



Tecnodeck

Facing the decision of choosing a new market: Brazil or Angola?

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This case study is based on real business situations but contains fictional elements that differ from reality.

Abstract:

Title: Tecnodeck: Facing the decision of choosing a new market: Brazil or Angola?

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This work aims to provide a teaching case study in the area of international strategy by deeply explain the basis for an analysis of a possible expansion to new countries by a Portuguese company called Tecnodeck, which sells an innovative type of deck. The objective is to give teachers and students access to a practical example where theoretical frameworks can be applied and contain three parts: Case-Study, Teaching Notes and Literature Review.

Founded in 2005, Tecnodeck is the market leader in Portugal in the deck sales, selling a product with specific characteristics that differentiate the company from its competitors. In the beginning of 2012, as the management of the company noticed a negative pattern in the growth of the business, there was made an important decision: operations in international markets should be expanded and the firm should become less dependent on the Portuguese market, which accounted for 75% of the sales at the time. This expansion is the central theme in the case.

In the first part of the case, there are chapters explaining the first times in the business, the business model, context in Portugal when the decision is to be taken, international markets where the company already operates, and market perspectives from the sector that absorbs a great share of the company's sales: the construction sector. In the second chapter, there is a brief explanation on the important factors to having into account when choosing the next destination, and a detailed analysis of the two main possibilities: Brazil and Angola.

The second part gives instructions on how to conduct the presentation of the case in class, suggesting possible questions and discussion topics to be proposed in class, as well as possible ways of answering the proposed questions.

The literature review uses theoretical articles or statements to explain the frameworks used in the case.

Resumo:

Título: Tecnodeck: Enfrentando a decisão de escolher um novo mercado: Brasil ou Angola?

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Este trabalho pretende disponibilizar um caso na área de estratégia de internacionalização, explicando detalhadamente as bases da análise de uma possível expansão para novos países por parte de uma empresa Portuguesa chamada Tecnodeck, que venda um tipo de deck inovador. O objetivo é que professores e alunos tenham acesso a um exemplo prático onde os enquadramentos teóricos podem ser treinados e aplicados. O trabalho tem três partes: Estudo do caso, nota de ensino e revisão de literatura.

Fundada em 2005, a Tecnodeck é líder de mercado na venda de decks em Portugal, comercializando um produto com características específicas que diferenciam a empresa em relação aos seus competidores. No início de 2012, ao reconhecer uma tendência negativa no crescimento do negócio, a direcção da empresa tomou uma decisão importante: as operações nos mercados internacionais deveriam ser aumentadas, ficando a empresa menos dependente do mercado interno, responsável por 75% das vendas na época. Esta decisão de internacionalização é o tema central do trabalho.

No início do caso, há capítulos que explicam os primeiros tempos da empresa, o modelo de negócio, o contexto da operação a nível nacional em Portugal na época da decisão, os mercados internacionais onde a empresa já opera e uma perspectiva do mercado de construção civil, dado que se trata de um sector que absorve uma percentagem significativa das vendas da empresa. No segundo capítulo, há uma breve explicação sobre os factores mais importantes a ter em conta na escolha do novo destino, e uma análise detalhada das duas principais possibilidades: Brasil e Angola.

Na nota de ensino, são dadas instruções relativamente à apresentação do caso em aula, sendo também sugeridas questões e tópicos de discussão a ser propostos aos alunos, bem como possíveis respostas às mesmas. Por fim, na revisão de literatura são utilizados artigos ou citações teóricas para melhor explicar as ferramentas estratégicas usadas.

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Table of Contents

Abstract	1
Acknowledgements	3
Case Study	
1. Introduction	6
2. The company.....	6
2.1. Creation	6
2.2. First times in the business	8
2.3. Business Model.....	9
2.4. International Business	11
2.5. Business Environment in Portugal.....	13
2.6. Main Clients	15
3. New options for internationalization.....	17
3.1. Angola.....	17
3.2. Brazil	20
4. The final decision	22
Teaching Notes.....	26
Literature Review.....	41

List of Exhibits

- 1- Financial information of the company
- 2- Evolution of the construction sector in Portugal
- 3- Promotion to Tecnodeck product in Chile
- 4- Geographical distribution of business of Portuguese construction companies
- 5- Portuguese economy data
- 6- Growth rates from Brazil and Angola

Case Study

1. Introduction

In the early days of 2013, João Afonso, CFO of Grupo Mitera, was looking at the financial statements of the previous year and reflecting .There was an aspect that started to worry him. For the first time in 8 years, the sales turnover had decreased, almost 25% comparing to the previous year (Exhibit 1). And despite being market leader in the Portuguese market, with 60% of market share, it would be positive for the firm to become less dependent on this market and get profit from the opportunities arising from other countries, knowing that globally there is a predicted demand for the product of 2 to 3 million tons.ⁱ And so, he requested a meeting with the CEO of the company, Mr. Faria, and the COO, Mr.Silva.

Mr. Faria was the first one to speak in the meeting. “The results of the business in Portugal had a serious slump. It was almost impossible to escape from the hard period that the country is facing. “. Mr. Silva added: “Our international business could be doing much better. Despite the European crisis, our sales to markets outside Europe are still short and irregular over the years and international market still accounts only for 23% of our total sales”. Mr. Afonso completed: “Our main existing clients are construction companies. And the sector is being one of the most affected by the crisis (Exhibit 2), but they are increasing their operations abroad. “.

As Mr. Afonso ended his sentence, everyone in the room noticed that they were just in the face of an opportunity to overcome these results. A first step would be to follow the example of the construction companies and increase operations abroad. A second one would be to get advantage of the fact that some of the bigger clients were expanding abroad to start supplying products to those markets. The World Trade Organization agreement in early December of 2013, in the meeting taking place at Indonesia ⁱⁱ was also a facilitating factor for an exporting company, with a predicted positive impact of 700 billion Euros in the world trade. Immediately, they started looking for the best options to pursue this expansion.

2. The company : Tecnodeck

2.1. Creation

It was the 2nd of July of 2004 and everyone in Portugal had only one thing occupying their mind. The national football team, led by the charismatic Brazilian coach Luiz Felipe Scolari and by the captain Luis Figo, together with the young starlet Cristiano Ronaldo, 19 year-old at

the time, was about to play the final of the first European Cup organized in Lisbon against Greece, 2 days after. Nevertheless, that Friday, under the 36 °C and sunny weather in Lisbon, the board of Grupo Mitera was having a meeting to discuss the future. The group had been founded in 1986 and was originally a supplier of construction materials.

Despite the huge investment and incentives to the economy that the organization of the Euro Cup brought to Portugal, the business environment at that time was not the best. On the 29th of June, the prime-minister Mr. José Manuel Durão Barroso resigned from his role to accept the invitation for the presidency of the European Commission. His government had been trying to contain the alarming growth of the public debt but was never consensual. And his replacement, Mr. Pedro Santana Lopes, was received with a lot of distrust.

On that meeting, there were four people: Paulo Faria, José Santos, João Afonso and Fernando Silva.

Mr. Santos was the person responsible for the international business of the whole group. And he had heard on his recent visit to the US about a technology that allows wood and plastic to be mixed into a composite material, called WPC-Wood Plastic Composite, with excellent future perspectives. It was a technology created 30 years before in Japan by a company called EIN Engineering due to its concerns with the excess of industrial logging and was now having its boom, with an increasing use by American constructors.

It could be transformed through different techniques, extrusion or pre-compounding, and have several different final outcomes, such as decks, rails, windows or doors.

Everyone agreed that it was a great opportunity to expand the potential of the group. But then, a question was raised by Mr. Silva: “The product seems to have great potential. But the company would require a long adaptation time if we commercialize several different new products from the beginning.” There was a voting process, and a final agreement about starting with decks. The final procedures were then started to the creation of the new subsidiary, later to be called Tecnodeck.

The following months almost endangered this decision. The government, led by Mr. Santana Lopes, had several problems and created so much instability that the president Jorge Sampaio forced anticipated elections, ended with government substitution.

But none of this was going to dissuade the entrepreneurs. They took a long time studying the information about this new business and decide to carry with this idea along with a minor partner, Mr. Bernardo Queiroz e Mello. And in the beginning of the following year, 2005, the creation of TECNODECK-Importação e transformação de materiais compósitos Lda was a reality.

2.2. First times in the business

The first and one of the most important decisions in this new adventure was to choose a proper supplier for the raw materials to produce this type of deck, due to the strong correlation between the quality of the materials used in the production process and the quality of the final product. After some market research, it was found in Canada a supplier that sells this material, a mixture between thermoplastic and wood residue. A business relationship that is still active nowadays.

A good first step to enter the market would be to develop a relationship of mutual confidence with the ones that actually choose the materials the majority of the times: architects and engineers. Therefore, a significant investment was made on explaining to several professionals in these sectors the benefits of using these decks instead of the traditional ones, made of natural wood. The arguments were based in the characteristics of the WPC material, such as resistance to bacteria, humidity and the fact that chemicals such as arsenic are not needed for the maintenance, as they are for other types of decks. The material is also considered environmentally friendly because it uses long-lasting, low-maintenance recycled materials. In 3 words, it can be defined as durable, reliable and environmentally-friendly.

In the first year, the company achieved a turnover of 98.000€, with an impact of 2% in the whole group's accounts. The sales volume of 312.000€ in 2006, representing an increase in the weight on the total turnover of the group to 6%, showed the potential that this type of materials could achieve, and led Grupo Mitera to the decision of acquiring the stake of their minor partner and becoming the owners of 100% of the equity of this subsidiary.

The first goal was to consolidate the brand through a differentiator design and the exclusive ownership in Portugal of the necessary technical accessories to properly install the decks requested by the clients. The Canadian supplier of raw material guaranteed the quality of the composite material, and then the know-how of the company was put into action, particularly the accumulated experience of the group in the business of plastic materials and their understanding of the specificities of the product, such as the importance of mounting for a better performance and higher duration.

The raw material was then transformed in Belgium and decks were created with molds property of Tecnodeck. A process always supervised by experts from the Portuguese company, travelling frequently to the factories to control the quality of the final product.

The dissemination of this technology created an opportunity for several competitors, with different types of positioning. In the internal market, there were firms offering low-cost products that, at some time, proved to be less efficient, and therefore less capable to retain customers and achieve profits on the long term. Tecnodeck chose to supply three different types of deck, which vary in price and quality, but the main focus is on the premium deck. Relatively to the low-cost decks, there are several competitors such as EasyDeck, SpazioDeck or Sagideck, that has some reference works in Medellin, Colombia. The deck with higher quality has an American brand called Timbertech as main competitor.

In the external market, decks made with the WPC material are gaining market share relatively to natural woods. The regulatory constraints on harvesting, increasingly tighter, are one of the causes for these gains. The increase in the consciousness about environmental problems since the RIO-20 conference is also leading several consumers to have the environmental impact when making a purchase and it is a tendency that is predicted to continue, as there is a forecasted growth of 14.5% in the demand for synthetic decking.ⁱⁱⁱ

2.3. Business model

There are 3 pillars in the firm's business model, explained with three words: What, when and how. One goal is to deliver what customers want, by having constant innovation in the products sold. Since 2006 to 2012, there have already been 4 generations of the product. It has a great importance because despite being more resistant than lumber wood, there are documented problems on WPC such as discoloration, fading after intensive use or bio deterioration.^{iv} It may also have several possible outcomes, such as landscaping, pools, spas, terraces, marinas, building's façades, balconies, railings, pool surroundings and garden decks.

The first WPC decks commercialized were only having UV protection, but nowadays they also have protection against bacteria or humidity. According to a product development manager at the company, the goal is "to keep innovating and continuously deliver better solutions to our clients".

The second one is to have a model that predicts the demand during the year, and helps managing the stocks so that the waiting time is minimized for the client, and accomplishing the second pillar.

The third one is the importance on how the material is delivered and how the maintenance is assured. In order to guarantee that, there is technical support provided to every outside distributor or client, in addition to installation manuals that have received positive feedback

from several users. There is a project department at the company that, when an order is made, studies the project that is going to include the materials and develops possible solutions for the installation of the product without any extra cost for the clients, which allows a more precise budget calculation. When the product is sold, there is also included formation for the distributors so that they can also assure that every step, since the materials leave the company's warehouses until they are installed at the final client, has the best possible quality.

The type of positioning that the company chose to adopt was, as mentioned before, to preserve quality and reliability instead of low pricing, including certifications from both national and international laboratories, such as LNEC and the German TUV Rheinland. The product is also manufactured over the ISO 9001 standard and is developing efforts to implement the CE marking quality checking. This approach and positioning assured that most of the customers were satisfied with the product, increasing the retention rate.

The firm chose not to have vertical integration relative to IT and other new technologies. The product testing, mandatory to obtain certain certifications, was usually contracted to LNEC, a Portuguese civil engineering lab. The website page is simple, containing only some pictures of reference works previously made, contacts, certifications, environmental responsibility and few more, while the presence in social networks was almost inexistent, with only a YouTube video showing the mounting process of one deck.

On the first 8 years of existence, the value chain of the company was simple. The production process was not the core business, and the company preferred instead to focus on services such as product development, participating in the research of possible improvements that the product may have and having a tight control over the whole material and product lifecycle to ensure its quality. The logistics of entry and exit in the market through the existing warehouses were also part of the business, with a sales team responsible for approaching possible buyers and answering every request. Since the company has already some reference works, the brand is also starting to gain awareness, consolidating, and increasing the value of the product. And last but not the least, one that is considered one of the bigger strengths of the company, which is the client support and technical assistance in the mounting of the product. Architects are also an important connection with the buyers. Tecnodeck tries to invite them into the facilities and introduces the whole team, explains how the company works and mutually explain some ideas about technical details. This gives a good impression to the clients and the quality also pleases the heads of the constructions. The company also tries to protect and maintain through time the business relationships developed since the beginning.

The end of 2013 predicts the arrival of a production machine to Lisbon in order to produce deck in the company's operational center, allowing a closer control over the production and the strengthening of R&D over it. This significant investment in a fixed asset will include the production in the value chain and is expected to result into lower cost of goods sold and higher contribution margins.

2.4. International Business

When the company was created, it was only the first one in Portugal and the third one in Europe to sell this type of decks. In 2007, as domestic demand appeared to be insufficient to sustain the pretended increase in the stature of the company- Portugal has only 10 million habitants and is considered a small market-, the management team started to look over the country's frontiers for new growth.

In 2008, a world economic crisis imploded with the bankruptcy of Lehman Brothers, an American bank. The effects were quickly spread trough North America and Europe. In the specific case of Portugal, the banks ran into trouble, a lot of companies were bankrupt, diminishing the number of competitors of Tecnodeck, but brought a serious problem. Sales were decreasing, and receivables were becoming harder, which means that even though a lot of decks were being sold internally, the payment was frequently delayed or unable to be received. And this macroeconomic environment severely harmed the demand in several markets, increasing the urgency of diversification to other countries.

With globalization and the increase in global communication, demand for some products became more similar and people based in different locations may potentially be interested in replicate what they see in other places. In the deck example, it is common that when a construction is being planned, other similar buildings are studied and, if the materials and the final result are appreciated by the engineers and architects, the same suppliers will possibly be contacted to sell their products.

The stability of the commercial relationship with the distributors was considered a priority since the beginning of the internationalization process. In 2013, 6 years after the beginning of the internationalization process, almost every distributor outside Portugal was the same that started the distribution in that country. The first one was in Austria (which also coordinates distribution across Bulgaria). There were also distributors in Spain, Italy, where there is an agreement with Sogimi Group, which counts with 60 years of operation and is divided by 15 offices that guarantee an extensive coverage across the Italian territory, turning this market

into one of the most profitable ones for the exportations, France, Germany, USA (in New York only, by 2013), Tunisia, Chile (Exhibit 3), Argentina and Israel. There is also a subsidiary that controls distribution across the Benelux region (Belgium, Netherlands and Luxembourg) and France, and that has 75% of its equity controlled by Tecnodeck. The objective was to monitor these markets and organize an effective local supply network.

There are some other places, such as Angola or Mozambique that, despite not having neither local contracted distributors nor having received any effort from the company to operate in these markets, have works with Tecnodeck products because constructors such as Soares da Costa or Somague bought them in Portugal and took them to their constructions abroad.

The high reputation of several Portuguese architects such as Souto Moura and construction companies such as Mota-Engil or Soares da Costa allowed them to perform works outside, creating opportunities for the company, because they prefer to work with materials they have already used and know that has the desired quality. Therefore, these works performed outside also allowed Tecnodeck to sell products in these locations.

In the case of these decks, not only the product assures quality, but also the necessary technical assistance which is available at anytime, helping to surpass any possible difficulty and guaranteeing that the installation, maintenance and long-term use will be successful. The expansion of Portuguese hotels with which the company maintains close relationships also create opportunities, as happened in the past with SANA, in Luanda.

In this type of market seven years of external operation is considered a short period of time. And it is important to understand that each new client represents not only increased revenue, but also another advantage. The reputation and brand awareness is increased in each building where the products of the company are installed. Because people see and experiment the result, and clients will also give feedback within their circle of knowledge, it creates a network that works as a powerful marketing tool for the company, without any cost.

There are a few well-known places that have increased Tecnodeck's reputation. The emphasis on exclusivity, performance and outward appearance resulted in business relationships with high-profile clients, such as Armani in his shop at Madison Square in New York, in his hotels in Milan, Dubai or Paris. The Como Lake, in Italy also has Tecnodeck products. The notorious SANA hotel in Luanda is another of the most famous places where these decks are used. And this shows why the company should be confident and reinforce its presence in the outside markets, also because the internal situation in Portugal remains

uncertain and the construction sector is one of the most affected ones, with a decrease of 14,6% in 2012^v. (Exhibit 2)

The company also tries to be present in several fairs in foreign countries to give potential clients a closer look to the products and a first contact with the company personal, reinforcing the network.

In the end of the year 2012, exports accounted for a value of 300.000 €, only representing about 20% of the total sales of the company^{vi}. These numbers show the potential that the internationalization can have, assuming a fundamental role in the growth and success of the company, but also that there is still an exaggerated dependence on the Portuguese market, and that continuing the international expansion should be a priority for the management.

2.5. Business Environment in Portugal^{vii}

The internal market was still responsible in 2013 for 75% of the total sales of the company, and the economic crisis led to the need of urgent diversification to achieve a more balanced mix between sales in Portugal and abroad.

In 2012, the total population of the country was near 10.5 million, with growing concerns about the increase of the average age that is endangering the social security system. The economy is mostly based on the trade and services sector, with a weight of 74.4% of the total GDP, valued at 165 billion Euros in 2012. Trade and tourism assume particular importance because of the privileged geographic location of the country, with a large coast and relative proximity with the African and American continents. The country is also traditionally specialized on shoe manufacturing, cork and olive oil, exporting a lot of these products to different destinations all around the world. The university education in the country is also recognized internationally, with two business schools frequently in the top European rankings^{viii} and one technical institute also recognized and with important partnerships with the reputed MIT.^{ix}

With an ongoing external intervention, led by the European central bank, the European commission and the international monetary fund, commonly named “Troika”, called in 2011 to help in the resolution of the high debt and deficit problems, the central-right coalition was forced to adopt severe austerity measures that led to social contestation. The high unemployment, especially among the younger generation, combined with the downgrade in the subsidies and pensions, and the increase in the tax burden were not accepted by a great part of the population, and some of them even left the country, looking for better conditions

abroad. The inefficiency of the justice and famous corruption schemes such as the bank BPN also decreased the trust from the population in the power.

There are big differences between urban and rural areas, with low education levels and poverty in the last that led to big flows of urban migration and decrease in traditional rural activities such as agriculture. The government also faced misunderstandings with the constitutional court, as this last one rejected some proposed measures that would be essential, in the government's view, to contain the economic deficit, and this problem is a threat to the accomplishment of the agreed goals with the troika.

Despite some fiscal consolidation, the start of the amendment process of a totally inefficient public sector, and an improvement in the commercial balance caused by an enthusiastic reaction from the exporting companies, the income per-capita of the Portuguese population is still one of the lowest in Europe, and the productivity levels, mainly on the public sector, are also lower than the European average. The valuation of the euro relatively to other currencies is also an issue that makes harder the task of exporting goods outside EU. As it is a currency also used by Germany, a country with 6% of commercial surplus and restricted salaries, the currency keeps gaining value and harming the countries that need the exports to fuel their economies, such as Portugal, Spain or Ireland. As part of a common currency, Portugal is unable to devaluate it, and the alternative to raise exporting competitiveness is to promote internal devaluation by lowering salaries and decreasing asset prices. Competition from eastern economies, with lower production costs, is also deviating FDI flows away from Portugal, turning growth into a more difficult task.

On the other hand, the crisis presents several opportunities for the country. The contraction in the internal demand obliged entrepreneurs to increase their focus on external markets, starting a transformation process that turned the dependence of the internal demand less intensive and increasing the importance of investment and exportations. The fact that the country belongs to the European Union is also an advantage to surpass the hard moment. Trade between countries of the region has lower transaction costs than with countries from outside that are now becoming dangerous competitors due to the cheap salaries paid locally. In 2012, more than 70% of the company's exportations were to companies based on other countries belonging to the European Union. As a member, Portugal is also eligible to receive development funds that can both help in the development of the technological business culture that is being implemented, mainly in the northern and center regions and help small and medium companies to surpass difficulties and grow^x. There is also having a boom in technological startups, a trend that seems to come from the generation recently graduated

from university in the decade that began in 2010 and that has the support of big companies that pretend to invest in this trend to benefit in the future from these innovations.^{xi}

The set of privatizations of several state-owned companies, in key sectors such as energetic or postal communications, not only gives more fiscal flexibility to the country but also improves competitiveness through the entrance of new players in these industries to develop them.

The last available data, from the 3rd quarter of 2013, show a positive trend with a decrease in unemployment to 15.6% rate and the official end of the recession period, with two followed growing quarters.^{xii}

2.6. Main Clients

As decks are considered a construction material, the major clients are construction companies. The bigger ones in Portugal are: Mota-Engil, Soares da Costa and Teixeira Duarte, and they are all increasing operations abroad.

Mota-Engil^{xiii} is focused on three regions: Europe, Africa and Latin America, operating in 20 countries. With a business volume of more than 3 billion euros in 2012, they are essentially concentrated in the African market, which contributes with almost 50% to the total activity of the group. With strong foundations and partnerships in the bigger local economies, such as Angola, South Africa and Ghana, they are benefiting from the governmental efforts to develop infrastructures that can follow the development of other sectors, such as roads, ports, schools, hospitals and so on. They have been operating in Angola since 1943 and have been developing close relationships with the local political and economic power since then. It has then expanded its operations into other Sub-Saharan countries such as Malawi and Mozambique and also operates in different sectors such as mineral exploration, energy, logistics and environment.

In Europe, the company operates in 7 countries and is considered one of the 30 biggest construction companies in the continent. As a referential company in Portugal, with solid activity despite the slowdown in the economy and particularly in the construction sector, they also perform works in Spain, Ireland, Hungary, Slovakia, Czech Republic and Poland. As the first two were in a macroeconomic position similar to Portugal, there was a break in the revenues that was compensated by the growth in the Polish economy, where the company has already 15 years of operation and a solid market share.

In Latin America, the company operates in Peru, México, Brazil and Colombia. Having started its operations in 1998 with a joint-venture in Peru, the company created a strong and reputed construction portfolio in this country, also extending its operations to other sectors, by investing in the strong potential of the mining sector and participating in the modernization of the Paita maritime port, considered a key infrastructure for the economic development of this country. The company then expanded outside Peruvian frontiers, having several performed works and work requests in the other three countries, varying from highways to energy infrastructures.

With an internationalization process started in 1979, Soares da Costa^{xiv} is also an important Portuguese company with activity abroad, with 70% of the revenues coming from international activity. The company is included in the 100 worldwide bigger companies in the sector and operates in four continents: Europe, Africa, America and Asia. There are two places that have a stronger impact in the business of this company, with works performed regularly: Angola and USA. Angola is a former Portuguese colony that is achieving high growth levels and has a strong relationship with Portuguese companies, besides a great necessity of constructions. Florida has a huge Portuguese immigrant community and it is a reason why the company has so much activity there. In 2013, the group considers that the Eastern Europe is a great opportunity, because the countries in that region lack specialization in engineering and construction, both in terms of human skills, technology and equipment. The Brazilian market, in which the company entered in 2011, is also seen as a great chance of growing and the firm's strategy is to maintain the organic growth of this subsidiary.

With many years of operation and a high-reputational portfolio, it has been able to fulfil the needs of its clients with different types of infrastructures. The Euro 2004 had several stadiums built by this company, and the reach goes through hotels, company headquarters, industrial, health, airports, roads and several other types, showing clearly that they can adapt to any order. The group also controls a real estate company that sells and rents mainly luxury houses, with pools, in Portugal and Angola.

Teixeira Duarte^{xv} is the third bigger constructor in Portugal, with a business volume of 735 million Euros in the first semester of 2013, with 81% of this value coming from international activity, showing the high exposition of the group to external markets. Angola was the main contributor to these values, being responsible for slightly more than half of the company's revenues, followed by Portugal and Venezuela. Argelia, Brazil, Spain and Mozambique had also some works performed locally by this company. But signs show that

this is a changing trend. The value attributed to the Portuguese market is decreasing and there is a growing trend mostly in Angola, Brazil and Mozambique.

3. New options for internationalization

In the decision process, there were some variables that the possible targets had to match, in order to minimize the risk and to maximize the predicted return of this move. It had to be an economy with growth perspectives, with an already existing relationship with Portugal or with Portuguese companies in order to facilitate the entry, and with a strong construction sector, with growth perspectives. Three indicators were studied to evaluate the potential of this sector: Credit, available income and public investment. After a careful analysis of the possible options, two were chosen to be more carefully studied: Angola and Brazil.

3.1. Angola^{xvi}

This is one of the most active commercial partners with Portugal, which is the second main supplier of the African country, immediately after China. In 2012, almost 9000 companies exported goods from Portugal to Angola, supplying products that are still scarce in the country, such as specific accessories for cars or buildings. It is also the main market for the bigger Portuguese construction companies, as we have seen before.

With a real GDP growth rate of 8.4% in 2012, this country is considered one of the wealthiest in Africa, due to its oil exportations, together with precious stones and several other products. The public politics of investment and facilitating FDI have also accelerated sectors like the energetic, with a growth of 22.9% in 2012 and the agricultural with 13.9%. With this prosperity, purchasing power of the population also increased, having a positive effect in the internal demand and boosting trade across the whole society.

^{xvii}The political and economic powers have a close relationship in this country with the state owned Sonangol, in the oil industry, being the reference company of the country. Isabel dos Santos, daughter of the actual president, José Eduardo dos Santos, is one of the wealthiest entrepreneurs in Africa, and has been expanding her business into Europe, through Portugal where she has considerable stakes in companies in broader industries such as the television and mobile operator Zon-Optimus or the bank Millennium BCP. This close relationship allowed several Portuguese companies to perform works in Angola, selling their know-how to a country that is still in the process of increasing the education and specialization of the population. Consultants, engineers, auditors and other professionals are frequently dislocated

from Portugal to Luanda or other Angolan cities, where there is actually more economic activity than in Europe. Some even created Angolan or African subsidiaries, such as Mota-Engil Africa that is even about to enter the stock market. The construction sector is particularly active also because the country had a civil war during many years, and several infrastructures had the necessity of being rebuilt or repaired.

As a country with great business opportunities, the number of travels also increased, also boosting the touristic sector of the country. Mainly businessmen, carried with cash, go frequently to Angola to stay for some days doing business. Tecnodeck has already one work in the city, in the 5-star Epic SANA hotel, that can be used as reference for possible new clients.

With a population of about 20 million, Angola had an intense civil war, definitely ended in 2002 with the death of Jonas Savimbi, commander of UNITA, the revolutionary forces against the government. This war represented a worldwide scale conflict between political ideologies, with the MPLA being supported by communist and soviet states and UNITA by western countries with more conservative ideologies. Since 1983, and due to support given during the revolutionary movement by the MPLA, the actual party in charge of the government, China also started to be a privileged trade partner, with a great role in the reconstruction of the country after the civil war.

Despite the enthusiastic growth rates lately (see graph), it has been based on the success of the oil and mining industries, and not due to the appropriate economic and social reforms that the country still needs. And there is a growing perception that they will be needed if the country is to achieve its full potential, by growing a middle class capable of sustain the internal demand. Despite the prosperity of the country, and the rising prices in most of the Angolan cities, there is still a lot of poverty a big disparity between classes. According to the African Development Bank (AFDB), “the government of Angola is actively driving various initiatives designed to create a more competitive business environment that enhances enterprise development and stimulates growth”, also stating the importance of the entrance of international companies to help pursue this objective. And whilst these companies might find some difficulties in the short term to perform business locally, they would also have privileged access to one of the largest emerging economies worldwide.

Despite the introduction of a Zero Tolerance approach to corruption in 2009 by the president José Eduardo dos Santos, which includes a complete audit of the public accounts by the international firm E&Y, Angola is still positioned at 157/176 on Transparency International Corruption Perception Index, with the public budgets being considered not

trustable. Corruption exists across the whole society, from low ranking public servants to high level political corruption and there are frequent transparency concerns with the involvement of Chinese commercial companies in the company. Therefore, companies should request due-diligence reports before starting a business locally.

According to the British Ambassador to Angola, “business and politics are inextricably linked” in Angola. It is common that public employees have private interests in the area where they represent the state, not promoting transparency and causing several bribery problems.

The strategy of the government for 2014 and the following years is to keep investing and seriously improve roads, transportation, electric facilities and logistic services to put the whole economic environment into the next level of efficiency. It is important to state that the current president, Mr. José Eduardo dos Santos, is in the power since 1992 and was reelected in 2012 to four more years in the presidency, at least. Angola is also included in some trade agreements, such as CPLP, with the Portuguese speaking countries and that also includes Mozambique, Cape Verde and São Tomé e Príncipe, besides countries from other continents (Portugal, Brazil and East Timor). There is also SADC (cooperation between the southern African countries to achieve common politics of development), OPEC (organization of the oil producers, worldwide) and the African development bank. In late 2013, there has been some diplomatic tension between Angola and Portugal, due to some investigations about high-profile Angolans, related to the politic power, and that tension led to growing concerns over the Portuguese business tissue about a possible deterioration of the business volume between the two countries^{xviii}.

3.2. Brazil^{xix}

Between Portugal and Brazil it is considered to have a very close relationship. The region was discovered by a Portuguese and became a colony for several years, getting its independence in 1822. Despite that, many Portuguese people stood in the country developing their business and more have joined when the economic situation in Portugal was not the best. Several Brazilians also came to work in Portugal, creating an enormous cultural exchange that increased the sense of almost brotherhood between both countries. The country passed through the global crisis remarkably well, and emerged as a stronger player, capable of competing with the bigger world economies.

Since the politics of former president Fernando Henrique Cardoso of currency stabilization and a change in the social and economic politics, combining economic growth with a proper income distribution and creation of several jobs that allowed many people to leave poverty and increase the middle class, Brazil started its growth process, based on a strong domestic consumer market. It is part of a group of countries, usually denominated by BRICS (Brazil, Russia, India, China and South Africa) that are considered to have the higher development potential for the next years and was the largest economy in South America and the 6th largest world economy in 2012^{xx}, with a GDP of 2.3 trillion dollars. In 2010, the growth rate was 7.5%, the higher value from the last 25 years, and it is predicted to continue, with several opportunities coming from worldwide events that will take place in the country such as the football world cup in 2014 and the Olympic Games in 2016.

The prosperity of the Brazilian economy also led to the arrival of several qualified professionals, looking to run away from the crisis on their countries and enjoy the opportunities offered in the country. These immigrants strengthen the working force of the country, higher than most of the countries due to being the fifth largest world population, with 194 million people in 2012 and the majority within the age to be considered active population (between 18 and 65).

The country also aims to attract foreign investment, and therefore created politics of fiscal incentives and facilitation of exportations, in opposition to the high taxes demanded for imported products, except from the countries belonging to MERCOSUL, a South American trade union that has free-tax agreements between its members, a measure that pretends to protect and increase internal production.

Brazil is also known by its climate and natural beauty, and is considered by many foreigners as the preferred country for vacations. Several reasons may justify this growth in the country. It is rich in natural resources, with oil exploration, raw cane and refined sugar, mineral resources such as gold and mostly iron ore, being the third worldwide producer, after China and Australia.

It is considered though that there is still no infrastructure that could follow this development. There is still considerable waiting time in the ports for receiving and sending goods, several roads that connect important economic places are damaged and are frequently a target for criminal organizations that steal people and goods, and both bureaucracy and corruption are still an issue. The population, with a younger generation that is considered to be the most educated ever, started to recognize this issues and is starting to pressure the government to take measures to solve these issues.

The construction sector was one of the most benefited with this development, achieving an average growth of 5% between 2004 and 2010 and creating more than 200.000 jobs.

Brazilian real estate market is also considered by investors as the second best worldwide market to invest in the sector. There is a national tourism plan that aims to put the country into one of the main worldwide destinations for tourists, combining public and private investment, and creating several opportunities for companies involved in the supply of goods or services that can be used for this purpose. As stated before, the World Cup in 2014 and the Olympic Games in 2016 create several opportunities for the economy, and more specifically to the construction sector. The growth acceleration plan, in practice by the government, predicts an investment of over 500 billion dollars in infrastructure between 2010 and 2014 and 360 billion dollars after 2014.^{xxi} A great share of this investment will be focused on infrastructure development, such as urban renewal projects, low income houses, water and electrification and mass transportation.

The constructions will be mostly financed by the state, as part of the investment program and to create the necessary conditions to receive the predicted huge amount of foreign people during the sports events, and the constructors will be chosen either by public contest or troughs PPPs (Public-Private Partnerships). The sophisticated and solid financial and banking systems are also a positive ally to the growth of the economy, and particularly the investments in construction, which have strong correlation with the credit, which had a growth of more than 500% from 2003 to 2013.^{xxii}

Sources from the tourism sector in the country state that there are more than 100 new hotels and 30.000 rooms planned to be added to the hotel capacity of the country, the majority of them in the state of Rio de Janeiro, which is predicted to have the highest flows of tourism. Foreign firms that have the intention of taking this opportunity to perform business should have a local national representative in order to facilitate the market entrance, as it is most of the times an important factor in the final choice for the client, mainly if the client is the state.

But these emerging countries also face several challenges that firms should have in consideration when planning to do business locally.

Corruption is one of the most relevant issues when planning to perform business in Brazil. Bribery stories are frequent, both with police, politics and managers. In 2005 there was a scandal that caught the worldwide media attention: The “Mensalão” case, finally ended in 2013 with prison order given to several members of the politic party, including José Dirceu, former chief-of-staff of the president Lula. It consisted in a payment scheme by the PT, the party in charge of the government and led at the time by the president Lula, bribed deputies to

get favorable votes in the parliament, and gave a bad reputation about the political power in the country. But despite this serious problem, security in the country is having a great improvement lately, with strong investment against the organized crime and in the strengthening of the police force.

Social stability is giving signs of starting to be compromised latterly. Despite the interesting growth rates, there is still poor supply of public health, education and transportation and social inequalities are still a reality. The taxes and prices are high and still rising, but these costs are not reflected in a better quality of the services provided. And therefore, the younger generation, with the help of the social networks, performed several protests against the fact that growth is not being directed to an improvement of the living conditions of the population.

Despite a consolidated and stable parliamentary democracy, the ineffective governance also leads to high levels of bureaucracy and a slow pace of the law, preventing the country from achieving even higher growth rates.

4. The final decision

A long way has been passed since the foundation date, 8 years before. And both the challenges of starting the company and beginning the internationalization had been successful with the same management team, unchanged since the foundation. The next step would be to expand either to Angola or Brazil. So, what should be the optimal strategy to get back to the growth path the firm has pursued before?

List of Exhibits

Exhibit 1 – Turnover of the firm

	2005	2006	2007	2008	2009	2010	2011	2012
National	97 991.33	311 614.16	421 502.12	698 316.64	691 839.51	1 091 448.85	1 471 468.57	1 028 487.69
International	0.00	0.00	20 179.20	97 225.57	185 357.79	241 673.59	331 085.45	303 035.69
Europe			20 179.20	97 225.57	159 932.31	229 666.55	286 887.54	272 725.63
Others			0.00	0.00	25 425.48	12 007.04	44 197.91	30 310.06
TECNODECK total sales	97 991.33	311 614.16	441 681.32	795 542.21	877 197.30	1 333 122.44	1 802 554.02	1 331 523.38
Weight of exports(%)	0%	0%	5%	12%	21%	18%	18%	23%

Exhibit 2 – Real growth rates of the construction sector in Portugal compared to the Euroconstruct average

	2006	2007	2008	2009	2010	2011	2012e	2013p	2014p
Portugal	-5.3	-0.4	-4.8	-9.8	-6.2	-10	-14.6	-16.5	-1.6
Euroconstruct Average	3.7	2.3	-3.7	-8.8	-3.3	0.2	-4.7	-1.6	1

Source: *O Sector da Construção em Portugal 2012*, page 28, available at (<http://www.base.gov.pt/oop/downloads/RelatorioConstrucao2012.pdf>)

Exhibit 3- Promotion of the company's products in Chile

IMAGINE...
 ...UNA TARIMA QUE RESISTA AL SOL Y LA LLUVIA,
 SIN NECESIDAD DE MANTENIMIENTO.

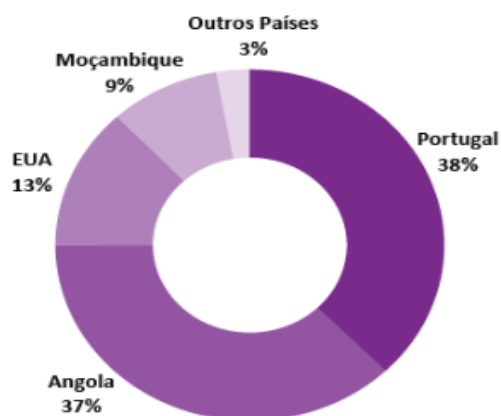
TECNODECK, LA SOLUCIÓN IDEAL PARA SU DECK.

TÜV Rheinland
 TESTED BY
 TÜV Rheinland
 Test Report NR.21136167001

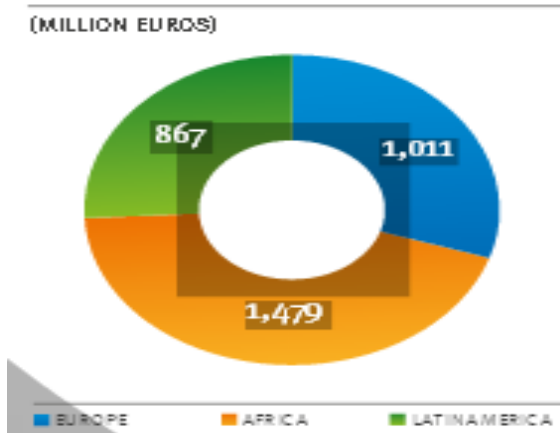
Gg Chile Ltda

Exhibit 4 - Geographical distribution of business of the three bigger Portuguese construction companies: Soares da Costa, Mota-Engil and Teixeira Duarte

Volume de Negócios (2011)



2012 Order Book



	2º Sem. 13	Contributo (%)	2014	Contributo (%)
Portugal	69.239	10,8%	38.714	5,6%
Angola	177.641	27,7%	145.141	21,1%
Argélia	87.631	13,6%	138.220	20,0%
Brasil	71.025	11,1%	87.304	12,7%
Moçambique	26.894	4,2%	33.764	4,9%
Venezuela	205.397	32,0%	245.708	35,6%
Outros Mercados	4.612	0,7%	645	0,1%
Total	642.439	100,0%	689.496	100,0%

Source: Financial statements of the firms, available on the respective websites

Exhibit 5 – Economic projections for Portugal

PROJECTIONS OF BANCO DE PORTUGAL: 2013-2015

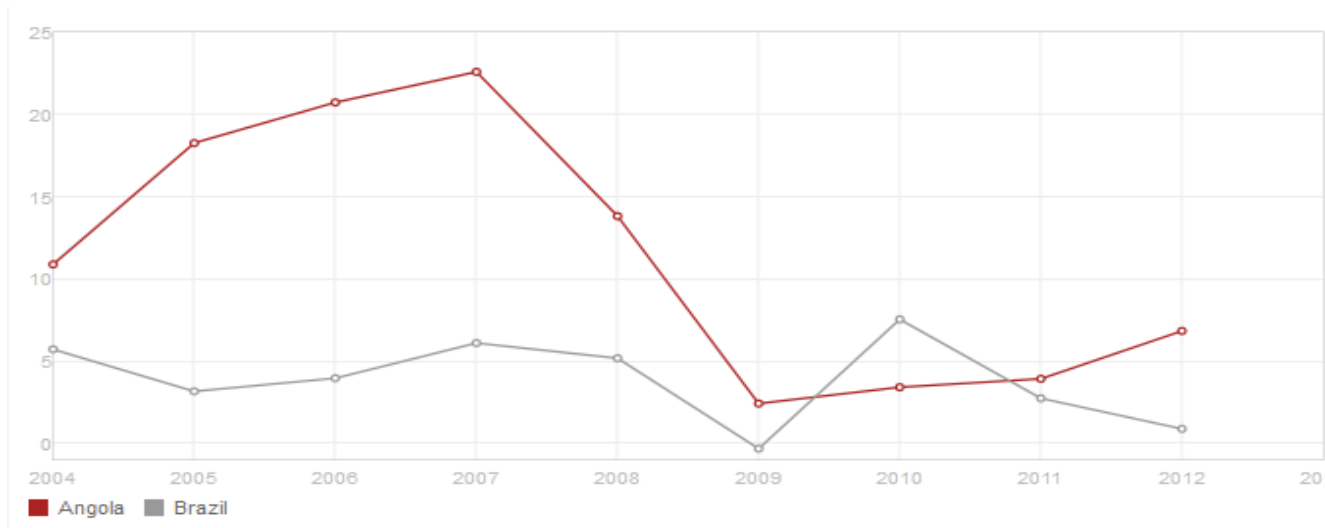
Annual rate of change, per cent

	Weights 2012	EB Winter 2013			EB Aut. 2013	EB Spring 2013	
		2013 ^(p)	2014 ^(p)	2015 ^(p)	2013 ^(p)	2013 ^(p)	2014 ^(p)
Gross Domestic Product	100.0	-1.5	0.8	1.3	-1.6	-2.0	0.3
Private Consumption	65.7	-2.0	0.3	0.7	-2.2	-3.4	-1.4
Public Consumption	18.2	-1.5	-2.3	-0.5	-2.0	-2.1	-3.2
Gross Fixed Capital Formation	16.0	-8.4	1.0	3.7	-8.4	-8.9	1.1
Domestic Demand	100.6	-2.7	0.1	0.9	-3.0	-4.4	-1.2
Exports	38.7	5.9	5.5	5.4	5.8	4.7	5.5
Imports	39.3	2.7	3.9	4.5	2.0	-1.7	2.1
Contribution to GDP growth (in p.p.):							
Net exports		1.1	0.7	0.4	1.4	2.4	1.4
Domestic Demand		-2.7	0.1	0.9	-3.1	-4.4	-1.1
of which: change in inventories		0.2	0.2	0.0	0.1	-0.3	0.2
Current plus Capital Account (% of GDP)		2.5	3.8	4.7	3.1	4.5	6.4
Trade Balance (% of GDP)		1.7	2.7	3.5	2.1	3.0	4.9
Harmonized Index of Consumer Prices		0.5	0.8	1.2	0.6	0.4	0.8

Source: Banco de Portugal.

Note: (p) - projected. For each aggregate, this table shows the projection corresponding to the most likely value, conditional on the set of assumptions considered.

Exhibit 6- Growth rates of Angola and Brazil



Source: World Bank Data, available at:

(<http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/AO-BR?display=graph>)

Teaching Notes

1. Introduction

This section has the purpose of guiding the presentation of the case in class, relating the content of the case with relevant theory and proposing questions and answers to be analyzed by students in class, providing them a real-life business case to practice the content learned at class.

As business is not a static science, and there are frequent updates and developments, it is important to assure that the proposed answers should not be considered the only correct way to solve the proposed questions, which means that alternative solutions may also be correct.

2. Synopsis

Tecnodeck is a firm created in 2005 that sells decks- a product that can be used in resorts, restaurants, shops or private houses with pools- made with an innovative material that differs from the traditional wooden decks. This new material, the WPC- Wooden Plastic Composite- is a mixture between plastic and wood that has less maintenance issues and is considered more environmental-friendly, because it consumes less wood and therefore is not considered so harmful for deforestation.

The company had until the end of 2013 a business model where the value chain consisted essentially in the supervision of the production, outsourced to a foreign partner, development of innovations for the product, logistics of entry and exit in the markets, branding, sales and essentially technical assistance, which is considered the main strength of the company and a source of competitive advantage relatively to some competitors. In December 2013 it is predicted the arrival of a production machine that will allow the production process to be controlled by Tecnodeck locally, in Lisbon, also permitting higher integration between the production and the R&D processes.

Two years after starting its activity in Portugal, they decided to take the next step and start exporting to foreign markets. In the first two years the exports were exclusively to other European countries, but external factors such as the economic slowdown in this continent, the increase in the firm's reputation and the fact that several Portuguese construction and tourism companies expanded their operations to Africa, taking the materials from the

Portuguese suppliers with them, created the opportunity of sales to this continent, and also to South America.

In 2013 though, the company seemed to have a break, and the directors started thinking about alternatives to invert the negativity. A stronger bet in the internal market was not even considered, due to the austerity and the predicted negative impact that the state budget for 2014 will have in the internal demand. And so, the option was to study different options to invert this regression of sales.

A lot of data was collected, and two final options emerged: Brazil and Angola. And the final decision would require an extensive strategic planning in order to be successful.

3. Proposed Questions

Generic Activity

- 1) Describe the evolution of the company and its positioning
- 2) Relate the importance of internationalization with the national context in Portugal
- 3) Explain the marketing tool that engineers, architects and constructors represent
- 4) Identify strengths, weaknesses, opportunities and threats for the company and suggest a strategic approach for the company's future

Internationalization Process

- 5) Analyze the Political, Economic, Social and Technologic environment and the cultural, administrative, geographic and economic distance for each of the two options
- 6) Explain the drivers that led to the decision of expanding in the context explained in the case

4. Teaching objectives

The main goal of presenting this case in class should be to give students a real business perspective of a company from a very specific industry, training their reasoning about the daily decisions and contexts that a manager can face, and also to give them a broader perspective on the important factors that one should consider when analysing an industry of a specific country or region.

There is also an explanation on the supply chain of the firm, giving an example that is becoming more important from year to year that is the impact of the services in the added value of a product. The company from this specific case has focused on services until 2013 and generated its reputation through that.

It also includes several country analysis focused on a specific industry, which can be valuable for students that will perform research on their jobs, a common task for business students that are starting their careers.

The intention is to make students recognize the challenges that the differences in the political, economical, social, technological, environmental and legal environments may have when performing business.

The students should also get acquainted with the different factors that influence the operations in a foreign country.

5. Use of the case

This case includes several issues that can be useful to the development of knowledge on different business courses. It addresses firstly the necessary steps to get the final product and a description of the importance of the supply chain, which is a theme than can be discussed in the master course of Supply Chain Management. Then, there is an explanation on how the firm adds value , explaining the core competencies that, together with the decisions of starting to export and finally to expand to new markets, may be discussed in graduation or master courses of Strategy and Advanced Strategy.

The amount of available data about the international expansion process and the analysis that is performed about several different markets also makes the case valuable for courses such as International Business Challenges or Managing in a Global Context.

Finally, due to the importance of the services provided by the company on its success, and as there is a detailed explanation on how the product is advertised and the band expanded into new markets, exploring the word-of-mouth theme, it is also a good choice to be presented to students in the course of Marketing Services.

6. Analysis and discussion

Generic Activity

1) Describe the evolution of the company and its positioning(10 minutes)

The company started by being an early mover in the Portuguese and European market of a new type of product since the foundation in 2005, consolidating its activity in Portugal and then expanding to other markets. The production process was

outsourced to foreign partners and the value chain based on the services provided, including control, branding, research and development, marketing, installation and technical assistance. The arrival of a production machine to Lisbon, predicted to the end of 2013, is also an important step in the evolution of the company.

Relatively to the positioning, the Porter's generic strategies present four options: Cost leadership, differentiation, focus (low cost) or focus (differentiation). And to determine which strategy is followed by Tecnodeck, two factors should be assessed: Target scope and advantage. The target scope may be industry wide or a market segment, and this specific case, as it is a premium deck with better characteristics than the common products in this market, it is considered to be targeted to a specific market segment. The advantage could be either low cost or product distinctiveness and this case is clear about it: the advantage comes from offering a different product, even with higher prices than other companies offering substitute products. Therefore, the decks of Tecnodeck use the focus (differentiation) strategy to get advantage over its competitors, a strategy that is usually applied by firms with a loyal customer base.

2) **Relate the importance of internationalization with the national context in Portugal(25 minutes)**

The best option to analyze the external environment in Portugal would be to use the PEST model, by searching the political, economic, social and technological environment in the country.

Political:

- Parliamentary democracy, with a center-right coalition that currently has absolute majority, assuring the approval of every governmental decision.
- Part of the European Union, enjoying limited transaction costs when trading with other members of the block. Is also part of the CPLP, a community with Portuguese language-speaking countries, such as the emerging Angola, Mozambique or East Timor.
- Recent external financial intervention by a Troika composed by the ECB, IMF and the European Commission led to a series of measures to reduce the public deficit, such as fiscal consolidation or reforms to solve overstaffing and lack of productivity in the public sector.

Economic:

- Economy extremely based in the trade and services sector. It is a small market, with a population of 10 million people that has been under several austerity measures that decrease the available income and therefore the internal demand, such as tax increases and subsidy cuts.
- Overvaluation of the currency, the Euro, due to the strength of German economy, and the lack of control over the monetary policy are aspects that have a negative effect in the economies of countries that need to sell products to markets outside the continent.
- Construction sector extremely affected by the crisis, with negative real growth rates and much worse numbers than the other European countries belonging to the study.
- World Trade Organization agreement achieved in late 2013 expected to give a positive contribute to the economies of countries that are more dependent on trade and exportations. On the other hand also reinforces the competition from countries with cheaper working force and weaker work protection laws, such as the former URSS members Romania and Ukraine or others like China, India or Indonesia.

Social

- High unemployment is considered one of the worst social problems in Portugal, with the younger generation with low perspectives about their future.
- Disparity between the wealth of the population in urban and rural areas, with the last one suffering from desertification lately, caused by the lack of opportunities and proper education and health infrastructures
- Despite the positive signs, the unemployment rate in the country is still high(15.6%) and, combined with the high average age of the population, it is an issue that causes serious medium and long-term issues to the social security to pay the pensions and unemployment subsidies.
- Other effect of the crisis is that there are increasing flows of emigration, including specialized human capital, that seek for better opportunities abroad where there is higher capacity to pay according to the talent, skills and CV of each one.

Tecnological:

- Funds received by the European Union were in part invested in the creation of technology based business in the northern and centre areas, with the main objective of combating the lack of people and opportunities on those areas.
- The younger generation is also boosting technological entrepreneurship with the support of big and established companies, with a constant creation of start-ups and innovations that are then spread worldwide.

Impact of the PEST analysis in the internationalization decision for a player in this industry:

In order to fully use the benefits of the PEST analysis, it should also be mentioned the impact of the mentioned factors in the industry of the company studied in the case.

Being part of the European Union reduces transaction costs with countries belonging to the Union. This fact not only assures that exportations to Europe, representing in 2012 90% of the total exportations for the company, can still have margin to grow, but also that the importation of product from Belgium can be maintained. There is the arrival of a production machine to Lisbon predicted for the end of 2013, but with the expansion to new international markets the demand will increase and is important to maintain the same supplier, with guaranteed quality. On the other hand, belonging to the CPLP means to be part of a network of more than 200 million people, with language similarities (at least), and with trade agreements that are a facilitating factor to Tecnodeck enter those markets.

The small population and the decrease in the available income due to a financial crisis and austerity measures are factors that are predicted to have a negative impact in the internal activity. Decks are not first-need goods, and therefore are not a priority when the economy is not good. Fiscal instability is always unpleasant for business and investment and is one more reason to extend the activity to external markets and become less dependent on the internal activity.

The fact that the country has as official currency an overvalued Euro is a negative factor for pursuing expansion outside the continent because that, combined with the traditional

under-achieving productivity in Portugal, would make it difficult to compete outside, mainly against countries with more flexible work laws and lower wages. It is important to refer that the effect of these factors relatively to Tecnodeck is lower because of the positioning explained on question 1: the company has a focus on a special segment, the premium decks, which look above all for a quality deck with the characteristics that the one sold by Tecnodeck has. And this would be a bigger problem for companies that try to achieve a low-cost competitive advantage.

With the decline in the construction sector in Portugal, described in the case as a main client, and the predicted slow recovery, there are reasons to reduce the dependence on the internal market and expand outside, also going after the clients that are going abroad to supply them the materials on their international activity.

As several activities are performed in Portugal for the company, and the production process will take place locally starting in the beginning of 2014, the entrance of players to increase the productivity in specific sectors such as utilities (water, electricity, etc) that are used by the company in the process, there is the chance of benefiting with this privatization process, but only on the long-term.

There are two ways to analyze the WTO agreement reached in late 2013. On the one hand, it facilitates exportations and would benefit Tecnodeck and the exportation of its goods. But on the other hand, it would also benefit competitors from other countries with cheaper workforce. As explained before, Tecnodeck does not differentiate the product by price leadership, but that doesn't mean that the company can compete against every type of competitor, even because outside firms can also innovate and offer good products.

Unemployment and the high emigration of high-skilled labour are obviously negative factors for the Portuguese economy. But, as explained in the case, Tecnodeck management is the same since the beginning, and therefore this expansion process might require fresh ideas from people outside the company. And with the shortage of jobs in Portugal, it would be easier and cheaper to attract talent to perform these tasks.

The new business environment in Portugal, with a huge bet in new technologies would also benefit Tecnodeck, by creating suppliers to technologic products that may facilitate business and therefore would help to gain advantage in the exterior. Some examples would

be the creation of an informatics system that would control the global sales of the firm or an App for clients to order new products, consult the catalogues, or require technical assistance.

3) Explain the marketing tool that engineers, architects and constructors represent for the firm(5 minutes)

The marketing tool that engineers, architects and constructors represent for the firm is word of mouth. Word-of-Mouth presents the idea that agents use information about the experiences of other agents to guide their own decisions. It is considered by many as a powerful way to increase or even destroy the reputation of a firm, and has been increasing with globalization and easiness of contact between people worldwide. (5 minutes)

4) Identify the Strengths, Weaknesses, Opportunities and Threats for the company and suggest a strategic approach for the company's future(15 minutes)

The suggested approach to answer this question would be to perform in the first place the SWOT analysis, and then use the results to suggest possible strategies. The answers may include the following:

Tecnodeck internal analysis:

Strengths: (S)

- Innovative product
- Quality assured
- Brand reputation
- Several possible applications
- Environmentally-Friendly
- Important quality certifications (ISO 9001, TUV Rheinland)
- Low maintenance required
- Well-Distributed Across Europe
- Stable relationships with suppliers and clients
- Market leader in Portugal
- Recognized technical assistance and cooperation in the installation process

Weaknesses: (W)

- Competitive markets
- Existence of substitutes
- High transportation Costs, for being a commodity and heavier than traditional wooden decks
- As a premium product, is more expensive than common decks

Opportunities: (O)

- Optimize the production process with the arrival of a production machine to Lisbon in late 2013
- Diversify its revenues, becoming less dependent on the Portuguese market and keep a continuous international expansion
- New Innovations may arise from constant R&D investment
- Growing trend of environmentally concerns, with the RIO-20 conference, may benefit products like these decks

Threats: (T)

- Economic crisis on the main market, responsible for 75% of total revenues in 2012
- Slow recovery predicted to the main client of the company: the construction sector
- Lack of experience operating in markets outside Europe
- Loss of Clients
- Competitors that match the innovations with lower costs, mainly from economies with cheaper working costs

Combining **opportunities and strengths** (O+S), the firm may achieve better results. The fact that the product is environmentally-friendly should be used by the marketing team of the company to promote sales. The quality of the product and the technical assistance may be a solid factor to sustain the diversification to external markets. The

brand reputation, created from previous works, is also a good help to pursue this opportunity.

Combining **opportunities and weaknesses** (O+W), the firm may find strategies to overcome or diminish the weaknesses and seek a better use of the opportunities. The arrival of a production machine to Lisbon will allow a decrease in the transportation costs. Diversifying into new markets, where there is more purchasing power, will mitigate the weakness of being an expensive product, by increasing the potential client base.

Strengths of the company should be used to diminish **threats**(S+T). The economic crisis on the main market is mitigated by the market leadership, the quality, reputation and certification of the company. The loss of clients is mitigated by offering a solution that despite implying a strong initial investment, also guarantees that the maintenance costs will be low (page 8 of the case mentions the use of long-lasting and low maintenance materials). Another point is that despite not having much experience operating in markets outside Europe (threat), the firm has strong distribution over Europe and long-lasting relationships with his local distributors, and therefore that experience may be used for a better adaptation for new markets

Having into consideration the internal **weaknesses** and external **threats** for the company (W+T), the firm will be more capable of developing preventive strategies to minimize possible negative effects on business. For example, knowing that there are cheaper substitutes that may conquer market share in a week context in the Portuguese economy, the firm might develop an alternative solution to the premium decks, selling also an alternative deck, cheaper, without the conditions that the premium deck has, like the project team, the help in the mounting process, or even use raw materials with lower quality.

Internationalization Process

5) Analyze the Political, Economic, Social and Technologic environment and the cultural, administrative, geographic and economic distance for each of the two options (25 minutes)

The two options will be analyzed, through different theoretical frameworks. The first one to be applied to the case will be the PEST analysis, to understand the political, economic, social and technological environment in each of the countries

Angola:

Political & Legal:

- Political stability provided by a president on the power since 1992 and recently reelected to 2016 attracts more foreign direct investment.
- There is a politics of zero tolerance against corruption, but there is still a long way to pursue relatively to this item, as the country is still recognized as short in transparency.
- Politics of public investment and facilitation of foreign direct investment
- Close relationship between economic and political power

Economic:

- High growth rates in the last decade, mainly based on its oil exportations. Wealth not equally distributed.
- Growing construction sector, with a lot of opportunities still coming due to the country's poor infrastructure and the government objective to invest on solving that issue to boost development.
- Part of several trade agreements with other African countries
- Strong penetration from Chinese companies due to ideological similarities

Social:

- Lack of skilled human capital
- Unbalanced wealth distribution
- Low income per capita
- Rising inflation.

Technological:

- Poor communication, logistics and transportation infrastructure
- Scarce in car and building accessories

- Several infrastructures need to be repaired, due to damages during the civil war

Impact on construction materials industry:

Political: Facilitation of foreign direct investment creates an opportunity for the expansion, but the proximity between the economic and political power suggests that there should be an approach with important local people to assure the success of the business.

Economic: The high economic growth rate and particularly the strength of the construction sector create an opportunity for a company such as Tecnodeck, creating a big potential customer base. The strong penetration from Chinese companies creates a threat due to their lower wage costs, which increases the difficulty of competition.

Social: In this specific industry, where the technical characteristics of the product and the mounting process create a specific advantage, the lack of skilled human capital may be seen from two different points of view. On the one hand, makes it harder to operate in the local market due to the hard task of hiring local qualified staff. But on the other hand, may create a competitive advantage by dislocating Portuguese staff to the country to meet the business needs.

Technological: The lack of logistics and transportation turns the exporting process harder or more expensive/less efficient. The need of reparation to several infrastructures creates an opportunity, because construction materials will be needed to do so.

Brazil

Political & Legal:

- Consolidated and stable parliamentary democracy
- Ineffective governance causing high levels of bureaucracy
- Political power involved in corruption scandals
- Slow law system
- Long-lasting politics of job creation and income distribution

- Politics of fiscal incentives and facilitation of exportations+ high tariffs for importations
- Presence of criminal organizations

Economic:

- Strong internal consumer market
- 6th biggest world economy and part of the BRICS, the group of emergent economies considered to have more potential
- High growth rates, predicted to continue due to worldwide events happening in the country
- Rich in natural resources
- Sophisticated and solid financial and banking system, providing credit to the economy
- Several opportunities from the construction sector
- Passed through the global crisis emerging as one of the most competitive world economies
- Belongs to the MERCOSUL, south American trade union
- Strong touristic sector, with growth rates

Social:

- High local working force, strengthened with the high flows of qualified professionals seeking opportunities
- 5th largest world population- 194 million people in 2012
- Poor supply of public health, transportation and education
- Unbalanced distribution of wealth, creating inequalities
- Several protests by the younger generation

Technological:

- Considerable waiting time in ports
- Damaged and dangerous roads
- Growth acceleration plan aims to invest heavily on infrastructure since 2010

Impact on construction materials industry:

Polítical: The consolidated and stable democracy and the politics of job creation and income distribution have a positive effect in the internal market, benefiting the companies operating in the country. But bureaucracy, corruption, slow pace of the law and criminal organizations have a strong negative effect. The high importation tariffs pose a real problem for the company, because if the Brazilian market was the choice, a significant investment would be needed to compete properly.

Economic: The huge market and a growing economy, supported by a strong banking system, along with a strong touristic sector that is one of the ones with more use of decks, creates a huge opportunity both for Tecnodeck and other international players in the industry.

Social: High population creates a huge internal market, and the existence of qualified professionals is an incentive for companies to operate locally. Poor transportation though is a serious issue for a company that sells heavy products, such as the decks sold by Tecnodeck.

Technological: Despite the investment plans, the fact that the roads are damaged and insecure and that there is considerable waiting time on ports are a strong negative factor for the construction materials sector.

Now that the internal environment of each alternative is completed, it is also important to study the distances between these two alternatives and the home country of the company, in order to address the adaptation difficulty in the new market. In order to do so, we will use the CAGE MODEL, developed by Prof. Pankaj Ghemawat, and explained in the literature review. The four types of distance analyzed will be cultural, administrative, geographic and economic.

(CAGE MODEL) ^{xxiii}

Cultural:

In both countries the language is the same, Portuguese. But is one of the few similarities between both. But as a Latin country, such as Portugal, Brazilians have more similarities in terms of preferences, values and tastes relatively to Portugal.

In terms of economic relationships, as can be seen in the exhibit 4, there is a huge advantage for Angola. Many Portuguese companies operate locally, decreasing the cultural distance but, most of all, the main clients of Tecnodeck have Angola as one of the bigger markets.

There is also a massive presence of Portuguese companies and professionals operating in Angola, and the influence of the Angolan entrepreneur Isabel dos Santos over some important Portuguese companies also reduces this type of distance.

Administrative:

Both countries are part of the CPLP, the community of language-speaking countries that have some special conditions for trade between them. Both are also former Portuguese colonies with strong relationships with the country.

Brazil protects a lot its internal production, but demands high tariffs from importations. Unless Tecnodeck has conditions to produce locally, which would imply a relevant investment, these tariffs represent a huge increase in the distance between the two countries.

Both countries operate in stable democracies, and both also faced corruption issues, even if the Brazilian ones had more media attention due to the involvement of political figures, Angola is still badly positioned in the international corruption perception index.

Recently, there was some political tension between Portugal and Angola, increasing the administrative distance between the two countries.

Geographic:

Angola is slightly closer to Portugal, but the difference is not significant. Both locations are far from Portugal and require high transportation and communication costs. There are no common borders between them and Portugal. In terms of geographic distance, it can be considered that there is no advantage for any of the alternatives.

Economic:

Brazil has been developing politics of a more balanced wealth distribution, with a high income per capita and a middle class that creates a huge internal market. On the other hand, Angola still reveals several differences between the rich and poor. The majority of the population still doesn't have purchasing power, and there is a need of significant improvements in the distribution of the country's revenues.

Brazil represents a bigger market, with better conditions for the population. In geographic terms, there is no great difference between both. And in administrative terms, despite the tension between the governments of Portugal and Angola, it is still considered a less serious problem than the high tariffs for imports in Brazil, knowing that the main revenue source of Tecnodeck is a product that is not produced in Brazil.

In cultural terms, despite the preference similarities being higher in Brazil, the fact that Angola represents the main market for the Portuguese construction companies (as can be seen in the exhibits), should be considered in the answer as the key factor for the decision, as it guarantees sales and support to Tecnodeck in the entrance for this new market, and the idea that construction companies would help Tecnodeck is supported by Michael Porter's theory of competitive advantage of nations, firms may have several advantages on helping their suppliers to increase their stature. And therefore, students should consider in this answer that Angola would be the better option in this moment.

6) Explain the drivers that led to the decision of expanding in the context explained in the case (5 minutes)

Students should be capable of mentioning in this answer the importance of the following drivers in the decision of expanding:

- The maturity of the deck product on his lifecycle in the European market, and the need of introducing the product to markets where there is more growth potential
- The external environment on the main markets, representing a need to diversify
- The opportunity that the expansion of construction companies bring by operating in new markets
- The need to monetize the investment in a production machine by conquering new and bigger markets

Literature Review

1) Introduction

This part of the thesis aims to give a theoretical explanation of the methodologies used in the other parts of the work. The literature review explains the frameworks used in the research and analysis of the case and the respective teaching note.

Question 1: Porter Generic Strategies

The four strategies explained by Porter depend on the type of the advantage that the firm has over its competitors and the scope of the industry. The scope distinguishes between firms that focus on an entire industry and firms that opt to sell a product focused on a specific segment. The type of advantage distinguishes on how the firm pretends to differentiate from competitors to get the customer's preference. The low-cost advantage means that the firm is able to sell the product at a lower cost and the product distinctiveness advantage means that the firm is able to differentiate the product in a way that it will be preferred by customers.

Target Scope	Advantage	
	Low Cost	Product Distinctiveness
Broad(industry wide)	Cost Leadership	Differentiation
Narrow(market segment)	Focus(low cost)	Focus(differentiation)

Source: Porter, 1985, p.12

Question 2: PEST Model^{xxiv}

The PEST model analyzes the Political, Economic, Social and Technological factors to get a clearer picture of the environment where they work. The political factors include legislation, political system and stability, policies, trade organizations, among others. Economic factors include local economy size and trend, taxation, specific industry factors, and so on. Social factors include demographics, lifestyle and consumer trends, ethnic and religious factors. Finally, technological factors include communications, transportation and existing technologies that may have influence over the business.

Question 5: SWOT Analysis

The SWOT analysis is a tool that aims to understand the strengths and weaknesses of a company and the opportunities and threats that the external environment creates for the business, in order to match them in an optimal way to leverage the strengths, get advantage from the opportunities, reduce the weaknesses and prevent the threats.

Question 5: CAGE MODEL^{xxv}

Prankaj Ghemawatt explains that firms usually ignore the risks posed by cultural, administrative, geographic and economic distance between the new markets and the home-based.

He defines each of them the following way:

- Cultural distance as the way people interact with one other, companies and institutions.
- Administrative distance as historical and political associations between the countries.
- Geographic distance as most of all related with the difficulty of transportation and communication.
- Finally, economic distance as the type of market and consumers (several factors are studied, such as wealth and income of consumers) in the new market.

	Cultural Distance	Administrative and Political Distance	Geographic Distance	Economic Distance
Distance between two countries increases with . . .	<ul style="list-style-type: none"> • Different languages, ethnicities, religions, social norms • Lack of connective ethnic or social networks 	<ul style="list-style-type: none"> • Absence of shared monetary or political association • Political hostilities • Weak legal and financial institutions 	<ul style="list-style-type: none"> • Lack of common border, waterway access, adequate transportation or communication links • Physical remoteness • Different climates 	<ul style="list-style-type: none"> • Different consumer incomes • Different costs and quality of natural, financial, and human resources • Different information or knowledge
Distance most affects industries or products. . .	<ul style="list-style-type: none"> • With high linguistic content (TV) • Related to national identity (foods) • Carrying country-specific quality associations (wines) 	<ul style="list-style-type: none"> • That a foreign government views as staples (electricity), as building national reputations (aerospace), or as vital to national security (telecommunications) 	<ul style="list-style-type: none"> • With low value-to-weight ratio (cement) • That are fragile or perishable (glass, fruit) • In which communications are vital (financial services) 	<ul style="list-style-type: none"> • For which demand varies by income (cars) • In which labor and other cost differences matter (garments)

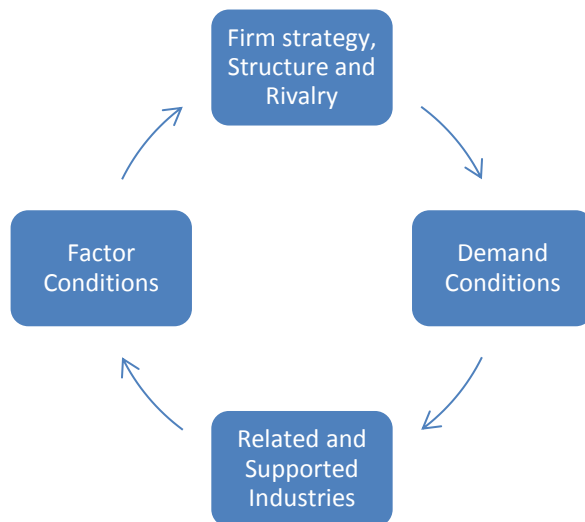
Table source: Ghemawatt, P.2001. *Distance still matters*. Harvard Business Review, available at <http://mbi.dirkjanswagerman.nl/static/files/MBI/Module%2021/Distance%20still%20matters.pdf>

Question 5: Porter Diamond-Determinants of National Competitive Advantage

In the “Competitive advantage of nations” theory, Porter (1990) defends that companies gain advantage against the world’s best competitors from pressure and challenge,

benefiting from having strong domestic rivals, **aggressive home-based suppliers** and demanding local customers. The article adds that the presence in the nation of supplier industries that are internationally competitive are one of the four determinants of national competitive advantage. The reasons are the following:

- 1- They deliver the most cost-effective inputs in an efficient, early, rapid and sometimes preferential way
- 2- Short lines of communication, quick and constant flow of information, and an ongoing exchange of ideas and innovations.
- 3- Opportunity to influence their supplier's technical efforts and can serve as test sites for R&D work, accelerating the pace of innovation.

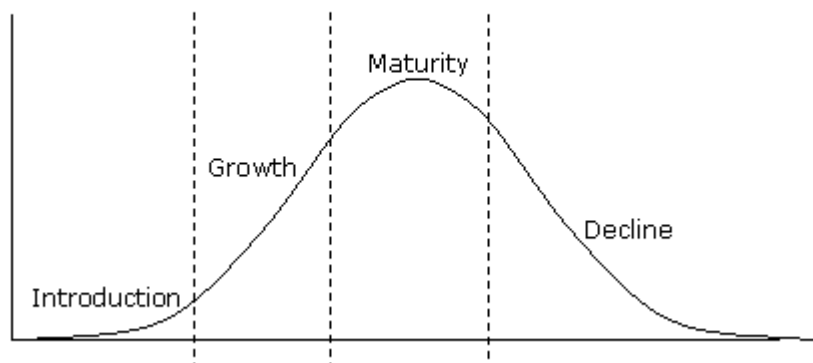


Source: Porter M.1990 *The Competitive Advantage of Nations* Harvard Business Review , available at (<http://kkozak.wz.cz/Porter.pdf>)

Question 6: Product lifecycle (Vernon, 1966)^{xxvi}

Vernon explains that when a product expands, a certain degree of standardization takes place, and therefore there will be more companies willing to match or even increase the differentiation in the product. At some point, the price competition is so high, and the product standards are so spread over the market, that the profit for the company will eventually reach a declining phase.

Product (Industry) Life Cycle stages



Graph source: Value Based Management.net, available at (http://www.valuebasedmanagement.net/methods_product_life_cycle.html)

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- i Information provided by the management team of the company
 - ii Público, available at (<http://www.publico.pt/economia/noticia/omc-chega-a-acordo-historico-para-o-comercio-global-1615416>)
 - iii Pro Sales Magazine, available at (<http://www.prosalesmagazine.com/decks/decking-segments-hold-market-share-grow-through-2015-.aspx>)
 - iv Bowyer J. 2010. *Wood-Plastic Composite lumber vs. wood decking-a comparison of performance characteristics and environmental attributes*, available at (<http://dovetailinc.org/files/dovetailplasticdeck0710.pdf>)
 - v , Instituto da Construção e do Imobiliário. 2013. *O sector da construção em Portugal - 2012*
 - vi Tecnodeck's financial information, provided by the management team
 - vii AICEP. 2013. *Portugal- Ficha país-2013*. Available at (<http://www.portugalglobal.pt/PT/Biblioteca/LivrariaDigital/PortugalFichaPais.pdf>)
 - viii Público, available at (<http://www.publico.pt/economia/noticia/escola-de-gestao-da-catolica-ja-esta-entre-as-25-melhores-da-europa-1614641>)
 - ix IST, available at (<http://tecnico.ulisboa.pt/en/about-IST/global-cooperation/MIT/>)
 - x Diário Económico, available at (http://economico.sapo.pt/noticias/data-center-da-pt-na-covilha-cria-100-postos-de-trabalho_177702.html)
 - xi SAPO News, available at (http://tek.sapo.pt/noticias/negocios/programa_pt_blue_start_ajuda_a_promover_start_1352892.html)
 - xii Jornal de Negócios (http://www.jornaldenegocios.pt/economia/detalhe/taxa_de_desemprego_surpreende_economistas_e_desce_para_156.html)
 - xiii Mota Engil report, available at (http://www.mota-engil.pt/images/content/2561_1_G.pdf?&searchlink=true&searchlink=true)
 - xiv Soares da Costa report, available at (http://www.soaresdacosta.pt/documents/institucional_junho_2013.pdf)

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- xv Teixeira Duarte Report, available at
(http://www.teixeiraduarte.pt/assets_live/983/tdpcs30082013.pdf)
- xvi British Expertise. 2013. *Angola: Construction, Infrastructure and Development scoping visit*, available at
(<http://www.britishexpertise.org/bx/upload/Newsletter/Angola%20Report%20LR.pdf>)
- xvii Espírito Santo Research. 2013. *Angola Junho 2013*
- xviii Diário de Notícias, available at
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- xix PwC Brazil. 2013. *Doing deals in Brazil*, available at
(http://www.pwc.com.br/pt_BR/br/publicacoes/assets/doing-deals-13.pdf)
- xx CNN data, available at
(http://money.cnn.com/news/economy/world_economies_gdp/)
- xxi Florida chamber of commerce report of construction sector, available at
(<http://www.flchamber.com/wp-content/uploads/Construction-and-Engineering.pdf>)
- xxii Empresa Brasil de comunicação, available at
(<http://www.ebc.com.br/english/2013/09/credit-in-brazil-rises-5638-in-the-past-10-years>)
- xxiii Mathur.S. *The CAGE distance framework*. Available at
(<http://www.slideshare.net/ProfessorMathur/global-strategy-and-entering-foreign-markets-the-cage-distance-framework>)
- xxiv PEST Analysis Template, available at
(<http://www.businessballs.com/pestanalysisfreetemplate.htm>)
- xxv Ghemawatt, P.2001. *Distance still matters*. Harvard Business Review, available at
(<http://mbi.dirkjanswagerman.nl/static/files/MBI/Module%2021/Distance%20still%20matters.pdf>)
- xxvi Vernon,R.1966. *International investment and international trade in product cycle*. The quarterly journal of economics, Vol 80, nº 2, pp. 190-207, available at
(<http://www.sba.muohio.edu/dunlevja/Course%20Links/EC441/Vernon.pdf>)