

**WHEN PORTUGAL IS TOO SMALL TO BUILD
CASE STUDY: MOTA-ENGIL**

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ABSTRACT

The construction sector has a key role in any country's economy. The distinctiveness of this industry is related to its complexity, to its range of possible inputs and outputs, the long value-chain, the development of externalities, and by the construction investment multiplicative effect on economy, particularly in the employment.

On the other hand, it is a sector intrinsically dependent on the economy business cycles, particularly to public expenditure and credit access and the evolution of interest rates.

The financial crisis had a tremendous negative impact in the Portuguese construction, motivating/forcing the major Portuguese contractors to endeavor to the internationalization solution. These firms had different motivations, generally seeking out to achieve growth levels that were not possible if they stayed in a Portugal that seems to be getting smaller to the contractor's ambitions to build, and doing so, in a context that the construction/engineering industry in Portugal starts to show signs of recovery after the recession, and the major contractors are reporting around 80% revenue overseas. In this context, the subject of internationalization in the industry of construction gains especial interest to understand the cases of success.

The success case in study will be the Mota-Engil Group, by far the Portuguese leader and best performing company, the only construction and engineering company in the PSI20 - the main Portuguese Stock Index - in 2017, reporting a turnover of 2,597 million Euros and a backlog that reached €5,138 Mn, of which 79% outside Europe. Present in the 51st position on ENR's 2018 Top 250 International Contractors, after ranking 58th in 2017. In the year of 2018 the company entered in 4 new markets extending their presence to more than 30 countries.

Keywords: Internationalization, Construction Sector; Portuguese Construction Companies; Construction Companies Internationalization; Mota-Engil Group

RESUMO

O sector da construção tem um papel importante em qualquer economia. Os fatores diferenciadores desta indústria prendem-se com a sua complexidade, com a variedade de possíveis componentes e resultados, da sua cadeia de valor, da criação de externalidades, e pelo seu efeito multiplicador no resto da economia, em particular na criação de emprego.

Contudo, o sector da construção é um sector intrinsecamente dependente dos ciclos económicos, do investimento público, da evolução de outros sectores e, significativamente, pelo acesso ao crédito e à evolução das taxas de juro.

A crise financeira teve tremendos impactos negativos na construção em Portugal, motivando ou mesmo forçando, os principais *players* da construção em Portugal em aventurarem-se na internacionalização. Estas empresas tiveram diferentes razões para a sua internacionalização, genericamente todas procuraram “lá fora” por uma solução para continuar os níveis de crescimento que não eram possíveis se se mantivessem, num Portugal que parece cada vez mais pequeno para as aspirações das empresas construtoras.

Assim sendo, num contexto em que o sector em Portugal começa a dar os primeiros sinais de recuperação, após, e em que as principais empresas de construção reportam cerca de 80% do seu volume de negócios vindo de mercados externos. Neste contexto, o tema da internacionalização da construção portuguesa ganha especial interesse em estudar os casos de sucesso em Portugal.

O caso de sucesso em estudo será Grupo Mota-Engil, o líder do sector da construção em Portugal e a empresa com melhor performance, a única empresa construtora presente no PSI20, principal Índice bolsista português, e que em 2017 reportou 2.597 milhões de euros e uma carteira de negócios que ascendia aos 5.138 milhões de euros, dos quais 79% fora da Europa. A Mota-Engil que este ano subiu 6 posições, em 2018, e alcançando a 51^a posição no ranking da ENR Top 250 das construtoras mais internacionais, tendo como base a receita proveniente dos mercados externos. No ano de 2018, a empresa já anunciou a entrada em 4 novos mercados, ultrapassando a marca dos 30 países.

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INDEX

ABSTRACT	I
RESUMO.....	II
ACKNOWLEDGEMENTS	III
INDEX	IV
CHARTS INDEX.....	VI
FIGURES INDEX	VI
TABLES INDEX	VI
ACRONYMS.....	VII
1. Executive Summary.....	1
2. The Problem Definition.....	2
3. Literature Review	4
3.1 Internationalization.....	4
3.1.1 Definition	4
3.1.2 Drivers for internationalization	4
3.1.3 Market Entry Strategy	6
3.2 Construction: The Industry.....	8
3.2.1 Definition of Construction	8
3.2.2 International Construction Market: Overview	9
3.2.3 Portuguese Construction Sector: Overview	10
3.2.4 Construction Industry Characteristics	11
3.3 Challenges of Internationalisation in Construction	13
3.4 Success Factors: Overcome Challenges	15
4. Methodology.....	23
4.1 Research Method.....	23
4.2 Definition of Case Study	24
4.3 Advantages and Limitations.....	25
4.3.1 Advantages.....	25
4.3.2 Limitations	26
5. Case Study: Mota-Engil Group.....	27
5.1 Mota-Engil Group: Introduction	27
5.2 History.....	28
Mota & Companhia.....	28
Engil – Sociedade de Engenharia Civil, Lda.....	30
Mota – Engil Group.....	31

5.3 Business Segments	34
5.3.1 Construction and Engineering.....	34
5.3.2 Environment and Services.....	36
5.3.3 Energy	37
5.3.4 Mining	37
5.3.5 Tourism	37
5.4 Vision, Values and Mission	38
5.4.1 Vision	38
5.4.2 Values.....	38
5.4.3 Mission.....	39
5.5 Market Presence	39
5.5.1 Europe	40
5.5.2 Africa.....	40
5.5.3 Latin America.....	40
6. Discussion	42
Who is the competition?.....	42
When did Mota-Engil decide to venture abroad?.....	45
Where did Mota-Engil internationalize?	47
Which were the difficulties?	49
How does Mota-Engil manage these difficulties?.....	52
7. Conclusion	60
8. Bibliography.....	63
9. Appendix	70
Appendix 1 – Interview request	70
Appendix 2 – Interview with Corticeira Amorim	71
10. Annexes.....	72

CHARTS INDEX

Chart 1 - Mota-Engil Group Main Indicator, 2017	28
Chart 2 - Turnover, EBITDA and Backlog by region, in 2017	58

FIGURES INDEX

Figure 1 - The Proposed Conceptual Framework for ELETEM Decision Model.....	16
Figure 2 - MIFS influencing the ELETEM	17
Figure 3 - OLI+S entry decision model of construction firms in international markets	19
Figure 4 - Mota-Engil Goup international presence	48

TABLES INDEX

Table 1. Construction services in international standard classification.....	8
Table 2 - Construction share to total added value, in 2016, by country	9
Table 3 - Risks under hierarchy for construction projects.....	15
Table 4 - Risk mitigation by effectiveness	20
Table 5 - ENR´s Top 10 International Contractors	42
Table 6 - Risks faced by Mota-Engil.....	50
Table 7 - Measures taken by Mota-Engil to mitigate risks.....	53

ACRONYMS

EL – Entry Location

ELETEM - Entry Location Entry Timing Entry Mode

EM – Entry Mode

ET – Entry Timing

M&C – Mota & Companhia

ME – Mota-Engil

MEG – Mota-Engil Group

MEIC – Mota-Engil Ireland Constructions

MISF – Mutually Inclusive and Significant Factors

EEC - European Economic Community

PALOP – Países Africanos de Língua Oficial Portuguesa (Portuguese-Speaking African Countries)

CPLP - Comunidade dos Países de Língua Portuguesa (Community of Portuguese Language Countries)

1. Executive Summary

Firms from countries with a relatively small domestic market are most likely to venture into overseas markets to generate revenues to overcome the constraints of their small dimension native market and leverage the competitive advantages in markets where it benefits economies of scale. Recent studies concluded that firms of different nationalities tend to perform dissimilar patterns in the internationalization process depending on their competitive advantages business strategies, home-market and historical factors. This Case Study pretends to analyze the successful case of a Portuguese company in the sector of construction in its internationalization process, and to demonstrate how the Portuguese construction sector can compete overseas against the bigger players with more resources, such as the Chinese, Americans and European.

The construction sector is a service, and as such, has an extra complexity in the process of internationalization that the internationalization of a product does not have. The development of technology, the increase of mobility of people and the speed of information is turning the services increasingly more international. Even in the construction industry this increase is visible. Fifty years ago, there was a mass immigration, with those immigrants settling down to work in the civil engineering sector in France. Today there is no such need to settle down. It is getting more and more common for a Portuguese company to send their employees to work during the week and return for a weekend in family at home. The current globalization trend tends to open new markets and new opportunities of investment, but also opens the “door” to new competitors in any markets.

The construction industry is in growth, according to the European Commission¹ the construction sector has an important role in the UE economy, representing 9% EU GDP and providing 18 million direct jobs. The report Global Construction 2030² forecasts that the average global construction growth of 3.9 %, by 2030 will outperform the

¹In *The European construction sector* - A global partner - 2016 edition

²In *PwC. (2018). Global Construction 2030: A global forecast for the construction industry to 2030*. Available at: <https://www.pwc.com/vn/en/industries/engineering-and-construction/pwc-global-construction-2030.html> [Accessed 22 Jun. 2018].

global average growth by over one percentage point, mainly motivated by the recovery from the financial crisis in the developed countries and the enduring industrialization and need for infrastructures in developing countries.

This research will be focused on the challenges that the Mota-Engil Group feels in their operations overseas. The questions that I pretend to answer within this thesis are: what where the drivers for the Portuguese internationalization, in the construction sector, how can the Portuguese compete in the global market, what are the competitive advantages and what the main difficulties faced and how they manage them.

For this purpose, a methodology based on a case study approach is used. The research will be based on the analysis of a Portuguese firm that has as its core business Engineering & Construction, being present in more than thirty countries, the case-study of Mota-Engil Group.

2. The Problem Definition

The Portuguese sector was in time thriving and full of opportunities in the private and public sector. But like any market, if a company attempting to maintain or increase its levels of growth needs to expand, with the constraints of the Portuguese market dimension and the necessity for big projects to look for economies of scale to support the firm's structure, the only choice is to internationalize. For that reason, most of the companies that are considered medium-big or big players in Portugal, also have a significant operation overseas, within the sector. As Portugal does not have a market that permits the scale to then internationalize, like the recent case in the sector with the Chinese firms, most of these companies had almost felt forced to venture abroad to survive.

The theme gains special importance with the recent announcement of the Chinese's biggest construction company entering the Portuguese market³. Adding to all the

³ Gomes, P. (2018). Maior construtora chinesa entra em Portugal. *Jornal Visão*. Available at: <http://visao.sapo.pt/exame/2018-03-16-Maior-construtora-chinesa-entra-em-Portugal> [Accessed 15 May 2018].

difficult characteristics of the Portuguese market mentioned above, the presence of a big player with vast resources and, according to the Chairman of Mota-Engil, the Portuguese market is already having a strong competition of Spanish companies. But as he mentioned in a recent interview to *Público*⁴, the fierce competition will increase with the entrance of other big Spanish players that look at Portugal as a natural market for expansion.

Therefore, despite the good future perspectives for the market evolution, the market characteristics and the recent wave of new players seems to be a threat of market stagnation.

As so, the international expansion was for most of the Portuguese companies the “light at the end of the tunnel”.

The object of study of thesis, by studying the case of success of Mota-Engil, is to understand how this happened and try to answer to the elementary questions of: When, Where, What, Who, How and Why.

- When did Mota-Engil decide to venture abroad?
- Where did Mota-Engil expand to?
- Who is the competition?
- Which were the difficulties?
- How did Mota-Engil manage the difficulties?
- Why did Mota-Engil succeed?

⁴In Pinto, L. (2018). “O nosso mercado vai ser invadido pela construção espanhola”. *PÚBLICO*. Available at: <https://www.publico.pt/2018/05/23/economia/entrevista/o-nosso-mercado-vai-ser-invadido-pela-construcao-espanhola-1831199> [Accessed 15 May 2018].

3. Literature Review

In this chapter I intend to go through the theory, and will be presenting the Literature Review related to previous studies that had internationalization as subject of their research. The importance of this section lies on the analysis of the knowledge and data in the theory to enable future studies, for instance the case study used to corroborate the conclusion of the thesis.

3.1 Internationalization

In this section I will present the concept of internationalization and its characteristics. It is relevant to understand the drivers and the entry modes types, only then is it possible to understand the complexity of the internationalization process in the construction sector.

3.1.1 Definition

The term internationalization refers to the idea of a firm venturing overseas, this concept gained special emphasis with the globalisation lived nowadays. The definition of internationalization is, according to Welch and Luostarinen (1988, p. 36) “the process of increasing involvement in international operations”. Another view of the definition is presented by Beamish and Calof (1995, p.116) defining it as “the process of adapting firms’ operations (strategy, structure, resources, etc.) to international environments”. Despite the variety of definitions given by different authors, most will agree that the term relates to engaging some sort of operation or business abroad and is clear that will be a trend in current business world.

3.1.2 Drivers for internationalization

The motivations which lead to a company to go international can be many, depending on the industry, market conditions or simply management decision.

Although there are some motivations to an internationalisation, usually the final decision is based on a mix of these seven (Cavusgil, Knight & Riesenberger, 2013, pg. 12-13):

- The seek for new customers providing sales increase, generate turnover and raising margins. Often, this is related to domestic markets in stagnation or decline;
- The need to beneficiate from cost economies: by creating economies of scale (spreading fixed costs by the various products/services) and economies replicating knowledge-based assets, particularly in the service sectors;
- The possibility to access to lower costs in materials or labour;
- The presence in different regions result in different risks exposure, therefore the firm can balance the risks by geographies;
- The will to gain more competencies, by being confronted with different customers and rivals the company must adapt, generating knowledge that could leverage them in other market;
- The need to access international key customers and to seek new business relationships, particularly in the cases that customers which the company has long relationships internationalise and invites to be a business partner abroad, reducing risks to both parties; and
- The last is to confront rivals in their own domestic markets, gaining market share, therefore conditioning their growth potential in our market and it will give a stronger positioning in the firm's domestic market.

The globalization can be an intriguing opportunity for a company to internationalize. The barriers of trade and investment are lower than ever, making it easier and less resource intensive for firms to start international trade or investments. The financial markets are integrating, which is making it much easier for companies and customers to

perform trade and investments in foreign currencies. (Cavusgil, Knight & Riesenberger, 2013, pg. 12-13).

Internationalization opens a “world of opportunities” for a firm. On the other hand, to seek those opportunities it’s necessary to leave the comfort zone, embrace new challenges and face new risks that were not yet confronted. Nevertheless, in the long run, it is probably riskier not to internationalize at all (Ricart, J., & Llopis, J. in 2018).

3.1.3 Market Entry Strategy

A firm strategy can be defined as “the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals” (Chandler in 1962).

Gunham and Ardit (2005) developed a model for international expansion, particularly for the construction industry, (even though it can be used for any other industry) consisting in two steps. In the first step, the firm has to evaluate if it has the resources for a possible internationalisation. If the outcome is positive, then the firm should evaluate the best entry mode strategy.

There are multiple possibilities for companies to enter in a new market and every company must find a suitable and fitting method. There are many factors and forces that affect the company’s decision on how to choose its entry mode. There are internal and external factors. In the case of the construction industry, only some modes are used, because of industry characteristics.

There are various levels of engaging in international trade, with diverse levels of risk associated. Hollensen, (2004, pg. 291-292), defines:

- Indirect Export, when other domestic company exports the products manufactured by the first, the exporting process is taken care by another firm;
- Direct Export, occurs when the manufacturer sells directly to an importer or a local buyer;

- Licensing, when the company establishes a local production in the foreign market without capital investments, the domestic company gives something of value to the licensee in exchange for payments and certain performance;
- Franchising, is a market entry method of selling a business service to independent investors;
- Joint ventures and strategic alliances, are partnerships between two or more parties. In the international dimension of these entry methods, the parties are from different countries. The formal differences between these two methods are that strategic alliances are usually non-equity cooperation and the joint ventures offer either a contractual non-equity joint venture or equity joint venture; and
- Fully-Owned, which can be further divided in two: subsidiaries (greenfield investment) or acquisition of a local firm.

As the construction industry has the characteristics of a service, despite producing a final product, the entry strategies more commonly used are joint-ventures, strategic alliances and fully-owned enterprises. As such, when considering entering in a new geography, managers must choose between two strategic decisions. The first is regarding the control level over the future foreign entity, whether it should be a full ownership, or opt for a partnership with a local through a joint-venture or a consortium. The second would be in regard to the entry mode, concerning if they should set up their subsidiaries or acquire an existing local firm.

Görg (2000) concludes that only with a high cost of adaptation greenfield may be a better option than acquiring a local company.

Adding to the previous mode of entry there is a new one, the Turnkey Projects that is, according to PWC, in the Report 2017 Engineering and Construction Trends, a trend for entering the construction industry. Turnkey Projects consists of building the facility from the ground up and turned over to the client ready to go – turn the key and the plant is operational. This solution gains special importance as in most of the cases the clients are governments or the World Bank, especially in developing countries, where the need of infrastructures is higher and where the local government lacks stable financial institutions' support.

3.2 Construction: The Industry

Throughout this section I intend to present a general overview of the construction industry internationally and in Portugal, which allows for a better understanding of the context in which these companies are operating, and will give some insights about its motivations for the internationalization.

3.2.1 Definition of Construction

The WTO⁵, defines “*construction and related engineering services include construction work for buildings and civil engineering, installation and assembly work, building completion and finishing work. Architectural and engineering services are classified as part of “professional services”*”.

In the below Table shows the activities covered by Construction in *International Standard Industrial Classification* (ISIC), in the left and by WTO in the right.

Table 1. Construction services in international standard classification

ISIC Rev. 3	W/120 (Prov. CPC)
45. Construction	51. Construction and related engineering services
451. Site preparation	512. General construction work for buildings
452. Bulding of complete constructions or parts thereof; civil engineering	513. General construction work for civil engineering
453. Building installation	514+516. Installation and assembly work
454. Building completion	517. Bulding completion and finishing work
455. Renting of construction or demolition equipment with operator	511+515+518. Other*

Note: * covers pre-erection work at construction sites; special trade construction work; and renting services related to equipment for construction or demolition of buildings or civil engineering works, with operator.

Source: OECD Experts Meeting on Construction Services

⁵ In WTO. *Construction and related engineering services*. Wto.org. Available at: https://www.wto.org/english/tratop_e/serv_e/construction_e/construction_e.htm [Accessed 30 Apr. 2018].

3.2.2 International Construction Market: Overview

The construction industry has great importance in the world's GDP. According to WTO, the industry and related engineering services account for nearly 10 per cent of the world's GDP and 7 per cent of total employment. In the Table below illustrates the construction share of total added value, in 2016, in some world economies.

Table 2 - Construction share to total added value, in 2016, by country

	EU	Portugal	Spain	US	China	France	Germany
Construction share of total added value	5,3	3,9*	5,6*	4,4	6,7	5,4	4,8

* estimated value

Source: Adapted from OCDE

To understand the dimension that this industry has in the world economy, there is a fact worth mentioning. Kongō Gumi was, until 2006, the oldest active company in the history, with 1428 years of existence. Construction is not only one of the oldest industries in the world history, but also has been, and still is, one of the core economic activities since the early days of human history (Hillebrandt in 1985).

The construction industry has undergone a dramatic struggle in the recent years, caused by the 2008 world recession and 2011 debt crisis in Europe, leading to a decrease in the private investment and governments expenditure. As construction is extremely vulnerable to changes in the investment, a significant number of companies faced bankruptcy, while others resisted with difficulties. In this framework of crisis in most of the developed countries, opportunities arose in developing countries, particularly in countries plentiful in natural resources. The trend for developing countries to expand led to a rise in the industry competition worldwide. Adding to that, the resourceful Chinese state-owned companies joined the internationalisation trend, augmenting even more the international competition. As Yves Gabriel, previews CEO of Bouygues Construction foresaw: “We are mainly competing in Africa for the moment, but these [Chinese] companies might probably enter Europe in the future”.

3.2.3 Portuguese Construction Sector: Overview

In Portugal the sector is starting to flourish again after the crisis, with the private sector, mainly the real estate and retrofitting of buildings. In 2015, started to increase in both licensing of new residential homes and an increase in mortgage credit granted. Another positive sign of recovery is the number of construction companies created. Adding to that, the government already mentioned that some investment in the public sector will be taken.

Despite the signs of recovery, some crisis consequence will take time to pass. According to the INE⁶, the recession in the sector only ended last year and in the last 10 years the sector lost 40% of its values, if we consider current prices. But some consequences left profound scars that will hardly recover. 10 years ago, of the top 25 biggest companies in the industry, only seven survived. Among these, one was acquired by a Spanish firm (Somague acquired by Sacyr), and Teixeira Duarte is still in a restructuring process, selling assets to lower the level of indebtedness. Others such as Edifer, Eusébios and MonteAdriano, once big players, are now part of Group Elevo, acquired by Nacala Group to a Fund of Special Restructuring created by the government for the companies in the construction sector in risk of bankruptcy. Group Elevo, is now ranking in the top 3, replacing Soares da Costa that is still struggling to pay its workers and currently in a PER - Processo Especial de Revitalização (Special Process of Revitalization), a process similar to others within the sector. The one that is showing signs of healthy growth is Mota-Engil, the clear leader in Portugal. Looking at this picture, at first, there seems that there is no success to study. However, the major reason for the struggling of these companies was the financial crisis that reduced the demand and the collapse of the Portuguese banking system. Adding to that, most of the companies in the sector presented high levels of indebtedness. This extreme situation led to companies implementing extraordinary measures like restructuring staff and departments, selling non-core assets and expanding to new markets. Despite the

⁶ In [dinheirovivo.pt](https://www.dinheirovivo.pt). (2018). Instituto alemão prevê boom na construção em Portugal até 2020. Available at: <https://www.dinheirovivo.pt/economia/instituto-alemao-preve-boom-na-construcao-em-portugal-ate-2020/> [Accessed 12 Jun. 2018].

recovery, the government is still reluctant to spending public money in large infrastructure projects and no significant increases in public investments are projected.

The report of Deloitte European Construction Monitor 2016-2017: Growing opportunities in local markets, 2017, argues the trend of Construction M&A in which larger-sized construction companies are acquiring smaller construction companies to enlarge its service range and to incur in vertical integration. Doing so enables to streamline internal processes, due to the difficulties faced by the smaller companies. The larger companies continue to focus on international markets, especially Latin America and Africa. Due to the economic instability in Angola the demand has reduced, pushing the larger construction companies to increase their focus to other international markets, mainly to the other side of the Atlantic, to Latin America.

3.2.4 Construction Industry Characteristics

From the analyses of some authors some interesting characteristics were identified, that will help to explain what makes the Construction sector so particular from other industries. In the Report of OECD Experts Meeting on Construction Services (Grosso et al. in 2008, p.5) states some construction industry characteristics:

1. Construction sector is vital for any economy. Construction provides the infrastructures for other industries, through these linkages with other industries, the construction industry generates “*significant economic activity*” and accounts for a considerable share of OCDE economies and employment.
2. The employment of this industry is considerable, because is relatively labour-intensive of skilled and un-skilled, this goes in line with the limited potential of automation mechanisms consequence of this industry nature activities.
3. As a sector, Construction sector can be defined as a fragmented market of large number of small enterprises, generally specialising in certain areas. Despite that, the industry trend is for consolidation, where there are already some dominant big players that bid for big projects that locally subcontract these SME’s.

4. The nature of construction requires local production, with only few exceptions (off-shore platforms and thermal plants) the final output must be constructed locally, therefore the establishment abroad is required too.
5. Construction generates externalities. Despite being an engine in an economy and creating positive externalities to other industries, in case of inappropriate performance of the project can create negative externalities, such as pollution. Therefore, is an industry well regulated, with its bureaucracy associated, for instances construction permits, environmental studies, building standards and other legal and political restriction.
6. Government is a key client, being responsible for significant shares of procurement in the developed countries, in 2005e, it accounted for approximately 35% in Germany and the UK and almost 50% in the US¹. It is a key driver for governments to stimulate economies, the iconic example of the construction of Hoover Dam during The Great Depression in US.
7. In 2003, Transparency International claimed that the industry of construction is the one that shows higher propensity for corruption. (Stansbury, 2005) explains that the complexity of the projects, the high number of stakeholders, the immense restriction and regulation, the huge amount of capital involved and the lack of a unique entity to oversee the sector creates an environment prone to corruption.

The Construction sector has some particularities that differ from other sectors. Despite being considered a service, the final output usually is a tangible product, such as a building or an infrastructure.

The construction sector has an important role in the economy of any country, with most of the economists considering that it is a procyclical industry, which means that it is an industry positive sensitive for the business cycles (if the construction is in recession the economy is in recession, if in a boom the economy is in a boom too), construction outputs creating the infrastructures for the development of other industries. For instance, the construction of a road will have positive impact in any industry that will use that same road. As such, construction boosts economy and creates positive externalities in other industries. Adding to that, it is an industry that requires a considerable number of

workers. But all this can only be possible if there is a strong investment, and this explains why construction suffered so much in the last recession. As most of the projects have considerable high costs, the need for guarantee financial support from a financial institution arises. For this reason, this is an industry significantly dependent on investment and in the financial strength of the economies.

3.3 Challenges of Internationalisation in Construction

Construction is an activity that, by definition, is the creation of a building/infrastructure. The output of this industry tends to be built *in loco*, in other words, it needs to be local as an industry. Because of the resources needed to transport, and the complexity of logistic requirements, it is an industry that tends to be local, creating local/regional players. Thus, for a company to decide to internationalize in this industry is almost as if it's going against the very nature of the activity. The present level of globalisation and technological progress has played a part in helping it go in this direction. When a contractor decides to go abroad it faces a different universe of conditions and characteristics that they must take in consideration, knowing that in this unknown there will be barriers, risks and the need to adapt.

Some authors have listed some aspects concerning the challenges faced by some contractor in their out-borders ventures. Cheong, 2010, presents the following challenges:

- **Entry Market Easiness:** should be a previous study before entering in a market, having in account the trade-off, risk vs. opportunity. For instance, developed markets are often more open and less risky, but the costs and competition are higher.
- **Language:** language is the means of transmitting information, it is known that communication and information and intrinsically related. It is also true that good management requires both. This is especially important when contractors have to outsource local labour-force, sub-contractors or strategic alliances.

- **Culture:** as important as language, differences can give rise to problems related to collaboration that are determinant in the decision of choosing a partner. Furthermore, when cultures are too different they result in distinct ways of work and different habits that demand excessive adaptation, subsequently creating difficulties for management and possible project delays.
- **Legal System:** Different legal systems means diverse types of bureaucracy and different legal dynamics, which means that some companies hailing from less bureaucratic legal systems will have to spend more time and resources than foreseen. Legal systems too different from the native market can be detrimental for the project.
- **Accessibility:** It is crucial that the location is not too far from any regional base, as the transport of machinery, offices' establishment and all the logistic related with human resources takes time and is costly.

The authors Wang, S., Aguria, M. And Dulaimi, M. in 2004, present a wider and detailed list of risks in international construction projects, in which the authors give special focus to the projects in developing countries. As it is possible to analyse in Table 3, the risks presented are divided in three levels - Country Level, Market Level and Project Level:

Table 3 - Risks under hierarchy for construction projects

	Level I: country level
A1	Approval and permit: Delay or refusal of project approval and permit by local government
A2	Change in law: Local government's inconsistent application of new regulations and laws
A3	Justice reinforcement: Lack of legal judgment reinforcement
A4	Government influence on disputes: Unnecessary and unjust influence by local government on court proceedings regarding project disputes
A5	Corruption: Corrupt local government officials demand bribes or unjust rewards
A6	Expropriation: Due to political, social or economic pressures, local government takes over the facility run by foreign firm without giving reasonable compensation
A7	Quota allocation: Failure in obtaining fair import/export quota allocation from local government
A8	Political instability: Frequent changes in government; agitation for change of government or disputes between political parties or different organs of the state
A9	Government policies: Government policies on foreign firms, e.g. mandatory joint venture (JV); mandatory technology transfer; differential taxation of foreign firms, etc.
B1	Cultural differences: Differences in work culture, education, values, language, racial prejudice, etc., between foreign and local partners.
E1	Environmental protection: Stringent regulation which will have an impact on construction firms' poor attention to environmental issues
E2	Public image: Victim of prejudice from public due to different local living standards, values, culture, social system, etc
G1	Force majeure: The circumstances that are out of the control of both foreign and local partners, such as flood, fires, storms, epidemic diseases, war, hostilities and embargo
	Level II: market level
B2	Human resource: Foreign firms face difficulties in hiring and keeping suitable and valuable employees.
B3	Local partner's creditworthiness: Information on local partner's accounts liquidity, financial soundness, foreign exchange liquidity, staff reliability
B4	Corporate fraud: Unexpected increases in turnover, unexpected resignation of financial adviser, letter of credits with 'unreasonably round figures', intentional or unintentional negligence either by auditors, bankers or creditors
B5	Termination of Joint Venture (JV): Unfair dividends, e.g. assets, shares and benefits, to foreign firm by local partner upon termination of JV contract
C1	Foreign exchange and convertibility: Fluctuation in currency exchange rate and/or difficulty of convertibility
C2	Inflation and interest rates: Unanticipated local inflation and interest rates due to immature local economic and banking systems
H1	Market demand: Inadequate forecast about market demand
H2	Competition: Competition from other international investors/developers/contractors.
	Level III: project level
C3	Cost overrun: Unavailability of sufficient cash flow, improper measurement and pricing of Bill of Quantities (BOQ), ill planned schedule and client's delay in payment
D1	Improper design: Unanticipated design changes and errors in design/drawings resulting from the difference in local design custom and practices.
D2	Low construction productivity: Obsolete technology and practices by local partner; or low labour productivity of local workforce owing to poor skills or inadequate supervision
D3	Site safety: High rate of accidents during construction or operation phases
D4	Improper quality control: Local partner tolerance of defects and inferior quality
D5	Improper project management: Improper project planning, budgeting; inadequate project organization structure; and incompetence of local project team
F1	Intellectual property protection: Former local employees, partners and/or third parties steal company's intellectual property, commercial secrets or patent formulae

Source: Risk management framework for construction projects in developing countries (Wang, S. et al. in 2004)

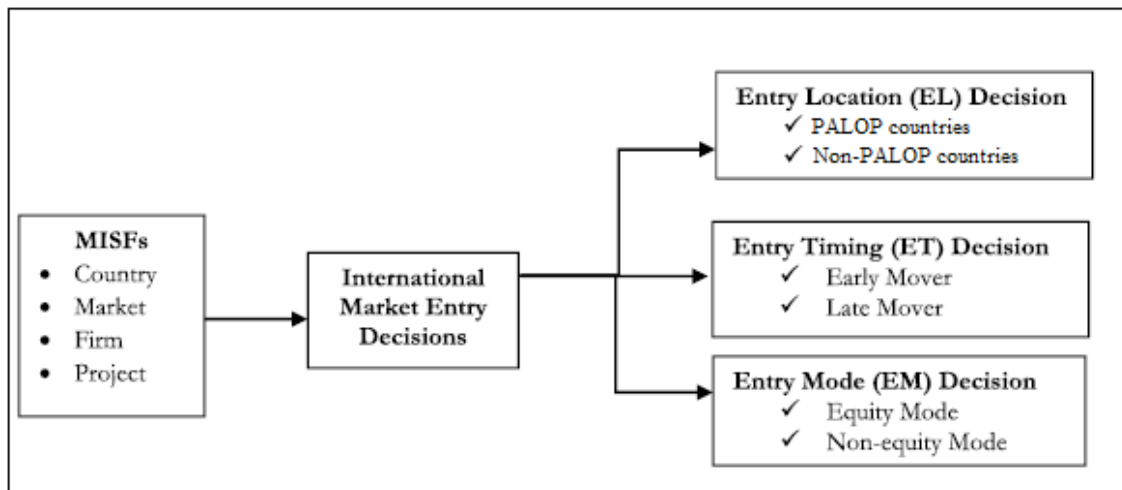
3.4 Success Factors: Overcome Challenges

Several researches have studied the subject of the barriers of internationalization and strategies to overcome the above-mentioned risks and challenges. The next pages will present strategies/success factors.

Mat Isa, C.M. B. et al in 2017, in the research article Development of OLI+S Entry Decision Model for Construction Firms in International Markets, had the objective of studying and determining how the mutually inclusive and significant factors (MIFS)

influencing the Entry Location, Entry Timing and Entry Mode (ELETEM) Decision, across the country, market, project and firm factors within the Ownership, Locational and Internationalization plus Specialty (OLI+S) Model. Focusing on the method using questionnaire survey.

Figure 1 - The Proposed Conceptual Framework for ELETEM Decision Model



Source: Development of OLI+S Entry Decision Model for Construction Firms in International Markets (Mat Isa, C. M. B. et al, in 2017)

In the research, Mat Isa, C. M. B. et al (2017) gathered 44 factors based on previous studies and, through their research, resumed those factors into 27 MISFs:

Figure 2 - MIFS influencing the ELETEM

No	Factors
1	Firm's financial capacity
2	Availability of project funds
3	Firm's competency
4	Attitude and intervention of host country government
5	Market profit potentials/attractiveness
6	Experience of firm in similar projects
7	Anticipated economic risks
8	Firm's international experience
9	Diplomatic relationships countries
10	Contract types/procurement methods
11	Firm's track record/competitive advantages
12	Firm's level of knowledge and R&D
13	Host government control
14	Firm's performance (ROI/Sales/Assets)
15	Firm's superior management
16	Anticipated non-economic risks
17	Firm's management of quality
18	Firm's management of risk attitude
19	Construction demand
20	Market intensity of competition
21	Client types
22	Firm's reputation
23	Project technical complexity
24	Financial support from home country banks
25	Existence of strict project quality requirements
26	International business network
27	Firm's long term strategic orientation/objectives

Source:Development of OLI+S Entry Decision Model for Construction Firms in International Markets (Mat Isa, C. M. B. et al, in 2017)

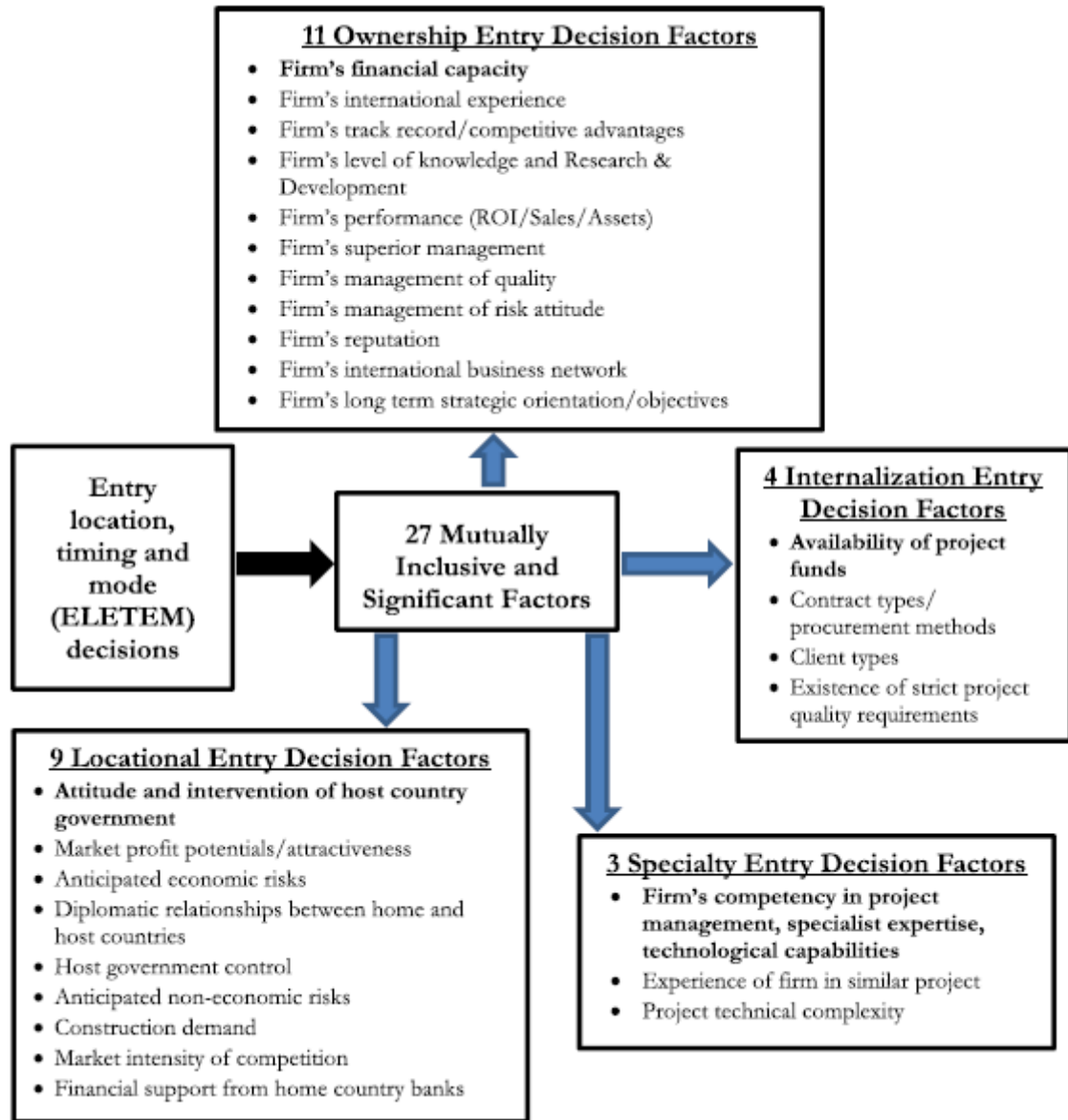
The OLI+S presented 4 factors:

- **Ownership Entry Decision Factors:** are the factors directly related to firm's factors, such as capabilities and resources. The OED factors tend to explain the "when" question. The factors emphasised are the firms possessed internal transferable advantages, for instances track record, reputation, international experience, international network and resources over its foreign competitors. A firm is likely to perform better internationally than its competitors, in ownership

advantages, when it has a significant advantage on its reputation and its accessibility to resources, when compared to local contractors. (Low and Jiang, in 2006)

- **Locational Entry Decision Factors:** these factors are related with country and market factors, such as economic, political and social risks. The LED factors tend to explain the “where” question, influenced by the home-host country advantages or “degree of attractiveness” and “locational disadvantages”.
- **Internationalisation Entry Decision Factors:** these factors are related to projects factors, for instances projects availability, requirements, client types and procurement methods. These factors tend to explain the “how” question. The reasoning should be leveraging the OED and LED to take advantage of opportunities and risk available in the foreign market.
- **Specialty Entry Decision Factors:** these factors are related to specific competencies from the company, is what makes the firm more eligible to win that specific contract, leveraging from internal competitive advantages, e.g.: specialist know-how, firm experience in similar projects and project complexity. Therefore, SED tends to answer the “what” question. Firms should focus in a niche/speciality, enabling the company to position as the better offer in a bid for a contract, by offering a tailored solution to the complexity of the contract.

Figure 3 - OLI+S entry decision model of construction firms in international markets



Source: Development of OLI+S Entry Decision Model for Construction Firms in International Markets (Mat Isa, C. M. B. et al, in 2017)

The above-mentioned authors (Wang, S. et al., in 2004), that listed 27 risks for international construction projects in developing countries, also present relevant information related to mitigation the before mentioned risks in their research. Therefore, presented below, is a table adapted from their research, presenting risks and the 5 more-effective solution for each risk. The solutions are presented in order of effectiveness, as the researchers concluded.

Table 4 - Risk mitigation by effectiveness

Risk Level	Risk Description	Risk Mitigation
P r o j e c t	Cost Overrun	1-Develop a clear and appropriate plan and control schedule and cost 2-Measure and price Bills of Quantities properly during bidding stage 3-Secure standby cash flow in advance 4-Sign fixed or pre-determined prices with material and accessory facilities suppliers 5-Incorporate escalation clauses for interest, inflation rates and delays in contract
	Improper Design	1-Arrange and undertake comprehensive site investigation before construction phase 2-Adopt Design & Build option which enables contractor to design in harmony with site conditions thus minimizing design/drawing disputes 3-Undertake pre-project planning to minimize design errors 4-Specify construction extension clause in contract 5-Organize for appraisal/vetting of drawings and design criteria by at least one independent engineering/architect consultant
	Low Construction Productivity	1-Adopt proper quality control procedures 2-Adopt Design & Build option which enables contractor to design in harmony with site conditions thus minimizing design/drawing disputes 3-Benchmark and monitor construction activities properly 4-Review plans jointly with local partner to determine changes 5-Apply innovative production concepts/philosophies like Lean Construction, Just In Time and Total Quality Management, to decrease variability and rework during construction
	Site Safety	1-Adopt proper safety control programme, management system, supervision, incentives and preventive measures 2-Get Third Party Insurance for compensation to general public and staff 3-Study and implement the local accident regulations stringently and effectively 4-Ensure that construction and operation are as per examination and concerned approving authority's expectation
	Improper Quality Control	1-Adopt proper quality control procedures, supervision and incentives 2-Review plans jointly with local partner to determine changes 3-Implement ISO9000 and get certification
	Improper Project Management	1-Hire competent project management team 2-Clear definition of each staff's scope of work 3-Conflict resolution clause in contract and specify construction extension clause in contract if client causes the delay 4-Provide clauses on schedule delay and additional payment if caused by client 5-Hire competent project management team
	Intellectual Property Protection	1-Insist on having trustworthy people on key places within the JV 2-Ensure that the local partner appreciates the advantages of having exclusive rights to that property i.e. shareholding in protection of intellectual property 3-Confirm whether a good local intellectual property protection scheme is in place for the key intellectual property like trademark, patent or copyright law 4-Negotiate on amount and speed of technology transfer 5-Place restrictive covenants (promises) in the contracts of employees

When Portugal is too small to build – Case-study: Mota-Engil

Risk Level	Risk Description	Risk Mitigation
C o u n t r y	Approval and permit	<ol style="list-style-type: none"> 1-Maintain good relationship with local government and higher officials 2-Ensure the project is complying with local planning commission's development plan 3-Establish JV with renowned local partners, especially the central government agencies or state owned enterprises 4-Ensure the feasibility study report and contract depict local government, local partner and foreign party's actual intentions (like anticipated profits, risk sharing) 5-Obtain support of foreign firm's home government and international monetary institutions like World Bank against delay in approval and permit
	Change in Law/ Justice Reinforcement	<ol style="list-style-type: none"> 1-Maintain good relationship with local government and higher officials 2-Obtain local government guarantee to adjust tariff or extend concession period (for Build-Operate-Transfer (BOT) projects) 3-Include clauses for delays and additional payments in contract, which occur due to new rules or change in law 4-Rely on combination of international consortium, joint international convention and insurance policies (especially political insurance) to protect investment in the project 5-Obtain insurance for political risks
	Government influence on disputes	<ol style="list-style-type: none"> 1-Maintain good relations with concerned local government officials and concerned authorities 2-Establish JV with local partners especially the central local government agencies or state owned enterprises 3-Provide dispute settlement clauses in the contract 4-Ensure the approval is sought at the right local government departments
	Corruption	<ol style="list-style-type: none"> 1-Maintain good relations with concerned local government officials and concerned authorities 2-Set aside a budget for unavoidable spending 3-Cultural and commercial awareness training to management and key personal who may have to deal with corrupt officials 4-Try to work directly with the business connections, i.e. do not hire broker or middleman 5-Establish JV with renowned local partners, especially the central local government agencies or state owned enterprises
	Expropriation	<ol style="list-style-type: none"> 1-Establish JV with renowned local partners, especially the central local government agencies or state owned enterprises 2-Maintain good relations with concerned local government officials and concerned authorities 3-Develop contingency plans and obtain insurance for expropriation possibility 4-Rely on combination of international consortium and insurance policies (especially political insurance) 5-Obtain support from foreign firm's home government and international monetary institutions like World Bank and ADB against expropriation by local government or its agencies
	Quota Allocation	<ol style="list-style-type: none"> 1-Prepare and submit all necessary reports and feasibility study on time 2-Establish JV with local partners especially the central local government agencies or state owned enterprises 3-Establish good relations with officials in concerned ministries 4-Obtain support from foreign firm's home government and international monetary institutions like World Bank against unfair quota allocation
	Political Instability	<ol style="list-style-type: none"> 1-Obtain insurance for political risks from international finance and risk assessment agencies 2-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians 3-Establish JV with local partners especially the central local government agencies or state owned enterprise 4-Seek incorporation of termination or delay clauses in contract 5-Develop own contingency plans for possible political instability, such as plan for emergency evacuation
	Government Policies	<ol style="list-style-type: none"> 1-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians 2-Study carefully the differential taxation and find legal and reasonable measures to reduce taxes 3-Establish JV with local partners especially the central local government agencies or state owned enterprise 4-Seek reasonable compensation scheme (lump sum, share in JV, profit) for technology transfer 5-Obtain support from foreign firm's home government during anticipated insurgency
	Cultural Differences	<ol style="list-style-type: none"> 1-Insist on having trustworthy people on key places within the JV 2-Provide dispute settlement clauses in the contract 3-Hire company's own competent native language-speaking employee, even though some of the staff understand native language 4-Try to have as large an equity share as possible thus ensuring control of Board of Directors 5-Devise unambiguous and agreed risk sharing code at the time of contract
	Environmental Protection	<ol style="list-style-type: none"> 1-Adopt strict pollution control measures 2-Engage both local and international pollution control specialists 3-Include disclaimer in contract for present pollution level (conduct survey to see clear picture) 4-Comply with international and/or local environmental laws, standards and regulations
	Public Image	<ol style="list-style-type: none"> 1-Give donations to renowned non-governmental organizations, which are involved in elevating the living conditions of poor 2-Comply with local and international civil laws and standards, local social and cultural values 3-Participate actively in public relation activates and charity 4-Maintain good reputation and image to the public
Force Majeure	<ol style="list-style-type: none"> 1-A party which fails to meet his contractual obligation due to force majeure must notify the other one within a reasonable time 2-Insure all of the insurable force majeure risks 3-Include delay clauses for contingency plan in contract 4-Obtain local government guarantee to adjust tariff or extend concession period (for BOT projects) 5-Obtain local government's guarantee to provide financial help when needed 	

When Portugal is too small to build – Case-study: Mota-Engil

Risk Level	Risk Description	Risk Mitigation
M a r k e t	Human Resource	<ol style="list-style-type: none"> 1-Foreign firm should insist on having trustworthy people on key places within the JV 2-Offer training to new and existing staff 3-Offer better remuneration/incentive packages to staff 4-Decide on recruitment and selection criteria in consultation with one local partner 5-Sign formal employment contract with every staff
	Local Partner's Creditworthiness	<ol style="list-style-type: none"> 1-Have clear contractual terms and conditions, agree on one accounting standard and define clear authority and responsibility in contract 2-Pay careful attention to contract translation 3-Insist on having trustworthy people on key places within the JV 4-Examine the target company's financial viability, technical and management competence and connections with local government 5-Define clearly the merging scope of assets, employees, shares, organization, strategies, etc. when merging with a local partner
	Corporate Fraud	<ol style="list-style-type: none"> 1-All parties should agree on one accounting standard and hire one independent accountant 2-Insist on having trustworthy people on key places within the JV 3-Visit/check the factory or business regularly and irregularly 4-Get information about local partner's credibility from its present and past business partners 5-Monitor present status and par/face value of share dealings of the JV
	Termination of Joint Venture	<ol style="list-style-type: none"> 1-Insist on having trustworthy people on key places within the JV 2-Provide comprehensive terms of default in the contract 3-Choose to establish a cooperative JV and partnership 4-Maintain good relationship and connections with higher local government officials, local power persons like opulent persons and politicians 5-Try to have larger share of profit as early as possible
	Foreign Exchange and Convertibility	<ol style="list-style-type: none"> 1-Use dual-currency contracts with certain portion to be paid in local currency and others in foreign currency 2-Use other money transfer tools e.g. forward and swap that can hedge exchange rate 3-Obtain local government guarantees of exchange rate and convertibility, e.g. fixed rate for long period or less fluctuation etc
	Inflation and Interest rates	<ol style="list-style-type: none"> 1-Obtain payment and performance bonds from local and international banks 2-Ensure that a reputable owner through international institute, e.g. World Bank, finances the project 3-Specify extension or compensation clauses in contract for payment 4-Client to secure standby financing (i.e. more than 100% financing commitments when needed) 5-Get Letter of Credit from local government
	Market Demand	<ol style="list-style-type: none"> 1-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians 2-Employ reputable third party consultant to forecast market demand
	Competition	<ol style="list-style-type: none"> 1-Conduct market study and obtain exact information of competitive projects 2-Adopt as much as possible domestic product/labour to reduce cost 3-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians 4-Establish agreement with local government agency to reduce/exempt from import formalities

Source: Adapted from Risk management framework for construction projects in developing countries (Wang, S. et al., in 2004)

4. Methodology

In this chapter I will present the methodology used in the elaboration of this thesis.

4.1 Research Method

This research is divided into two distinct phases:

- The first phase is to identify, define and study the significant factor;
- The second phase is to use a qualitative research to explore the particularities and investigate further themes related to internationalization of Mota-Engil through interviews.

The strategy used in this thesis is sequential, where the process started as a quantitative method to test the theory, followed by a qualitative method to add depth of understanding (Creswell, in 2003).

The theory testing approach has a principle of using the theory to guide which observations to make and, in turn, the empirical observations should provide a test of the worth of the theory, states David de Vaus (2001). Consistent with this, as the fundamental idea behind this research is to test, analyse and understand the theory from previous research in the theme of internationalisation in the construction industry, the research is based on a theory testing approach, for the particular case of the Mota-Engil Group's internationalization process, using the interviews as a main source of information.

The information collected for the elaboration of this thesis was gathered through diverse sources: the company official websites, where it is possible to find the Report and Accounts of 2017 (including previews years - as it is a listed company, it is mandatory to have financial and management related information available publicly, for the consulting of present and future investors), market communications, *Sinergia* (the Mota-Engil Group's magazine, published 2 times a year, having interesting information related to the Group companies, that highlighting the significant landmarks during the last months, describing what had been done by the Group companies, and usually have

interviews to relevant people within the Group companies organizations), as well as other informations related with the company organization; economic newspapers articles, essentially *Jornal de Negócios* and *Jornal Económico*; 2 interviews to António Mota, the Chairman of ME Group the MEG done by the Portuguese periodicals *Publico* and *Jornal de Negócios*, construction sector newspapers articles of the *Jornal Construção*; some interviews to engineers responsible for the African market done by *The business of the year*; market studies from consulting companies (such as PWC, Deloitte, etc.); and a significant share of the quantitative information collected by informal conversation and discussions with firm's employees, including an enriching interview with Dr. Jorge Santos, International Director of a construction company, living as an expatriate for the last decade, responsible for several markets in the Latin America region, with more than 30 years of experience spread between more than 20 countries in three different continents, giving a significant contribution, essential to understanding the magnitude and experience, first-hand, the international operation of a construction company. Moreover, informal interviews/discussions were conducted within the Mota-Engil organization. Those interviewed in this manner preferred to have their name omitted in the research.

The aim of this thesis is the creation of value, in terms of data, that would be easy to understand to any level of instruction or education, as such, the research will focus particularly in the qualitative method, prioritizing qualitative information over quantitative information.

4.2 Definition of Case Study

According to Kardos and Smith (1979), a case should include the following features:

- The object of study should be based on a real-life event or entity (identities may be concealed);
- The study should be divided in parts and each part, generally, leads to problems and to its discussion;

- The case study should contain material information for the reader to analyse the problems and related issues. It may allow different opinions and interpretations; and
- The case study should be considered reliable. To do so, it must be well-supported and documented by relevant information.

4.3 Advantages and Limitations

The case study is a valuable tool of analysis and study in the various industries and in any fields of science. However, a case study presents some limitations along with their advantages⁷.

4.3.1 Advantages

Some advantages of the use of a case study can be described, as follows:

- This method enables an intensive study of the object of research, enriches any research with qualitative information and often presents an opportunity to study more specific and rare situations/events in depth. Case studies allow for gathering a level of detail and description that would not be possible by other research methodology. It has the particularity of studying subjects that could not be ethically or physically recreated;
- Another characteristic is the stimulation of future research. The elaboration of a case study and their conclusions and findings, if reliable, can motivate new investigations in other fields or from different perspectives. The simple decision to study a determined subject can open the eyes of others to different situation not yet taken in consideration;

⁷ In *The Strengths and Weaknesses of Case Studies*. UniversalClass.com. Available at: <https://www.universalclass.com/articles/business/a-case-studies-strengths-and-weaknesses.htm> [Accessed 12 Aug. 2018].

- One of the main uses, if not the principal, of this method is to refute or support established theory, of which the case study enables to question and test using empirical information;
- Using a case study enables the simplification of a complex subject; and
- Case study allows analytical thinking, and tolerance to different views on the same subject.

4.3.2 Limitations

Some limitations of the use of a case study can be described, as follows:

- The main limitation of a case study, depending on the complexity of the object in study, is the difficulty or impossibility to generalise from a situation/event/entity. In other words, a big disadvantage is the inability to replicate, as in some studies the data and results are only valid for that situation/event/entity.
- Other problem that can occur in an elaboration of a case study is the creation of bias, which can come in many forms: by the data collected, by the author, by the object of study that will react different when being studied.
- The method of case study may have errors of judgement or memory, as a case study is based on reconstructing, this can lead to errors of past perception and different perspectives of the same object of study.

5. Case Study: Mota-Engil Group

In this chapter I will present the company's object of study in deeper detail. Firstly, will be presented an overview though its history. It is believed that analysing the past of a firm will give some insights to its successes and failure, and, in this particular case, how ascended to the top contractor in Portugal. Moreover, the business segments and its internationalization presence will be described, the values, and the visions and mottos of Mota-Engil will be presented. The information present in this chapter was mainly extracted from the Mota-Engil 2017 Group Report and Accounts, and its official website, and as such, the information here presented is reliable and contextualised.

5.1 Mota-Engil Group: Introduction

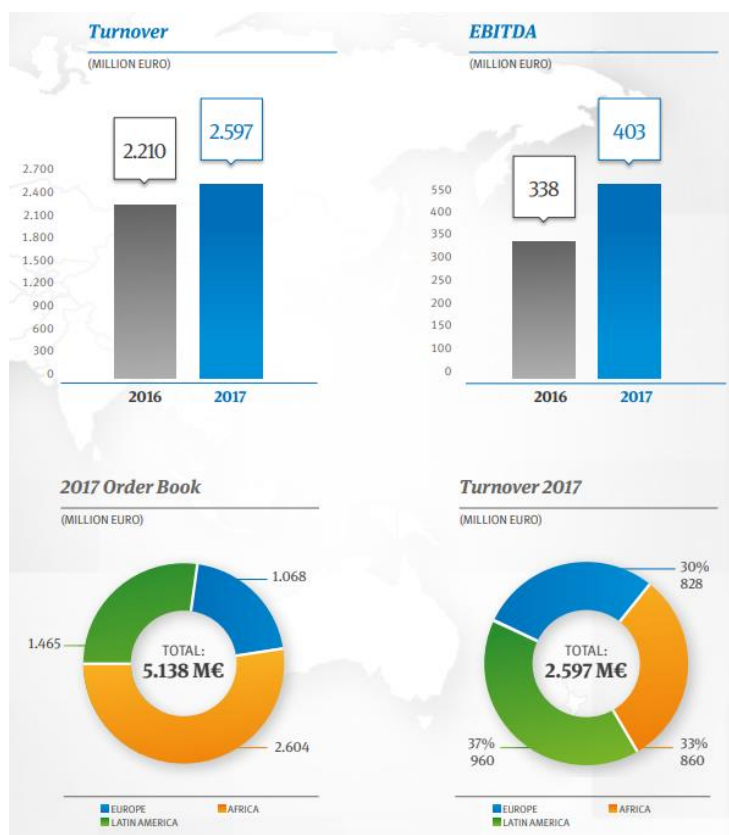
“Mota Engil can no longer be considered as an international company, it is a multinational of medium companies”,

António Mota, the Chairman of ME Group

In this section I will present a brief overview over the firm which the Case Study is based on. The study is based on a Portuguese contractor with a significant part of their operation abroad: Mota- Engil Group circa 80% of the 2017 turnover.

“The leader in Portugal with a consolidated position in the ranks of the 30 largest European construction groups, Mota-Engil is making its mark in 28 countries, in three distinct geographical areas – Europe, Africa and Latin America, with holdings in over 200 companies, Mota-Engil assumes a position in the market according to the values and cultural identity of the organisation, grounded in a unique and integrated strategic vision for the Mota-Engil of the future: a more international, innovative and competitive Group on the global scale.” (Mota-Engil Official Website, Institutional Presentation)

Chart 1 - Mota-Engil Group Main Indicator, 2017



Source: Mota-Engil Group Official Website, Institutional Presentation

5.2 History

In the following section will be presented the History of the Grupo Mota-Engil^{8 9}.

Mota & Companhia

In the year of 1946 Mota & Companhia is established in Amarante, Portugal. In the same month a branch in Cabinda, Angola is created immediately starting its operations. In the beginning the core business of the company was the exploration and transformation of timber. Only in 1948, did the company undertake, cumulatively, the Construction and Public. It is important to mention that at this time Angola was a

⁸ In História – Mota-Engil Engenharia e Construção. engenharia.mota-engil.pt. Available at: <http://engenharia.mota-engil.pt/institucional/historia> [Accessed 1 Jun. 2018].

⁹ In History - Mota-Engil Group. en.mota-engil.pt. Available at: <http://en.mota-engil.pt/Institucional/History> [Accessed 16 Jun. 2018].

Portuguese Colony and that in the year of establishment of Mota Companhia the same associates that founded it established Construtora do Tâmega, a company to operate in the Public Works in Portugal, so when M&C started the construction operations there was already some know-how in the construction sector gained with Construtora do Tâmega.

The construction operation gains more relevance and, in the year of 1952, the consortium, of which M&C is part, is awarded the contract to the International Airport of Luanda. That job was the first major construction contract in Angola and would be the benchmark for the following years.

In the year of 1975 Angola gains its independence from Portugal, after more than 10 years of war. During this time, as there were revolutions, while some associates wanted to return to Portugal, like other Portuguese did at that time, M&C remained and even after the Independence, when the business was weak, in order to maintain its dimension, Manuel António da Mota (the only partner that decided to remain), targets the Namibian market, and in the next year sets up its operation in Portugal, with the construction of a small dam in Alentejo, Lucefecit Dam. It is a mark along the company's history, M&C returns "home" to Portugal (of its founder at least).

But the biggest landmark is the job undertaken in 1977, winning of the international tender for the Regularisation of Lower Mondego River, the work enabled significant changes in the river by diminishing potential floods of the river and enabling the development of the agricultural sector in the Centre Region of Portugal and its economic potential. The projection and public image earned within this engineering work established the company as an important player in Portugal, ready for bigger construction works.

In the first years of the decade of 80's, the company expands its operation in Angola and to other African countries.

In 1987, the firm joins the Stock Market, becoming a public limited liability company with later dispersion of 12% of its share capital.

Having a prominent position in Angola, the Group started operating in Malawi in 1990, spreading to Mozambique and Cape Verde in 1995, where it starts business with the construction of the Praia Airport, remaining with a growing presence in those countries ever since. In this same year, the Group faces opportunities in the construction market, and decides to diversify into the integration of industry-related construction and its complementary activities.

In 1994, the consortium of which the company is part, wins the bid for what was probably one of the most renowned Portuguese construction projects, the Vasco de Gama Bridge, which was, for years, the longest bridge in Europe, and is nowadays the second longest bridge in Europe after the transcontinental Crimean Bridge. After the bridge's construction, the firm endeavours in the Concession business, diversifying its business areas.

In 1995, the firm targets a new geographical region, Central Europe, entering in Poland in 1996, as well as Hungary and the Czech Republic. By diversifying in different regions, it allowed the firm to diversify its economic risks.

Engil – Sociedade de Engenharia Civil, Lda

Engil – Sociedade de Engenharia Civil, *Lda* is incorporated in the year of 1952. Dedicated to the housing sector, Engil comes from the Portuguese words “Engenharia Civil”, meaning Civil Engineering. The company operated in the first years as an important player in the Lisbon region. In the year of 1961, it gained two contracts that launched it to the national scene: the Commercial and Industrial School of Castelo Branco and the bridge over the River Tua, in Mirandela.

In the year of 1969, the company celebrates an exclusivity contract with Siemens-Baunton, for the rights of use of the Siemcrete patented sliding forms system, enabling the firm to operate in major projects in areas related with projects of silos and chimneys. Given the national expansion, the company decides, in the same year, to open a North delegation in the city of Porto.

In 1987, the firm creates its holding Engil SGPS, and starts a growing process by acquiring Sociedade de Empreitadas Adriano, in 1988, Gerco - Sociedade de Engenharia Eletrotécnica, SA, in 1990, and Ferrovias e Construções, in 1991.

The milestone of Engil is in the year of 1987. Due to its dimension and technical characteristics, the construction of the Alto do Lindoso dam is considered to be an engineering masterpiece of European level.

Engil Group initiated, in 1990, its diversification process enlarging the offer of activities related with construction specializing in the areas of electro-mechanic and railway.

Mota – Engil Group

After constructions works carried out in Venezuela, in 1978, and in Peru since 1996, even before the merger, Mota & Companhia and Engil joined forces to take over the Peruvian company Translei, investing in the Peruvian market by acquiring Translei, in a clear and successful negotiation process, operating exclusively in the provision of engineering services related with earthworks and works related with mining concessions exploration.

After some years in meetings between the companies' managers to reach a consensus on the merge, as both companies were looking for a complementary firm to merge, pushing the company's growth to another level. As the firms had worked together before, it seemed to be a perfect catch for both parties. In 2000 Mota makes a takeover bid successfully merging the two companies.

Engil was so important to merge with, because the two companies were comparable in size, with complementary activities, operating in different markets and with different areas of expertise in construction and engineering. The synergies between the two companies would bring them to the top contractors in Portugal and in some markets where the companies were present.

The merge permitted the creation of more productivity and benefiting the best practises from each. The Mota-Engil Group is born, this operation that would give rise to the largest Portuguese contractor, and therefore leader in the service area (through Mota-Engil Ambiente e Serviços) and a reference in the sector of transport concessions, chaired by António Mota.

Following complex legal process of mergers and splits, mergers by incorporation and equity capital increases, five autonomous business areas were established. Mota-Engil, SGPS thus come to include:

- Mota-Engil, Engenharia e Construção, SA,
- Mota-Engil, Ambiente e Serviços, SGPS, SA
- MEITS – Mota-Engil, Imobiliário e Turismo, SA
- Mota-Engil, Concessões de Transportes, SGPS, SA; and
- Mota-Engil Serviços Partilhados Administrativos e de Gestão, SA.

In 2004, Mota-Engil Polska is created from the subsidiaries of the former Group companies becoming the fourth biggest contractor in Poland.

After several months at the forefront of the list of shares candidates for listing on the PSI 20 index, Mota-Engil comes to be the only engineering and construction Group to be listed on Euronext Lisbon's main share index, remaining within the PSI 20 and continuing to be the only construction company. For the Group it was an important move as it ensured visibility, stability and potential to appreciate, grow and attract investment.

In 2007, the Group enters in the Mexican market through the highway concession business, and in the same year expands to another market, in the European continent, Ireland where it will operate in the construction and public works.

In 2008, forms a partnership with ES Concession and creates Ascendi, an important player in the highway concession, consolidating its position in the Portuguese market and ascending to the second biggest operator in Portugal.

The year of 2009, the Manuel António da Mota Foundation is established. Officially recognised only in 2010, the creation of the Foundation is an important mark for the company as it is the way to give back to society, by means of different contributions to the integrated development of the communities where the Mota-Engil Group operates, by promoting, developing and supporting initiatives with a social nature in the field of charity work and social solidarity, and of a cultural nature in the field of education, health, environment, organizing and supporting artistic activity.

When Europe and particularly Portugal, where suffering from the financial crisis, MEG invested on internationalisation and 2010 was an important year. In Angola, it creates the Mota-Engil Angola having as shareholders the heavy weights of Angolan economy, Sonangol and Grupo Atlântico, becoming the biggest player in the construction and public works in Angola, with stakes in other industries going along with the strategy of diversifying the Group develops the Environment and Services area through Vista Waste. In the same year, MEG bets on the Brazilian market setting up Mota-Engil Brasil. Translei that operated in Peru and some other regional markets in Latin America, changes name to Mota-Engil Peru. In Poland, the company is renamed to Mota-Engil Central Europe (MECE), focusing on managing the branches in Central Europe.

The year of 2013 is marked by an organizational change, dividing the Group top management into 4 different regions, Portugal (including the rest of Europe and excluding Central Europe), Central Europe, Africa and Latin America, therefore decentralizing the decision-making process of the regional geographies closer to the business. In this year the Group reaches the number of presence in 20 countries.

Two years later, in 2015, the diversification process continues, this time in Mexico in the Energy business, being the only private operator in the Mexican energy market operating and the only one competing with the state-owned company. The same year, in order to complement the Waste and Urban cleaning sector, MEG acquires EGF, a company operating in Portugal in the treatment and recovery of urban waste, ensuring its capacity to perform the entire value chain of integrated waste management, in Portugal, and with strong potential of expansion into new markets.

5.3 Business Segments

The MEG is, essentially, a group that, starting with construction in Portugal and Angola, managed to diversify in markets where it is present and in business areas. Today the Group has operations, besides the Construction and Engineering core business, in the sectors of Transport Concessions, Environment and Services, Power Energy, Mining and Tourism.

The Group at an early stage realised that to grow in Portugal it was necessary to diversify, both in specialization in construction and in business, but with keeping in mind that this strategy must be complementary or related with the core business: construction and engineering. Being a leader in the construction and waste management and treatment in Portugal, and with international growth, confers to the Group one of enterprises that more services exports.

5.3.1 Construction and Engineering

“We Are what We Do”, company motto for the Construction and Engineering

The Group holds more than 70 years of experience developing projects in the Construction and Engineering field of expertise. Leveraged by a versatile attitude, pioneer construction techniques and HR training, equipment and use of the new technologies. Reasons why the Group is the Portuguese market leader and presents itself with a solid and continuously growing international expansion.

The group divides its Construction and Engineering into 3 segments, detailed as follows¹⁰:

Major Infrastructures-related Construction:

- Airports;
- Railway;

¹⁰ In Engineering and Construction. En.mota-engil.pt. Available from: <http://en.mota-engil.pt/Business-Areas/Engineering-and-Construction> [Accessed September 16, 2018].

- Hydraulic Infrastructures;
- Ports;
- Roads and Highways; and
- Urban Infrastructures.

Civil Engineering:

- Agricultural and Industrial;
- Public Buildings;
- Offices and Commerce;
- Housing;
- Industrial;
- Buildings Rehabilitation; and
- Silos and Chimneys.

Real Estate:

- Housing;
- Offices; and
- Commerce.

Despite the 3 segments mention above the Group has a range of technical areas of expertise in construction related activities:

- Rental and transports for construction;
- Aggregates;
- Concrete;
- Electromechanical;
- Railways;
- Foundations and geo-techniques;
- Intelligent Transportation Systems;
- Central Lab (accredited and certified lab for material tests for construction);
- Paving;
- Precast;
- Pre-stress;
- Ornamental rocks; and
- Port works.

5.3.2 Environment and Services

The second biggest segment within the Group, Mota-Engil Ambiente e Serviços, operates through its subsidiaries and associated companies: EGF, SUMA, Manvia, Vibeiras, Áreagolfe and Takargo¹¹.

Through Takargo, Mota-Engil was the first Portuguese private operator of railway freight transport.

Operating in segment of multi-services the facility maintenance and rehabilitation of pipelines through MANVIA, landscape architecture, design and maintenance of green spaces and golf courses through VIBEIRAS and Design, construction and maintenance of green spaces and golf courses through Áreagolfe.

EGF operates in the treatment and recovery of waste through technological solutions, operating in a significant web of 11 municipalities through systems of treatment and recovery of municipal waste, ensuring the entire integrated value chain in waste management in Portugal, with the opportunity of future expansion into new markets.

SUMA operates in the private market of municipal waste management, and also holds the first position in Portugal, having a presence in other markets such as Angola, Mozambique, Poland, Brazil and Mexico.

The main activities regarding the operation of EGF and SUMA can be detailed as follows:

- Collection of municipal and industrial waste
- Urban cleaning
- Biological and mechanical treatment of waste
- Energy and organic recovery of waste
- Environmental education

¹¹ In Environment and Services. En.mota-engil.pt. Available from: <http://en.mota-engil.pt/Business-Areas/Environment-and-Services> [Accessed June 16, 2018].

5.3.3 Energy

The energy segment is operated in Mexico, where the Group was the pioneer private operator in the liberalization of the energy production sector through Generadora Fénix, holding a concession for 30 years to operate and maintain five hydroelectric plants in Necaxa, Tepexic, Patla, Alameda and Lerma. In Portugal, developing with EGF the activity in waste processing and recovery, leading in Waste-to-Energy. The energy segment, as it is not part of what is considered the core business, is not yet expanded and still waits for future opportunities¹².

5.3.4 Mining

The Group's know-how gained in the execution of civil construction and earthmoving projects, through Mota-Engil Minerals & Mining, the Group engages in activities related with the exploration of mineral resources, with its activity concentrated in Sub-Saharan Africa.

The company is carrying out this type of work for some of the biggest players in the mining industry, such as Vale. Having a considerable portfolio in Peru in the mining infrastructure area and contract mining in the Kayelekera mine in northern Malawi, the Group promoted its latest bet in prospecting projects and establishment of mining partnerships, extending its operations to Angola, Mozambique and Zimbabwe¹³.

5.3.5 Tourism

The tourism segment has a residual activity within the Group activity, its activity being, essentially: Casa da Calçadas, a 5* Boutique Hotel, and the notorious gourmet restaurant

¹² In *Energy*. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Energy> [Accessed 16 Jun. 2018].

¹³ In *Mining*. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Mining> [Accessed 16 Jun. 2018].

Largo do Paço, a Michelin Star holder, the both located in the city of origin of the Mota family, in Amarante, in the northern region of Portugal¹⁴.

5.4 Vision, Values and Mission

Understanding the vision, values and mission of a firm can give some insight towards the reasons of its success, as generally these are pillars on which a firm is based on¹⁵.

5.4.1 Vision

“To be an international reference in the sector where it operates, aligned with the best market practices on a production level, with a permanent innovation, assuming thus a strong identity, recognized in technical skills by providing a service of excellence to its clients and to the community.” (Mota-Engil Official Website)

5.4.2 Values

The Group recognizes the necessity to build strong culture and identity, essential to excel in its commitments. Thus, the Group shares the following values with its stakeholders:

Ambition

“Eagerness always renewed of doing more and better, facing the present and future with boldness and confidence and assuming, in a determined and committed way, new challenges that contribute to the growth of the Group.” (Mota-Engil Official Website)

¹⁴ In *Tourism*. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Tourism> [Accessed 16 Jun. 2018].

¹⁵ In *Vision, Mission and Values*. Mota-Engil Group. En.mota-engil.pt. Available from: <http://en.mota-engil.pt/Institutional/Vision-Mission-and-Values> [Accessed June 16, 2018].

Integrity

“Choose the path which reinforces the principles of honesty, truth, loyalty, righteousness and justice, in the daily conduct of everyone.” (Mota-Engil Official Website)

Cohesion

“Guarantee that the goals set, which are intended ambitious, are reached through the contribution of all business units and that the vitality of the Group results from combining wisdom and strength necessary to overcome new challenges.” (Mota-Engil Official Website)

Group Spirit

“Consolidate the sense of belonging, respect for the differences, loyalty and reciprocity in a global and culturally diverse context, maintaining pride in the past and strengthening the confidence in the future.” (Mota-Engil Official Website)

5.4.3 Mission

“Create shareholder value respecting the community and the future, in a socially responsible way.” (Mota-Engil Official Website)

5.5 Market Presence

The Group is officially present in 3 continents and operating in 6 business areas. At the date of the elaboration of this research, MEG announced the expansion to the markets of Nigeria and Argentina, strengthening its presence in Africa and Latin America, in two countries with potential. Adding to that the Group recently opened offices in Panamá and Canada, to probe for new project in these markets.

In this chapter I will be detailing the market presence of Mota-Engil Group within the three-geographical regions: Europe, Africa and Latin America¹⁶.

5.5.1 Europe

Present in: Portugal, Spain, Poland, Czech Republic, Ireland and United Kingdom

Among the 30 major European economic groups in the construction sector, MEG positions itself in other European markets as a trustworthy partner for the development of infrastructure projects, more specifically in Central Europe regions, where it operates for two decades and is within the top 10 major construction companies in Poland. In Ireland, it operates through MEIC and Glan Agua, having these companies expanded their presence to the United Kingdom market.

5.5.2 Africa

Present in: Angola, Mozambique, Malawi, South Africa, Cape Verde, São Tomé and Príncipe, Zambia, Zimbabwe, Uganda, Rwanda, Tanzania, Guinea Conakry, Cameroon and Ivory Coast

Africa is a market of opportunities, *per se*, but for ME is particularly a natural market for the long-standing and acknowledged experience, a path started in Angola in 1946.

Having an unparalleled position in Africa, leveraged from being a regional player, permits a constantly renewed investment in the capacity of mobilisation of resources enabling execution of large-scale projects, maintaining the leading position in the markets of Mozambique and in Malawi and with expansion into new markets within the SADC (Southern Africa Development Community).

5.5.3 Latin America

Present in: Mexico, Peru, Brazil, Colombia, Dominican Republic, Paraguay, Aruba and Chile

In 1998, it entered in Latam and began to operate in Peru, a market in which it holds the skills and means to developing its business in the entire construction sector, today MEG occupies the position of top 4 companies in the Engineering and Construction sector.

¹⁶ In *Mota-Engil SGPS Report and Accounts 2017*, 2018. Grupo Mota-Engil. Porto. April 2018, pg. 10-39

Believing in the potential of Latin America, the MEG continuously promotes the expansion of its presence to new markets, such as Mexico, Brazil and Colombia, having in its portfolio highway concessions covering a network of over 1.000 km, among other important benchmark construction projects.

Mexico is, currently, the biggest operation in Latam. MEG is developing large-scale infrastructure projects in several technical areas such as highway construction, the Guadalajara metro system, hospitals and other buildings. The Group also operates in the environment segment through GISA, and in the power generation sector through Fénix, the first private operator in this market.

Through Empresa Construtora Brasil (14th biggest contractor in Brazil), based in Belo Horizonte, in Brazil, the Group is expanding the business in the fields of road and railway infrastructures, having also been operating in the environment-related segment by Consita.

As a benchmark regional operator in terms of infrastructure, ME has broadened its presence in 2016 to markets such as Dominican Republic, Paraguay, Aruba and Chile.

6. Discussion

This section is intended to answer the research question, going over the subjects, discussing and explaining the difficulties, explaining the adversities and how they were overcome by Mota-Engil Group along its internationalization processes, analysing who are the competitors and its main advantages. Through the data gathered along the research will be presented the empirical data to corroborate the literature.

Who is the competition?

If we analyse the ENR 250 top of international contractors¹⁷ (ranking the companies by turnover outside the domestic market) we realise that in the top 10 there are 1 Spanish, 1 German, 1 Swedish, 1 Austrian, 1 English, 2 French and 3 Chinese. The first Portuguese is Mota-Engil, by far the biggest Portuguese contractor, with no comparison to the second biggest. Even so, Mota-Engil only ranks in the 51st position.

Table 5 - ENR's Top 10 International Contractors

Ranking		Company	Country
2018	2017		
1	1	ACS, ACTIVIDADES DE CONSTRUCCION Y SERVICIOS SA	Spain
2	2	HOCHTIEF AKTIENGESELLSCHAFT	Germany
3	3	CHINA COMMUNICATIONS CONSTRUCTION GROUP LTD	China
4	4	VINCI	France
5	9	STRABAG SE	Austria
6	7	TECHNIPFMC	UK
7	6	BOUYGUES	France
8	11	CHINA STATE CONSTRUCTION ENGINEERING CORP. LTD.	China
9	8	SKANSKA AB	Sweden
10	10	POWER CONSTRUCTION CORP. OF CHINA	China
...
51	58	MOTA-ENGIL	Portugal

Source: Adaptation of ENR's 2018 Top 250 International Contractors

¹⁷ In ENR's 2018 Top 250 International Contractors, 2018. ENR.com. Available at: <https://www.enr.com/toplists/2018-Top-250-International-Contractors-1> [Accessed 19 Feb. 2018].

The Portuguese Competitors

“I would say the biggest competitors of the Portuguese are the Portuguese. There is the propensity when a Portuguese firm expands to a new market and is successful, that others tend to follow”. (Dr. Jorge Santos, International Director of Portuguese construction company)

The Chinese

The Chinese have a totally different approach. The Chinese contractors are truly big multinationals in the all sense of the word, having operations in every point in the globe.

The Chinese company are state-owned, having the ease of financing as the funds and loans are guaranteed by the government. As being controlled by the state, the strategy is for the best interest of the nation. “The approach to business is not to make money, it is to increase Chinese exportation, and they use the international market of construction to do so. For instance, the Chinese Government loan hundreds of millions to fund the development of infrastructures in a determined country, without interest, but with mandatory clauses that the works must be done by Chinese contractors. Politically speaking is a fantastic solution. But what actually happens is that when the Chinese contractors operate, all the necessary material comes from China, including the subcontracting and heavy resources like steel, and sometimes even the food. (...) Another characteristic of the Chinese is that they have really strict hierarchy, as the decision is centralised by the government and with local support by the consulates.” (Dr. Jorge Santos, International Director of Portuguese construction company)

All this leads to inferior quality and the final output is poor, as they use the principle of meeting the basic of the contract, not having in account the durability. This creates an unfair competition and pressuring the competitors to lower prices.

The European Competitors

Different than the Chinese that are widespread, the European competition tends to be more selective in targeting markets. Excluding the Spanish, that have a strong position in South America and the Caribbean Region, due to historic influence in the region,

other European players are more selective competing in projects that require specializations, e.g.: the Italians in hydraulics engineering.

Other Europeans, such as the Spanish, French, German and the Nordics, English, Italians, Dutch, Belgian, they all have two capabilities in common, that the Portuguese have not:

- Domestic banks financial support;
- Strong specialization in industries related directly or indirectly to construction (machinery, for instances), leading to an international interest when internationalize.

The financial support enables the companies to apply to big projects. Having bank support makes it possible to acquire the resources and the means with the best technology available. The existence of industries related to construction enables the specialization in specific expertises within the field of engineering, as a significant share of the contract awarding is related to the technical solution proposed, having specialised means enables advantages in the contracts.

How did the Portuguese compete?

The Portuguese do lack from financial support and do not have specialization industries, like heavy machinery. But they do own certain set of capabilities that make the difference in an international environment.

Historically, the Portuguese presented the propensity to adapt to the environment. That happened in the time of the Discoveries, but the same can be said for the Portuguese construction companies nowadays. Taking Mota-Engil as an example, the company remained operating even after the Angolan independency from Portugal, including the years that followed, when the country was in a deep Civil War.

This capacity of adaptation and local integration that characterizes the Portuguese had other impacts. As they did not have the same level of financial support as the top companies, the Portuguese had to manage the resources to its maximization; a good example of it is the approach to the local human resources: “Our company

predominantly comprises local employees, whom we intend to develop to even higher levels.” (Aníbal Leite, Administrator of Mota-Engil Africa, in an interview to TBY Mozambique¹⁸, 2014). Using the local labour-force and transmitting the firm’s culture and technical expertise, optimizing the need of expats in the construction sites.

When did Mota-Engil decide to venture abroad?

To understand when the internationalisation of the Portuguese contractors started, we should take a brief look into Portuguese history, and go back in time, specifically to 1985, when it achieved EU membership, and the following decade. In this period the country heavily invested in infrastructures, funded by the ECC, to come to the fore of European countries.

In this period, marked by a boom in construction in Portugal, big projects were undertaken, such as the A1 highway, the Expo 98, the beginning of the construction of Vasco da Gama bridge, and many others. This construction boom endowed Portuguese engineers with experience and technical capability for venturing into future big projects. When the boom calmed down in Portugal, the Portuguese contractors turned to the ex-colonies and this is when the internationalization process of Portuguese contractors begins.

As mentioned above, when we talk about Mota-Engil Group we talk about two companies that merged in the turn of the millennium. Previous to that merge, there are two different stories, for two different companies.

Engil had a similar story of internationalization to other Portuguese contractors leveraging from the prosperous development of construction in public and private sector in the decade following the EU membership, highlighting the construction of Alto do

¹⁸ In *The Business Year*. (2018). A Span to Bridge. Available at: <https://www.thebusinessyear.com/mozambique-2014/a-span-to-bridge/interview> [Accessed 22 Jun. 2018].

Lindoso Dam. Having this large-scale project with complex technical characteristics in the curriculum, and adding to that the experience and know-how acquired along the years economic growth enabled to endeavour as most of the Portuguese contractors at the time, began its expansion in 1989 to Angola, a greenfield market in need of basic infrastructures, continuing its internationalization process to Mozambique in 1993. It is worth mentioning that at this time Engil had financial lines to fund construction of basic infrastructures in the ex-colonies (PALOP- countries which has Portuguese as official language). And in partnership with Mota-Engil to Peru in 1998.

If Engil followed the trend in Portugal to internationalize to the ex-colonies, Mota had a different story. That started some years before, by the hand of a man that is still revered within the construction sector, its founder, Manuel António da Mota. This man establishes Mota&Companhia in the year of 1946 in Portugal, with a branch in Angola, despite the fact that at this time Angola was an overseas territory of Portugal. Within the first month of existence the company was already present in two markets, which shows the spirit of entrepreneurship of its founder. In 1948, two years later, the firm's consortium was already awarded with the execution of the International Airport of Luanda, Angola. Two years after its foundation the company already had in its curriculum an important project, such as an International Airport.

The years following Angola's Independency, in 1975, a Civil War broke in the country. This event led to most of the Portuguese citizens departing from the country, leaving behind their houses and business. Against the current of the events, Manuel António da Mota decided to stay. This reaction and insightful interpretation of the events, in my opinion, sheds some light into the future successes of the Group, and the three characteristics that describe it, even today: adventurous spirit, willingness to take the risk and resiliency.

“In result of the war issues that arose, the turmoil, the other associates [of Mota&Companhia] decided to abandon the Angolan market. But my father didn't. We never stop working, it was not easy. It was necessary to retake the dimension, and at the time we did not have active operation in Portugal, [we] internationalized to Namibia.”

(Interview of António Mota, Chairman of Mota-Engil, published in *Jornal de Negócios*¹⁹)

“Until 1975, a Mota e Companhia only operated in Angola. After that time, it starts developing its activity in Portugal and other African countries.” (Interview of António Mota, Chairman of Mota-Engil, published in *Jornal de Negócios*²⁰)

Where did Mota-Engil internationalize?

Mota-Engil is currently present in three continents, the Group had an interesting year in terms of internationalisation. Since the beginning of the year, the Group had already announced three new expansions to the markets of Panama, Canada, Argentina and Nigeria. Investing in three different geographies, Central America, continuing to leverage from the regional presence in the Caribbean and South America; in Canada, a mature market, where the Group can leverage its mining-related construction curriculum; and Nigeria, continuing its bet in Africa, in a country with nearly 190 million population, with exciting potential.

In the map bellow, the markets in which the Group Mota-Engil is present, excluding the expansion of the year 2018, can be analysed.

¹⁹ In Entrevista a António Mota. *Jornal de Negócios*. Anabelamotaribeirop.pt [online] Available at: <https://anabelamotaribeirop.pt/antonio-mota-144235> [Accessed 23 Feb. 2018].

Figure 4 - Mota-Engil Goup international presence



Source: Mota-Engil Official Website, consulted at 11th of September 2018

The Group had the focus, mainly, in Africa, due to the history that Portugal had with its colonies, having significant presence in the countries of CPLP. From there the Group started expanding to the bordering countries, ascending to be a regional player. Today it is a leader in Angola and Malawi, and holds a significant position in Mozambique.

In 1995, the Group starts its expansion to the Central Europe markets, entering first in Poland where the Group has its HQ for the Central Europe operation. But as it has been revealed by António Mota (in the institutional presentation to the StartME Trainee Program 2017/2018), “...these markets are truly difficult, in the beginning it seemed a promising idea, they were economies with good numbers in terms of growth and in need of infrastructures, but the issue was that the big European players thought the same way. The competition in these markets is truly fierce, which reduces margins for the business, but in terms of operations it has been good to develop and learn, stimulating us to be better, is the good aspect of the competition ...” Moreover, Dr. Jorge Santos adds that “... in those markets, the Portuguese companies internationalized due to the potential of the markets and because there was a generalised interest of the Portuguese companies, even those outside the construction sector. But the truth is that in the construction sector none of the companies succeeded. The market has the top players in the industry with

stronger structure and bigger dimension, and even though Mota-Engil has the structure to resist, it is a difficult market.”

In 2008, with the crisis and the entrance of Dr. Jorge Coelho, the company starts expanding to LATAM, in an interview by Sapo24²¹, Dr. Jorge Coelho discloses “...when I entered Mota-Engil, the Group was too focused in the African operation...”, Dr. Jorge Coelho had the vision to expanded the Group to the Latin America, where it was already present in Peru after the joint-venture of Mota and Engil, and to acquire Translei, the Group expanded to Mexico, where it is the biggest market of the Group nowadays.

Which were the difficulties?

To understand the difficulties faced by Mota-Engil, a questionnaire was elaborated taking into consideration the previous literature relating to the main challenges faced in the internationalization into developing countries. The questionnaire was answered having in account the interview done to Dr. Jorge Santos (primary source) and analysing the several interviews to António Mota (secondary source). The conclusion can be analysed as follows:

²¹In Morgado, M. and Rascão, P. Depois da política, Jorge Coelho põe a mão nos queijos e dá a voz pelo Interior. *SAPO 24*. Available at: <https://24.sapo.pt/atualidade/artigos/depois-da-politica-jorge-coelho-poe-a-mao-nos-queijos-e-da-a-voz-pelo-interior> [Accessed 22 Sep. 2018].

Table 6 - Risks faced by Mota-Engil

Country Level Risks
Approval and permit
Change in law
Justice reinforcement
Government influence on disputes
Corruption
Expropriation
Quota allocation
Political instability
Government policies
Cultural differences
Stringent environmental protection
Reputation
Force majeure (out of control of local or foreign partners: war, hostilities, storms floods, hurricanes, etc.)
Market Level Risks
Human resource
Local partner's creditworthiness
Corporate fraud
Termination of joint venture (JV)
Foreign exchange and convertibility
Inflation and interest rates
Market demand
Competition
Project Level Risks
Cost overrun
Improper design
Low construction productivity
Site safety
Improper quality control
Improper project management
Intellectual property protection

Source: Own elaboration, corroborating Risk management framework for construction projects in developing countries (Wang, S. et al., in 2004)

Comparing the results, we can conclude that the data gathered meets the literature.

Besides the risks given by the literature some others were identified, that can be described in detailed as follows:

Financing

Another issue concerning the Portuguese construction difficulties when internationalizing, is related to Portuguese banks support, in words of António Mota: “the Portuguese banking system is showing positive signs, but for the Portuguese companies, the lack of dimension of the Portuguese banks is a problem”. Nowadays the financing Mota-Engil receives from national banks only rounds the 40%. (António Mota, in an interview to ECO, published at 30th November 2017) In this matter, Dr. Jorge Santos reveals that “taking the example of Peru, a market where the top Portuguese companies are present, if we consider the list of first-line banks elaborated by Banco Central de Reserva del Peru²² (the Peruvian National Central Bank), there are no Portuguese bank presence”.

Lack of Promotion

Defended by Dr. Jorge Santos, the Portuguese companies have no entity promoting the Portuguese construction and ease the internationalization process in the markets, “taking the example of Brazil they have national entity and a bank of development for the construction industry, such as BNDES supporting and the national central bank financing, the clear case of what happened in Brazil when the boom of construction in Saudi Arabia and Dubai happened”.

Personnel

Adding to that, there is the issue involving the difficulty to hire personnel to work abroad, when years ago was easier to convince the staff to work abroad for some years, with the promise that then the company would reallocate them to other divisions/working sites, this does not happen today, as António Mota says “Here [in Portugal] we lack construction projects.” Dr. Jorge Santos reinforces this idea and adds another perspective: “when the recession pressure on the sector goes away, the

²² In Miñán, R. *Lista de Bancos de Primera Categoría*. Banco Central de Reserva del Perú Bcrp.gob.pe. Available at: <http://www.bcrp.gob.pe/docs/Transparencia/Normas-Legales/Circulares/2018/circular-022-2018-bcrp.pdf> [Accessed 15 Sep. 2018].

engineers will prefer to stay in Portugal, as there will be some projects, closer to where family and friends are, despite the career opportunities being scarcest”.

Costs of Structure

These costs refer to the costs related to activities indirectly involved in the operation or that affect more than a single construction project, such as administration departments, central warehouse, costs associated with the headquarters and top management, etc. Dr. Jorge Santos says these costs are especially important because they are significantly high and associating this to the long time that an operation needs until being sustainable, between 1 to 3 years depending on the market, to support this debt situation, needs to be financially supported. And again, the problem of lack of financing arises.

Management focus

António Mota argues “...the Group is spread through three different continents, this raises questions regarding the local decision-making process. Despite the advances in technology, someone must be in charge...”.

How does Mota-Engil manage these difficulties?

For corroboration of the literature, a questionnaire was elaborated to understand how the challenges are managed and bypassed, as such, the answers can be analysed as follows:

Table 7 - Measures taken by Mota-Engil to mitigate risks

Risk Level	Risk Description	Risk Mitigation	Measures
C o u n t r y	Approval and permit	1-Maintain good relationship with local government and higher officials	X
		2-Ensure the project is complying with local planning commission's development plan	
		3-Establish JV with renowned local partners, especially the central government agencies or state owned enterprises	X
		4-Ensure the feasibility study report and contract depict local government, local partner and foreign party's actual intentions (like anticipated profits, risk sharing)	X
		5-Obtain support of foreign firm's home government and international monetary institutions like World Bank against delay in approval and permit	
	Change in Law/ Justice Reinforcement	1-Maintain good relationship with local government and higher officials	X
		2-Obtain local government guarantee to adjust tariff or extend concession period (for Build-Operate-Transfer (BOT) projects)	X
		3-Include clauses for delays and additional payments in contract, which occur due to new rules or change in law	X
		4-Rely on combination of international consortium, joint international convention and insurance policies (especially political insurance) to protect investment in the project	X
		5-Obtain insurance for political risks	
	Government influence on disputes	1-Maintain good relations with concerned local government officials and concerned authorities	X
		2-Establish JV with local partners especially the central local government agencies or state owned enterprises	
		3-Provide dispute settlement clauses in the contract	X
		4-Ensure the approval is sought at the right local government departments	X
	Corruption	1-Maintain good relations with concerned local government officials and concerned authorities	
		2-Set aside a budget for unavoidable spending	
		3-Cultural and commercial awareness training to management and key personal who may have to deal with corrupt officials	X
		4-Try to work directly with the business connections, i.e. do not hire broker or middleman	X
		5-Establish JV with renowned local partners, especially the central local government agencies or state owned enterprises	
	Expropriation	1-Establish JV with renowned local partners, especially the central local government agencies or state owned enterprises	X
		2-Maintain good relations with concerned local government officials and concerned authorities	X
		3-Develop contingency plans and obtain insurance for expropriation possibility	X
		4-Rely on combination of international consortium and insurance policies (especially political insurance)	
		5-Obtain support from foreign firm's home government and international monetary institutions like World Bank and ADB against expropriation by local government or its agencies	
	Quota Allocation	1-Prepare and submit all necessary reports and feasibility study on time	X
		2-Establish JV with local partners especially the central local government agencies or state owned enterprises	X
		3-Establish good relations with officials in concerned ministries	X
4-Obtain support from foreign firm's home government and international monetary institutions like World Bank against unfair quota allocation			
Political Instability	1-Obtain insurance for political risks from international finance and risk assessment agencies	X	
	2-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians		
	3-Establish JV with local partners especially the central local government agencies or state owned enterprise		
	4-Seek incorporation of termination or delay clauses in contract	X	
Government Policies	5-Develop own contingency plans for possible political instability, such as plan for emergency evacuation	X	
	1-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians	X	
	2-Study carefully the differential taxation and find legal and reasonable measures to reduce taxes	X	
	3-Establish JV with local partners especially the central local government agencies or state owned enterprise	X	
	4-Seek reasonable compensation scheme (lump sum, share in JV, profit) for technology transfer	X	
Cultural Differences	5-Obtain support from foreign firm's home government during anticipated insurgency	X	
	1-Insist on having trustworthy people on key places within the JV	X	
	2-Provide dispute settlement clauses in the contract		
	3-Hire company's own competent native language-speaking employee, even though some of the staff understand native language		
	4-Try to have as large an equity share as possible thus ensuring control of Board of Directors	X	
Environmental Protection	5-Devise unambiguous and agreed risk sharing code at the time of contract	X	
	1-Adopt strict pollution control measures	X	
	2-Engage both local and international pollution control specialists	X	
	3-Include disclaimer in contract for present pollution level (conduct survey to see clear picture)	X	
Public Image	4-Comply with international and/or local environmental laws, standards and regulations	X	
	1-Give donations to renowned non-governmental organizations, which are involved in elevating the living conditions of poor	X	
	2-Comply with local and international civil laws and standards, local social and cultural values	X	
	3-Participate actively in public relation activates and charity	X	
Force Majeure	4-Maintain good reputation and image to the public	X	
	1-A party which fails to meet his contractual obligation due to force majeure must notify the other one within a reasonable time	X	
	2-Insure all of the insurable force majeure risks		
	3-Include delay clauses for contingency plan in contract	X	
	4-Obtain local government guarantee to adjust tariff or extend concession period (for BOT projects)	X	
	5-Obtain local government's guarantee to provide financial help when needed	X	

When Portugal is too small to build – Case-study: Mota-Engil

Risk Level	Risk Description	Risk Mitigation	
M a r k e t	Human Resource	1-Foreign firm should insist on having trustworthy people on key places within the JV	X
		2-Offer training to new and existing staff	X
		3-Offer better remuneration/incentive packages to staff	X
		4-Decide on recruitment and selection criteria in consultation with one local partner	X
		5-Sign formal employment contract with every staff	X
	Local Partner's Creditworthiness	1-Have clear contractual terms and conditions, agree on one accounting standard and define clear authority and responsibility in contract	X
		2-Pay careful attention to contract translation	X
		3-Insist on having trustworthy people on key places within the JV	X
		4-Examine the target company's financial viability, technical and management competence and connections with local government	X
		5-Define clearly the merging scope of assets, employees, shares, organization, strategies, etc. when merging with a local partner	X
	Corporate Fraud	1-All parties should agree on one accounting standard and hire one independent accountant	X
		2-Insist on having trustworthy people on key places within the JV	X
		3-Visit/check the factory or business regularly and irregularly	X
		4-Get information about local partner's credibility from its present and past business partners	X
		5-Monitor present status and par/face value of share dealings of the JV	X
	Termination of Joint Venture	1-Insist on having trustworthy people on key places within the JV	X
		2-Provide comprehensive terms of default in the contract	X
		3-Choose to establish a cooperative JV and partnership	X
		4-Maintain good relationship and connections with higher local government officials, local power persons like opulent persons and politicians	
		5-Try to have larger share of profit as early as possible	
	Foreign Exchange and Convertibility	1-Use dual-currency contracts with certain portion to be paid in local currency and others in foreign currency	X
		2-Use other money transfer tools e.g. forward and swap that can hedge exchange rate	
		3-Obtain local government guarantees of exchange rate and convertibility, e.g. fixed rate for long period or less fluctuation etc	X
	Inflation and Interest rates	1-Obtain payment and performance bonds from local and international banks	X
		2-Ensure that a reputable owner through international institute, e.g. World Bank, finances the project	X
		3-Specify extension or compensation clauses in contract for payment	X
		4-Client to secure standby financing (i.e. more than 100% financing commitments when needed)	X
		5-Get Letter of Credit from local government	X
Market Demand	1-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians	X	
	2-Employ reputable third party consultant to forecast market demand	X	
Competition	1-Conduct market study and obtain exact information of competitive projects	X	
	2-Adopt as much as possible domestic product/labour to reduce cost	X	
	3-Maintain good relationship and connections with higher local government officials, local power sources like opulent persons and politicians	X	
	4-Establish agreement with local government agency to reduce/exempt from import formalities	X	

When Portugal is too small to build – Case-study: Mota-Engil

Risk Level	Risk Description	Risk Mitigation	
P r o j e c t	Cost Overrun	1-Develop a clear and appropriate plan and control schedule and cost	X
		2-Measure and price Bills of Quantities properly during bidding stage	X
		3-Secure standby cash flow in advance	X
		4-Sign fixed or pre-determined prices with material and accessory facilities suppliers	X
		5-Incorporate escalation clauses for interest, inflation rates and delays in contract	X
	Improper Design	1-Arrange and undertake comprehensive site investigation before construction phase	X
		2-Adopt Design & Build option which enables contractor to design in harmony with site conditions thus minimizing design/drawing disputes	X
		3-Undertake pre-project planning to minimize design errors	X
		4-Specify construction extension clause in contract	X
		5-Organize for appraisal/vetting of drawings and design criteria by at least one independent engineering/architect consultant	X
	Low Construction Productivity	1-Adopt proper quality control procedures	X
		2-Adopt Design & Build option which enables contractor to design in harmony with site conditions thus minimizing design/drawing disputes	X
		3-Benchmark and monitor construction activities properly	X
		4-Review plans jointly with local partner to determine changes	X
		5-Apply innovative production concepts/philosophies like Lean Construction, Just In Time and Total Quality Management, to decrease variability and rework during construction	X
	Site Safety	1-Adopt proper safety control programme, management system, supervision, incentives and preventive measures	X
		2-Get Third Party Insurance for compensation to general public and staff	X
		3-Study and implement the local accident regulations stringently and effectively	X
		4-Ensure that construction and operation are as per examination and concerned approving authority's expectation	X
	Improper Quality Control	1-Adopt proper quality control procedures, supervision and incentives	X
		2-Review plans jointly with local partner to determine changes	X
		3-Implement ISO9000 and get certification	X
	Improper Project Management	1-Hire competent project management team	X
		2-Clear definition of each staff's scope of work	X
		3-Conflict resolution clause in contract and specify construction extension clause in contract if client causes the delay	X
4-Provide clauses on schedule delay and additional payment if caused by client		X	
5-Hire competent project management team		X	
Intellectual Property Protection	1-Insist on having trustworthy people on key places within the JV	X	
	2-Ensure that the local partner appreciates the advantages of having exclusive rights to that property i.e. shareholding in protection of intellectual property	X	
	3-Confirm whether a good local intellectual property protection scheme is in place for the key intellectual property like trademark, patent or copyright law	X	
	4-Negotiate on amount and speed of technology transfer	X	
	5-Place restrictive covenants (promises) in the contracts of employees	X	

Source: Own elaboration, corroborating Risk management framework for construction projects in developing countries (Wang, S. et al., 2004)

Adding to the answers gathered, having in comparison the literature, other measures taken by Mota-Engil to overcome its difficulties in the internationalization will be discussed in more detail in the following paragraphs, as they were identified with the relevant contribution of Dr. Jorge Santos (primary source) and by analysing the several interviews to António Mota (secondary source).

The merge

António Mota refers that for the growth of its internationalization process was important the merge with Engil, as he says “...in internationalization either the firm has the structure and a strong balance sheet to handle it or it must be very specialized...”, he refers that this was what the other Portuguese firms lacked 20 years ago, when the Portuguese firms did not have the dimension, and that merging would be a solution to surpass the dimension problem, something that only happens today by obligation of PER, as above-mentioned.

Regional track record

About its relation to the African market recognition towards Mota-Engil, Eng António Mota says “in Ghana and Namibia [countries where the Group had a previews operation, but is not currently present] people talk good about Mota-Engil. We have a good name in Africa”.

Adaptability, flexibility and versatility

António Mota about the company’s capability to adapt to the local market, refers that today the Group “is more international than Portuguese”. As the company “was born in Africa” with Portuguese managers and engineers that led to a propensity to adapt since day one “...our first internationalization was to Portugal. I do not consider it as an international company. We are Portuguese, in Portugal, Polish in Poland. We are a local company.” And this created “a unique corporate culture, mixing the Portuguese and the locals. Nowadays we can find a Polish worker in Angola, as a Peruvian in Mozambique. And no one in Africa consider us as a foreign company”, claimed by António Mota, in an interview to ECO, published at 30th November 2017.

Developing Markets

Dr. Jorge Santos says, “as the costs are significantly high, a Portuguese company chooses to go to markets where the margins are higher, balancing the high structure costs, and shortening years until being sustainably operating”. Usually high margins are associated with riskier markets and in the case of African markets, lack of liquidity and long periods of payments delay.

Regional Player

Being a regional player enables the move of resources, leveraging form the proximity of resources to the centralised site, a good example of it is heavy machinery. This enables to save time and reduce costs. Another positive externality of a regional player is that cultures of bordering countries tend to be similar, this means that reduction in the adaptation time needed to the market, defends Dr. Jorge Santos. This is clear in the case of Mota-Engil, in Africa and South America. For instance, in South of Africa, Mota-Engil is present in Mozambique, Malawi, Tanzania, South Africa, Zambia, Zimbabwe, Angola, Ruanda, Uganda and in South America, it is present in Brazil, Peru, Chile,

Paraguay and in the Caribbean region in Aruba, Dominican Republic, Colombia, Mexico and with a new entrance in Panama.

Mining accreditation

Mota-Engil operates in countries rich in raw materials, such as ores extracted from mines. These countries gain special interest for the multinationals companies within the mining sector. “The ore needs to be extracted from mines, which require specific infrastructure. This requires those infrastructures to be built on site as the mines tend to be built, by necessity, far from civilization. Furthermore, since most mines are built either on mountainous terrain, or excavated directly into the ground, this requires the help of a company better suited for those kinds of works, therefore mining companies outsource the construction of these infrastructures, creating “mini-cities”, and the required accessibilities to the mines. This outsourcing process is named accreditation, as these mining companies tend to be very selective in the companies which they hire. This happens because as the mining activity is involved in high risk, mining companies tend to hire companies that they trust, thus reducing the risk of future complexities in the course of the operation. Mota-Engil managed to enter into the reduced group of companies that have this accreditation; this enables the company to operate in a construction highly difficult niche. Adding to that, “the contracts tend to be by invitation of the client.” states Dr. Jorge Santos. This accreditation enables Mota-Engil to expand to markets where the clients are present and from there, establish to a more structural operation and diversifying to the other fields of expertise of construction where Mota-Engil are capable too. Having as clients, influent companies in the mining sector, such as Vale, Newmont Mining, Barrick and Anglo American, within others.²³

Networking

The influent network was essential for the internationalization in Latin America, the hiring of the former Portugal vice-President, Paulo Portas, as a consultant, hired “because of his geostrategic knowledge and wide network connections in the several countries where the company intended to operate”, as defended by António Mota, in an interview to ECO, published at 30th November 2017. Besides these two examples, the

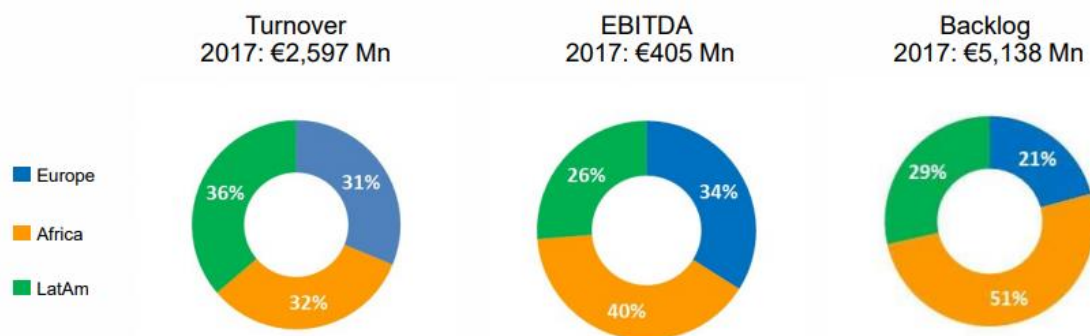
²³<http://www.mota-engil.pe/areas-de-negocio-ingenieria-y-construccion-infraestructura-mineria.html>

Group have a few more Non-Executive Directors, with previous relations with the Portuguese political life, such as the ambassador and ex-Secretary of Estate, Francisco Seixas da Costa, including Luís Valente de Oliveira, ex-minister and Lobo Xavier, the later occupying similar positions in other listed Portuguese firms.

Market diversification

In the recent years, the Group struggled with the crisis, as the whole construction sector did. In Portugal, with the recession and developing countries market facing a price crisis in the commodities, the play to expand to Latin America revealed itself to be a safe port. The Group diversified in the geographies. Angola that once represented 80% of the turnover, in 2016 represented nearly 40%. It was a needed adaptation to the crisis diversifying in regions and in risk. Dr. Jorge Coelho says in the interview to Sapo24, “... today the Group is more diversified not only in geographies, but in business segments. Today it is present in various activities, more so than in the past...”

Chart 2 - Turnover, EBITDA and Backlog by region, in 2017



Source: Mota-Engil Official Investor Presentation, September 2018, page 6

Managing clients financing

Some markets have the need for infrastructure and already have the projects, but don't have the financing component to award the contracts. Therefore, in some cases Mota-Engil contact institutions and banks for the African development to prepared the financial component for the contracts as António Mota revealed “...in the countries bordering Angola, Mozambique and Malawi, where we are not present, people know us,

so we should be aggressive enough to gain the contracts, but to profit too, and in some markets, we look for the financial funds.”

Organizational change

Another critical point in the Mota-Engil strategy was the organizational change, that took place with Dr. Jorge Coelho as CEO. “We were organized by business segments even when a significant level of internationalization already existed, while the operation was still focused on the national market, with an existing cash-flow generation in Portugal that sustained the payment delays in the other markets, whereas the financial system used to be capable for the internationalization support of Portuguese firms. All those factors disappeared. With a strong retraction of the Portuguese economy and banking system, the management prompted this change related with the fact that we had to increasingly finance where we were operating, leading to the necessity of having business management and assets in the markets and not [organised] by specialities.” (António Mota, Mota-Engil Chairman, *Sinergia*, 43 edition, Sep 2013, page 10 and 11). The decentralisation that took place with Dr. Jorge Coelho was essential for the focus of the management in each region that was not possible from Portugal. “He [Dr. Jorge Coelho] created this philosophy: we have to depart from the region to the international growth, not from Portugal. Portugal is too small for an internationalization start from here.”, argues Antonio Mota. (Interview to António Mota, Chairman of Mota-Engil, published in *Jornal de Negócios*²⁴)

Key local partnerships

The importance of a key partner in the Angolan market was mandatory to ascend the leadership of the Angolan market, “The way towards development in Angola included developing strong partnerships, and we could not had chosen a better partner than Sonangol, a bank with efficient and strategic vision for the future...”. (Interview to António Mota, Mota-Engil Chairman, published in *Sinergia*, 43rd edition, Sep 2013, page 13)

²⁴<https://anabelamotaribeiro.pt/antonio-mota-144235>

7. Conclusion

The research allowed me to conclude interesting data regarding the internationalization of Portuguese companies, embodied by Mota-Engil. Some ideas were corroborated, others were a surprise. Overall, the case-study clarified and gives an overview through the aspects regarding the thematic of internationalization in the Portuguese construction sector.

An expected conclusion was that the Portuguese companies expanded because Portugal has a small dimension. That was clearly defended by both Dr. Jorge Santos and António Mota. Therefore, the internationalization was a necessity that with the financial crisis forced the overseas expansion.

Portugal had a boom in construction in the middle of the 80's decade, but this boom was ephemeral. As so, it is clear that the country's small dimension handicapped any company that aspired to compete with the world players. Besides this challenge, other conclusions can be evidenced. The Portuguese banks' lack of dimension and the inexistence of a national interest in incentivising the internationalisation of the Portuguese construction sector, culminating with the Portuguese economy failing to have a strong industrial sector that would create a synergetic relationship between industry and economy, which would promote this national interest for the internationalization of Portuguese contractors.

Moreover, during the operation in external markets Mota-Engil faced various challenges. The most critical was the difficulty of financial support by Portuguese banks, and it soon realised that for expanding to markets outside of CPLP would need to diversify in the sources of financing. Another challenge faced was the loss of focus by the management, the decision-making process was too far from the various poles of operation. To manage this problem an organisational change was taken into action, dividing its operation by the three regions of activity. This way the management would be closer to the problems and faster to respond and implement the required solutions. Adding to that, the Group has the strategy of diversification, this way reducing risk exposure by region, and diversifying in business segments.

While studying Mota-Engil, there was a pattern in its expansion to enter in markets bordering countries in which the Group was already present. This strategy allowed it to obtain leverage in the form of resources and proximity, and from its reputation within the region. But Mota-Engil also expanded outside the African market where once had more than 80% of its operation, due to its accreditation within the mining multinational companies and to its contacts network, the Group successfully expanded to South America where implemented the same regionalization logic.

However, Mota-Engil is the leader because it did different. Several times along its history: remained when the others flight from Angola and merged with one of its peers, Engil, elevating the companies dimension and capabilities, jointly the two companies were big, and continued to expand, especially when the crisis hit, and continued to grow internationally.

There is a critical point along the history of this company, when the two companies merge, Mota was more capable in the construction segment, and Engil was more into Engineering. The merge not only created a big company in Portugal, but also created a company with dimension, structure, areas of expertise and joined the both companies curriculums, that where relevant already. The birth of Mota-Engil meant that the company could embrace projects that were out of reach before.

Mota-Engil is a family-owned company, these companies distinguish by its references. In the case of Mota-Engil, it has two: its founder, Manuel António da Mota, and his son António Mota, that not only maintained the company growth despite the challenges faced, but also had the vision to expand the legacy. These two men are renowned amidst their peers in the construction sector in Portugal.

While doing this research, and analysing the several interviews and talks of António Mota, there is a consistency in the words he used: *Ambition*, *Audacity* and *Work*, and arguing that “the past can give the references to the future’s path”. If that is true, then Mota-Engil has a good guide book, for the third generation that begins to enter the top management roles, that will have to face different challenges in the future.

“We are a big company in Portugal, but compared to Europe we are average, and comparing to the world we are small. It is difficult to work from Portugal.”

António Mota, Chairman of Mota-Engil

8. Bibliography

Binti Mat Isa, C. M., Saman, H. M., & Preece, C. N. 2017. Development of OLI+S Entry Decision Model for Construction Firms in International Markets. *Construction Economics & Building*, 17(4), 66–91.

Calof, J., & Beamish, P., 1995. Adapting to foreign markets: explaining internationalisation, *International Business Review*, Vol. 4 No.2, pp. 115-31.

Caves, R. E. 1996. *Multinational enterprise and economic analysis*. Cambridge university press.

Cavusgil, S. T., Knight, G., & Riesenberger, J. R., 2013. *A Framework for International Business*. Pearson.

Chandler, A.D. 1962. *Strategy and Structure: Chapters in the history of the industrial enterprise*, MIT Press, Cambridge, Massachussets, pg.13.

Cheong, C. S., 2010. *Contractors' Business Development for Overseas Markets*, Loughborough University Institutional Repository pg 182-187.

Creswell, J.W., 2003. *Research Design: Qualitative, Quantitative, and mixed methods approaches*. Second Edition. Thousand Oaks, California: Sage Publications.

De Vaus, D. A., 2001. *Research Design in Social Research*. SAGE Publications, pg 5-8.

European Commission. 2016. The European construction sector - A global partner - 2016 edition. pg.3.

European Construction Monitor 2016-2017: Growing opportunities in local markets, 2017, Deloitte The Netherlands, pg.20.

Görg, H. 2000. Analysing foreign market entry: The choice between greenfield investment and acquisitions. *Journal of Economic Studies*. 27(3), 165-181.

Grosso, M. G., Jankowska, A., & Gonzales, F. 2008. *Trade and regulation: the case of construction services*. In OCED Experts Meeting on Construction Services, Paris.

Gunham, S., & Arditi, D. 2005. International expansion decision for construction companies. *Journal of Construction Engineering and Management*. 131(8), pg 928-937.

Hillebrandt, P.M. 1985. *Economic Theory and the Construction Industry*. 2nd Ed. Macmillan, London.

Hollensen, S. (2004). *Global Marketing - A decision-oriented approach* (Third Edition ed.). Harlow: Pearson.

Jung, W., Han, S. H., Koo, B., & Jang, W. 2012. Which Strategies Are More Effective for International Contractors during Boom and Recession Periods? *Journal of Management in Engineering*, 28(3), pg 281–290.

Kardos, G. & Smith, C.O. 1979. *On Writing Engineering Cases*. Proceedings of ASEE National Conference on Engineering Case Studies.

Low, S.P. & Jiang, H., 2006. Analysing ownership, locational and internalization advantages of Chinese construction MNCs using rough sets analysis. *Construction Management and Economics*, 24(11), pg. 1149-65.

Mat Isa, C. M. B., Saman, H.M., & Preece, C. N., 2017. Development of OLI+S Entry Decision Model for Construction Firms in International Markets. *Construction Economics and Building*, Vol. 17, No. 4, 66-85.

Mota-Engil SGPS Earnings Release 2017, 2018. Grupo Mota-Engil. Porto. March 2018.

Mota-Engil SGPS Investors Presentation, 2018. Grupo Mota-Engil. Porto. September 2018.

Mota-Engil SGPS Report and Accounts 2017, 2018. Grupo Mota-Engil. Porto. April 2018, pg. 10-39.

Ricart, J., & Llopis, J. 2018. Next Stop: Making SMEs International. *IESE Insight - Alumni Magazine*. Issue 132. January - March 2014:20-23.

Ranking de Internacionalização das Empresas Portuguesas 2017. INDEG-ISCTE Executive Education, Núcleo de Estratégia e Negócios Internacionais da Fundação Dom Cabral & AICEP Portugal Global. 4th Edition. 2017 pg. 2-5.

Sousa, M. L., 2017. *Internationalization of Construction Professional Service Firms- Overcoming challenges in mature markets. The case of Proef Group in the mature western European Market*. Dissertation. Universidade Católica Portuguesa, June 2017.

Strassman, W. P., & Wells, J. 1988. *Global Construction Industry: Strategies for Entry, Growth, and Survival*. East Lansing: Michigan State University Press.

Strategy&. PWC. 2017. Report 2017 Engineering and Construction Trends.

Wang, S., Aguria, M. & Dulaimi, M., 2004. Risk management framework for construction projects in developing countries. *Construction Management and Economics* (March 2004) 22, 237–252.

Welch, L. S., & Luostarinen, R., 1988. Internationalisation: evolution of a concept, *Journal of General Management*, Vol. 14 No. 2, pp. 34-55.

Websites

Construction - Growth - European Commission. European Commission. Available at: https://ec.europa.eu/growth/sectors/construction_en [Accessed 16 Feb. 2018].

Construction and related engineering services. WTO. Wto.org. Available at : https://www.wto.org/english/tratop_e/serv_e/construction_e/construction_e.htm [Accessed 18 Apr. 2018].

Costa, A. and Nunes, F. (2018). António Mota: “É preciso haver um pacto de regime para o setor da construção”. *ECO*. Available at: <https://eco.pt/entrevista/antonio-mota-e-preciso-haver-um-pacto-de-regime-para-o-setor-da-construcao/> [Accessed 21 Sep. 2018].

E. Ricart, J. and Llopis, J. (2018). *How SMEs Can Internationalize*. Forbes.com. Available at: <https://www.forbes.com/sites/iese/2015/04/20/how-smes-can-internationalize/#a6bde3f1eb81> [Accessed 19 Jul. 2018].

Energy. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Energy> [Accessed 16 Jun. 2018].

Engineering and Construction. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Engineering-and-Construction> [Accessed 16 Sep. 2018].

ENR's 2018 Top 250 International Contractors, 2018. ENR.com. Available at: <https://www.enr.com/toplists/2018-Top-250-International-Contractors-1> [Accessed 19 Feb. 2018].

ENR's 2018 Top 250 International Contractors: Markets Begin to Turn Around, 2018. Enr.com. Available at: <https://www.enr.com/articles/45048-enrs-2018-top-250-international-contractors-markets-begin-to-turn-around> [Accessed 16 Jul. 2018].

Entrevista a António Mota. *Jornal de Negócios*. Anabelamotaribeiro.pt [online] Available at: <https://anabelamotaribeiro.pt/antonio-mota-144235> [Accessed 23 Feb. 2018].

Environment and Services. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Environment-and-Services> [Accessed 16 Jun. 2018].

Gomes, P. (2018). Maior construtora chinesa entra em Portugal. *Jornal Visão*. Available at: <http://visao.sapo.pt/exame/2018-03-16-Maior-construtora-chinesa-entra-em-Portugal> [Accessed 15 May 2018].

História – Mota-Engil Engenharia e Construção. Mota-Engil Group. engenharia.mota-engil.pt. Available at: <http://engenharia.mota-engil.pt/institucional/historia> [Accessed 1 Jun. 2018].

History - Mota-Engil Group. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Institucional/History> [Accessed 16 Jun. 2018].

Institutional Presentation of the Mota-Engil Group, 2018. Mota-Engil Group. En.mota-engil.pt. Available from: <http://en.mota-engil.pt/var/mota-engil/storage/original/application/6271821b7257053e4b175035b60dc366.pdf> [Accessed 16 Jun. 2018].

Instituto alemão prevê boom na construção em Portugal até 2020. *Dinheiro Vivo*. dinheirovivo.pt. Available at: <https://www.dinheirovivo.pt/economia/instituto-alemao-preve-boom-na-construcao-em-portugal-ate-2020/> [Accessed 12 Jun. 2018].

2020: Mota-Engil quer volume de negócios de 4 mil milhões de euros. *Jornal Construção*. jornalconstrucao.pt. (2018). Available at: <https://jornalconstrucao.pt/2020-mota-engil-quer-volume-de-negocios-de-4-mil-milhoes-de-euros/> [Accessed 15 Jul. 2018].

Market Entry Strategies. Tradestart. Available at: <http://www.tradestart.ca/market-entry-strategies> [Accessed 9 Jul. 2018].

Miñán, R. *Lista de Bancos de Primera Categoría*. Banco Central de Reserva del Perú Bcrp.gob.pe. Available at: <http://www.bcrp.gob.pe/docs/Transparencia/Normas-Legales/Circulares/2018/circular-022-2018-bcrp.pdf> [Accessed 15 Sep. 2018].

Minería - Mota Engil. Mota-Engil Peru. mota-engil.pe. Available at: <http://www.mota-engil.pe/areas-de-negocio-ingenieria-y-construccion-infraestructura-mineria.html> [Accessed 21 Sep. 2018].

Mining. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Mining> [Accessed 16 Jun. 2018].

Morgado, M. and Rascão, P. Depois da política, Jorge Coelho põe a mão nos queijos e dá a voz pelo Interior. *SAPO* 24. Available at: <https://24.sapo.pt/atualidade/artigos/depois-da-politica-jorge-coelho-poe-a-mao-nos-queijos-e-da-a-voz-pelo-interior> [Accessed 22 Sep. 2018].

Pinto, L. (2018). “O nosso mercado vai ser invadido pela construção espanhola”. *PÚBLICO*. Available at: <https://www.publico.pt/2018/05/23/economia/entrevista/o-nosso-mercado-vai-ser-invadido-pela-construcao-espanhola-1831199> [Accessed 15 May 2018].

Pinto, L. (2018). “O sector da construção não foi reformulado. Foi destruído”. *PÚBLICO*. Available at: <https://www.publico.pt/2016/08/01/economia/entrevista/o-sector-da-construcao-nao-foi-reformulado-foi-destruido-1739808> [Accessed 17 May 2018].

PwC. (2018). *Global Construction 2030: A global forecast for the construction industry to 2030*. Available at: <https://www.pwc.com/vn/en/industries/engineering-and-construction/pwc-global-construction-2030.html> [Accessed 22 Jun. 2018].

Research Guides: Organizing Your Social Sciences Research Paper: Writing a Case Study. Libguides.usc.edu. Available at: <https://libguides.usc.edu/writingguide/casestudy> [Accessed 22 Aug. 2018].

Stansbury, N. (2005). “Exposing the Foundations of Corruption in Construction”, Transparency International. Available at: http://www.transparency.org/publications/gcr/download_gcr/download_gcr_2005. [Accessed 20 Aug. 2018].

Suspiro, A. (2018). Jorge Coelho volta à administração da Mota-Engil, cinco anos depois de se demitir de presidente. Observador. Available at: <https://observador.pt/2018/04/19/jorge-coelho-volta-a-administracao-da-mota-engil-cinco-anos-depois-de-se-demitir-de-presidente/> [Accessed 18 Sep. 2018].

The Business Year. (2018). A Span to Bridge. Available at: <https://www.thebusinessyear.com/mozambique-2014/a-span-to-bridge/interview> [Accessed 22 Jun. 2018].

The Strengths and Weaknesses of Case Studies. UniversalClass.com. Available at: <https://www.universalclass.com/articles/business/a-case-studies-strengths-and-weaknesses.htm> [Accessed 12 Aug. 2018].

Tourism. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Business-Areas/Tourism> [Accessed 16 Jun. 2018].

Transport Concessions. Mota-Engil Group. En.mota-engil.pt. (2018). Available at: <http://en.mota-engil.pt/Business-Areas/Transport-Concessions> [Accessed 16 Jun. 2018].

Vision, Mission and Values. Mota-Engil Group. En.mota-engil.pt. Available at: <http://en.mota-engil.pt/Institutional/Vision-Mission-and-Values> [Accessed 16 Jun. 2018].

9. Appendix

Appendix 1 – Interview request

Dear Dr. Jorge Santos,

Would you consider being part of my thesis?

I am currently developing a Case study of the company Mota-Engil with the intention to understand the internationalization process of Portuguese construction companies. The case-study goes in line with the Master in International Management of ISCTE-Business School, and in that light I would wish to request an interview.

The interview has the goal of answering the following core questions, regarding Mota-Engil internationalization:

- When did Mota-Engil decided to venture abroad?
- Where did Mota-Engil venture?
- What were the difficulties faced?
- How did they manage these difficulties?
- What are the goals of these companies when they internationalize?
- Why are they successful?

The interview would take a maximum of 60 minutes. I would like to highlight that your contribution and cooperation will be very valuable for my work.

Looking forward to your answer.

Cordially,

Diogo Martins

Appendix 2 – Interview with Corticeira Amorim

To answer the following questions is requested that, begin by giving an overview of the Portuguese companies, and then focus to Mota-Engil case. This way, will be possible to understand what Mota-Engil did different and why do have its success.

1. What are the drivers of international market of construction? Having in mind, that the next question will be where do you position the Portuguese contractors.

2. Why did the Portuguese contractors internationalize? Which were their motivations? What was the context? Where did they internationalize?

3. Which were the markets that they chose for the first internationalization? How did this process initiated?

4. The first wave of internationalizations was to PALOP's, correct? Why? Did cultural similarities and government funds had something to do with this event, if this is true?

5. From there some companies expanded to Eastern Europe, could it be considered a second wave? What motivated this expansion? Was it successful?

6. Nowadays, there is a trend for expanding to Latin America, North Africa and bordering countries to CPLP countries, how can the Portuguese be competitive? Knowing that other European had significant presence in these countries, that are big players in the construction sector, such as the Spanish in Latina American, the French in North Africa or the English in Austral Africa. Is it an regionalization strategy?

7. What are the Portuguese firms competitive advantages? Comparing to the top players, which are the main differences? What are these companies advantages and disadvantages?

8. Who are the direct competitors to the Portuguese? Why?

9. Is it true, that the Portuguese tend to go to markets the big players avoid, due to the inherent risks? Which are these risks? How can Portuguese manage these risks?

10. Annexes

Annex 1 - Top 10 RIEP 2017 – Number of countries where the firm own a subsidiary

Classificação	Empresa	Número de países
1	TAP	34
2	Mota-Engil	23
3	Grupo Nors	22
4	Caixa Geral de Depósitos	20
5	Ascendum	17
6	The Navigator Company	15
7	Casais	13
8	Grupo CJR	13
9	Grupo Lena	12
10	Grupo PCG	11

Source: RIEP 2017 Survey

Annex 2 - Top 10 RIEP 2017 – Ranking based on Transnacionality Index

Classificação	Empresa	Índice de Transnacionalidade	Varição 16/15
1	Inapa	0,9111	↑
2	Ascendum	0,7885	↓
3	Casais	0,7766	↓
4	Mota-Engil	0,6799	↑
5	Grupo Ramos Ferreira	0,6630	↓
6	Grupo PCG	0,6352	↓
7	Hovione	0,5941	↓
8	Grupo CJR	0,5792	↑
9	Grupo Lena	0,5551	↓
10	OutSystems	0,5250	↑

Source: RIEP 2017 Survey

Annex 3 - Mota-Engil distinctive capabilities



Source: Mota-Engil Investors Presentation, September 2018

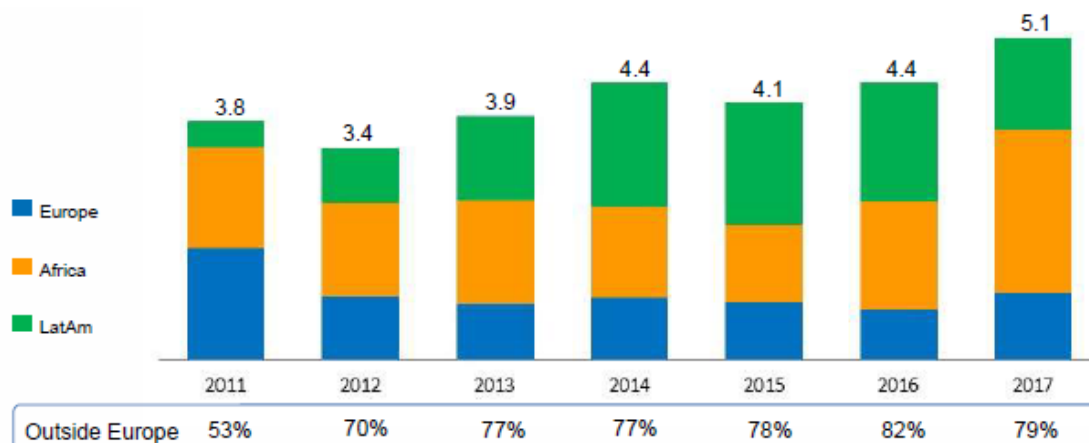
Annex 4 - Mota-Engil 2017 EBITDA, by region contribution

	Europe	Africa	Latin America
Turnover (€ Mn/YoY)	828/-2%	860/+22%	960/+32%
EBITDA (€ Mn/YoY)	141/+28%	164/-10%	109/+146%
EBITDA margin	17%	19%	11%
EBITDA contribution	34%	39%	27%
	Portugal	Angola ¹	Peru
	Poland	Mozambique	Mexico
	Other	Malawi	Brazil
		Other	Colombia
			Other

¹ Sonangol (Angola's State oil company) and other Angolan investors bought a 49% stake in Mota-Engil Angola in 2010.

Source: Mota-Engil Investors Presentation, September 2018

Annex 5 - Mota-Engil backlog evolution, by region distribution



Source: Mota-Engil Investors Presentation, September 2018

Annex 6 - Mota-Engil Positioning, Strategy and Growth in Europe region

Positioning	<ul style="list-style-type: none"> ▪ Market leader in Portugal in the E&C ▪ Leadership in Portugal in waste collection, with a 53% share in the privatised market and with 68% in waste treatment, following EGF acquisition ▪ Top 30 in Europe in E&C ▪ Top 10 in E&C in Poland, being present in Central Europe for 20 years ▪ Presence in Ireland for ten years
Strategy	<ul style="list-style-type: none"> ▪ Organic growth in current markets ▪ Expansion to selected markets ▪ Leverage on competencies, know-how and Human Capital to strengthen business internationalisation, namely the E&S activity ▪ Asset sales plan of non-strategic assets (2016/2017)
Growth opportunities	<ul style="list-style-type: none"> ▪ Portugal's Government Plan "Portugal 2020", partially financed by EU funds and contemplating railway works among others ▪ Poland's continues to be a beneficiary from EU funds ▪ International opportunities in E&S, namely in Latin America and Africa, leveraging on the Group's competitive advantages, particularly following EGF's acquisition

Source: Mota-Engil Investors Presentation, September 2018

Annex 7 - Mota-Engil Positioning, Strategy and Growth in Africa region

<p>Positioning</p>	<ul style="list-style-type: none"> ▪ Long lasting experience in Africa, where activity initiated in 1946 in Angola ▪ Currently present in 11 countries, being leader in Mozambique and Malawi ▪ Provider of integrated engineering and construction services ▪ Strong installed asset base, namely equipment and fully vertically integrated
<p>Strategy</p>	<ul style="list-style-type: none"> ▪ Focus on large infrastructure projects ▪ Expected expansion to selected new markets in sub-Saharan region ▪ Expansion in the value chain, growing from a contractor to a solutions provider ▪ Develop and train key local human resources
<p>Growth opportunities</p>	<ul style="list-style-type: none"> ▪ Government/supranational programmes, namely in energy, transport, agro and water businesses (PIDA US\$360 Bn) to decrease infrastructure gap ▪ Private investments namely in the power, oil&gas, mining, logistics and agro-business sectors

Source: Mota-Engil Investors Presentation, September 2018

Annex 8 - Mota-Engil Positioning, Strategy and Growth in Latin America region

<p>Positioning</p>	<ul style="list-style-type: none"> ▪ Presence since 1998 in Peru, being present in four countries: Peru, Colombia, Brazil and Mexico ▪ Mexico is the highest growth market with presence in the E&C and Energy activities ▪ Recent expansion to new markets, namely, Chile, Dominican Republic and Paraguay ▪ Entry in 2015 in the Energy business through Generadora Fénix
<p>Strategy</p>	<ul style="list-style-type: none"> ▪ Regional player strategy ▪ Partnerships in each market, including in the financial front ▪ Concession activity acts as a promoter of the construction activity, with an asset rotation policy focus ▪ Waste treatment activity, including waste to energy, to be developed
<p>Growth opportunities</p>	<ul style="list-style-type: none"> ▪ Government investment, mainly in infrastructure ▪ Government reforms in Mexico, namely in the oil&gas and energy sectors

Source: Mota-Engil Investors Presentation, September 2018

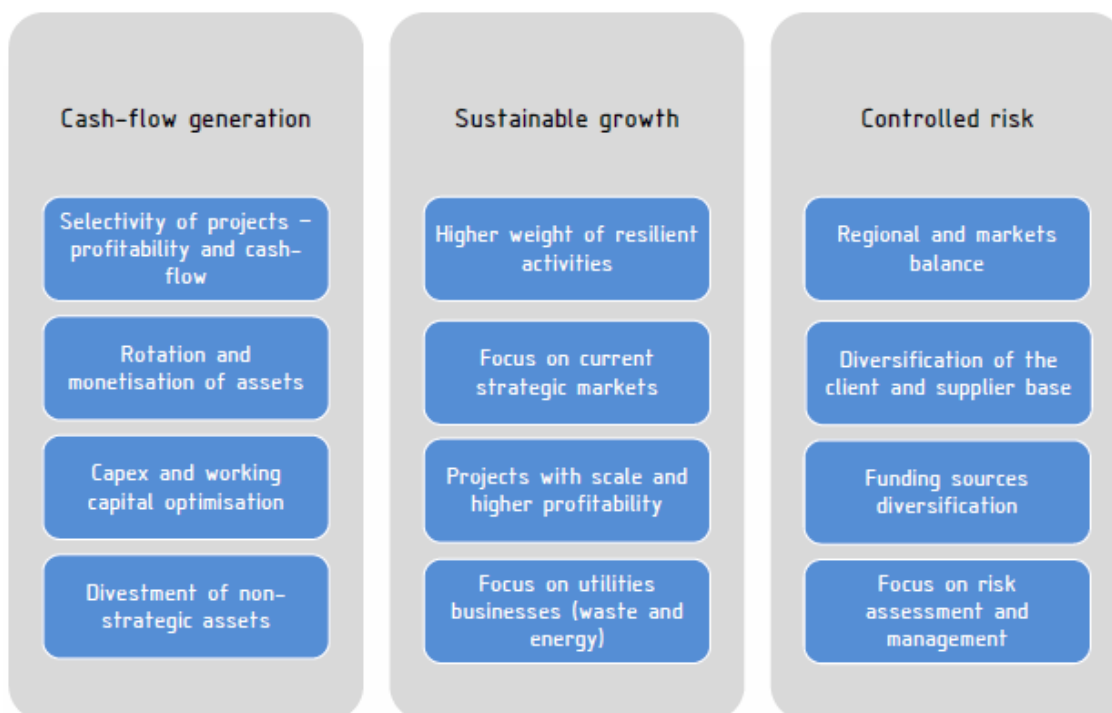
Annex 9 -Mota-Engil major construction projects currently in backlog

Project ¹	Range (€ Mn)	Country	Segment	Exp. Year of Completion
Vale Mining Moatize	> 250	Mozambique	Mining	2022
Gran Canal highway	> 250	Mexico	Roads	2018
Dar Es Salaam railway	[200;250]	Tanzania	Railway	2021
Urban light rail Guadalajara – Tunnel	[200;250]	Mexico	Railway	2018
Las Bambas dam	[200;250]	Peru	Power	2020
Tuxpan-Tampico highway	[200;250]	Mexico	Roads	2018
Cardel-Poza Rica highway	[200;250]	Mexico	Roads	2018
BR-381 highway dualisation	[150;200]	Brazil	Roads	2019
Camama road	[150;200]	Angola	Roads	2018
Siguirí gold mine	[150;200]	Guinea Conakry	Mining	2022
Urban light rail Guadalajara – Viaduct	[150;200]	Mexico	Railway	2018
Classes: G1 Caribbean and G3 Antioquia - Eje Cafetero - Pacific	[150;200]	Colombia	Civil Construction	2019
BR-381 highway dualisation - 3.1	[100;150]	Brazil	Roads	2019
Fourways Mall Extensions	[100;150]	South Africa	Civil Construction	2018
First stage of the General Hospital of Cabinda	[100;150]	Angola	Civil Construction	2019

¹Selection of E&C projects above €100 Mn.

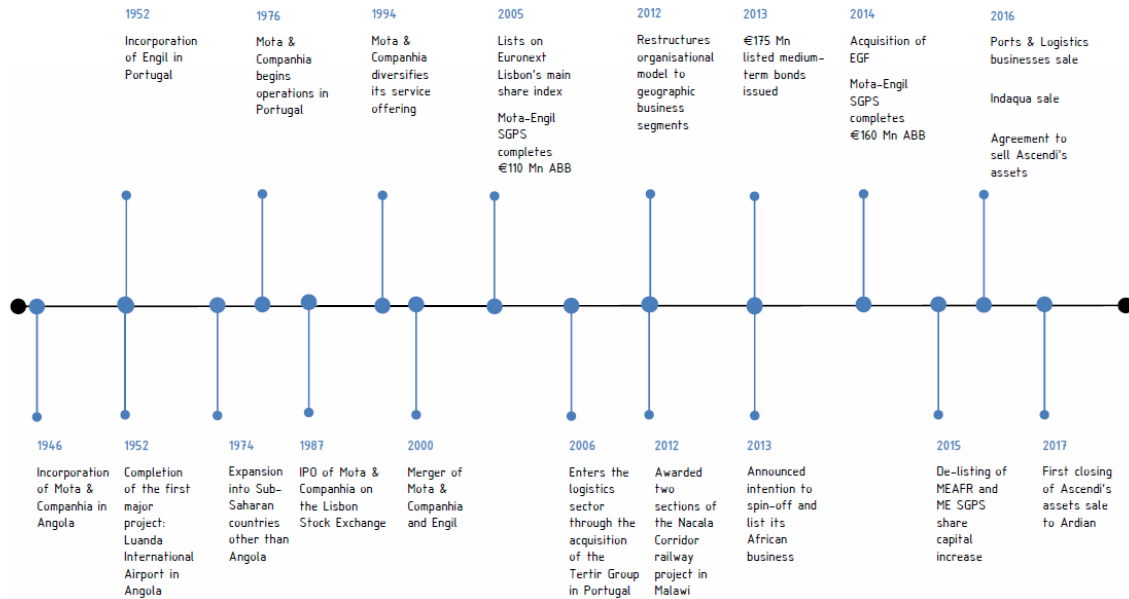
Source: Mota-Engil Earnings Release, 6 April 2018

Annex 10 - Mota-Engil strategic pillars 2016-2020



Source: Mota-Engil Investors Presentation, September 2018

Annex 11 - Mota-Engil past main milestones



Source: Mota-Engil Investors Presentation, September 2018

Annex 12 - Mota-Engil flagship projects in Europe



Centre for the Unknown Building, Portugal (€77.5 Mn)

- Construction of a research center consisting of laboratories, medical consultation areas, diagnosis and cancer treatment in Lisbon
- Developed across 60 thousand square meters
- Concluded in 730 days



Alto do Lindoso Dam, Portugal (€369 Mn)

- Construction of a vault type concrete dam with double bend in Lima River
- 110 meters high, 21 meters thick and 297 meters crown development
- Concluded in 1992, remaining a milestone in the Company's major projects



Section of expressway S17, Poland (€158 Mn)

- Construction of a section of the two-lane expressway S17, which connects Warsaw and Lublin
- Works included a 24 km length stretch, as well as a network of access roads, 10 km of noise barriers, 7 bridges, 13 overpasses and 4 interchanges
- Concluded in 24 months

Source: Mota-Engil Investors Presentation, September 2018

Annex 13 - Mota-Engil flagship projects in Africa



Section 3 and 5 of Nacala Corridor Project, Malawi (€540 Mn):

- Construction of 2 sections of the Nacala Railway Corridor, connecting the coal mines in Moatize and the port of Nacala (in Mozambique) through Malawi
- Civil works, earthworks, supply of ballast and sleepers and assembly of the railway superstructure
- Completed in 2H14



Calueque Dam, Angola (€171 Mn):

- Rehabilitation and completion of Calueque Dam on the Cunene River, with the addition of a hydroelectric plant and the installation of pumps
- Project includes the civil works and electromechanical installations
- To be concluded in 2015



Olympic Village and Olympic Pool, Mozambique (€114 Mn):

- Construction of the Olympic Village, for participants of the PAN African Games using Cold Formed Steel (first time in Africa)
- 15 hectares, comprising 136 buildings and 848 apartments
- Completed in 10 months

Source: Mota-Engil Investors Presentation, September 2018

Annex 14 - Mota-Engil flagship projects in Latin America



Perote-Xalapa Project, Mexico (€180 Mn):

- Highway construction connecting Mexico City to the coastal city of Veracruz, where the most important Atlantic port of the country is located
- Extension of 60 km with several special works of art
- Concluded in 2012



Tailings Storage Facility – Toromocho Project, Peru (\$147 Mn):

- Construction of an earth dam
- Over 5 Mn m³ of fill material at an altitude of approximately 4,600 meters
- Concluded in 2013



Carajás railway, Brazil (€243 Mn):

- Contract with the Brazilian company Vale for the duplication of Blocks A2, A3 and A4 of Carajás railway
- Works include an extension of 150 km, including 12 bridges and ten viaducts
- Block A2 expected to be completed in December 2016 and Blocks A3 and A4 in June 2017

Source: Mota-Engil Investors Presentation, September 2018