34 years working in the field of sports engineering, construction techniques and obeying rules regulated by the Federations for the different modalities. The company's "Sports Curriculum" totals to date more than 770 projects in Brazil. The company can perform all maintenance services as well as consulting, project design sporting and technical visits.

The main services provided by the company includes the construction and maintenance of courts for: tennis, paddle tennis, beach tennis, indoor soccer, society, soccer field, squash, volleyball, basketball, street-ball, sports courts and running track.

## **Sfquadras**

SF Sports Courts, for eighteen years on the market, signed up for their quality construction and renovation of sports fields, having delivered more than six hundred blocks of various types. It has a highly qualified technical team, which seeks to support the customer directing from choosing the best site for construction, monitoring and preparing the ground until the best flooring option and accessories.

Built for clubs, condominiums, private homes, builders, schools and gyms. Among its clients one can highlight the Academy Runner, Club Hebraica, Nippon Country Club, Gafisa S/A, Royal Palm Plaza Hotels and Colégio Rio Branco.

Since 1996, with the opening of the Brazilian market to imports, went in search of international partnerships, representing and distributing exclusively for Brazil some brands. As these products applicators official SF is required to follow technical standards of construction which are monitored and evaluated regularly by American technicians.

California Products Corporation - USA: Recognized internationally as a leader in quality synthetic surfaces for tennis courts, courts, flooring blocks for rink hockey and athletics tracks. For more than 30 years on the market, built between the other blocks for Virginia Slims tournaments, Indian Wells, the Atlanta Olympics and 1996 Pan American Games in Winnepeg - Canada 1999.

NovaGrass International Inc - USA: System coverage for tennis and soccer field in Synthetic Grass.

Court.1 Sports Products - Canada - Supplier of high quality sports equipment to Europe, USA, Asia and now to Brazil.

### **Sport Brasil**

With extensive experience in building national and international sporting spaces, the Sport-Brasil, was formed to develop techniques and advanced methodologies in production facilities and sports flooring, indoor and outdoor, for all types of sport.

The partnership with major clubs and special competitions, gave the company great responsibility for the study, creation and launch of new products that offered better performance of the athlete.

Thus, the company decided to invest in a seat with about 3000 square meters, where the company offer the necessary infrastructure for the development, production and evaluation of different product lines professional and amateur. The constant updates of the organization to deliver innovative solutions to clients seeking quality and comprehensive options for assistance to hire efficient this type of service.

These are some of the differences that allow SportBrasil offer unique and custom designs prepared by engineers responsible for building national and international sports. Each project is carried out by means of detailed studies in order to identify all the characteristics of the terrain and the real needs for an efficient outcome. The free consultancy that offers SportBrasil allows customers to have complete information so they can choose the best solution, aiming at a perfect value for money on their investments.

Maintain leadership in developing and implementing the most advanced technologies of sports floors and spaces is the goal of the company's specialists. Bring to athletes today a world of quality, durability and technology is the mission company's mission.

#### **Teles Grass**

The company operates throughout Brazil and Latin America, offering engineering services and construction and maintenance of indoor soccer courts, tennis courts, playground, land-scaping and decor, among others, the use of synthetic grass and flooring flexible. The company uses high quality material, manufactured in polyethylene, enabling a wide range for use and applications.

The company claims to have logistics for assembly and delivery of synthetic grass throughout the country, bringing you the service of highly qualified and skilled, and offer payment terms with an affordable price, without leaving aside the concern with strict international quality standards.

The company is capable to build fences, fences and protective screens, metal structures, structures for gyms and sports courts, all with materials of the highest quality with factory warranty.

Teles Grass guides its customers from pre to post-sale, taking all their doubts by support from us, whether by phone, internet or in person. The company promises to solve your questions about specifications and types of materials, preparation of ground, choosing the best synthetic grass for your project and provide all the necessary to support its customers.

### **Total Grass**

The Total Grass acts for 11 years in the market, serving throughout Brazil, focused directly on their customers. Working with the best products in the market always seeking the best care, provide all technical consulting, commercial and also the viability of the business on site.

The company has 10 highly trained staff with over 15 years of experience, one of the largest in the industry, and thus bringing the quality and speed of the services.

Deliver an average project within 35 working days, counted from the date of commencement or release site.

All used lawns are produced in the largest factory in Latin America and are also tested at the Institute for Technological Research, IPT, to ensure quality safely.

Mission and Vision: "Our purpose in itself, is only investing in our customers by providing a high quality product at a great added service, allowing you to assign the guarantee of our products, which come up to six years, thus achieving the expected success and satisfaction. We are pleased to serve them and the opportunity to show our work."

## 6.5.2 SWOT Analysis of the Brazilian Subsidiary

Swot analysis contextualizes the strategic management and seeks an action plan to develop a competitive advantage for the company, which is related to the choice of a path in the execution of their daily activities. This analysis is shown in the definition of the SWOT matrix. The result of this analysis generates for the company, a strategic posture convergence to the definition of institutional mission. Through this analysis, it is possible to construct strategies that assist the administration in taking advantage of the strengths and correcting or eliminating the existing weaknesses, contemplating business objectives through tactical and operational efforts exerted by functional group.

Therefore, the company that is aware of its reality, needs to recognize their strengths and weaknesses, threats and opportunities that the market can offer. And taking in consideration these concepts, this thesis developed a SWOT analysis to the Brazilian branch of PSK.

## Strengths

• Hold the newest technology in the sector:

According to several local research, the PSK do Brasil will hold the newest technology in the sector within the Brazilian market. The local companies have gotten sucked with the technologies that were been used in Europe during the 90'. One example of this, is that until nowadays there is no one single company providing a alternative solution to clay courts in Brazil, while in Europe, there are several different new technologies to substitute it in a smarter way, providing more stability, comfort and precision to the tennis players.

• Exclusivity with the best manufacturers of the sector:

As in the Czech market, PSK will have exclusive contracts to use the latest and most advanced solutions in sports infrastructure for the Brazilian market. This will bring confidence that for several years that the PSK is the exclusive representative in Brazil and South America of brands such as the Italian producer or sportive carpets Vigano Pavitex and the giant Dutch manufacturer of artificial turf Edel.

• Large mix of product:

Among the top fifteen Brazilian most prestigious construction companies specialized in sport facilities and solutions in infrastructure, no one single company combines the full range of products offered by PSK. It means that they are more focused in specific sport solutions. Therefore, PSK comes strong to be the company number one for complex projects such as construction of athletics stadiums and multi-purposes arenas, once the investor can find in PSK one single company capable to cover all its needs.

## Large capacity to innovate and create new products:

Besides aiming to be the top minded sport construction company in Czech Republic, PSK – ASM has already developed several new concepts of sport arenas in the Czech market and its main existence reason is to keep investing in R&D. Therefore, a company that holds the most advanced technology and also makes huge investments in R&D is faded to the success and it is without doubt, one of its greatest strengths.

### • Experience of the parent company:

Start a new enterprise is not an easy task, once there are many factors in the real life that the theory does not cover. However, once one can rely on an experienced partner, this experience can be softer. And in this topic, is possible to say that the Brazilian branch will enjoy all the experience that the parent company brings.

#### Weaknesses

### • Unknown brand in the Brazilian market:

Due to the geographical distance between Brazil and Czech Republic, is easy to say that the PSK brand is a complete strange brand in the Brazilian soil. Therefore, one can say that this is a weaknesses of the new branch starting up in the Brazilian market if compared to other start ups from closer countries such as United States and Canada. However, this issue can be overcome with a proper branding strategy.

### • Does not have the lowest price in the market:

PSK strives for excellence in quality and constantly seeks new products, however, it has a huge cost and it impacts the companies final price. Hence, it can be turned into a weakness whenever the company find some potential customer willing to have the low cost solutions without caring to the product quality.

## • Low experience in the Brazilian market:

Because of its roots in the Czech and European market, the company may struggle to adapt its procedures and way of thinking to the new market, once Czech Republic and Brazil share a very few common characteristics of their culture.

### • High cost structure:

PSK strives for excellence in quality and constantly seeks for the most well qualified staff, best machinery and equipments. Hence, the company needs to cover this higher structure cost with a higher productivity and economy of scale.

## Opportunities

## Technological change:

As a developing country, Brazil is under a constant search for new technologies in the development of new concepts. The fact that Brazil is going to host the two biggest sportive events in the planet, FIFA world cup of 2014 and the Olympics games of 2016, pressures the country to seek for new products in the sector such as those already provided by PSK – ASM.

### Growing market segment:

Above the rest of the economy, the construction industry is growing fairly rapidly and opens doors for new companies wishing to venture in this market. The industry still has a shortage of supply of specialized services and opens a great opportunity for PSK.

## • Unfilled customer needs with the current technology:

The current technology that has been used in the country demands higher cost of maintenance and does not perform as well as the latest ones. The investors of sport facilities for example, lose a considerable amount of their revenues on rainy days due to outdated technology. What make them to look for alternatives to fulfill their needs.

### Socio-cultural change:

According to recent research, the Brazilian people began to look outside of the country and want to have the latest technology available. Not only in a specific segment, but as a whole. This is a phenomenon that creates not only opportunities to start ups but also to those companies which are willing to bring something new to the market.

## Government spending programmes:

## • Demographic change:

In the last decade, the socioeconomic profile of the country has changed - a lot. The main novelty was the strengthening of the class C, composed of families who have a total household monthly income (adding all sources) between US\$ 527 and US\$ 2.257. The figures indicate that there was a considerable social mobility in recent years: between 2004 and 2010, 32 million people ascended to the rank of the middle classes (A, B and C) and 19.3 million out of poverty. The 94.9 million Brazilians who make up the new middle class corresponds to 50.5% of the population - it is dominant in terms of electoral and economic standpoint. Hold 46.24% of the purchasing power (FGV, 2013) and exceeds the classes A and B (44.12%) and D and E (9.65%).

Created in 2007, the second mandate of President Lula (2007-2010), the Growth Acceleration Program (PAC) promoted the recovery planning and execution of major works of social infrastructure, urban, logistics and energy of the country, contributing to the its accelerated and sustainable development. According to IBGE (2013) in its first four years, the PAC has helped to double public investment in Brazil, 1.62% of GDP in 2006 to 3.27% in 2010 and

helped Brazil to generate a record volume of jobs - 8.2 million jobs created in the period.

### Threats

### Lack of qualified work:

While the public service is highly demanded by workers, in the private sectors, job opportunities are left vague. The lack of skilled labor is the main reason given by employers. Even small companies are struggling to hire. In São Paulo, two thousand seats are open each month in the municipal employment agencies, but many are not fulfilled. Some do not require much skill, but even so it has been difficult to find people to hire (FGV, 2013). The lack of a skilled worker can directly affect the execution of a work, which may cause problems for many companies in the industry and the contractor himself as delivery delays, excessive spending and loss of quality materials.

## • Increased number of start ups:

According to IBGE (2013), in 2012, 736,400 businesses have closed down. On the other hand, 999,100 companies entered the market, while maintaining a steady rate of entry (22.1%). With this, there was an increase of 6.1% (261,700) of the total active companies in Brazil. Regarding the survival of companies, it was found that after the third year of market entry (2009-2012), nearly half (48.3%) did not survive. The total salaried occupations grew by 9.1% (2.6 million) from 2011 to 2012, and the companies that entered were responsible for one million new jobs, and 35.6% (364,700) of these were created Retail.

## • Subsidy from government only for national companies:

The Brazilian government, through its National Development Bank (BNDES) grants a large number of benefits up to non-refundable funds to companies of a large range of sizes. And its is not only that, in 2006 the government released a simplified and subsumed the payment of taxes and contributions, based on calculation of gross revenue, so called Simples Nacional. Companies participating

in this program benefit from a reduction of more than 30% of the taxes paid by the regular regime. However, this and other programs, are only valid for national companies, banning all companies established with foreign capital.

## Government protectionist practices

On several occasions, the European Commission (EC) has criticized protectionist policies of Brazil, stating that "measures restricting imports are increasing." Since the last quarter of 2011, Brazil has strengthened its procedures for imports of several items, introducing stricter customs controls. In addition, the Brazilian government, in October 2012 decided to increase import duties on over 100 products. Because of these practices, the average cost of customs taxes of products and raw materials of PSK revolve around 65%, creating operational barriers and making the company to seek for local alternatives in order to avoid excessive costs.

In order to better evaluate the internal and external environment of the Brazilian branch, this thesis uses the Internal Factors Analysis Summary (IFAS) and External Factors Analysis Summary (EFAS) approach to better evaluate the companies strengths and weaknesses against its opportunities and threats. Therefore, it is possible to see on Table 5 the internal factors listed, weighted by its importance and rated according to their impact to the business.

 Table 5: Internal Factors Analysis Summary (own source)

SR	Internal Factors	Weight	Rating	Weighted Score
	Strengths			
S1	Hold the newest technology in the sector	0,14	5	0,7
S2	Exclusivity with the best manufactures of the sector	0,12	5	0,6
S3	Large mix of product	0,11	4	0,44
S4	Large capacity to innovate and create new products	0,14	5	0,7
S5	Experience of the parent company	0,05	3	0,15
	Weaknesses			
W1	Unknown brand in the Brazilian market	0,1	2	0,2
W2	Does not have the lowest price in the market	0,12	2	0,24
W3	Low experience in the Brazilian market	0,08	4	0,32
W4	High cost structure	0,14	3	0,42
	Total	1	0	3,77

Afterwards, it is possible to obtain a weighted score for each of those factors, and evaluate the overall internal environment of the company into a sole factor. That will be used to formulate the company's strategy through the Space Matrix.

Hence, is needed to put the opportunities and threats into the EFAS matrix to obtain the correct position at the company's external environment.

**Table 6:** External Factors Analysis Summary (own source)

SR	External Factors	Weight	Rating	Weighted Score
	Opportunities			
01	Technological change	0,09	5	0,45
O2	Growing market segment	0,13	4	0,52
O3	Unfilled customer need with the current technology	0,15	5	0,75
O4	Socio-cultural change	0,09	3	0,27
O5	Demographic change	0,11	4	0,44
06	Government spending programmes	0,14	4	0,56
	Threats			
T1	Lack of qualified work force	0,05	1	0,05
T2	Increased number of start ups	0,08	3	0,24
T3	Subsidy from government only for national companies	0,09	3	0,27
T4	Government protectionist practices	0,07	2	0,14
	Total	1		3,69

It is possible to see on the Table 6 that the external environment has a similar strong performance as the internal one. What starts to suggest that the company has a strong strategic advantage and good chance to succeed in the Brazilian Market.

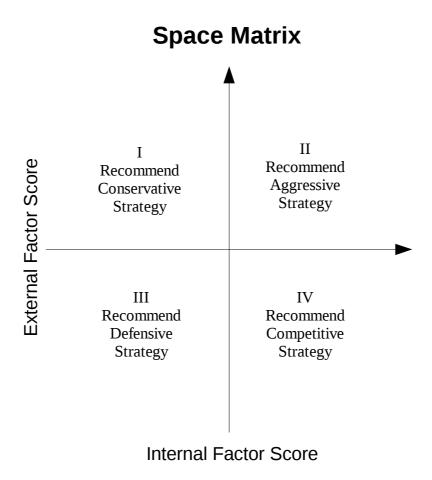
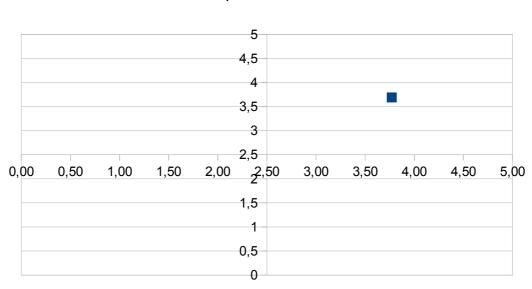


Figure 4: Space Matrix (MaxiPedia.com, 2012)

According to the Space Matrix theory (Figure 4), the company should seek either a Conservative Strategy, Aggressive Strategy, Defensive Strategy or a Competitive Strategy depending on which quadrant it will be allocated.

After plotting the company's results on the Space Matrix, it is possible to see that the method suggests that the new Brazilian branch should adopt an aggressive strategy. See Figure 5.



# Space Matrix

Figure 5: Applied Space Matrix (own source)

However, in order to analyze the term of this suggested strategy, all factors have to be evaluated according to its potential duration. The results can be seen on Table 7.

**Table 7:** Strategy Factors Analysis Summary by Duration (own source)

SR External Factors	External Factors	Duration			
	External Pactors	Long	Med.	Short	
S1	Hold the newest technology in the sector		*		
S2	Exclusivity with the best manufectures of the sector		*		
S3	Large mix of product	*			
S4	Large capacity to innovate and create new products	*			
S5	Experience of the parent company	*			
W1	Unknown brand in the Brazilian market		*		
W2	Does not have the lowest price in the market		*		
W3	Low experience in the Brazilian market			*	
W4	High cost structure		*		
01	Technological change		*		
O2	Growing market segment	*			
O3	Unfilled customer need with the current technology		*		
O4	Socio-cultural change	*			
O5	Demographic change	*			
06	Government spending programmes	*			
T1	Lack of qualified work force	*			
T2	Increased number of start ups		*		
T3	Subsidy from government only for national companies	*			
T4	Government protectionist practicies	*			
	Total				

Subsequently, the concentration of factors per duration have to be calculated in accordance to its relevance, *i.e.*, the percentage of each duration should come through a weighted average of each factor score. The Figure 6 exposes the final result, what suggests that the company should follow the aggressive strategy within an intermediate to a long term.

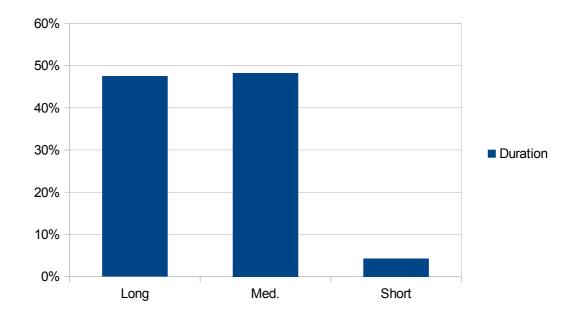


Figure 6: Strategy Duration (own source)

#### 7 PROJECT FOR ENTERING THE BRAZILIAN MARKET

The goal of this project is to determine the compulsory steps that the Czech construction company PSK – ASM will face to establish a subsidiary firm into the Brazilian market. Additionally, this thesis intends to evaluate the project's feasibility as well as propose various management tools and measures to track and drive the company into the success.

Also, the project identifies the key risks that the company may face during the realization of the project, in order to create a base to discussion of strategic plans to mitigate them.

And in the end, the time analysis for the establishment of the Brazilian subsidiary is introduced, showing the expected time of the implementation of the project, taking in consideration subjective data to estimate it.

## 7.1 Transforming Strategy into Action

The performance measurement is intended to provide an indication to managers of what was done and how it was done, so that the system can be continuously improved and the members of the organization can be aligned toward strategic goals. A measurement system to capture and organize data, and communicate results quickly and clear, allowing each member of the organization take steps to improve the overall performance of the company. The success of a system for measuring performance is based on the following principles:

- Measure only what is important; measure things that give impact or indicate organizational success.
- Balance a series of measures. Try, when defining measures, to consider the perspectives of people who make decisions (shareholders, senior management and customers).
- Provide an overview of both the resource management of the organization and management of the organization's results.
- Involve members of the organization in the design and implementation of the system of measures
- Align measures with the objectives and organizational strategies.

Therefore, having in mind the motto of the famous management consultant Peter Drucker, "If you can't measure it, you can't manage it.", this thesis prepared in partnership with the top level management of PSK a plan of action and goals to be implemented to the Brazilian subsidiary.

However, the chosen measures are designed for a long term duration of the company. For this reason, it is possible to see that few of them do not have a target set for the first year of the company's operation, once there they depend on historical data to be calculated.

### 7.1.1 Financial Perspective

This research aims to make explicit and set financial goals taking in consideration the business objectives in order to satisfy its shareholders.

- Objective 1: Increase Return on Shareholder's Equity
  - Measure: Return on Equity (ROE)

Formula: 
$$ROE = \frac{Net\ Income\ After\ Tax}{Shareholder\ Equity}$$

- **Target:** Due the lack of historical information about the Brazilian subsidiary, the ROE will have no specific target, however, it will be tracked and measured.
  - **Initiatives:** Is public known that the cost of equity is the most expensive source of capital in the company, therefore, one of the strategies that PSK will use is to leverage the company's debts.
- Objective 2: Increase the operational margin.
  - Measure: Operating Profit Margin (OPM)

Formula: 
$$OPM = \frac{Operating\ Profit}{Revenue}$$

- Target: OPM  $\geq$  25%
  - **Initiatives:** Decrease level of the variable costs and improve the quality and accuracy of the quotations.

## • Objective 3:

• Measure: Sales Growth Ratio (SGR)

Formula: 
$$SGR_t = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$$

- Target: Due the lack of historical information about the Brazilian subsidiary, the SGR will have no specific target, however, it will be tracked and measured.
  - Initiatives: Development of new sales campaigns, track the level of knowledge of sales staff, provide continuously trainings for the sales staff and increase number of visits to customers.

### 7.1.2 Customer Perspective

The customer perspective enables the alignment of firms with specific customer segments and markets. In this perspective, it is paramount to understand the concept of value proposition. Recalling that the value proposition is the set of attributes required by clients that integrate a particular market segment. Identify the value proposition enables the understanding of what are the market segments in which the company operates and what could be the big plans of action to achieve the requirements of these customers.

- **Objective 1:** Increase customer satisfaction.
  - Measure: Customer Satisfaction Index (CSI). To support this measure, will be developed a form that will be sent to the customers just after each service provided by PSK. The grade obtained in this evaluation form, will serve as base to calculate the following formula.

Formula: 
$$CSI = \frac{Grade \, Obtained}{Maximum \, Grade}$$

- Target:  $CSI \ge 80\%$ 
  - **Initiatives:** Follow up the least performed topic and start a direct action, in another words, if the customers evaluate the quality of the ser-

vice as the worse part of the project, one action could be provide training immediately.

 Measure: Complaining and Suggestions Index (CaS). These are the complains received directly to the company's customer service center.

Formula: 
$$CaS = \frac{\sum Complains \land Suggestions}{Ongoing Projects}$$

■ Target:  $CaS \le 20\%$ 

- Initiatives: Map the complains and suggestions in order to find what is the most mentioned topics and create some action plan to solve the referred inconvenience
- Objective 2: Increase customer portfolio

• Measure: New Customers Acquisition (NCA)

Formula: 
$$NCA = \frac{N \text{ of } New \text{ Customers Orders}}{Total \text{ Orders Received}}$$

■ Target: NCA  $\geq$  30%

Initiatives: Search for new sources of biddings, increase the field activities (door to door sales), increase number of leads and increase referrals program.

### 7.1.3 Business Process Perspective

The objectives and measures for the business process perspective derived from explicit strategies aimed at meeting the expectations of shareholders and customers target. Sequence analysis, top-down, usually reveals entirely new business processes, in which the company should pursue excellence. A complete value chain of internal processes must be defined so that strategic goals can be evaluated and associated with each link in the value chain.

- Objective 1: Increase efficiency of commercial department
  - Measure: Won Biddings Index (WBI)

Formula:  $WBI = \frac{Number\ of\ Won\ Biddings}{Number\ of\ Quotations\ Issued}$ 

- Target: WBI  $\geq$  20%
  - **Initiatives:** Provide technical training to the quotation and sales team and focus on the improvement of the factors that are impacting negatively to lose the biddings.
- Objective 2: Increase the accuracy of the projects execution
  - **Measure:** Index of Punctuality (IoP)

Formula:  $IoP = \frac{Projects\ Completed\ in\ Time}{Total\ of\ Projects\ Completed}$ 

- Target:  $IoP \ge 90\%$ 
  - **Initiatives:** Identify create an action plan on the main factors responsible for the delays.
- **Objective 3:** Increase the innovation level
  - Measure: Research and Development Index (R&D)

Formula: R&D=N of new products released

- Target:  $R&D \ge 2$ 
  - **Initiatives:** Identify why the R&D department is having problems to create new concepts of products and invest in the R&D department.

## 7.1.4 Learning and Growth Perspective

The objectives of this perspective offer the infrastructure needed to achieve the goals of the other three perspectives, besides being the vectors of results of the other three.

- Objective 1: Improve the technical knowledge of the staff
  - Measure: Time Training Index (TTI)

Formula:  $TTI = \frac{Total \ of \ Man-Hour \ of \ Training}{Total \ of \ Man-Hour \ Available}$ 

- Target:  $TTI \ge 2\%$ 
  - Initiatives: Identify the specific skills that the teams are lacking and provide training.
- Objective 2: Increase the employees satisfaction
  - Measure: Workplace Environment Index (WEI). To support this measure, will be developed a form that will be sent to the employees yearly. The grade obtained in this evaluation form, will serve as base to calculate the following formula.

Formula: 
$$WEI = \frac{Grade\ Obtained}{Maximum\ Grade}$$

- **Target:** WEI  $\geq$  80%
  - Initiatives: Follow up the least satisfactory topic and start a direct action, in another words, if the employees evaluate the office clime as the worse part of the company, one action could be provide some activities with a psychologist immediately.
- **Objective 3:** Decrease the staff turnover
  - Measure: Staff Turnover Ratio (STR)

Formula:

$$STR = \frac{N \text{ of employees who left during the year}}{(N \text{ of ees at the beg. of the YR} + N \text{ of ees at the end of the YR}) \div 2}$$

- Target: No target for the first year due to the reduced size of the staff.
  - **Initiatives:** Identify the main factors that are making the staff to resign and create an action plan to reduce it.

### 7.2 Financial Plan

In order to evaluate the size of the investment needed to this project and test its financial performance, a financial plan was made in order to have a picture of a probable scenario that the company will face in the Brazilian market.

The financial plan was based according to the current economical situation of the Brazilian market connected to the future expectations and trends of the local economy, this study could establish a financial plan to the project in order to determine whether it is feasible or not in a financial point of view.

**Table 8:** Projection of Costs and Revenues (own source)

	9				,	
(R\$)	2013	2014	2015	2016	2017	2018
Revenue	300.000	1.800.000	3.600.000	6.480.000	10.368.000	14.515.200
Costs & Expenses	467.982	1.978.572	3.120.586	5.130.060	7.356.699	10.082.487
Cost of sale	210.000	1.260.000	2.160.000	3.888.000	5.702.400	7.983.360
Salaries & Wages	165.796	443.724	624.498	820.063	1.132.043	1.456.854
Rent	14.400	40.704	43.146	57.169	60.599	77.082
Publicity	6.000	36.000	72.000	129.600	207.360	290.304
Basic Services	18.000	38.160	40.450	42.877	45.449	48.176
Phone	4.500	12.720	20.225	25.011	34.087	44.161
Fuel	25.200	71.232	75.506	80.036	84.838	89.929
Leasing	16.794	44.496	45.831	47.206	48.622	50.081
Insurance	7.292	9.660	9.950	10.248	10.556	10.873
Depreciation	0	21.876	28.980	29.850	30.745	31.668

The Table 8 above bespeaks the used data as the financial inputs and outputs for the early years of the company in Brazilian soil. It is important to say, that for the year of 2013, it has been considered only 6 months of activities since the branch will start its operations in the beginning of the second semester of 2013.

The following topics are destined to explain the calculations reports of the main topics of the financial plan.

### 7.2.1 Tax Expenses

In addition to the taxes under the tax laws that focus on its billing as PIS, COFINS and ISS, which are common to all service providers, these companies still pay taxes on income. To this end, companies may choose one of two modes provided in the Act: presumed profit or taxable income.

#### **Presumed Profit**

The expression Presumed Profit represents a mode of calculation of only two taxes: Income Tax - Corporations (IRPJ) and Social Contribution on Net Profits (CSLL), paid quarterly.

The tax rates are applied on a profit that is assumed, which is the basis for calculating the tax and social contribution. For companies providing services in general, the basis for calculating the presumed profit is 32% of monthly turnover.

### These rates are:

- Income tax (IRPJ): 15% for quarterly revenue up to R\$187.500,00;
- Income tax (IRPJ): 25% on the portion of quarterly revenue above R\$187.500,00;
- Social Contribution (CSLL): 9% on any value invoicing.

These rates are applicable on the basis of calculation assumed 32%. Therefore,  $15\% \times 32\%$  equals 4,8% of monthly billing. And  $25\% \times 32\%$  equals 8% of the value above R\$187.500,00.

The option for Assumed Income is advantageous for companies whose profit (Revenues (-) Expenses) is equal to or greater than 32%. When the margin is less than 32% is more advantageous to opt for payment of above taxes based on taxable income.

For example:

**Table 9:** Company with quarterly turnover of R\$150.000,00 (own source)

TAX	VALUE	% OVER TURNOVER	
COPPIG	4.500.00		
COFINS	4.500,00	3%	
PIS	975,00	0,65%	
IRPJ	7.200,00	4,8%	
CSLL	4.320,00	2,88%	
Total	16.995,00	11,33%	

 Table 10: Company with quarterly turnover of R\$200.000,00 (own source)

 TAX
 VALUE
 %OVER

TAX	VALUE	%OVER	
		TURNOVER	
COFINS	6.000,00	3%	
PIS	1.300,00	0,65%	
IRPJ (Installment until R\$ 187.500,00 x 4,8%)	9.000,00	4,8%	
IRPJ (Over the surplus of R\$12.500,00 x 8%)	1.000,00	0,5%	
CSLL	5.760,00	2,88%	
Total	23.060,00	11,83	

**Table 11:** Company with quarterly turnover of R\$300.000,00 (own source)

TAX	VALUE	%OVER
		TURNOVER
COFINS	9.000,00	3%
PIS	1.950,00	0,65%
IRPJ (Installment until R\$187.500,00 x 4,8%)	9.000,00	3%
IRPJ (Over the surplus of R\$ 112.500,00 x 8%)	9.000,00	3%
CSLL	8.640,00	2,88%
Total	37.950,00	12,53

### **Taxable Income**

This option should be adopted when the actual profit (revenue less expenses effectively proven) is less than 32% of the billing period and can be calculated quarterly or annually.

The tax rates used to calculate the tax and social contribution in this mode are:

- Income tax (IRPJ): 15% for income up to R \$ 20,000.00 / month;
- Income tax (IRPJ): 25% for income above R \$ 20,000.00 / month;
- Social Contribution (CSLL): 9% of any income determined.

In summary, for the taxable income the tax range vary from 24% (9% + 15%) to 34% (9% + 25%), applied on income and not on revenue.

The calculation for taxable income may be quarterly or yearly.

The calculation for taxable quarterly is recommended only when the company has performed relatively uniform throughout the year. When there is seasonality in their operations, in which occurs a month income and other loss, this loss is compensated only in the limit of 30% of the profit for the period.

Already in determining the annual taxable income the company can raise monthly balances accumulated, which positive results (profits) and negative (losses) are automatically compensated in the calculation period, without limitation.

Calculating the taxable income up, apply the rates of income tax (IRPJ) and social contribution (CSLL) described above.

In the case of option for taxable income, the PIS rate changes: goes from 0.65% to 1.65%. Already the COFINS rate is only 3% to 7.6% of revenue. But in this case, deductions can be made the basis of calculation of revenue on some payments to other entities, directly linked to the production of services, with the effective rate becomes less than 1.65% or 7 6%. These deductions or recoveries so called PIS non-cumulative and COFINS non-cumulative in the service sector, represent a percentage equal to or less than 1.65% or 7.6% depending on the costs of each company.

#### For example:

**Table 12:** Company with quarterly turnover of R\$200.000,00 and a profit of R\$40.000,00 (own source)

TAX	VALUE	% OVER
		TURNOVER
COFINS (7,6% x R\$100.000,00)	7.600,00	3,8%*
PIS (1,65% x R\$100.000,00)	1.650,00	0,82%*
IRPJ (15% x R\$40.000,00)	6.000,00	3%

CSLL(9% x R\$40.000,00)	3.600,00	1,8%
Total	18.850,00	9,42

<sup>\*</sup>Considering deductions of the PIS and COFINS non-cumulative of 50%.

**Table 13:** Company with quarterly turnover of R\$300.000,00 and a profit of R\$75.000,00 (own source)

TAX	VALUE	% OVER	
		TURNOVER	
COFINS (7,6% x R\$150.000,00)	11.400,00	3,8%*	
PIS (1,65% x R\$150.000,00)	2.475,00	0,82%*	
IRPJ (15% x R\$60.000,00)	9.000,00	3,00%	
IRPJ (25% x R\$15.000,00)	3.750,00	1,25%	
CSLL(9% x R\$75.000,00	6.750,00	2,25%	
Total	33.375,00	11,12%	

<sup>\*</sup>Considering deductions of the PIS and COFINS non-cumulative of 50%.

## 7.2.2 Calculations Of Labor Costs And Social Charges

Firstly, was taken in consideration what would be the structure size of the company during the early years of the project, and who would be these persons. Therefore, for the starting point in the second semester of 2013, the company would start with:

- the director, that will take the responsibility for the entire project and its development;
- one engineer, responsible for the operational department, providing the design of the services and for creating the quotations;
- one assistant, destined to support all administrative, operational and commercial activities.

The others basic administrative services such as accounting and legal department will be outsourced due the low expected demand of these services during the early years of com-

pany. Besides these services, the branch will also count on the staff located in the parent company for some specialized services, such as the R&D department.

It is expected the company to grow from 2 to 4 employees per year, accordantly to the identified demand. It is valid to remember that this expectation is about the direct employees only. The quantity of third parties is not directly linked to this financial plan, even though there is a budget allocated to this end.

In addition to salary, many other costs must be calculated or estimated so that one know the real extent of the cost of labor.

Certain charges are fixed by law as a fixed percentage of the payroll. However, most have to be calculated from estimates involving since the number of days actually worked up the statistics on birth rates, accidents at work, number of conveyances made by the worker, etc.

To calculate the cost of labor, it is necessary to determine the social (INSS, FGTS\regular and FGTS/termination) and labor (Provisions of Vacation, 13th salary and Rest Paid Weekly - DSR) taxes on the amounts of compensation paid.

Thus, in the calculations presented are only basic requirements relating to vacation, 13th salary, DSR and social charges - FGTS and INSS. To get real value, add up the Transportation Ticket (Vale Transporte) and the average incidence of notice, aid removal by illness or accident and indemnity notice.

The methodology for calculating the DSR is the annualized standard of 44 hours worked per week, *i.e.*, 1 day per week, equivalent to 1/6 pay for 52 weeks in the year, divided by 12 months.

The Table 14 represents the rate value of each labor and social charge:

(%)**Social and Labor Charges** (%)Labor benefits 9,75% 13th Salary Vacation 13,00% 16,99% DSR - Paid weekly rest period **Social Charges INSS** 20,00% SAT 3,00% **Education Allowance** 2,50% INCRA/SEST/SEBRAE/SENAT 3,30% **FGTS** 8,00% FGTS/Provision of Penalty for Termination 4,00% 40,80% **Total Pension** Pension w/o 13th salary / Vacations / DSR 16,21% TOTAL 96,75%

**Table 14:** Summary of Social and Labor Charges (own source)

It means that an employee that has a nominal salary of R\$10.000,00 will cost to the company around R\$19.675,00 per month.

### 7.2.3 Depreciation

Depreciation is not really a cost, therefore, enters the project as accounting, not impacting the cash flow of the company.

In this project, are depreciated the non-current assets of the company, such as machinery, equipment and vehicles. As the Brazilian accounting system depreciates these assets in five years, the percentage of annual loss of 20% was used.

## 7.3 Financial Analysis

In addition to the research and studies on the construction market in Brazil, it is extremely important to carry out some analysis based on financial projections set out in this plan. The Table 15 bellow bespeaks the final results of the company for the evaluated period of time. Once again, it is important to mention that the first year of 2013 has only six months of operational activities, since the company is dated to start from July of 2013.

	Table 15:	Expected	Results (o	wn source	)	
	2013	2014	2015	2016	2017	2018
Total Revenues (+)	300.000	1.800.000	3.600.000	6.480.000	10.368.000	14.515.200
Total Cost (-)	467.982	1.978.572	3.120.586	5.130.060	7.356.699	10.082.487
Taxes (-)	13.875	83.250	305.501	734.680	1.479.362	2.085.059
Profit (=)	(181.857)	(261.822)	173.913	615.260	1.531.938	2.347.655
<b>Accumulated Profit</b>	(181.857)	(443.679)	(269.766)	345.495	1.877.433	4.225.088
Profit + depreciation Accumulated Profit +	(181.857)	(239.946)	202.894	645.110	1.562.684	2.379.323
depreciation	(181.857)	(421.803)	(218.909)	426.201	1.988.885	4.368.207

To carry out such analyzes this study used the summarized cash flow of the company's profit plus depreciation presented on the Figure 7 below.

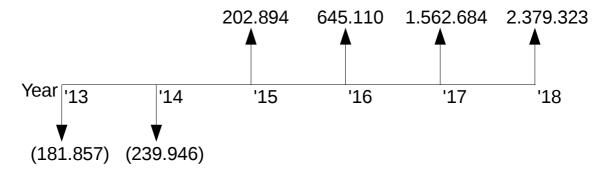


Figure 7: Summarized Cash Flow (own source)

To analyze the final data, will be used four different evaluation methods, namely the Break Even Point (BEP), Payback Period, the Internal Rate of Return (IRR) and Net Present Value (NPV).

#### 7.3.1 Internal Rate of Return

The Internal Rate of Return (IRR) is a rate of return earned on the balance of capital invested and not recovered. It is important to remember that the basic assumption in the calculation of the IRR is that the resources released by the project can be reinvested at a rate equal to the IRR.

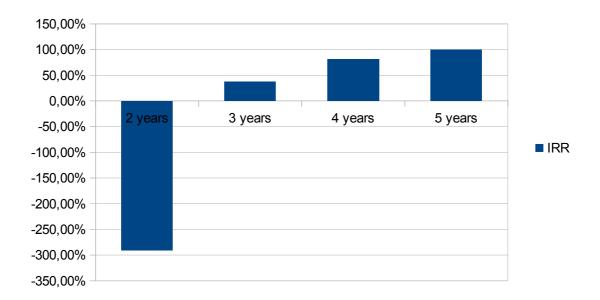


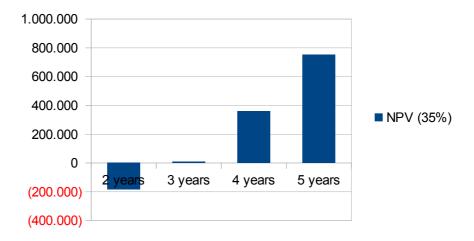
Figure 8: Internal Rate of Return until the fifth year (own source)

Using the cash flow and making the necessary calculations, we have that the IRR of the 5<sup>th</sup> year equal to 100,32% (see Figure 8), *i.e.*, using a hurdle rate of 35%, it is concluded that the business is viable, because the minimum income exceeds expected.

As can be seen in the early years the Internal Rate of Return (IRR) is negative, however, in the third year it becomes not only positive but also it overcomes the expected hurdle rate.

#### 7.3.2 Net Present Value

Net Present Value (NPV) is the present value of net cash flow, in other words, a monetary value representing the difference between the inputs and outputs of discounted cash flows to present value. NPV can also be explained as the difference between the amount invested (CFo) and the value of the expected benefits (CFj), discounted to the starting date, using as discount rate the Minimum Rate Attractiveness (or hurdle rate).



**Figure 9:** Net Present Value until the fifth year (own source)

Using the cash flow and considering a Minimum Rate Attractiveness of 35%, we obtain a positive NPV (Figure 9). What demonstrate that the project is feasible in a financial point of view. Both the NPV as IRR are different encodings of the same information, which can be seen on the above analyzes.

## 7.3.3 Break Even Point

The Break Even Point is the financial time when the company or project changes from red numbers to black ones, in another words, is the time when the start up begins to have profit instead of loss during the working year. One can say that the Break Even Point is the moment where the company starts to get positive net cash flows or the financial inputs are equal to the outputs in a ascending trend.

## 3.000.000 2.500.000 1.500.000 1.000.000 500.000 0 2013 2014 2015 2016 2017 2018

## Break Even Point

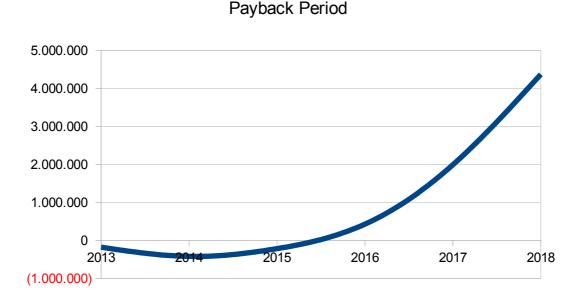
Figure 10: Break Even Point (own source)

The Figure 10 shows the expected moment when the Break Even Point will happen. Which is somewhere between the year of 2014 and 2015.

## 7.3.4 Payback Period

(500.000)

The payback period is the number of periods required for the company to repay its initial investment. That is, the time between the start of the project and when the cumulative cash flow becomes positive.



## Figure 11: Payback Period (own source)

According to the Figure 11, it is possible to notice that the project's Payback will happen in some point between 2015 and 2016.

## 7.4 Potential risks of the project

Likewise every project, the penetration of the Brazilian market involve several risks that may drive the results into failures. However, taking in consideration the most probable and dangerous risks, and creating a plan to mitigate them, can increase significantly the chances of success.

Therefore, the following list displays the most common risks and how they could impact the firm's activities in Brazil.

• Human resources: as mentioned in the Brazilian environment topic, the country's economy is going through a fast growing process, and therefore, the competition to count with qualified labor force is also very high. As a resultant of this phenomenon, the market is lacking availability of trained people. There are more job offers than skilled workers available in the country.

- Operational risk is any occurrence that leads to loss, injury or damage to the Cooperative and the Cooperative. These losses may occur due to faults, shortcomings or inadequacy of internal processes, people, systems, or external events. It is included in this definition, the legal risk associated with inadequate or poor contracts signed by the institution, as well as sanctions for noncompliance with laws and compensation for damages to third parties arising from the activities of the institution. Included among the operational risks:
  - o internal fraud;
  - external fraud;
  - labor and poor safety in the workplace;
  - o improper practices relating to customers, products and services;
  - o damage to physical assets themselves or in use by the institution;
  - those that lead to the interruption of the activities of the institution;
  - failures in information technology systems;
  - flaws in execution, meeting deadlines and managing the activities of the institution.
- Reputational (or image): due to: (i) the wear of the company name with the market, with the authorities or members themselves, due to negative publicity, whether true or not, (ii) changes in the entity's reputation with customers, competitors, government, etc., and (iii) the adverse impact on the image of the institution, because of poor quality of care, the poor internal communication with associates and the Central; participation of officers in situations not recommended or lack of participation in these events representing the cooperative.
- Technical: arises from the discontinuation of the activities supported by technology services. Examples: overload of data processing systems; inability of systems to provide sufficient and reliable information; incompatibility and / or unavailability of information, lack of safe means of access to systems; obsolete systems and equip-

ment; failures hardware, lack of backup, lack of legalization of software; contingency; inadequacy of operating systems / applications and others;

- Concentration: resulting concentration in products and services contracted, region, type of person (physical and legal) market segment, supplier of products and services, or any reliance on people to do business or perform services.
- Structure: arises from malfunction or damage has occurred due to: inadequate resources or insufficient to operate the business, lack of regulation on internal policy procedures; absence or disability of the registration system, system of authorization, segregation of duties, standards salutary; hierarchical organization inadequate, lack of supervision and management or personnel. The presence of this risk is strongly marked in business activity, as found in all products, processes, systems or units of an institution;

## 7.5 Project Phases and Time analysis

For the establishment of the company in the Brazilian market, was decided to contract a local consulting company to support all bureaucratic procedures required by the Brazilian government to register the new enterprise.

In order to have a penetration plan scheduled, the project was divided into phases and organized according to each phase duration and dependencies. The list bellow bespeaks the referred time analysis. All data and estimations were set in discussion with the consultant company and based on their market experience.

- Phase A: Deeper research of the Brazilian Market. Time Frame: 14 days
- Phase B: Quota-holders document preparation. Time Frame: 15 days
  - Search of the company's name into the Brazilian market, once the Brazilian board of trade does not allow companies name in duplicity.
  - Will be created the draft of the Power of Attorney that the shareholders will provide to the consulting company.
  - Translation, notarization and CDT registration of the Power of Attorney and Passport of the foreigners shareholders.

- Article of Association translation, notarization and CDT microfilm registration for the legal entity quota-holders.
- Obtaining the Federal Taxpayer ID (so called CPF) for each company's shareholder and CNPJ for the legal entity as a shareholder.
- Legal Corporate Structuring, as a local service company drafting and filing the limited liability company's articles of association.
- Phase C: São Paulo Board of Trade Registration. Time Frame: 10 days
  - Submission of the Articles of Association alongside with shareholders, director and attorney-in-fact duly notarized documents at the State of São Paulo Board of Trade.
  - Get the NIRE number and on-line government public record of incorporation.
- Phase D: The "CNPJ" Federal Legal Entity Taxpayer ID. Time Frame: 30 days
  - Submitting the Articles of Association with the NIRE number alongside with quota-holders, director and attorney-in-fact documentations (duly notarized) documents at the federal revenue agency, to obtain CNPJ.
- Phase E: Municipal Registration & Bank Account Opening. Time Frame: 12 days
  - After successfully obtaining the CNPJ it is time to apply for a corporate bank account, parallel to city council registration of the company at the commercial address.
  - Obtain a digital certificate e-CNPJ for Gov. public bookkeeping electronic invoicing system (NF-e)
- Phase F: Capitalization, FDI registration and TAX planning. Time Frame: 15 days
  - Register the foreign capital with central bank of Brazil, through the company's digital signature.
  - Generate CADEMP number for receiver (the Brazilian subsidiary)
  - Generate CADEMP number for sender (parent company)

- Generate RDE-IED (Foreign Direct Investment integration number) for each quota-holders, who acts as a "checking account" to be used on the payment order for remittance of currency exchange agreement
- FDI Registration, tax preparation, tax planning, benefits and incentives studies.
- **Phase G:** Investor Visa. **Time Frame:** 60 days
  - Once the funds are in Brazil (capitalization of the Brazilian LTDA), it is possible
    to generate the required documents to process with the investor visa application.
- Phase H: Office establishment. Time Frame: 15 days
  - Search and the sign the renting contract.
- Phase I: Staff Recruitment. Time Frame: 20 days
  - Preparation and execution of the selective processes.
  - Registration of the new staff.
- **Phase J:** Adaptation of the website. **Time Frame:** 25 days
  - Translation of the pages and creation of the specific location characteristics.
- Phase K: Contracting the suppliers. Time Frame: 15 days
  - Search, contact and registering a supplier list.
- Phase L: Setting up the managerial softwares. Time Frame: 60 days
  - Implementation of ERP, CRM, SRM and MRP systems.
- Phase M: Creation of sales campaign. Time Frame: 3 days

The Table 16 shows the activities throughout the project realization with the respective durations and predecessors.

Activity Name	Immediate Predecessor (list number/name, separated by ',')	Optimistic time (a)	Most likely time (m)	Pessimistic time (b)
Α		12	14	25
В		10	15	20
С	В	8	10	20
D	С	25	30	60
E	D	5	12	20
F	Е	10	15	20
G	F	45	60	90
Н	A,F	12	15	30
I	F,H	15	20	30
J	A,F	15	25	30
K	A,F,H	10	15	18
L	A,E	45	60	70
М	J	2	3	7

**Table 16:** Penetration project phases (own source)

Even though the utilized data were based in the experience and statistics of the consultant company, these terms may vary indefinitely due governmental availabilities and other external factors which PSK cannot control.

The solution and results of the PERT analysis are presented in the appendix section, presenting the critical path, activities mean time, earliest start (of each activity), earliest finish, latest start, latest finish and slack time. It is also possible to check the overall project duration, which is approximately 150 days (or 5 months).

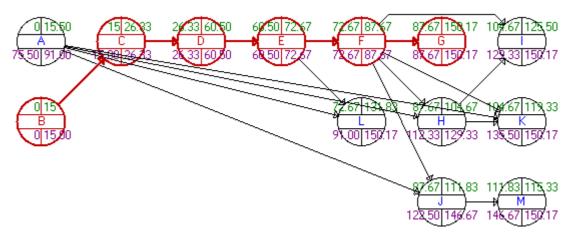


Figure 12: PERT chart (own source)

The Figure 12 shows a graphical representation of the projected activities of PSK throughout the penetration project.

### **CONCLUSION**

This master thesis has analyzed the current situation of the Brazilian economy and marketplace, highlighting the most pertinent information to the realization of the penetration project to the Czech construction company PSK – ASM.

The paper could gather enough information about the Brazilian situation, with highlights to: (1) the current political stability, which gives the foreign investors a higher reliability in the country, (2) the high economic growth, attracting the international investments that are seeking for higher returns than nowadays obtained in the developed markets such as in the European Union, (3) government programmes such as PAC and Minha Casa Minha Vida that are pulling the economy to a faster development once they inject a huge amount of capital to circulate in the market, (4) statistical data from the construction sector that sill expect a considerable growth to the segment, which is still one of the fastest in the country and (5) the very strong advantages that PSK potentially have in the Brazilian market according to the SWOT analysis and the weighted score obtained through the Strategy Factors Analysis Summary.

As for the project chapter, it is possible to say that this research was sufficient to create the pillars of the penetration, and the basis to support further studies. The financial plan could demonstrate that this project is a very complex operation, however, with a very strong potential. The analysis could also prove the project's feasibility, once the indicators like IRR and NPV exceeded, and much, the expectations of the investor. And the expected term for the Break Even Point and Payback (respectively, two and three years) cannot be considered long if compared to other investment.

This thesis also proposed identify the potential risks to the implementation of the project, *i.e.*, the establishment of the PSK subsidiary in Brazil, and as a result, could create a satisfactory base for further analysis, such as the creation of a risk management plan to mitigate the most impacting risks to the business.

As a final consideration, the chapter 7.5 managed to well structure the project into main phases, where was possible to estimate its duration, and track the critical activities in order to maintain the project running within the term and the expected cost.

### **BIBLIOGRAPHY**

### **Printed sources:**

- [1] ADEGBESAN, J. A. On the origins of competitive advantage: strategic factor markets and heterogeneous resource complementarity. *Academy of Management Review*. 2009, Volume 34, Issue 3, s 463-475.
- [2] ALBAUM, G., DUERR, E. *International Marketing and Export Management*. 6<sup>Th</sup> ed. Harlow: Pearson Education Ltd., 2008, 711 s. ISBN 978-0-273-71387-6.
- [3] ALEM, A. C., CAVALCANTI, C. E. O BNDES e o apoio à internacionalização das empresas brasileiras: algumas reflexões. *Revista do BNDES*. 2005, Volume 12, Issue 24, s 43-76.
- [4] ANDERSEN, O. On The Internationalization process of firms: a critical analysis. *Journal of International Business Studies*. 1993, Volume 24, Issue 2, s 209-231.
- [5] BARBOSA, G. Análise do processo de formação das estratégias internacionais da Acumuladores Moura S.A. Recife, 2008. Master Thesis, Universidade Federal de Pernambuco.
- [6] BARRETTO, A. A Internacionalização da firma sob o enfoque dos custos de transação. Rio de Janeiro: Mauad, 2002, 268 s. ISBN 978-8-574-78077-1
- [7] BARTLETT, C., GOSHAL, S. *Managing Across Borders*. 2<sup>Nd</sup> ed. New York: Random House, 2012, 416 s. ISBN: 978-1-446-49452-3.
- [8] BJÖRKMAN, I., FORSGREN, M. Nordic international business research: a review of its development. *International Studies of Management and Organization*. 2000, Volume 30, Issue 1, s 6-25.
- [9] BRADLEY, F. *Intern*ational marketing strategy. 5<sup>Th</sup> ed. Upper Saddle River: Pearson Education, 2005, 408 s. ISBN: 978-0-273-68688-0
- [10] BRANDENBURGER, A. M., STUART JR, H. W. Value-based business strategy. *Journal of Economics & Management Strategy*. 1996, Volume 5, Issue 1, s 5-24.

- [11] BUCKLEY, P. J., CASSON, M. C. Analyzing foreign market entry strategies: extending the internalization approach. *Journal of International Business Studies*. 1998, Volume 29, Issue 3, s 539.
- [12] CATEORA, P. R., GILLY, M. C., GRAHAM, J. L. *International Marketing*. 15<sup>Th</sup> ed. New York: McGraw, 2011, 659 s. ISBN 978-0-073-52994-3.
- [13] CAVUSGIL, T., DELIGONUL, S., YAPRAK, A. International marketing as a field of study: a critical assessment of earlier development and a look forward. *Journal of International Marketing*. 2005, Volume 13, Issue 4, s 1-27.
- [14] CHATAIN, O. Value creation, competition, and performance in buyer-supplier relationships. *Strategic Management Journal*. 2011, Volume 32, Issue 1, s 76-102.
- [15] CONDO, A. *Internationalization of firms based in developing economies*. Cambridge, 2000. Doctoral Thesis. Harvard University.
- [16] COUGHLAN, A., STERN, L. W., ANDERSON, E. Canais de marketing e distribuição. 6<sup>Th</sup> ed. Porto Alegre: Bookman, 2002, 461 s. ISBN: 978-8-573-07974-6
- [17] CZINKOTA, M. R., KOTABE, M., RONKAINEN, I. A. *The Future of Global Business*. New York: Routledge, 2011, 769 s. ISBN 0-203-87813-2.
- [18] CZINKOTA, M. R., RONKAINEN, I. A. *International Marketing*. 8<sup>Th</sup> ed. OH, USA: Thomson Higher Education, 2007, 720 s. ISBN 0-324-31702-6.
- [19] CZINKOTA, M. R., RONKAINEN, I. A., MOFFET, M. H. International Business. 8<sup>Th</sup> ed. Hoboken: John Wiley & Sons, Inc., 2011, 746 s. ISBN 13 978-0-470-53065-8
- [20] DEVINNEY, T. M., YIP, G. S., JOHNSON, G. Using frontier analysis to evaluate company performance. *British Journal of Management*. 2010, Volume 21, Issue 4, s 921-938.
- [21] DIMITRATOS, P. The firm's location in the home country and internationalisation: some evidence from Greek smaller firms. *Intereconomics*. 2002, Volume 37, Issue 2.

- [22] DUNNING, J. *Multinational Enterprises and the Global Economy*. 2<sup>Nd</sup> ed. Cheltenham: Edward Elgar Publishing, 2008, s 920. ISBN: 978-1-848-44132-3.
- [23] DUNNING, J. H. Location and the multinational enterprise: a neglected factor? *Journal of International Business Studies*. 1998, Volume 29, Issue 1, s 45-66.
- [24] DUNNING, J. The Eclectic paradigm of international production: a restatement and some possible extensions. *Journal of International Business Studies*. 1999, Volume 19, Issue 1, s 1.
- [25] FLEURY, A., FLEURY, M. T. L. *Internacionalização e os países emergentes*. São Paulo: Editora Atlas, 2007, 318 s. ISBN: 978-8-522-44708-4.
- [26] FORNER, C. *Prospecção de mercado e marketing internacional*. 2<sup>Nd</sup> ed. Porto Alegre: SEBRAE/RS, 1999, 60 s.
- [27] GOSHAL, S. Global strategy: an organizing framework. *Strategic Management Journal*. 1997, Volume 8, s 425-440.
- [28] GUILLÉN, M. F. Experience, imitation and the sequence of foreign entry: wholly owned and joint-venture manufacturing by South Korean firms and business groups in China, 1987-1995. *Journal of International Business Studies*. 2003, Volume 34, s 185.
- [29] HARRISON, J. S., BOSSE, D. A., PHILLIPS, R. A. Managing for stakeholders, stakeholder utility functions, and competitive advantage. *Strategic Management Journal*. 2010, Volume 31, Issue 1, s 58-74.
- [30] HEMAIS, C. A., HILAL, A. O Processo de internacionalização da firma segundo a escola nórdica. Rio de Janeiro: Mauad, 2002, 268 s. ISBN: 978-8-574-78077-1.
- [31] HILL, C. W. L. *International Business*. 9<sup>Th</sup> ed. Boston: Irwin/McGraw Hill, 2012, 752 s. ISBN: 978-0-078-02924-0.
- [32] HITT, M. A., IRELAND, R. D., HOSKISSON, R. E. *Administração estratégica:* competitividade e globalização. 2<sup>Nd</sup> ed. São Paulo: Cengage Learning, 2002, 415 s. ISBN: 978-8-522-10520-5.

- [33] JOHANSON, J. Global Marketing: Foreign Entry, Local Marketing & Global Management. 5<sup>Th</sup> ed. New York: McGraw, 2009, 690 s. ISBN 978-0-07-338101-5
- [34] JOHANSON, J., VAHLNE, J. E. The Internationalization process of the firm: a model of knowledge development and increasing foreign market commitment. *Journal of International Business Studies*. 2007, Volume 8, Issue 1, s 23-32.
- [35] KIM, W. C., HWANG, P. Global strategy and multinationals entry mode choice. *Journal of International business studies*. 2002, s 29-53.
- [36] KAPLAN, R. S., NORTON, D. P. The Balanced Scorecard: Translating Strategy into Action. Boston: Harvard Business Review Press, 1996, 336 s. ISBN: 978-0-87584-651-4.
- [37] KOTLER, P., KELLER, K. L. *Marketing management*. 14<sup>Th</sup> ed. Upper Saddle River: Pearson Prentice Hall, 2012, 812 s. ISBN 978-0-13-210292-6.
- [38] KUADA, J., SORENSEN, O. J. *Internationalization of companies from developing countries*. Birghamton: International Business Press, 2000, 225 s. ISBN: 978-0-789-00721-6.
- [39] MACHADO, A. J., LIBONI, L. B. Estratégias de internacionalização e os canais de distribuição: o caso da indústria calçadista de Franca. *Seminários Em Administração (SEMEAD)*. 2004, Volume 7, Issue 5, s 1-15.
- [40] MORAES, W. F. A., KOVACS, E. P., OLIVEIRA, R. B. Teorias de internacionalização e aplicação em países emergentes: uma análise crítica. *I Simpósio Internacional de Administração e Marketing*. 2006, Volume 1, Issue 1, s 221-242.
- [41] NEWBERT, S. L. Value, rareness, competitive advantage, and performance: a conceptual-level empirical investigation of the resource-based view of the firm. *Strategic Management Journal*. 2008, Volume 29, Issue 7, s 745-768.
- [42] O'GRADY, S., LANE, H. The psychic distance paradox. *Journal of International Business Studies*. 1996, Volume 27, Issue 2, s 309.

- [43] OLIVEIRA, B. R. Análise do processo de formação de estratégias internacionais da fruticultura brasileira: o caso do grupo Fuitfort. Recife, 2007. Master Thesis. Universidade Federal de Pernambuco, Programa de Pós-Graduação em Administração (Propad).
- [44] PERRONE, Renato G. Sistema de Planejamento Corporativo: enfoque sistêmico. Rio de Janeiro: Qualimark, 2006, 304 s. ISBN 978-8-573-03627-5.
- [45] PORTER, M. *A vantagem competitiva das nações*. 8<sup>Th</sup> ed. Rio de Janeiro: Campus, 2001, 932 s. ISBN: 978-8-570-01758-1.
- [46] POWELL, T. C. Competitive advantage: logical and philosophical considerations. *Strategic Management Journal*. 2001, Volume 22, Issue 9, s 875-888.
- [47] RAMAMURTI, R. Developing countries and MNEs: extending and enriching the research agenda. *Journal of International Business Studies*. 2004, Volume 35, s 277.
- [48] RAMAMURTI, R., WILLIAMSON, P. J., FLEURY, A., FLEURY, M. T. L. *The Competitive Advantage of Emerging Market Multinationals*. Cambridge: Cambridge University Press, 2013, 374 s. ISBN: 978-1-107-03255-2.
- [49] RICHARD, P. J., DEVINEEY, T. M., YIP, G. S. Measuring organizational performance: towards methodological best practice. *Journal of Management*. 2009, Volume 35, Issue 3, s 718-804.
- [50] ROCHA, A., BLUNDI, M. D. S., DIAS, V. T. *O que aconteceu às empresas exportadoras da década de 70*. Rio de Janeiro: Mauad, 2005, 268 s. ISBN: 978-8-574-78077-1.
- [51] RUGMAN, A. M. *Theoretical aspects of MNEs from emerging economies*. Cambridge: Cambridge University Press, 2009, 439 s. ISBN: 978-0-521-51386-9.
- [52] SIM, A. B., PANDIAN, J. R. Emerging Asian MNEs and their internationalization strategies: case study evidence on Taiwanese and Singaporean firms. *Asia Pacific Journal of Management*. 2003, Volume 20, Issue 1, s 27.

- [53] STEFFENS, P., DAVIDSSON, P., FITZSIMMONS, J. Performance configurations over time: implications for growth- and profit-oriented strategies. *Entrepreneurship Theory and Practice*. 2009, Volume 33, Issue 1, s 125-148.
- [54] STERN, L., EL-ANSARY, A. I., COUGHLAN, A. *Marketing channels*. 7<sup>Th</sup> ed. New Jersey: Prentice Hall, 2006, 555 s. ISBN: 978-0-131-27555-3.
- [55] USUNIER, J. C., LEE, J. A. *Marketing across cultures*. 5<sup>Th</sup> ed. Harlow: Pearson Education, 2009, 479 s. ISBN 978-0-273-71391-3.
- [56] VENTORINI, P. R. Determinação das variáveis intervenientes num processo de internacionalização de empresas através da implantação de um centro de distribuição: o caso da Eletrônica Selenium. Porto Alegre, 2004. Master Thesis. Universidade Federal do Rio Grande do Sul (UFRGS).
- [57] VERNON, R. International investment and international trade in the product cycle. *Quaterly Journal of Economics*. 2006, s 190-207
- [58] VERSIANI, A. F., REZENDE, S. F. Revisitando a pesquisa sobre exportação: a contribuição do enfoque das trajetórias. *Revista de Administração da USP*. 2009, Volume 44, Issue 3, s 236-249.
- [59] WETHERLY, P., OTTER, D. *The business environment: themes and issues*. Oxford: Oxford University Press, 2008, 495 s. ISBN 978-0-19-920305-5.
- [60] YIP, G. S. Global Strategy... In a Word of Nations? *Sloan Management Review*. 2009, s 29-41.

### **Electronic sources:**

- [61] ABEVD. Associação Brasileira de Empresas de Vendas Diretas [online]. São Paulo, ©2005. [cit. 2013-03-26] Available at: http://www.abevd.org.br/
- [62] Ampliar Engenharia [online]. Belo Horizonte, ©2007 [cit. 2013-02-20]. Available at: http://www.ampliarengenharia.com.br/
- [63] FGV. Fundação Getulio Vargas [online]. Rio de Janeiro, ©2013 [cit. 2013-03-29]. Available at: http://www.fgv.br/

- [64] Game Quadras [online]. São Paulo, [cit. 2013-02-20]. Available at: http://www.gamequadras.com.br/
- [65] Gramados Sintéticos [online]. Porto Alegre, [cit. 2013-02-20]. Available at: http://www.gramasintetica.com.br/
- [66] HD Quadras Esportivas [online]. Porto Alegre, [cit. 2013-02-20]. Available at: http://www.hdquadrasesportivas.com.br/
- [67] IBGE. Fundação Instituto Brasileiro de Geografia e Estatística [online]. Rio de Janeiro, ©2013 [cit. 2013-03-29]. Available at: http://www.ibge.gov.br/
- [68] Jquadras [online]. São Paulo, ©2012 [cit. 2013-02-20]. Available at: http://www.jquadras.com.br/
- [69] Kango [online]. Curitiba, [cit. 2013-02-20]. Available at: http://www.kango.-com.br/
- [70] MaxiPedia.com. SPACE Matrix Strategic Management Method [online]. ©2012 [cit. 2013-04-16]. Available at: http://www.maxi-pedia.com/SPACE+matrix+model+strategic+management+meth od/
- [71] MDIC. Ministério do Desenvolvimento, Indústria e Comércio Exterior [online]. Brasília, ©2013 [cit. 2013-04-08]. Available at: http://www.desenvolvimento.gov.br/
- [72] Pequita [online]. Belo Horizonte, [cit. 2013-02-20]. Available at: http://www.pequita.com/
- [73] Poly Esportiva [online]. São Paulo, [cit. 2013-02-20]. Available at: http://www.polyesportiva.com.br/
- [74] Racckety [online]. Belo Horizonte, ©2005 [cit. 2013-02-20]. Available at: http://www.racckety.com.br/
- [75] Reta Prene [online]. Santo André, [cit. 2013-02-20]. Available at: http://www.retaprene.com.br/

- [76] Rower [online]. São Paulo, ©2013 [cit. 2013-02-20]. Available at: http://www.rower.com.br/
- [77] Sfquadras [online]. São Paulo, [cit. 2013-02-20]. Available at: http://www.sfquadras.com.br/
- [78] SINDUSCONSP. Sindicato da construção Civil do estado de São Paulo [online].São Paulo, ©2013 [cit. 2013-03-29]. Available at: http://www.sindusconsp.com.br/
- [79] Soly Sport [online]. São Paulo, [cit. 2013-02-20]. Available at: http://www.solysport.com.br/
- [80] Sport Brasil [online]. São Paulo, [cit. 2013-02-20]. Available at: http://www.s-portbrasil.com.br/
- [81] Teles Grass [online]. Brasília, [cit. 2013-02-20]. Available at: http://www.teles-grass.com.br/
- [82] Total Grass [online]. Bragança Paulista [cit. 2013-02-20]. Available at: http://www.totalgrass.com.br/
- [83] United Nations. GDP/breakdown at current prices in US Dollars (all countries) [online]. ©2011 [cit. 2013-03-05]. Available at: http://unstats.un.org/unsd/snaama/dnltransfer.asp?fID=2
- [84] World Bank. Brazil | Data [online]. ©2011 [cit. 2013-03-05]. Available at: http://data.worldbank.org/country/brazil
- [85] WORLD ECONOMIC FORUM. The Global Competitiveness Report [online] ©2011 [cit. 2013-03-05]. Available: http://www3.weforum.org/docs/GCR2011-12/CountryProfiles/Brazil.pdf

#### LIST OF ABBREVIATIONS

BEP Break Even Point

BNDES Brazilian Development Bank
BRIC Brazil, Russia, India And China

CADEMP Registry Of Physical Persons And Legal Entities - International Capital

CaS Complaining And Suggestions Index

CFj Cash Flow Series
CFo Initial Cash Outlay

CNPJ Brazilian Tax Corporation Registration Number

COFINS Contribution For The Financing Of The Social Security

CPF Brazilian Individual Taxpayer Registry
CRM Customer Relationship Management

CSI Customer Satisfaction Index
CSLL Contribution On Net Profit

DNRC National Registry Of Commerce

DSR Paid Weekly Rest Period EC European Commission

e-CNPJ Electronic Tax Corporation Registration number

EFAS External Factors Analysis Summary

ERP Enterprise Resource Planning

EU European Union

FDI Foreign Direct Investment
FGTS Workers' Insurance Fund

FIBA International Basketball Federation

FIFA International Federation of Association Football

G20 Group of Twenty Finance Ministers and Central Bank Governors

GDP Gross Domestic Product
GRP Gross Regional Product

HR Human Resources

IAAF International Association of Athletics Federations

IBF International Badminton Federation

ICMS Tax on Circulation of Goods and Transportation and Communication Services

IFAS Internal Factors Analysis Summary

IHF International Handball Federation

IMF International Monetary Fund

IoP Index of Punctuality

IPI Tax on Industrialized Products

IRPJ Income Tax Paid By A Legal Entity

IRR Internal Rate Of Return

ISS Tax on Services

ITF International Tennis Federation

Mercosul Southern Common Market

MRP Manufacturing resource planning

NAFTA North American Free Trade Agreement

NCA New Customers Acquisition
NF-e Electronic Invoicing System

NPV Net Present Value

OECD Organization for Economic Co-operation and Development

OLI Ownership, Location and Internalization

OPM Operating Profit Margin

PAC Growth Acceleration Program

PERT Program Evaluation and Review Technique

PIS Social Integration Program

PVC Polyvinyl chloride

RDE-IED Declaratory Record Of Direct Foreign Investments Module

R&D Research And Development

ROE Return on Equity
SGR Sales Growth Ratio

SME Small and Medium Enterprises

SRM Supplier Relationship Management

STR Staff Turnover Ratio
TTI Time Training Index

USAN Union of South American Nations

WBI Won Biddings Index

WEI Workplace Environment Index

YoY Year over Year

## **LIST OF FIGURES**

Figure 1: Value created versus appropriate value (BRANDENBURGER of	& STUART,
1996)	29
Figure 2: Brazilian Total Reserves [including gold] (World Bank, 2011)	47
Figure 3: The most problematic factors for doing business (World Economic I	Forum, 2011)
	51
Figure 4: Space Matrix (MaxiPedia.com, 2012)	71
Figure 5: Applied Space Matrix (own source)	72
Figure 6: Strategy Duration (own source)	73
Figure 7: Summarized Cash Flow (own source)	87
Figure 8: Internal Rate of Return until the fifth year (own source)	88
Figure 9: Net Present Value until the fifth year (own source)	89
Figure 10: Break Even Point (own source)	90
Figure 11: Payback Period (own source)	91
Figure 12: PERT chart (own source)	96

## LIST OF TABLES

Table 1: Major Motivations to Firms (CZINKOTA, RONKAINEN & MOFFET, 2011)	)18
Table 2: Optimal Entry Mode Matrix (JOHANSSON, 2009)	23
Table 3: Top 10 countries by Nominal GDP (United Nations, 2011)	46
Table 4: Gini Index (World Bank, 2011)	50
Table 5: Internal Factors Analysis Summary (own source)	69
Table 6: External Factors Analysis Summary (own source)	70
Table 7: Strategy Factors Analysis Summary by Duration (own source)	72
Table 8: Projection of Costs and Revenues (own source)	80
Table 9: Company with quarterly turnover of R\$150.000,00 (own source)	81
Table 10: Company with quarterly turnover of R\$200.000,00 (own source)	82
Table 11: Company with quarterly turnover of R\$300.000,00 (own source)	82
Table 12: Company with quarterly turnover of R\$200.000,00 and a profit of R\$40.00 (own source).	
Table 13: Company with quarterly turnover of R\$300.000,00 and a profit of R\$75.00 (own source)	
Table 14: Summary of Social and Labor Charges (own source)	86
Table 15: Expected Results (own source)	87
Table 16: Penetration project phases (own source)	96

## **APPENDICES**

**Appendix I:** Project completion time

**Appendix II:** Project's Gantt Chart

# **APPENDIX I: PROJECT COMPLETION TIME**

Activity Name	On Critical Path	Activity Mean Time	Earliest Start	Earliest Finish	Latest Start	Latest Finish	Slack (LS-ES)	Activity Time Distribution	Standard Deviation
Α	no	15.5	0	15.5	75.5000	91.0000	75.5000	3-Time estimate	2.1667
В	Yes	15	0	15	0	15.0000	0	3-Time estimate	1.6667
С	Yes	11.3333	15	26.3333	15.0000	26.3333	0	3-Time estimate	2
D	Yes	34.1667	26.3333	60.5	26.3333	60.5000	0	3-Time estimate	5.8333
E	Yes	12.1667	60.5	72.6667	60.5000	72.6667	0	3-Time estimate	2.5
F	Yes	15	72.6667	87.6667	72.6667	87.6667	0	3-Time estimate	1.6667
G	Yes	62.5	87.6667	150.1667	87.6667	150.1667	0	3-Time estimate	7.5
Н	no	17	87.6667	104.6667	112.3333	129.3333	24.6667	3-Time estimate	3
I	no	20.8333	104.6667	125.5	129.3333	150.1667	24.6667	3-Time estimate	2.5
J	no	24.1667	87.6667	111.8333	122.5	146.6667	34.8333	3-Time estimate	2.5
К	no	14.6667	104.6667	119.3333	135.5000	150.1667	30.8333	3-Time estimate	1.3333
L	no	59.1667	72.6667	131.8333	91.0000	150.1667	18.3333	3-Time estimate	4.1667
М	no	3.5	111.8333	115.3333	146.6667	150.1667	34.8333	3-Time estimate	0.8333
Project	Completion	Time	=	150.17	Days				
Number of	Critical	Path(s)	=	1	·				

## APPENDIX II: PROJECT'S GANTT CHART

