A Work Project, presented as part of the requirements for the Award of a Master's Degree in Management from the NOVA – School of Business and Economics

CONSULTING PROJECT FOR THE LUBRICANTS EXPORTS DIVISION AT GALP ENERGIA

ASSESSING THE ATTRACTIVENESS OF THE LATIN AMERICAN LUBRICANTS MARKET IN THE CONTEXT OF A POTENTIAL PARTNERSHIP WITH *LATINA*

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January 2014

Acknowledgements

The team who developed this project would like to express its gratefulness to: its advisor, Professor Constança Monteiro Casquinho, for the absolute readiness to help, guide and point the right direction to follow; to Professor Luís Lopes for the availability to help the team thinking out of the box; to the Client's team – Isabel Calado, Maria José Barros and Francisco Lima Aires – and all the available focal points, not only for dealing with the team as part of the Company through the entire project, but also for making all the project's success possible. Also, to all those who always supported the team through the entire project.

Abstract

The following report seeks to assess the attractiveness of the Latin American lubricants market in the context of a potential partnership with *Latina*[1]. Galp Energia, a Portuguese Oil and Gas company, presented the project to NOVA SBE's Management Consulting Lab initiative, which, in turn, had allocated the project to a team of four students with complementary academic backgrounds. With Galp's Exports Division support, the main goal was to assess the economic and financial viability of entering the Latin American market with a local partner. For that purpose a market assessment was conducted, followed by a financial analysis of the two-staged partnership and lastly, the team provided Galp with valuable recommendations on how to pursue the internationalization strategy and approach the Latin American partner.

Key Words: Consulting, Galp, Latin America, Partnership.

[1] *Latina* is a code name for the real company's name.

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Executive Summary

The following report aims to be a Master's Thesis, which under the Management Consulting Lab initiative corresponds to a Work Project report of a team of four students. The team had the great opportunity of behaving like *"real life"* consultants who addressed some relevant issues for Galp Energia, a Portuguese Oil and Gas company.

The project's goal is to assess the attractiveness of the Latin American lubricants market in the context of a potential partnership with *Latina*. The partnership has been planned to occur in two different but sequential stages. The initial stage considers the exportation of packed lubricants to four Latin American countries: Costa Rica, Panama, Guatemala and Honduras. In this pilot scenario, with a length of three years and the project's beginning settled to January 2014, Galp is in charge of the lubricants' production while *Latina* has the responsibility for its transportation and distribution until the final customer. The second and final stage considers a more complex and risky scenario: the construction of a new Blending Plant[2] in Mexico. This stage marks the beginning of Galp's activities in Latin America with the sale of lubricants to a total of eight Latin American countries. The project requires two years entirely dedicated to the construction and assembly of all the necessary machinery, and has a forecasted length of 15 years.

The structure of the report functions as a proxy to the sequential path that the team needed to follow in order to better attain the project's goal. The first pages of the report are intended to announce the team's value added for Galp as well as the company's current challenge within the Exports Division. Following this introductory approach, the focus is shifted towards the partnership itself. Hence, after detailing the lubricant business in Latin America, the authors of the thesis provide relevant information on the potential partner and expose the results from the financial analysis conducted in each stage of the partnership. In the last part of the main structure, some recommendations are provided. Namely, whether if Galp should go forward with the negations or it should simply withdraw the interest in *Latina*.

Furthermore, and still regarding the team's final recommendations, there is a topic that was not enclosed in the report (although it was considered in the appendix), concerning some guiding steps that should be followed in order to accomplish a successful partnership. Finally, individual considerations on the project are presented.

[2] Refinery's component that is responsible for the production of Lubricants.

1. Introduction

To invest or not to invest has been a question for everyone, ranging from a family deciding whether to invest on a new home or to maintain its current one, to a multinational company divided between betting on booming emerging economies and focusing on its core business on the currently present countries. This was exactly the problem that Galp faced before the start of this project: Should the Lubricants department of the company invest time and capital on the Latin American continent through a partnership or, on the other hand, should it focus on its current activities?.

Bearing this in mind, the main objective of this project was to find the countries with the highest potential for Galp in Latin America and finally suggest strategic recommendations on how to enter the market and how to develop the said partnership, in order to reap all the long term benefits of being established in such a high-growth area such as Latin America, in businesses that should go well beyond Lubricants.

Then again, the objectives of this project would not be excellently achieved without a significant project's purpose. On one hand, and foremost, to create value for the company. Companies' ultimate goal is to create value for its shareholders, and therefore, this project would only be meaningful if the company's value would increase. On the other hand, as this project is developed through an academic institution, the possibility of back testing academic contents and knowledge on a *"real life"* business environment is one that shall never be underestimated, as in the end this *"environment"* was and still is where the vast majority of the contents lectured were created and refined.

Finally, the objectives and purpose of the project were attained. First, the team was able to spot the countries with higher potential in the Latin American continent, and provided Galp with valuable recommendations both on the investment decision as well as on the partnership. Secondly, there was value creation for the company: i) financially, measurable mainly by the fact that this project allowed the investment to run one year ahead in time (€858,791.66) ***(Appendix 1)***, as well as to save a significant amount of capital by not having to hire the services of a firm from the consulting industry[3], while keeping similar quality standards; ii) by bringing fresh ideas and methodologies into the table, that allowed the company's workers to learn with the team who developed the project. Thirdly, the students involved were able to develop academically, namely its deep skills regarding communication, adaptation, syndication and credibility with the client.

[3] Benchmarked by the client with a price range within €200,000 and €500,000.

2. Theoretical Context

Galp Energia is a Portuguese energy company, engaged in the oil and gas industry. The operator is vertically integrated, with activities ranging from exploration and production until the sales to final consumer. Aligned with this, the company has been focused on becoming an integrated energy player with attention to the Energy and Production business. Its business is divided into three segments (Exploration & Production, Refining & Marketing and Gas & Power) and operates two refineries in Portugal, which together represent 100% and 20% of Portuguese and Iberian refining capacity, respectively. Its strategy is to continuously increase value to its shareholders through the expansion of its activities. Namely, Galp has been growing its exploration and production portfolio throughout four continents. (1)

The Lubricant Division is inserted in the Refining & Marketing business segment. Lubricants are produced in *Matosinhos*' refinery, where the base oils come directly from the refinery as raw materials, are then distributed nationally and exported through the Exports Division. The Lubricant Division is well aligned with the overall company strategy and for that reason it is constantly seeking for new opportunities to grow and acquire new clients. It has been focusing its attention in growing markets, having local distributors in Angola and Uruguay. The expansion of its presence in Latin American countries is one of the division's objectives, and this was the primary reason for the scope of this project. (1)

The development of this project will allow a huge increase in the division's presence in Latin America and a significant boost in the lubricant plant's production. However, this last topic poses a challenge to the company: nowadays the base oil production in *Matosinhos* has been facing some difficulties showing negative results due to its dependence from the Arabian Light crude's prices. This way a significant increase in Lubricants' production is not viable in the long run for the *Matosinhos'* Base Oil plant. Furthermore, Galp loses competiveness in the Latin American countries due to the additional transportation cost. Therefore, it was concluded that Galp is only able to be competitive in the Latin America by producing locally, justifying then the second stage of this project – the construction of a new Blending Plant in Mexico. With this project, the company will be able to expand the Lubricant Division without jeopardizing *Matosinhos*' Base Oil plant operations.

3. Methodology

Given the project's objective a methodology was developed to attain it. The project analysis is divided into five big chapters that all together allow the answering of the following questions: "What are the most attractive countries in Latin America for Galp's Lubricant segment?" and "How should the partnership be conducted?".

Before *"jumping"* into the project's goal it became of utmost importance to fully understand the lubricant business. It would have been erroneous to try to address Galp's problem without having the basic and appropriate knowledge on the core subject of the project. For that purpose, an online research was conducted along with some training sessions provided by Galp and, at the top of the learning process, the team had the opportunity to visit *Matosinhos'* Blending Plant.

The first chapter is entirely focused on answering the first question. That is, a deep market research was conducted on the lubricant segment in Latin America with the aim of finding the most attractive countries for Galp. According to David Besanko *"a firm's economic profitability (…) depends on the economic attractiveness or unattractiveness of the market in which it competes and on its competitive position in that market"* (2), therefore, the market attractiveness was evaluated based both on the existent demand and competition. For this analysis, online available information was used and some embassies were contacted to gather information. However the team faced a huge lack regarding the access to critical and specific information. To adapt to those constrains, and following the academic advices from Professors Luís Almeida Costa and Luís Lopes, an approach was developed focusing on both a *Top-Down analysis* and the *80/20 rule.* (3) Based on these powerful tools often used in the consulting business, the team first performed a Macro Analysis, using more generalist metrics of easy access to all countries and still representative of the lubricant demand[4], and a country selection was performed. Resulting from the *80/20 rule*, the top 4 countries responsible for 80% of the overall attractiveness in the demand side were selected for a deeper analysis. Furthermore, a Micro Analysis was made, taking into account both the demand and competition side, using very specific information regarding the lubricant business.

The remaining four chapters are focused on answering the second question. Given the wideness of the theme, the first topic to be addressed was the partnership itself, followed by the characterization of each stage of the partnership and finally the recommendations.

[4] In this stage the competition side analysis was not possible to introduce due to information constrains.

It is known that joint ventures have a high failure rate, over 50%. (4) Taking this into consideration and trying to avoid being part of these statistics, it was considered important to analyze the internal factors that usually contribute to this failure. According to Professor Violetta Gerasymenko, the most critical factors to analyze at this stage are: *exant factors* (strategic disagreements, misunderstanding of synergies) and *in situ factors* (communication obstacles, culture conflict). (4; 5) Following this guidance the partnership chapter was first focused on gathering the most information possible about *Latina*, aiming to access the *exant factors* – online information was collected, both from business' websites to analyze *Latina*'s financials as from *Latina*'s website and annual reports. Regarding the analysis of the *in situ factors,* due to lack of specific information about *Latina*, and following the suggestion of Professor Pedro Neves, a cultural analysis of the two countries was used as a proxy to each company's culture. In order to analyze it, the *Hofstede's Framework* (6) was used as well as the *Global Leadership Dimension Framework* (7). Additionally, it was considered relevant the analysis of previous internationalization cases as best practice takeaways – the selected case was Jerónimo Martins in Poland and Colombia (8). Once collected all the information a fit analysis was performed to understand the alignment of both companies in this project.

The third and fourth chapters are dedicated to the analysis of the partnership's viability in each stage. For each stage, financial statements and revenue forecasts were made with the aim of assessing the partnership's potential. Namely, Profit & Loss accounts were built and the Net Present Value was calculated for each stage. Given the undertaken assumptions, sensitivity analyses were performed on the most critical assumptions. Additionally, in the second stage a Cash Flow statement was calculated as well as the project's Internal Rate of Return. Both stages were conducted with extreme alignment and support from Galp's specialists. At this stage interviews, following the guidance suggested in the consulting problem solving book (9), were conducted within Galp's employees in order to fully understand the plant's operations.

Lastly, the fifth chapter seeks to provide to Galp valuable recommendations, specifically within the partnership models' field. Relying on several academic and business articles (10; 11; 12; 13), the team details the key success factors for partnerships and lists, in appendix, the traditional steps that must be followed to achieve a successful partnership. Despite the final recommendations, the team also highlighted some comments and advices that follow the report's structure.

4. Data Analysis

4.1. Market Assessment

Aiming at identifying the countries that have the highest long-term potential for a company to sell Lubricants in Latin America, the team based this project on a Market Assessment on this continent.

Latin America Overview

As said, the team's methodology is significantly based on a *Top-Down* approach. Having said this, the Market Assessment was built in accordance with this methodology, meaning that before analyzing the continent's countries, the team analyzed Latin America as a whole. This first step of the analysis was based mainly on three pillars: the continent's Economic Background, the Base Oil Market and finally the Lubricants Market.

Regarding Latin America's Economic Background, countries' GDP, Available Income and Energy consumed in the Industry Sector were the chosen metrics to be analyzed, showing that both Mexico and Brazil together represent more than half of countries' potential. In the lubricants market, the top players are Chevron (18% market share), Shell (15% market share) and ExxonMobil (14% market share), with Mexico and Brazil amounting 50% of the demand. Concerning the Base Oil market, Group I is the most demanded (86%) and its production is concentrated in Brazil and Netherlands Antilles, with 57% of Latin America's production. Also, Brazil is the only country showing some technological development with the production of Group II. (14; 15; 16)

Countries Selection Process – Macro Analysis

Given that Galp, together with its potential partner, *Latina*, gave the team a list of 12 potential countries[5] to develop the Lubricants business, and that the team had time and information restrictions, it was of the utmost importance to create a mechanism that would allow to filter this 12 countries into a set of four countries and that would thus allow for a more detailed analysis, based not only on the market demand, but also on the supply side, which are the two factors that a Market Assessment should consider. (2) The first filter created is the Macro Analysis.

This Macro Analysis was based solely on the Demand side, given the time and information restrictions to perform a Supply side analysis (considering Top Players and its Market Shares) on 12 countries. The Demand analysis is composed of four selected

[5] List of 12 countries: Argentina, Brazil, Colombia, Costa Rica, Chile, Dominican Republic, Guatemala, Mexico, Nicaragua, Peru, Uruguay and Venezuela.

metrics, the countries' Real GDP, its Available Income (AI), the Energy Consumption in the Industry Sector (EC) and the Vehicle Fleet (VF). Also, the team decided to consider the Ease of Doing Business Index (14), as a tiebreaker, as economic potential may be absolutely jeopardized by an unattractive business environment.

Bearing the selected metrics in mind, the decision was given by the following weighted average: $(0.2 \times GDP) + (0.2 \times AI) + (0.3 \times EC) + (0.3 \times VF)$.

The presented weighted average weights were defined by a simple fact, EC and VF together should account for more than half of the total weight, as well as individually should be higher than the most generic metrics given by the Real GDP and AI. Mainly due to the fact that EC and VF are much more representative of the Lubricants market than the GDP and the AI, which are measures of generic economic potential. From this weighted average the yielded result was a set of four countries composed by Brazil, Mexico, Argentina and Venezuela. ***(Appendix 2)***

As mentioned, the Ease of Doing Business (EDB) Index was a factor that albeit not being present in weighted average was factored in the final decision. And the impact it had was on the drop of Venezuela from the Top 4, in exchange with Colombia. The reason for this exchange lies on the difficulty of doing business in Venezuela, highlighted by the fact that the country occupies the 180^{th} position in the EDB Index, out of 185 countries. While on the other side Colombia is ranked third on the Index out of Latin American countries. Also, Venezuela is undergoing significant political challenges and instability, contrasting with Colombia, which is a must in terms of investments in developing countries.

Ranking System – Micro Analysis

Bearing in mind that the main goal of the Market Assessment was to select the Latin America's countries with higher potential for Galp, so as to suggest strategic recommendations for the development of Galp's Lubricants business in this geographic area, the team was in need of developing a system that would be a reliable comparison tool between the four selected countries in the Macro Analysis. This mentioned system is the Micro Analysis, whose final output is a Ranking of the four selected countries.

The Micro Analysis was based on a weighted average of 13 selected metrics[6] for each one of the four countries, following Kline & Company's report structure. (17) Each metric has

[6] The 13 selected metrics are: Barriers to Trade; Lubricants Market – Supply; Lubricants Market – Demand; Automobile in Volume; Automobile by Age; Political & Economical Background; Refining Industry; Market Developments; Base Oil Market; Logistics; Trends; Pricing; Additives.

a specific weight and is classified on a scale of 1 to 5, with 5 representing high potential for Galp and 1 representing low potential. Also, the classification is a relative score, as it is always related to the other countries' scores, still two countries can have the same score.

In this section of the report, the team's main goal is to explain the rationale behind the final output of the Ranking, detailing the classification of the two metrics with higher weight. The two metrics with higher weights are the *Barriers to Trade* and the *Lubricants Market – Supply*. First off, the reason why these two metrics have the highest weights lies on the fact that on one hand Galp is a Portuguese company that will be developing its business in foreign countries, thus the easiness of trading on those countries is vital, and on the other hand on the fact that the lubricants market structure combined with the supply per capita impacts enormously the market share that Galp may obtain.

Regarding the *Barriers to Trade* metric, the classification was mainly given based on the EDB Index, analyzing two out of the ten topics that compose the Index – *Trading Across Borders* and *Paying Taxes.* The applied reasoning was therefore the following: the better the position in the Index the higher the classification. Considering the reasoning applied and the topics factored in, the classification was the following. Brazil's score was a 1, as it is the one with the worst position on the EDB Index (135 out of 185 countries), positioning particularly low on the *Paying Taxes* topic, as 156th. Argentina's classification was a 2, as the country lies on the 124th position on the EDB index, with relevant difficulty in *Trading Across Borders,* highlighted by the position on this topic, as 140th country. Once again note that Argentina's score is related to Brazil's, as this country has low potential for Galp, but is still relatively better than Brazil. Regarding Colombia and Mexico, if on one side Colombia is the country with the best position in the EDB Index (45) followed by Mexico (48), Colombia's 91st position on the *Trade Across Borders* topic compared to Mexico's 61st leaves the country on the second position on this metric, with a 4, while Mexico is classified as 5. The differential between Brazil and Argentina's classifications and Mexico and Colombia's intends to highlight the visible contrast between doing trade on the first group of countries or on the second. ***(Appendix 3)***

Concerning the *Lubricants Market – Supply* metric, the classification was awarded through a combination of the market structure of the countries and the supply per capita of the same country. Regarding the countries' market structure, while Mexico and Colombia show highly fragmented markets with a remarkable number of small local players, Brazil's market structure is relatively more concentrated and Argentina's is very concentrated. ***(Appendix 4)*** Concerning the supply per capita, Colombia and Brazil have the lowest values with 3.72 kg and 6.84 kg per capita respectively, while Mexico and Argentina have highest values with 7.48 kg and 12.60 kg. To conclude, the classification was attributed considering Galp's instructions that the Exports Division favors fragmented markets, as it seeks a small market share in each country, as well as considering that the lower the supply per capita the better as it is a sign that there is more room for a new brand in the market. Bearing this in mind, Argentina ranked 4th in this metric, as its market structure is totally concentrated and its supply per capita is the highest, meaning that the country's score was a 1. Brazil ranked 3rd with a score of 3, since albeit having a relatively concentrated market structure, its supply per capita shows potential for Galp, and the country shows much considerably higher potential than Argentina. Following the same rationale, Colombia and Mexico ranked 1st and 2nd respectively. Mexico scored 4, mainly due to its highly fragmented market structure, while Colombia's classification was 5, as not only is the country's market structure highly fragmented, but also has a low supply per capita, showing plenty of potential for Galp's Lubricants Division.

Finally and as mentioned, the project's objective would have no meaning if it did not have a significant purpose. The main purpose is to create value for the client, thus while creating the Ranking System, the team's goal was not only to spot the countries with higher potential, but also to provide Galp with a valuable tool to be used in the future. Having said this, among the 13 selected metrics some are not classified, since there was not enough information available during the project's deadlines, and all the classified metrics followed the presented rationale. ***(Appendix 5)***

Main Findings

Following the detailed explanation of the Market Assessment performed and handed to the Client, the team draw important conclusions and remarks for Galp. First off, the output of the ranking was Mexico ranked 1st with a score of 4.14, Colombia 2nd with a score of 3.46 and Brazil and Argentina ranked 3rd and 4th with 2.49 and 2.24, respectively. Considering the results of the Ranking the main suggestions for the Client were that it should enter the Mexican market and benefit from *Latina*'s market knowledge and distribution channels, enter the Colombian market with low specification lubricant[7] and be prepared for a 1st mover advantage on recent specifications (as the Automobile Fleet age is high, but is

[7] The higher the average age of the automobile fleet the lower the specifications for lubricants: Base oil Group I.

decreasing). Regarding Brazil the team recommended Galp not to enter the market, unless the company partners with a local company, as the barriers to trade would be significantly lower. Finally, concerning Argentina, the Ranking output was clear, Galp should not invest in the country, as among other challenges, the country has a remarkable volatile economy, significant barriers to trade and excess supply in the Lubricants Market.

4.2. Partnership – *Latina* & Galp

Latina

Latina is Mexico's leading company in raw materials distribution. It started in 1988 as a paper distributor and has been diversifying its operations to become a generalist raw materials distributor. Nowadays it has two subsidiaries *Latina* Paper and *Latina* Raw Materials, which has four divisions – Lubricants, Food, Coatings & Solvents & Mixtures and Inorganic Chemicals & Plastics. The company's operations rely on a specialized team of sales persons that operates from 36 distribution centers, covering more than 500 cities in four countries – Mexico, Guatemala, El Salvador and Costa Rica. (18; 19)

Company's rapid growth resulted from its acquisition strategy that has been focused on diversifying its products, customers and regions. This strategy goes along with the fact that the company is focused on the concept of being a *"one-stop shop",* where the objective is to create customers' synergies among the different company's divisions, by enabling its clients, mostly industrial, to acquire everything they need from one place. (19)

Despite the fact that the company is centered on creating economic value it bases its activities on a vision of respect and care for both the environment and the community. Its culture is deeply focused on its employees' development and in response to company's concerns regarding green initiatives it has acquired several certifications over the years. (20; 21) ***(Appendix 6)***

This successful company has been listed since 2007 and is currently valued in €128 Millions. Company's financials show that it has been doing well in its strategy with both positive return on investment (4%) and return on equity (5%). Additionally it presents favorable conditions to seek credit access – 37% debt to equity, which is bellow the industry's average (65%), and a current ratio of 1.42. (22) Despite the fact that it is a public company both its management and shareholders are mostly family members, leading to the conclusion that its management culture must be very close to a family company. (19; 18) ***(Appendix 7)***

Regarding the Lubricants' division, created in 2010, the company became the official distributor of Shell Lubricants in Mexico in 2010 and in El Salvador in 2011. Making use of the *Latina*'s synergies, this division grew rapidly and in 2012 it accounted for 21% of sales. Shell is currently the only division's supplier, relying on three brands for different segments: *Cassida* for the food industry segment; *Pennzoil* for the Passenger Car segment; and Shell for both industrial and transportation segments. Aligned with the company's diversification strategy, it is now seeking to expand its geographical presence in this division. However, since Shell is already present in most Latin American countries *Latina* cannot enter those markets with Shell brand, creating the need for a new supplier. (18)

Countries Culture

Although *Latina*'s analysis shows that it seem to be a very attractive company to partnership with, there are other aspects than company's potential and viability that must be taken into consideration when analyzing this partnership. Mainly, since the partnership involves companies from different countries, the cultural analysis became an important aspect to take into account in the overall assessment of the partnership's potential.

Hofstede's framework allows the understanding of cultural differences regarding the human component. This framework is composed by five cultural dimensions that, for each country, are classified with a scoring from zero to 120. By analyzing each dimension and comparing it for the two countries, in this case Portugal and Mexico, it is possible to identify major differences. Since culture is something that cannot be easily changed, the best way to avoid potential conflicts or sources of disagreement in this partnership is to be prepared by knowing the partner's culture. (6)

The first dimension is *Power Distance,* it expresses how inequalities of power are accepted and handled by lower classes. The higher the score the more people accept that there is an hierarchal structure, where inequalities of power exist and people with higher positions in organizations have more privileges. In this dimension Mexico scored 81 and Portugal scored 63. Although both countries are considered to have high power distance, there are clear differences in this dimension among the two. While in Portugal the hierarchical distance is accepted and bosses are expected to control their employees, in Mexico the society is considered to be hierarchical where employees expect their bosses to tell them what to do in an almost dictatorial way. Thus, it can be concluded that hierarchical job positions are more valued in Mexico than in Portugal. To avoid that these differences become obstacles to the partnership, it is recommended that when negotiating with *Latina*, Galp should not only use formal treatment, by using job titles when referring to someone in the organization, but also use people of superior positions to lead the negotiations, as show of respect. Additionally, face-to-face meetings must be preferred. Regarding the Blending Plant stage, Galp must take into consideration that operational employees will respond better to autocratic management, especially in the less developed regions, as is the case of Monterrey. (6)

The second dimension is *Individualism versus Collectivism*, it reflects if individuals define themselves in the society as an *"I"* or a *"we"*. High scorings in this dimension represent individualistic societies, where people are only expected to look up for themselves and related families. On the other side, low scorings represent collectivistic societies, where individuals see themselves in the society as part of groups (family, friends, work relationships, etc) and where loyalty, respect and care for the group as all is expected and extremely valued. Both Portugal and Mexico, with scorings of 27 and 30 respectively, are collectivist societies. Being extremely similar, this dimension should not lead to sources of disagreements between the two companies. This way, for the Blending Plant stage, it is recommended that Galp simply make use of its current management ethics and practices. Additionally, incentives and rewards should be based on team performance rather than individual performance. (6)

The third dimension is *Masculinity versus Femininity*, it reflects how individuals perceive success. High scorings represent masculine societies, where individuals are more competitive and the success is defined in terms of material achievements. Low scorings represent feminine societies, where individuals are more consensus-oriented, success is defined in terms of quality of life and there is a tendency for modesty and care for others. Portugal, with a scoring of 31, is a feminine society while Mexico, with a scoring of 69, is a masculine society. This difference in scoring is both reflected on how managers should behave and how incentives must be done. For instance, contrarily to what happens in Portugal, in Mexico incentives such as free time or schedule flexibility will not be valued. Therefore, for the Blending Plant stage, Galp should focus on monetary incentives. Regarding management, Galp must take into consideration that while in Portugal a good manager is supportive, in Mexico managers are expected to be more assertive and focused on performance evaluation. Despite the fact that there are clear differences it affects mostly the way Galp should behave with the operational employees rather than influencing the negotiation phase. (6)

The fourth dimension is *Uncertainty Avoidance,* it expresses how individuals in the society feel about the uncertainty of the future. High scores represent more avoidant societies that behave through strict codes of behavior, where individuals exhibit the need for rules in other to try to have some control over the future. Low scores represent societies that are more relaxed regarding the future, where each day is lived at its time. Both Portugal, with a scoring of 104, and Mexico, with a scoring of 82, have high inclination for avoiding uncertainty. With no significant differences regarding this dimension, Galp should take into account that well-established rules for the operation teams are important and long-term contracts or some kind of job security is valued. (6)

The last dimension is *Long-Term versus Short-Term Orientation*, it expresses how individuals perceive the urgency for results. High scores represent long-term oriented societies that focus on achieving solid results in the long term, individuals show propensity to saving. Low scores represent short-term oriented societies, where the focus is to achieve quick results, regardless of its future consistency, individuals show little tendency for saving. Portugal, with a scoring of 30, is considered to be a short-term oriented society. Although there is no scoring available for Mexico it is considered to have a perspective where *"long-range planning is unimportant"*. (7) Therefore it can be concluded that both countries present a short-term oriented perspective and thus, differences regarding this dimension should not arise. However, Galp must acknowledge that clear guidance regarding tasks and timelines are important to guide employees in their short-term objectives. (6)

As a conclusion, *Power Distance* and *Masculinity versus Femininity* dimensions are the ones with biggest score differences between the two countries. Therefore special attention should be given to them in order to avoid potential conflicts.

Additionally to the culture's analysis another study was used to address the potential differences between countries regarding the perception of a good leader.

Global Leadership Dimensions are a result of a GLOBE[8] Project's study that facilitates the understanding of the impact of leader's characteristics and behaviors on the perception of an outstanding leader. This study relies on six dimensions, representing characteristics or behaviors, scored for each country according to its influence on the definition of a good leader. Each dimension is scored in a scale from 1 to 7, where: a scoring of 4 means that it

[8]Global Leadership and Organizational Behavior Effectiveness Research

has no influence; a scoring bellow 4 means that it inhibits; and a scoring above 4 means that it contributes. (7)

From the all six dimensions, three are scored in a very similar way for both Portugal and Mexico. Those dimensions are *Charismatic/Based-value, Team Oriented* and *Humane.* Both countries, with scorings of 6, consider that characteristics as *Charismatic/Based-value* and *Team Oriented* contribute significantly to a great leader. On the other hand, both countries, with scorings of 5, believe that the *Humane* characteristic only contributes slightly to an outstanding leader. (7)

Self-Protective, Autonomous and *Participative* were the remaining dimensions, scored differently for Portugal and Mexico. Regarding the *Self-Protective and Autonomous* dimensions, Portugal (with a scoring of 3) considers that both characteristics slightly inhibit an outstanding leadership, while Mexico (with a scoring of 4) considers that those characteristics have no impact. Mexico is a society where relationships of power often keep place and therefore, for Mexicans, the use of formal language, showing self-protectionism and autonomy by its leaders is viewed as a way to protect emotions, avoid confrontations and ensure their power positions. These facts are aligned with the previous referred high *Power Distance* of this country, where power and its privileges in the society are extremely well accepted. Regarding the *Participative* dimension, Portugal (with a scoring of 5.5) considers that it contributes to an outstanding leader, while Mexico (with a scoring of 4.6) considers that it has almost no impact on a great leader. Once more, due to Mexico's high *Power Distance* it is logic that the non participation from leaders is well accepted. Yet in some extreme cases, a participative approach from the leader can damage its power image, as it can be seen as a signal of weakness or lack of knowledge. (7)

As a conclusion, the dimension that can most damage Galp's image in *Latina*'s culture is the participative approach that should be avoided. Overall, Galp must keep in mind that in Mexico an outstanding leader is highly directive, self-protective and autonomous, but at the same time also charismatic, supportive and relationship oriented.

Internationalization

The study of previous internationalization cases allows the learning of key success factors and draws the attention to aspects that are often disregarded and may lead to failure. The Jerónimo Martins (JM) Internationalization case was chosen to be analyzed.

Operating in the food distribution and consumer products' manufacturing, JM is a Portuguese company founded in 1792. It started its internationalization with the entry in Poland in 1995 and more recently, in 2013, expanded its operations to Colombia. In both cases the profound study of the markets and the adaptation to the local culture were critical for the internationalization success. In the Poland's case, the country privileged discount format stores, so JM after entering the country through a joint venture and obtaining market knowledge, it decided to focus only on the discount format. The acquisition of Biedronka marked this transition, and over the years JM has strengthened its brand and expand its coverage. Concerning Colombia a new brand was created to avoid the negative connotation perceived by the country of the previous store's name. (23; 8)

It is believed that, since Galp is considering the entrance in a new market with a local player, the usual constrains and mistakes of internationalizations can be minimized by the partner's knowledge. However, and as it can be learned from this internationalization case, it is crucial to take the right time to get to know the market and the local culture. Therefore, Galp should really make sure that its partner *Latina* has and provides the right information about the market.

Main Findings – Fit with Galp

Several differences exist between Galp and *Latina*, namely the countries' cultures, the management structure, since *Latina* is very close to a family company, and also the growing strategies, given that *Latina* has been growing by acquisitions while Galp has been growing in an organic way. Although these differences do not seem very significant, they must be acknowledged and taken into account as a way to prevent future challenges. On the other side both companies seem to share equivalent values regarding the concerns for environment, the professional development of its employees and also regarding the quality standards of its products, that are both controlled and promoted as images of *Latina* and Galp's brands.

Regarding the companies' contributions for the project, *Latina* will contribute with market and distribution knowledge and with the necessary capital to invest, while Galp will contribute with lubricant's formulations and know-how and with marketing knowledge. This way, for the purpose of the project both companies seem to complement each other in the entry of Latin America with the lubricant's sales.

4.3. Stage 1 – Export Packed Lubricants

The first stage of the partnership with *Latina* considers the exportation of packed lubricants to Latin America with a length of three years, starting in January 2014. In this first stage Galp is responsible for the production and since the incoterm to be considered is FOB (Free on board), *Latina* is therefore in charge of the transportation and distribution of lubricants in Costa Rica, Panama, Guatemala and Honduras.

Products

Aiming to select the right products to export to Latin America, the team analysed both Galp and *Latina*'s portfolio of lubricants. Two different approaches were conducted: i) *Perfect match*, where viscosity grades and specifications were the same in both portfolios and ii) *Specification proxy*, where viscosity grades were the same but specifications did not match. In this latter case, specifications of greater demand in the Mexican market were selected. The outcome from this analysis was a sub-portfolio of nine products that besides covering the main lubricant segments (Passenger Car, Heavy-duty and Industrial) also covers 50% of *Latina's* 2012 lubricant sales. ***(Appendix 8)*** Additionally, Galp decided that the nine products would be exported in three different packages: pail (20 litres), drum (205 litres) and box (5 litres). To notice that smaller packages were disregarded since the main goal is to supply Heavy-duty and Industrial clients rather than individuals.

Countries

As for the Latin American countries to export, it would be expected that Mexico followed by Colombia were the first targets[9]. However, Galp cannot export to Mexico until *Latina*'s contract with Shell is ended and, given the urgent need to begin the exportation of lubricants in 2014 along with the fact that *Latina* does not have operations in Colombia, these two countries do not seem to be the best alternative.

Hence, the selected country to start the exportation was Costa Rica, since *Latina* believes on clients' synergies (current solvents clients are also potential clients of lubricants). In 2015, *Latina* will take advantage from the fact that Panama is a neighbour country of Costa Rica and will supply Panama through Costa Rica's sales force. For the final year of exportation, lubricants will be also sold in Guatemala where *Latina* is already present and, following the same reasoning of neighbourhood, Honduras will become another country to export. ***(Appendix 9)***

[9] Output from the Ranking System.

Model

The deliverable for this first stage of the partnership is a Profit & Loss (P&L) account per package so that Galp can clearly see the products and respective packages of greater profitability. At the end, a consolidated P&L account was built.

Before breaking the P&L account and highlighting the most relevant items, it is of utmost importance to refer that the Net Present Value[10] (NPV) of this 3-year stage is positive and equal to €205,711.54. ***(Appendix 10)***

The forecast of quantities led us to the first and most crucial assumption around the model: lubricant market demand in the selected countries is similar to Mexico, thus the same sub portfolio of nine products will be exported. The intuition behind this assumption lies on the fact that the team only had access to Mexico's information in what regards demand for each type of lubricant. While trying to predict the quantities to export, Galp became aware that *Latina* believed it could sell up to 450 tons in the first year in Costa Rica by benefiting from clients' synergies. However, the team, in accordance with Galp, relied on a more conservative approach and assumed 300 tons exported in 2014, which corresponds to a market share of 1%. For the remaining countries, in their first year of operations, the same market share of 1% was considered. To predict the market share for the following years, it was assumed a small percentage increase depending on the type of lubricant: Passenger Cars suffered lower market share variations, followed by Industrial and Heavy-duty that were target of higher market share variations bearing in mind *Latina*'s actual network of clients. ***(Appendix 11)***

Regarding the price of each package, the team decided to follow Galp's methodology and have added Galp's suggested margins per product (correspondent average margin of 277 €/ton) to the unitary cost of production, which includes the cost of goods sold and the FOB costs[11]. ***(Appendix 12)***

Also, it was considered that Galp would have to incur in some other expenses, namely the cost of registering the brand in the selected countries and the cost with marketing as it is nowadays, one of Galp's major strengths.

Main Findings – Suggestions

To validate the NPV calculation it became of utmost importance to answer the following question: How much will *Latina* profit?. Besides the purchasing price and the entire cost

[10] Computed with Galp's weighted average cost of capital (wacc) of 9%.
[11] FOB costs: ground transportation, container consolidation, port taxes, *Bill of Landing* and documentation.

of transportation, *Latina*'s selling price is another relevant variable in the equation that aims to solve *Latina*'s mark-up percentage. Departing from Pemex[12] list of selling prices to retailers, it was assumed that *Latina* would be able to charge prices 5% above Pemex's prices once Galp's quality standards are far superior. Since 18% is the minimum mark-up percentage required by *Latina* and estimations had revealed no uniform values ***(Appendix 13)***, some amendments had to be considered ***(Appendix 14).*** Namely, Galp's average margin had to decrease to 206 €/ton.

It is important to emphasize that the construction of the Blending Plant in Mexico is the stage of greatest interest for Galp, therefore, and as long as *Latina* does not end up jeopardized by the exportation of packed lubricants, Galp is willing to lower its margins.

Bearing in mind the team's suggestions, the new NPV is €105,341.49. Through a sensitivity analysis it became clear that even in the worst case scenario, where the market share per product is 0.75% instead of 1.5%, the NPV is still positive, which provided the team the strength to believe that Galp should go forward with this initial stage. ***(Appendix 15, 16)***

4.4. Stage 2 – New Blending Plant

The second stage of the partnership with *Latina* considers the construction of a Blending Plant in Mexico. With this stage, Galp aims to enter the giant Latin American market with the Lubricant Division and after being settled the ultimate goal is to capture the entire energy industry, both downstream and upstream segments. For this matter, *Latina* plays an important role as Galp can benefit from its market knowledge and already established wide network of clients.

Within the process flow, Galp is in charge of the lubricants know-how and formulations, both companies share the production and the distribution is *Latina*'s responsibility. The Blending Plant will produce lubricants to export to a list of Latin American countries that had already been defined by Galp and *Latina*. With operations located in Mexico, the Blending Plant will also supply Brazil, Costa Rica, Guatemala, Colombia, El Salvador, Honduras and Panama.

Major Players and Trends in Latin America

With the aim of assessing the viability of the Blending Plant in Mexico the team first decided that it would be fundamental to understand the main roles and activities of the

[12] Pemex is a Mexican Petroleum Company.

giant oil & gas companies in Latin America. Given the wide range of players in the market and the time constraint, the team has selected ExxonMobil, Shell, Chevron and BP as the most relevant competitors for Galp. Moreover, rather than an exhaustive analysis of each company profile the team agreed that it would be of greater utility if majors' activities in Latin America in terms of production of lubricants (wheatear majors have blending plants or simply rely on distributors) and main type of lubricants commercialized were understood. ***(Appendix 17)***

Additionally it became fundamental to analyze the main trends in Latin America in what concerns the oil and gas industry in order to guarantee the success and survival of the construction of a new Blending Plant in Mexico.

As a result from the market analysis, the team became aware of the fact that a great majority of Latin American countries are divesting the downstream segment to invest in the upstream, mainly supported by Chinese big oil and gas companies.

The drivers for this sudden Chinese movement towards Latin America appear as soon as the bilateral interest is broken down. While Latin America is a region of great attractiveness in terms of oil resources (mainly justified by investments in the *Pré-Sal* area in Brazil), Latin American countries lack the necessary capital to invest and at the same time want to smooth or even break their dependency to the United States. Contrarily, Chinese corporations have the money to invest and at the moment are struggling with some national issues: domestic demand for oil and gas is increasing at an accelerated pace, while the country has been assisting to a disruption of oil supply from Middle East. The Middle East has been China's provider for a very long time but apparently some unexpected events in Libya and Iraq have been jeopardizing the economical relationship. In Libya, protests at seaport facilities and pipeline closures by military groups have blocked August 2013 exports in 1 and 1.4 million barrels a day, respectively. Following the distress comes Iraq with persistent attacks on the pipeline from Kirkuk to Ceyhan in Turkey that have blocked 250 thousand barrels a day in the hottest month of 2013 summer. (24; 25) To support this current trend in Latin America, some examples were gathered. ***(Appendix 18)***

From the analysis it is clear that major oil companies in Latin America are divesting the downstream segment to invest in the upstream. However, and despite the logical explanation that the upstream yields higher results than the downstream segment, it is important to emphasize that there is still a large activity regarding the downstream unit in

Latin America. Otherwise, the construction of the Blending Plant in Mexico would mean nothing, rather than nonsense.

Joint Venture Case Study

Aiming to provide Galp reasoned recommendations, the team decided to analyze a typical case study on joint ventures and, for the purpose of the following report, Cosan's joint venture with Shell appeared to be the best choice. (26)

Cosan "*is one of the largest corporations in Brazil, with business in strategic sectors to the Brazilian development, such as infrastructure and energy*."(27) Cosan is the holding company of a set of subsidiaries: Comgás, Raízen, RumoLogística, CosanLubrificantes e Especialidades and Radar PropriedadesAgrícolas.

The individual incentives for the joint venture were clear. Shell interest in Cosan began in 2005 but negotiations did not happen until 2007, when Cosan had already initiated the process of purchasing ExxonMobil's downstream unit in Brazil. Shell wanted to expand its activities in renewable fuel with a partner that had a leading position in the sugar and ethanol market. As for Cosan, the Brazilian conglomerate wanted to access international markets, to generate scale in distribution fuel and therefore potentiate the acquisition of Exxon's fuel distribution operations in Brazil and also to access 2^{nd} generation biofuel technology. So the interest was mutual: both companies aimed to enhance their fuel distribution chain and furthermore, Shell had the most appropriate technology to apply to Cosan's ethanol upstream segment. (26)

Once understood and agreed the reasons for the joint venture, the energy industry assisted to the creation of Raizen in 2011 – one of the five largest companies in Brazil by revenue with business operations in two distinct segments: fuel distribution and Sugar & Ethanol & Cogeneration. The main drivers for Raízen's growth success rely on the full integration of the ethanol chain (by incorporating Shell's 2^{nd} generation technology) and the sharing of competences: Shell with knowhow on fuel operations (production, trade and retailing) and technology knowledge in 2^{nd} generation biofuel and Cosan with knowhow on ethanol operations, both production and distribution. (26)

In what concerns the typical challenges in joint ventures, Cosan and Shell are not an exception. Thus, the main obstacles refer to asymmetry of information, double agency problems, transactions with related parties, cultural differences and distance and differences in long-term incentives. Governance structure appeared to be the optimal solution for the former challenges. Both parties agreed on equal sharing of authority with a 50/50 structure in the management board and also, it was decided that new business areas would be led by former employees of both companies in their respective areas of knowledge. Regarding the latter challenge (differences in long-term incentives) negotiations were focused on financial instruments, particularly call options. Hence, Shell could buy half or all of Cosan's shares in the joint venture after a 10-year period and only after 15 years Cosan could buy Shell's shares or only Shell's participation in the sugar, ethanol and power business if Shell intends to keep the downstream segment. Clearly, the financial instruments benefited Shell as a way to protect its intellectual property. (26)

Application to Galp and *Latina*'s partnership

Latina and Cosan are similar companies as they are both local leading and family owned companies, their strategy is to grow by acquisitions and they both have the aim to expand their geographical presence. As for Galp and Shell roles in the partnership, both oil and gas companies shared their knowhow and brand name. However the main point of difference is the fact that this project requires capital investments and additionally, the fact that due to Galp's current unwillingness to invest the joint venture will not be 50/50 structured. To conclude, the case study describes the success of a strategic and economical alliance between two distinct companies, which could be seen as a great indicator of success for the partnership with *Latina*, since their similarities are evident.

Model

In order to assess the viability of the partnership with *Latina* in what concerns the construction of a Blending Plant in Mexico, the team had to perform a financial business model. The main outputs for the business model are a Profit & Loss (P&L) account, a Cash Flow Statement and a set of sensitivity analysis. (28)

Before breaking into some model specifications the key message that the team intends to deliver within the scope of this Master Thesis is that the project is economically viable. However, and as in any other financial model, the project's viability is entirely dependent upon a vast number of assumptions that had to consider during the length of the Management Consulting Lab at Galp.

Within this section, the team will first build up on the main financial indicators that support and justify the project's viability and then will focus on the overall assumptions of the model, just highlighting the most crucial ones. The first indicator of the project's viability is the NPV that for a weighted average cost of capital (wacc) of 9% is positive and equal to €32,768,522.16. ***(Appendix 19)*** The internal rate of return is 11% and the payback period is in 2023, equivalent to the 7th year of operations in the Blending Plant. In an investor perspective the project is attractive since the 2nd year of operations, with a return on invested capital (ROIC) above the wacc, which indicates that there is value creation. Regarding the capital structure of the project the team was able to find out *Latina*'s capital structure that is mainly composed by equity (Debt ratio[13] of 29%) and additionally tried to analyze another relevant player in the industry, which is Repsol YPF in Buenos Aires. In the purpose of the Blending Plant, Repsol YPF is a good comparable as it also has a lubricant blending plant in Argentina and its capital structure revealed to be mainly composed by debt (Debt ratio of 65%). Therefore, and with Galp consensus, the base capital structure for trading will be equally composed by equity and debt. The initial invested capital amounts nearly €43M, including all the capital expenditures with necessary equipment and machinery for the Blending Plant as well as Net Working Capital for the first year of operations.

Concerning the overall assumptions of the financial model, crucial to build the P&L account, it is important to emphasize that given the time constraints of the project and Galp's urgent need to decide whether or not to go forward with the negotiations with *Latina*, P&L's items were built either according to Galp's informant in Mexico or according to the *Matosinhos'* Refinery. In this latter case, of using *Matosinhos*' costs as a proxy to the Blending Plant costs in Mexico, information was mainly provided by Galp's Manager of the Lubricants supply Chain.

The first crucial assumption is the forecast of quantities. The first indicator that had to be analyzed was the demand for lubricants in each country, and then market shares were given with the aim of estimating the number of selling tons in each country. In order to mitigate potential mistakes while estimating market shares, a sensitivity analysis was performed. With the base scenario of 28 thousand tons produced in 2016 the NPV is positive and equal to €23M. However, when quantities drop by 20%, representing nearly 23 thousand tons, the NPV is set to zero. ***(Appendix 20, 21)***

Clearly the price is part of the most critical assumptions. Ideally, estimation errors regarding price could have been avoided if *Latina* had sent information regarding their current selling prices with Shell. Since this was not possible, the team decided to follow Galp's methodology in terms of pricing and have added Galp's average margin of 644

[13] Debt ratio = D/(D+E)

€/ton to the unit cost of production. With this highly conservative base scenario the NPV is positive and equal to €23M but, if instead, Galp's margin with industrial clients of 775 €/ton is considered, the NPV of the project increases to €68M. ***(Appendix 22)***

The last P&L item that is worth mentioning is the royalties. Even though they represent a cost to the project, they are a direct source of revenue for Galp – *Latina* has to pay Galp for the right to ongoing use of Galp lubricants' formulations. In regard to this subject, the team decided to consider 4.5% as the base percentage value over sales, which is in line with the 4.75% value that Galp pays to ExxonMobil in Spain. Since Galp believes that this percentage value over sales can be strategically negotiated with *Latina*, a sensitivity analysis was conducted. For the first year of operations, royalties of 4.5% for a unitary margin of 644 €/ton mean a revenue of almost €2.5M. Under a more optimistic scenario, with Galp's margin with industrial clients and royalties of 5.5%, Galp can earn up to €3.2M. ***(Appendix 23)***

5. Main Recommendations

In conclusion, the partnership with *Latina* is economically viable and makes sense given Galp's current constraint regarding the base oil factory hat has been negatively impacting the Exports Division. Hence, the partnership divided in two different stages is the optimal strategy for Galp to adopt in order to enter the Latin American market without jeopardizing the base oil factory in *Matosinhos.* ***(Appendix 24)***

Regarding the second stage, which represents the most attractive scenario for Galp, it is important to highlight that the project is viable. Even though the IRR is not sufficiently above the *wacc,* the team believes that Galp should go forward with the negotiations with *Latina* mainly because the majority of undertaken assumptions were highly conservative. Moreover, the project is lacking accurate information from *Latina*, mainly regarding Shell's selling price in Mexico, and if Galp is able to gather that missing information, there is the strong belief that the project will yield higher returns.

Given Galp's unwillingness to invest at the moment, a minority ownership of 10% was assumed as a base for negotiation. Besides the correspondent parcel of the NPV, Galp's benefit from the partnership is traduced in royalties, which amount nearly €2.5M in 2016 up to €5.3M in 2030. Comparatively to the Exports Division current EBITDA that ranges between €200M and €300M, the royalties' amount becomes less relevant. Therefore, the main driver of the partnership is the long-term strategic value rather than the economical value – the partnership with *Latina* represents an open window to Latin America.

At this stage, is of utmost importance to elaborate on the key success factors for the Joint Venture:

- *"Win-Wi*n" approach from both parties
- Spend time planning
- Engage all the companies' value chain in the negotiation
- Define an exit strategy

Although 50/50 joint ventures tend to work better than others, Galp can benefit from the fact that both partners have complementary strengths rather than overlapping. Additionally a detailed guide on how to conduct the joint venture was provided to Galp. ***(Appendix 25)***

Indeed, the team came up with valuable recommendations for Galp. Besides the estimated added value of €858,791.66, the authors of the thesis, under the Management Consulting Lab initiative, evidenced to Galp the strategic value of entering Latin America.

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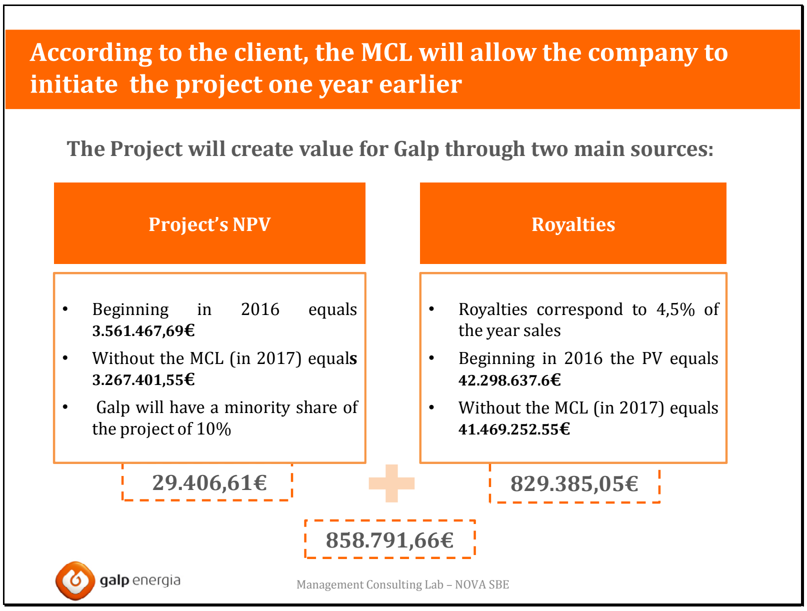
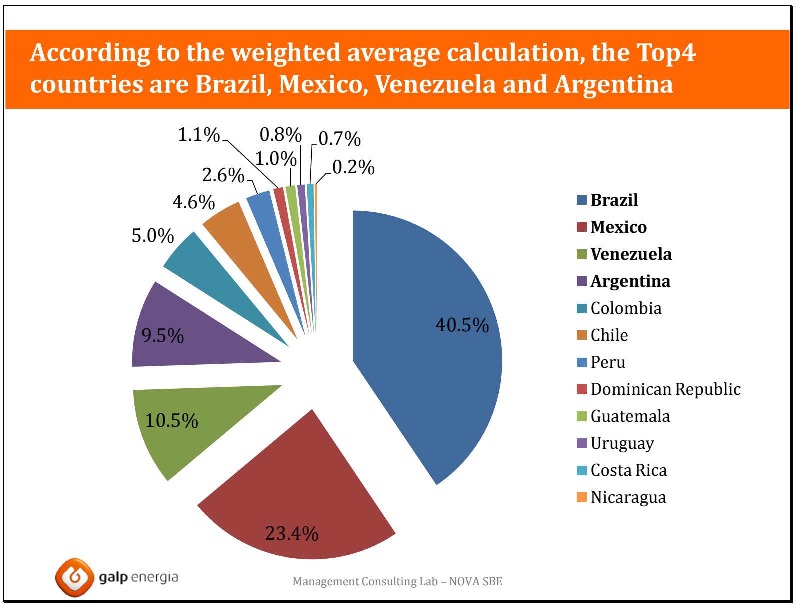
Appendix I – Thesis' Complements

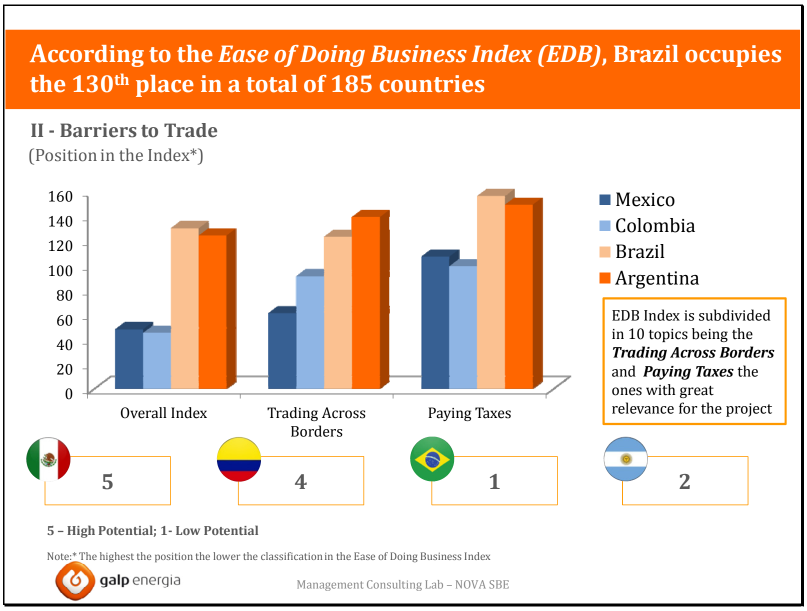
Appendix 1: Project's Value Added to Galp



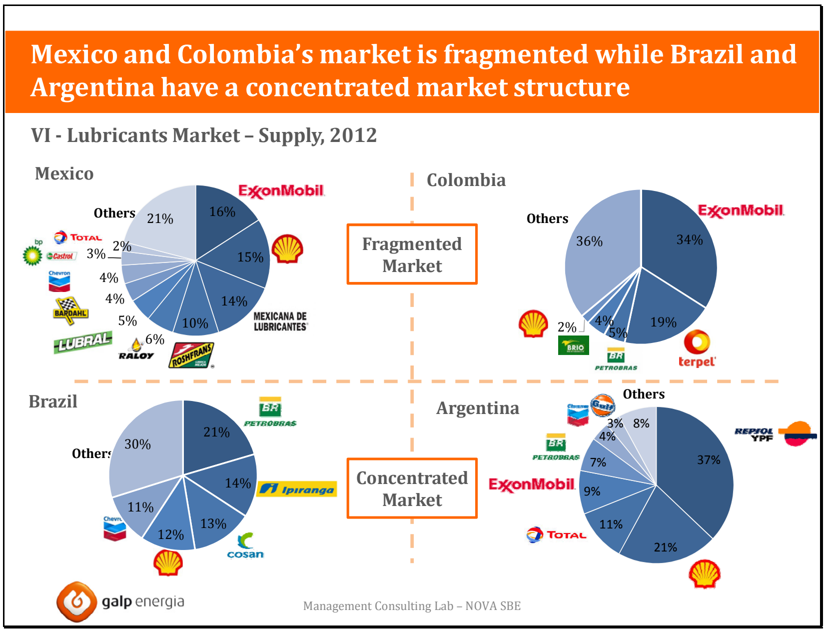
Appendix 2: Macro Analysis Output



Appendix 3: Micro Analysis – Barriers to trade



Appendix 4: Micro Analysis – Lubricant Market Structure



Appendix 5: Micro Analysis Scoring System

Final output from the Ranking System

	Mexico	Colombia	Brazil	Argentina	**Weight**
Barriers to Trade	5	4	1	2	15%
Lubricants Market - Supply	4	5	3	1	15%
Lubricants Market - Demand	5	1	3	4	12%
Automobile in Volume	5	1	4	2	7,5%
Automobile by Age	5	4	1	3	7,5%
Political & Economical Background	3	5	2	1	10%
Refining Industry	3	5	2	3	10%
Market Developments	3	1	5	2	5%
Base Oil Market	3	n.a.	4	n.a.	4%
Logistics	3	2	3	3	4%
Trends	5	n.a.	2	n.a.	4%
Pricing	n.a.	n.a.	n.a.	n.a.	3%
Additives	n.a.	n.a.	n.a.	n.a.	3%
Ranking	**4.14**	**3.46**	**2.49**	**2.24**	**100%**

galp energia   Management Consulting Lab – NOVA SBE

Appendix 6: Latina's Culture

Latina has acquired several certifications in response to its concern regarding green initiatives

Cultural analysis

Latina is **ISO 9001: 2008** certified

Forest Stewardship Council® by FSC organism – an international organization that rewards responsible forest management.

Latin America's only company certified by **National Association of Chemical Distributors (NACD)** for responsible distribution in the management of chemical products.

Clean Industry certification in its Vallejo plant, and is in the process of certifying their San Luis Potosíplant.

Source: Food digital, company report.

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Appendix 7: Latina's Shareholder Structure

Despite the fact that Latina is a listed company, its management is mostly composed by family members

Structure analysis

Shareholder	Number of Shares	Holding %
Santacruz Family	219 728 618	35.33%
Del Valle Family	170 849 168	27.47%
Manzano Family	37 715 729	6.06%
Employees and Management	11 245 264	1.81%
Eugenio Santiago Clariond Reyes	7 664 544	1.23%
Related Parties	2 855 107	0.46%
Public Investors	171 832 712	27.63%
Total	**621 891 141**	**100.00%**

Source: Consultor 414 (2011 data), Annual Report 2012..

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Appendix 8: Stage 1 – Products Selection

A sub-portfolio of 9 products was selected to match current Latina's sales, representing 73% of Mexico's Lubricant demand

		% of Total Mexican Market Demand	% of Total Latina's Sales
PCMO	Galp Formula S 40	19%	**50%**
	Galp Formula System	8%	
	Galp Formula SP 20W-50	6%	
HDMO	Galp Galaxia 40	18%	
	Galp Galaxia LD Star	4%	
	Galp Galaxia LD Supra	1%	
Transmissions	Galp Transoil HP 85W-140	5%	
Industrial	Hidrolep ISO 22	6%	
	Hidrolep ISO 68	6%	
		73%	
		Total 673.360 ton	

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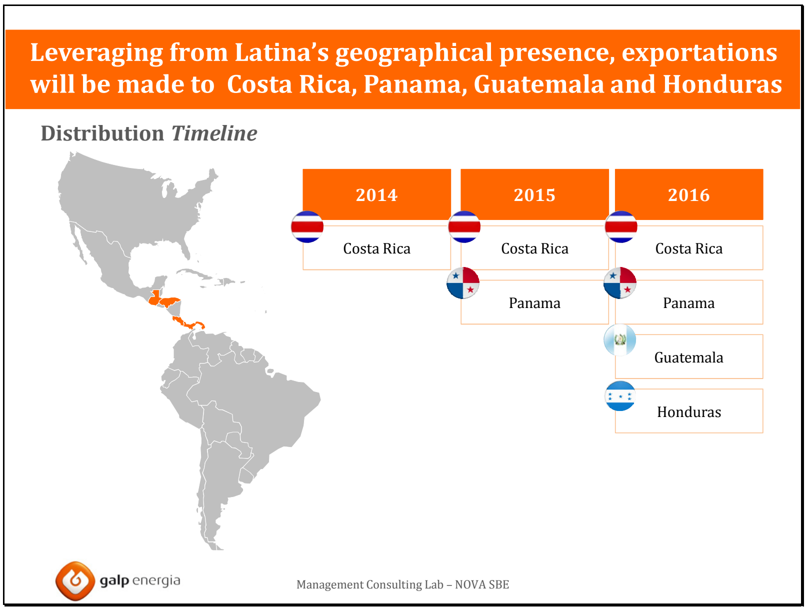
Appendix 9: Stage 1 – Countries to Export



Appendix 10: Stage 1 – Initial P&L account

Final P&L Account for the Project and NPV calculation assuming a *wacc* of 9%

P&L Account – Consolidated

	2014	2015	2016
Sales	420.346,16	922.184,98	2.787.511,34
COGS	325.124,36	709.845,19	2.151.973,61
Net Margin	95.221,80	212.339,78	635.537,73
FOB Costs	11.467,54	26.065,83	79.181,93
Fixed Costs	89.380,23	97.247,50	289.279,13
Marketing	84.069,23	92.218,500	278.751,13
Brand Registration	5.311,00	5.029,00	10.528,00
EBITDA	**-5.625,98**	**89.026,46**	**267.076,66**
Corporate Tax (25%)	*0,00*	*22.256,61*	*66.769,17*
Net Profit	**-5.625,98**	**66.769,84**	**200.307,50**

NPV = 205.711,54 €

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Appendix 11: Stage 1 – Quantities Forecast

The ultimate goal for Costa Rica is to reach 2% of the total lubricants' market share in 2016 (1/2)

Assumption 2 – Costa Rica example's Output

(tons)	2014	2015	2016
Export Quantity	305	435	678
Market Demand	28,120	29,512	30,988
Latina's Market Share	1.0%	1.5%	2.0%

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The ultimate goal for Costa Rica is to reach 2% of the total lubricants' market share in 2016 (2/2)

Assumption 2 – Total Output

(tons)	2014	2015	2016
Export Quantity	305	685	2049
Market Demand	135,042	140,527	145,988
Latina's Market Share[1]	0.23%	0.5%	1.4%

[1] Market Share in the total of the 4 selected countries: Costa Rica, Panama, Guatemala and Honduras

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Appendix 12: Stage 1 – Galp's suggested Margins

Margins for each package were calculated with Galp's suggested margins *(average margin of 277€/ton)*

Galp's Margins

	Margin (€/Kg)	Margin (€/Package)	Margin (€/Package)	Margin (€/Package)
Galp Formula S 40	0,27	4,84	49,59	4,84
Galp Formula System	0,32	5,67	58,12	5,67
Galp Formula SP 20W-50	0,28	-	51,20	5,00
Galp Galaxia 40	0,25	-	45,97	4,49
Galp Galaxia LD Star	0,07	1,17	11,96	-
Galp Galaxia LD Supra	**0,42**	**7,45**	**76,37**	-
Galp Transoil HP 85W140	0,39	7,05	72,21	-
Hidrolep ISO 22	0,25	4,35	44,54	-
Hidrolep ISO 68	0,25	4,42	45,31	4,42

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Appendix 13: Stage 1 – Latina's mark-up

Since 18% is the minimum Mark-Up percentage requested by Latina and estimations had revealed no uniform values…

Latina's MarkUp – Output

2014 MarkUp per liter	Pail 20 L	Drum 205 L	Box 4x5 L
Galp Formula S 40	33%	34%	38%
Galp Formula System	25%	28%	n.a.
Galp Formula SP 20W-50	-	32%	n.a.
Galp Galaxia 40	-	**9%**	n.a.
Galp Galaxia LD Star	29%	32%	-
Galp Galaxia LD Supra	**-4%**	**-3%**	-
Galp Transoil HP 85W140	24%	21%	-
Hidrolep ISO 22	n.a.	n.a.	-
Hidrolep ISO 68	**1%**	**11%**	n.a.

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Appendix 14: Stage 1 – Suggestion

...some amendments should be considered

Galp *vs* Latina – Partial

Simulation for ***Drum (205 L)***	Galp's Margin (€/Kg)	Latina's MarkUp	Galp's Margin (€/ Kg)	Latina's MarkUp
Galp Formula S 40	0,27	34%	0,32	28%
Galp Formula System	0,32	28%	0,32	28%
Galp Formula SP 20W-50	0,28	32%	0,31	29%
Galp Galaxia 40	0,25	9%	0,10	24%
Galp Galaxia LD Star	0,07	32%	0,08	31%
Galp Galaxia LD Supra	0,42	-3%	0,06	21%
Galp Transoil HP 85W140	0,39	21%	0,35	24%
Hidrolep ISO 22	0,25	n.a.	0,25	n.a.
Hidrolep ISO 68	0,25	11%	0,06	35%

Increase in Galp's Margins   Decrease in Galp's Margins

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Appendix 15: Stage 1 – Final P&L account

So that both companies stand to gain, the NPV of the project must be slightly lower

P&L Account – Consolidated

	2014	2015	2016
Sales	404 175,98	881 691,47	2 661 852,69
COGS	325 124,36	709 845,19	2 151 973,61
Gross Margin	79 051,61	171 846,28	509 879,09
% of sales	*19,56%*	*19,49%*	*19,16%*
FOB Costs	11.467,54	26.065,83	79.181,93
Fixed Costs	86 146,20	93 198,15	276 713,27
Marketing	80 835,20	88 169,15	266 185,27
Brand Registration	5 311,00	5 029,00	10 528,00
EBITDA	**-18 562,13**	**52 582,30**	**153 983,88**
% of Sales	*-*	*5,96%*	*5,78%*
Corporate Tax (25%)	*0,00*	*13 145,58*	*38 495,97*
Net Profit	**-18 562,13**	**39 436,73**	**115 487,91**

NPV = 105.341,49

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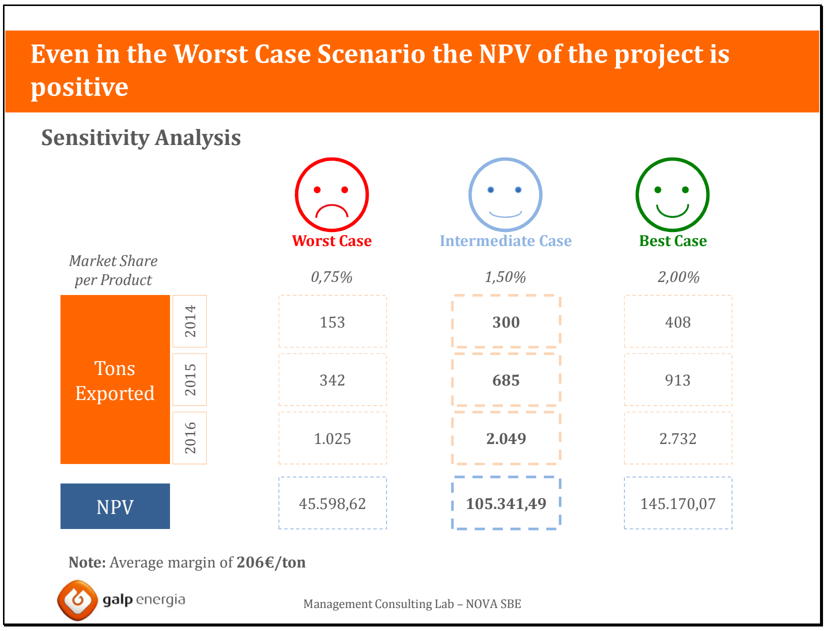
Appendix 16: Stage 1 – Sensitivity Analysis



Appendix 17: Stage 2 – Major Players in Latin America

Summary – ExxonMobil Lubricants in Latin America (2/2)

	Brazil	Bolivia	Paraguay	Uruguay
Presence	cosan	cosan	cosan	cosan
Description	Producer & Distributor	Distributor	Distributor	Distributor
Production	Cosan's lubricant Blending plant in **Rio de Janeiro** **(1.7M B/year)**	✖	✖	✖

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Summary – Shell Lubricants in Latin America (1/4)

	Mexico	Colombia	Brazil	Argentina	Venezuela
Presence	Shell; 25 aniversario pochteca	Shell	Shell	Shell	Shell
Description	Subsidiary and Distributor since 2010	Subsidiary	Subsidiary	Subsidiary	Subsidiary
Production	✖	Grease Plant in **Bogotá**	Lubricants and Grease Plant in **Rio de Janeiro**	Grease Plant in **Buenos Aires**	Lubricant blending Plant in **Valencia**, Carabobo State (45K metric tons/ year)

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Summary – Shell Lubricants in Latin America (2/4)

	Honduras	Bolivia	Costa Rica	Ecuador	El Salvador
Presence	Shell	IMCRUZ RESPALDA Y GARANTIZA	FEDURO AGENCIAS FEDURO COSTA RICA	Azende CORPORACION	25 aniversario pochteca
Description	Subsidiary	Distributor since 2006	Distributor since 2007	Distributor	Distributor
Production	✗	✗	✗	✗	✗

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Summary – Shell Lubricants in Latin America (3/4)

	Guyana	Nicaragua	Panama	Paraguay
Presence	sol Sol	CSSA Café Soluble	FEDURO AGENCIAS FEDURO COSTA RICA	Mercedes-Benz Condor S.A.C.I.
Description	Distributor	Distributor	Distributor	Distributor
Production	✗	✗	✗	✗

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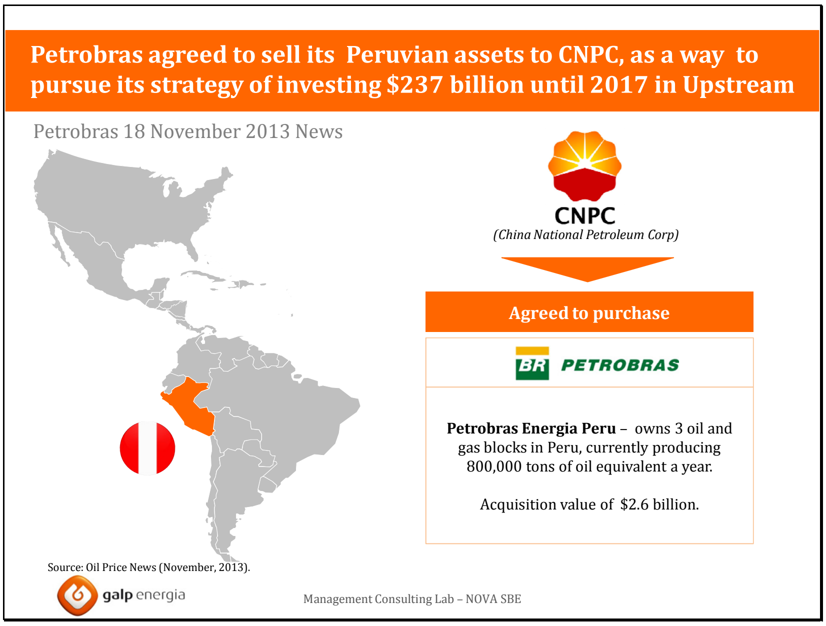
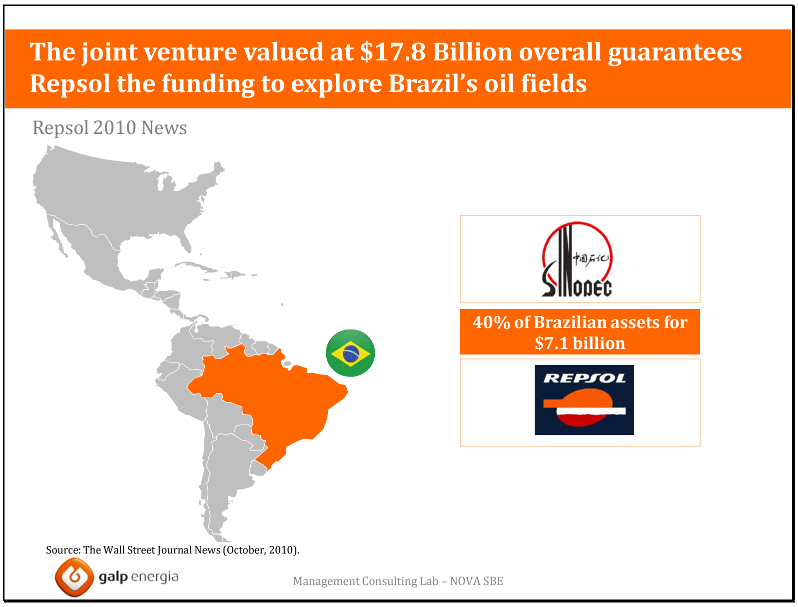
Appendix 18: Stage 2 – Trends in Latin America



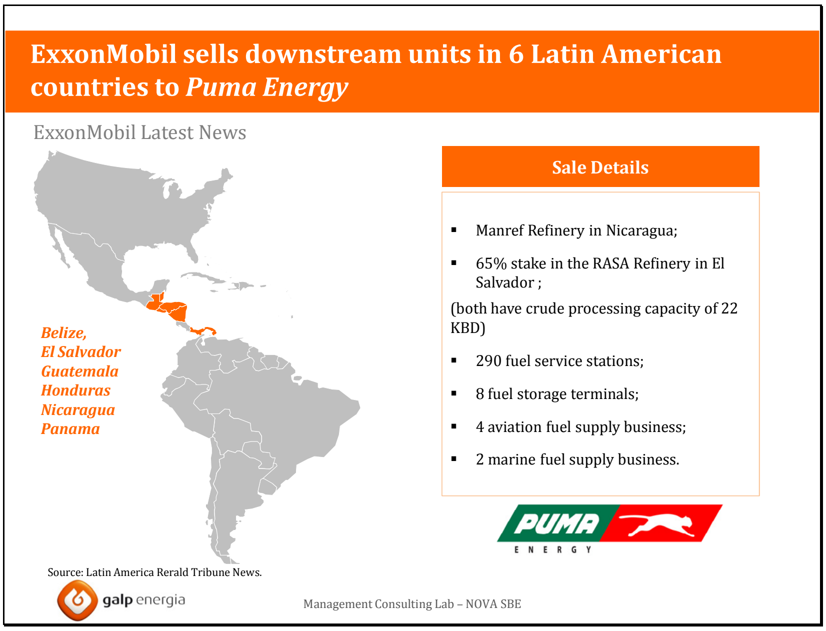
- Petrobras agreed to sell its Peruvian assets to CNPC (China National Petroleum Corporation), as a way to pursue its strategy of investing $237 billion until 2017 in the upstream segment. (29)

- The Chinese government has oil-for-loan deals (loans in exchange for barrels of oil) with Brazil and Venezuela. (30; 31)

- Cnooc (China National Offshore Oil Company) and its argentine partner Bridas Energy Holding agreed to buy ExxonMobil's Argentine downstream unit, Esso. (32)



- Sinopec (China Petroleum & Chemical Corporation) purchased 40% of Repsol Brazilian assets for $7.1 billion, which guarantees Repsol the funding to explore Brazil's oil fields. (33)



- ExxonMobil sold downstream units in 6 Latin American countries to a mid and downstream company, Puma Energy. (34)

Appendix 19: Stage 2 – P&L account

For a wacc of 9%, the NPV of the project is 32.768.522,16€

P&L Account – Consolidated

	2016	2017	...	2030
Sales	**54.805.334,04**	**58.024.214,78**		**116.471.589,81**
Discounts	**0,00**	**0,00**		**0,00**
COGS	**35.234.252,44**	**37.634.477,12**		**81.918.719,89**
Gross Profit	**19.571.081,60**	**20.389.737,66**		**34.552.869,92**
% of Sales	36 %	35 %		30%
SG&A Expenses	**17.715.771,52**	**12.445.990,75**		**17.323.519,23**
EBITDA	**1.855.310,08**	**7.943.746,91**		**17.229.350,69**
% of Sales	3 %	14 %		15 %
Depreciation	1.462.000,00	1.462.000,00		1.462.000,00
EBIT	**393.310,08**	**6.481.746,91**		**15.767.350,69**
Financial Costs	928.893,46	866.967,23		61.926,23
EBT	**-535.583,38**	**5.614.779,68**		**15.705.424,46**
Taxes	0,00	1.684.433,90		4.711.627,34
Net Income	**-535.583,38**	**3.930.345,78**		**10.993.797,12**

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Appendix 20: Stage 2 – Quantities Forecast

Quantities were calculated from the intended Market Share in each country

Sales – Quantities 2016

	Lubricants Demand (tons)	Market Share (%)	Production (tons)
Brazil	959.885,69	0,50%	4.799,43
Mexico	780.894,23	2,40%	18.741,46
Colombia	222.088,19	1,50%	3.331,32
Guatemala	53.387,02	1,50%	800,81
Costa Rica	30.987,87	1,50%	464,82
El Salvador	32.757,46	0,80%	262,06
Panama	23.886,44	0,80%	191,09
Honduras	37.726,50	0,80%	301,81
Total Latin America	**2.696.824,52**	**1,07%**	**28.892,80**

Note: Lubricants Demand increases with each country's GDP Growth Rate

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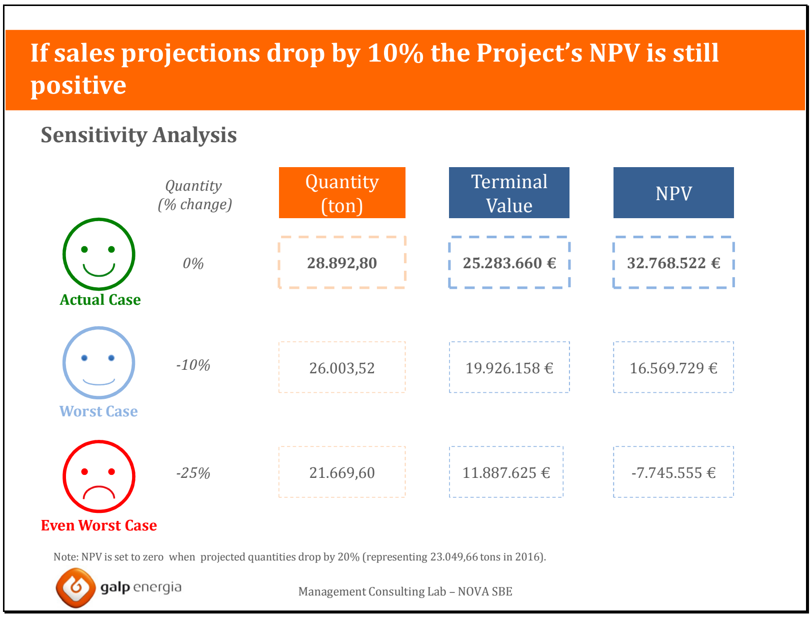
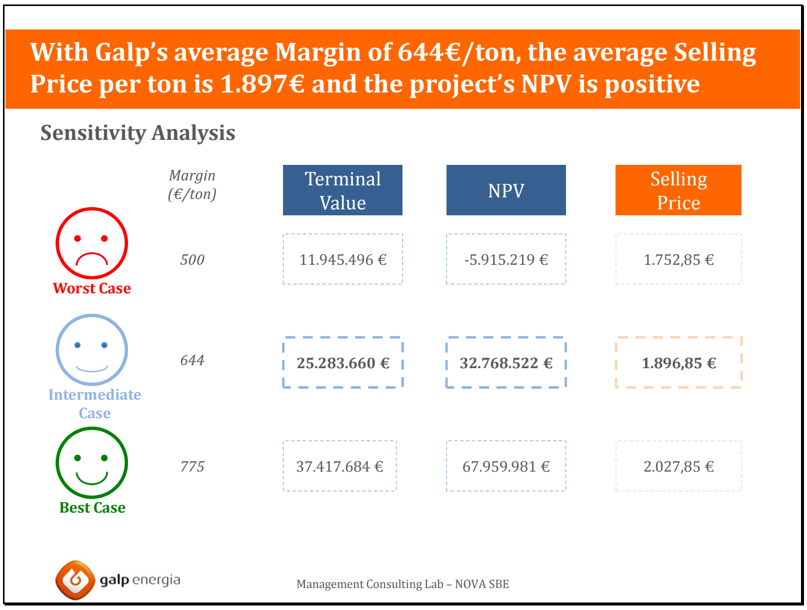
Appendix 21: Stage 2 – Quantities: Sensitivity Analysis



Appendix 22: Stage 2 – Price: Sensitivity Analysis



Appendix 23: Stage 2 – Royalties

Even though the Royalties represent a cost to the partnership, they are a source of revenue for Galp

SG&A Expenses – Royalties *(in thousand €)* 2016

% of Sales/ Margin	2,00%	2,50%	3,00%	3,50%	4,00%	4,50%	5,00%	5,50%
500	1.012,90	1.266,12	1.519,34	1.772,57	2.025,79	2.279,01	2.532,24	2.785,46
550	1.041,79	1.302,24	1.562,68	1.823,13	2.083,58	2.344,02	2.604,47	2.864,92
600	1.070,68	1.338,35	1.606,02	1.873,69	2.141,36	2.409,03	2.676,70	2.944,37
644	1.096,10	1.370,13	1.644,16	1.918,19	2.192,21	**2.466,24**	2.740,27	3.014,29
700	1.128,47	1.410,58	1.692,70	1.974,82	2.256,93	2.539,05	2.821,17	3.103,28
725	1.142,91	1.428,64	1.714,37	2.000,10	2.285,83	2.571,55	2.857,28	3.143,01
750	1.157,36	1.446,70	1.736,04	2.025,38	2.314,72	2.604,06	2.893,40	3.182,74
775	1.171,81	1.464,76	1.757,71	2.050,66	2.343,61	2.636,56	2.929,51	3.222,47

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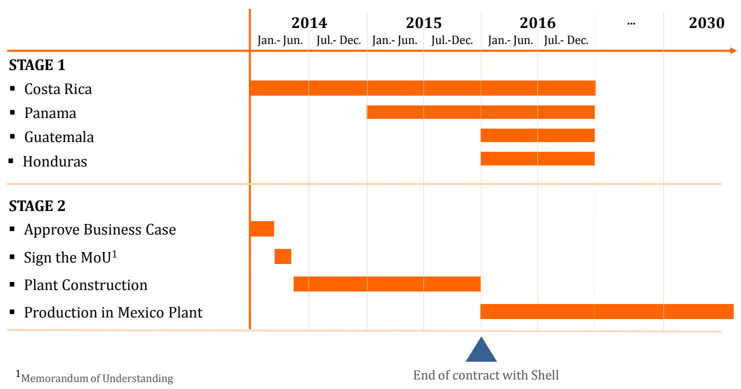
Appendix 24: Timeline of the Partnership

The Project shall begin in 2014 with exports of finished lubricants, while the factory plan is developed

***Timeline* of the Project**



[1]Memorandum of Understanding

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Appendix 25: Joint Venture – *Step by Step*

For the Joint Venture to succeed some crucial themes should be carefully analyzed

Joint Venture - ***Step by step***	
Management	Previously define the management team
Governance	Board of directors structure
Contributions	Define tangible & intangible contribution and quantify them
Risks & Rewards allocation	Who gets what, where, when, why and how
Regulatory Issues	Competition law and currency repatriation
Ownership Transfer	Agreement on possible transfer arrangements
Governing Law	Local or Neutral Jurisdiction
Termination Provisions	Define exit strategy
Governing Language	Set the prevailing language in case of inconsistency
Intellectual Property	Licensing agreement in respect to knowledge items

Source: International Joint Ventures – A Pratical Approach

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In order to better plan the partnership, some questions should be considered during the negotiation (1/4)

Management

1. Who has the right to nominate the senior management?
2. Who has the right to remove and replace officers?
3. Which are the limits on authority of officers?
4. Who will be the auditors (auditors of one of co-venturers or independent)?
5. What are the reporting lines?

Governance

1. How many members on the Board of Directors and main responsibilities?
2. Assuming the Galp's minority ownership interest, what is the scope of protection on fundamental decisions and changes?
3. What will be the process for developing, approving and updating the business plan and budget?

Source: International Joint Ventures – A Pratical Approach; Model Joint Venture Agreement

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In order to better plan the partnership, some questions should be considered during the negotiation (2/4)

Contributions

1. What will be each partner contribution (tangible & intangible)?
2. In case there is the need to increase capital, who will invest?

Risks & Rewards allocation

1. Who gets what, where, when, why and how? Such as, dividend distributions, capital calls and allocations of losses.

Regulatory Issues

1. What will be the JV position regarding some regulatory issues?
Issues to be discussed: export and import controls, foreign corrupt practices act (and its equivalent) compliance, companies acts (and their equivalent), competition law (anti-trust) compliance, and also currency repatriation.

Source: International Joint Ventures – A Pratical Approach; Model Joint Venture Agreement

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In order to better plan the partnership, some questions should be considered during the negotiation (3/4)

Ownership Transfer

1. What will be the Agreement on possible transfer arrangements?
Partners should define the restrictions on the transferability of ownership interests in the joint venture entity (some possible arrangements: rights of first offer, rights of first refusal, drag-long rights and tag-along rights).

Governing Law

1. What will be the Governing Law for the partnership?
Laws of the jurisdiction in which the joint venture will be principally located are commonly chosen to govern, however a neutral jurisdiction that is mutually convenient to both parties may be considered.

Source: International Joint Ventures – A Pratical Approach; Model Joint Venture Agreement

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In order to better plan the partnership, some questions should be considered during the negotiation (4/4)

Termination Provisions

1. What will be the exit strategy for the partnership?
Termination provisions should be discussed regarding when and how the agreement and joint venture terminate.

Governing Language

1. What will be the official language of the joint venture?
All documents should be written in the official language.

Intellectual Property

1. How intellectual property will be protected?
The JV agreement should clearly delineate ownership of intellectual property upon dissolution or termination of the joint venture.

Source: International Joint Ventures – A Pratical Approach; Model Joint Venture Agreement

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Appendix II – Individual Reports

Appendix

Ana Catarina de Oliveira Luna Pais

Theoretical Context and Methodology[14]

Galp Energia is a Portuguese energy company, engaged in the oil and gas industry. The company's strategy is to continuously increase value to its shareholders through its activities expansion. Regarding the Lubricants Division, the lubricants are produced in Matosinhos' refinery and then distributed nationally and exported through the Exports Division. The expansion of Galp's presence[15] in Latin American countries is one of the division's objectives, and this was the primary reason for the scope of this project. Since there was a contact with a local distributor, *Latina*[16], accessing a potential partnership with this company became one of the project's objectives.

In terms of methodology, the team developed the analysis divided into five chapters that together answer the following questions: "What are the most attractive countries in Latin America for Galp's Lubricant segment?" and "How should the partnership be conducted?" The first chapter is entirely focused on answering the first question. Therefore, a deep market research was conducted on the lubricant segment in Latin America with the aim of finding the most attractive countries for Galp. However, due to the lack of relevant information for the countries under consideration, the team considered the academic advices and followed a *Top-Down analysis*. This was divided into a Macro and Micro analysis, resulting in the most attractive countries selection.

The remaining four chapters are focused on answering the second question. Beginning by the partnership, this included the analysis of the partner and a culture analysis. For the culture analysis, the *Hofstede Framework* was used as well as the *Global Leadership Dimension Framework*. Once all the information was collected, a fit analysis was performed to understand the alignment of both companies in this project. The third and fourth chapters are dedicated to the analysis of the partnership's viability in each stage. For each stage, financial statements and revenue forecasts were prepared with the aim of assessing the partnership's potential.

Lastly, the fifth chapter seeks to provide to Galp valuable recommendations, specifically within the partnership models' field. The team details the key success factors for partnerships and lists the traditional steps that must be followed to achieve a successful partnership.

[14] This content is the same for all students and is a summary of the content presented in the second and third chapters of this thesis.
[15] Currently, Galp is only present in Uruguay.
[16] Latina is a Mexican distribution company.

Development of a Particular Content - Internationalization

The following topic pretends to describe the Internationalization Cases studied in the context of the Project developed, describing the research, the main challenges faced and the contribution for the Project.

Nowadays several Portuguese companies have expanded to other geographies, as a result of the current status of the internal market, and because of the companies' objective to increase their businesses. There are alternative entry strategies in an internationalization process, which have different levels of risk and investment and market entry speed. (35)

Regarding the Lubricants Division of Galp Energia the decision "to go global" was already taken, since its products are already present in foreign countries, such as Spain, Angola, Uruguay, and others. However, Galp pretends to expand its presence in Latin America, through the contact with a local distribution company, *Latina*. So, the purpose of the Project was to assess the attractiveness of the Latin American lubricants market in the context of a potential partnership with *Latina*.

Focusing on the Project's internationalization perspective, there are three important decisions to take, regarding the choice of the business, the geographical area and the entry strategy. (36) In this case, the business and geographical area are defined, being lubricants and Latin America, respectively. So, only the entry strategy is not totally defined, because the partnership can have different formats. According to David Besanko, there are "a variety of alternatives between "make" and "buy"" (2), the vertical integration of two companies that complement each other can have different levels of involvement. For the Project, two stages were considered, a distribution agreement (Stage 1- Export Packed Lubricants) and a joint venture (Stage 2- New Blending Plant).

Considering the second stage that considers Galp's presence in Mexico[17], this brings a new geography for Galp's operations. Therefore, the study of previous Internationalization Cases became an opportunity to research the key success factors and the decisions that lead to success of other companies, but also aspects that sometimes are disregarded and may lead to failure. During this phase of the Project, the first challenge was the choice of the Internationalization Case to investigate. The criterion was a Portuguese company that through its internationalization was able to achieve a huge success. Jerónimo Martins became the selected company, as it is a well known Portuguese company and has been

[17] The country where the Blending Plant will be constructed in partnership with *Latina*.

successful in its internationalization process. Currently, it is present in two other countries besides Portugal, and was able to achieve a leader position in one of the countries.

After choosing Jerónimo Martins (JM), the research for relevant information was conducted, although sometimes this was not so successful, due to some information being confidential. The main sources were Master Theses and online websites, such as company website and online news. After collecting all the information, a brief presentation of JM and its internationalization process is summarized below.

Jerónimo Martins Internationalization Case

The company was founded in 1792 and operates in the food distribution and consumer products' manufacturing. The company is present in Portugal, Poland and more recently in Colombia. Firstly, focusing on the movement to Poland, which occurred in 1995, the selection of this country is justified by some factors and mainly by a specific opportunity. The main factors considered were the country's size, with a total population around 38 million and the perspectives of future economic development, related with the future entry into to European Union. The mentioned opportunity came through the contact with a Polish businessman, owner of a Cash & Carry chain, Eurocash. This format being familiar to JM, contributed to incentivate the expansion to this country. (37)

In terms of the entry strategy, JM entered Poland with a joint venture with Booker C&C (UK food retailer), by acquiring the Cash & Carry chain (Eurocash). However, and due to the lack of market knowledge, this format did not prove to be the best, since the discount stores are privileged by consumers. Considering the needs of Polish consumers, the group focused only on convenience discount stores, by acquiring Biedronka (with 243 stores) in 1997. (8) Over the years, JM has strengthened its brand and expanded its coverage; in 2013 the group owned more than 2,125 stores (23), being present in more than 500 towns and cities, which enables most of Poland's population to do their everyday shopping in its stores. Biedronka became the largest discount store in Poland, having the mission to deliver customers "everyday low price" with a portfolio of high quality products.

Later, JM also started operating in Brazil and UK; however, these businesses were not successful and they closed the stores in these two countries. By learning from the failures the group continued with the aim of internationalization for other markets.

By 2011, concerning the process of selecting a new geography for the group, the country chosen had to satisfy three well defined criteria. Namely, the country's population should be higher than 40 million, the country should be democratic and political stable and should respect the human rights. After selecting a list of countries that satisfy the mentioned criteria, a deeper study of the Colombian market identified this country as a good opportunity for the retail market.

Following the decision to enter Colombia, a market study was conducted and revealed the bad connotation of the Polish logo. Taking into account the need to adapt to the local culture, a new brand was created – Ara. The stores were conceived with the "neighborhood concept", and in 2013, JM started its operations in Colombia. By the end of the year, it was expected to have between 30 and 40 Ara stores, number that will increase in the following years. During the first months of operations, sales exceeded expectations. (38)

Contribution to Galp[18]

In terms of contribution for the Project, the analysis of the *JM* Internationalization Case contributed to identify the key success factors and to illustrate how a company can succeed by entering a new geography. In both cases, Poland and Colombia, the profound study of the markets and cultures, and the adaptation to the local market were critical factors for the internationalization success.

Taking these learnings for Galp's Project that considers the entrance in a new market with a local player, the usual challenges of internationalization can be minimized through the partner's market knowledge. However, and as it can be learned from this Internationalization Case, it is crucial to take the right time to get to know the market and the local culture. Therefore, Galp should ensure that its partner *Latina* has and provides the relevant information about the market.

[18] The following content includes transcripts of the text presented in chapter 4.2 – Internationalization of this thesis.

Personal Reflections

Since the Project is concluded, it is very important to reflect on the main learnings to later incorporate in other situations. In this personal reflection I want to share my motivation to do this Project and what I have learnt from it. So, this topic is divided into three parts: Management Consulting Lab (MCL) choice; Belbin Model; Main Learnings.

The main reason to decide to do my thesis in the MCL was the opportunity to have a practical experience while doing the thesis. Actually, during my Masters I took the Consulting course that gave me the desire to experience how the consultant life is. Moreover, this experience would allow solving a real management problem, enabling the application of my knowledge and of what I had studied at the university. Personally, this format of thesis makes the transition between being a student and becoming a professional, and also contributes to strengthening my experience and enhancing my network. Finally, the fact that the project is conducted in a team gave me the opportunity to develop my skills as a team member.

During the first meetings with Constança, she shared with the team the Belbin Model[19], as a way for each one of us to evaluate what are our natural roles in a team. (39) This exercise contributed to increase self-knowledge, as well as define the role of each team member. The Belbin Model main objective is to contribute to team's formation in order to have all the roles present in the members.

I obtained higher scores in the roles of *President*, *Strategist* and *Teamworker*. The *President* role is characterized by mostly coordinating the job, through the agenda management according to priorities. The *Strategist* is responsible for guiding the team by giving form to group's ideas and transform them into concrete tasks to perform, bearing in mind the project's strategic objectives. Finally, the *Teamworker* role is to promote unity within a group and manage the conflicts that may arise between group members. These roles identify me due to my characteristics of responsibility, organization and attention to others, that I developed along my path through my academic life and activities that I was/am involved in. Regarding the roles where I scored less, they were *Monitor*, *Intellectual* and *Prospector*; these became areas for improvement along this project.

Concerning the main learnings from this Project, firstly this experience gave me a first exposure to what it feels like being a Consultant. Since the beginning the team was

[19] Resulted from Raymond Meredith Belbin's Research on how team members interact, and gives the eight roles in managing a team that should be present to be an effective team.

involved in the process of a Consultancy Project, including the Proposal, which includes all the steps for the Proposal preparation, such as the industry research, definition of project objectives and methodology. (40) After preparing the Proposal, the Kick-off Meeting exposed the team to the first meeting with the Client and the moment to discuss the Project's objectives and understand Client's priorities. Along the Project, there were several meetings and presentations to the Client that contributed to develop my communication and presentation skills.

Additionally, I want to highlight the teamwork that allowed a shared learning experience, especially because the team was composed by members with different background studies. On one hand, this also provided a challenge of dealing with people that have different working methods, so equilibrium was reached toward team's interest. On the other hand, the diversity of knowledge contributed to the success of the work performed.

The opportunity to work in the Client's premises contributed to establish a close relationship and a different Project's involvement with the Client. The Exports Division team welcomed us very well and I felt part of the team. Along the Project, one lesson that I take is the importance of syndication, which initially was shared by Professor Constança and that during the three months I had the opportunity to put into practice.

Moreover, considering the preliminary research that became of utmost importance, since it is a very specific business and industry, I deepen my knowledge of the lubricants business.

In a nutshell, the most important in a Consultancy Project and a thought always present in my mind was the creation of value to our Client, the so called added value. In this Project I truly believe that this was accomplished, by the fresh ideas brought to the work developed and because the Project involved a key issue for the Client related to its long-term strategy for lubricants.

Appendix

Carlota Collares Pereira

Theoretical Context and Methodology[20]

Galp Energia is a Portuguese energy company, engaged in the oil and gas industry. The company's strategy is to continuously increase value to its shareholders through its activities expansion. Regarding the Lubricants Division, the lubricants are produced in Matosinhos' refinery and then distributed nationally and exported through the Exports Division. The expansion of Galp's presence[21] in Latin American countries is one of the division's objectives, and this was the primary reason for the scope of this project. Since there was a contact with a local distributor, *Latina*[22], accessing a potential partnership with this company became one of the project's objectives.

In terms of methodology, the team developed the analysis divided into five chapters that together answer the following questions: "What are the most attractive countries in Latin America for Galp's Lubricant segment?" and "How should the partnership be conducted?" The first chapter is entirely focused on answering the first question. Therefore, a deep market research was conducted on the lubricant segment in Latin America with the aim of finding the most attractive countries for Galp. However, due to the lack of relevant information for the countries under consideration, the team considered the academic advices and followed a *Top-Down analysis*. This was divided into a Macro and Micro analysis, resulting in the most attractive countries selection.

The remaining four chapters are focused on answering the second question. Beginning by the partnership, this included the analysis of the partner and a culture analysis. For the culture analysis, the *Hofstede Framework* was used as well as the *Global Leadership Dimension Framework*. Once all the information was collected, a fit analysis was performed to understand the alignment of both companies in this project. The third and fourth chapters are dedicated to the analysis of the partnership's viability in each stage. For each stage, financial statements and revenue forecasts were prepared with the aim of assessing the partnership's potential.

Lastly, the fifth chapter seeks to provide to Galp valuable recommendations, specifically within the partnership models' field. The team details the key success factors for partnerships and lists the traditional steps that must be followed to achieve a successful partnership.

[20] This content is the same for all students and is a summary of the content presented in the second and third chapters of this thesis.
[21] Currently, Galp is only present in Uruguay.
[22] Latina is a Mexican distribution company.

Development of a Particular Content - Stage 2

Description[23]

The second stage of the partnership with *Latina* considers the construction of a Blending Plant in Mexico. With this stage, Galp aims to enter the giant Latin American market with the Lubricant Division and after being settled the ultimate goal is to capture the entire energy industry, both downstream and upstream segments. For this matter, *Latina* plays an important role as Galp can benefit from its market knowledge and already established wide network of clients. Within the process flow, Galp is in charge of the lubricants know-how and formulations, both companies share the production and the distribution is *Latina*'s responsibility. The Blending Plant will produce lubricants to export to a list of Latin American countries that had already been defined by Galp and *Latina*. With operations located in Mexico, the Blending Plant will also supply Brazil, Costa Rica, Guatemala, Colombia, El Salvador, Honduras and Panama.

With the aim of assessing the viability of the Blending Plant in Mexico the team first decided that it would be fundamental to understand the main roles and activities of the giant oil & gas companies in Latin America. Moreover, it became fundamental to analyze the main trends in Latin America in what concerns the oil and gas industry in order to guarantee the success and survival of the construction of a new Blending Plant in Mexico.

Diagnostic of Challenges

Ideally, to perform the most accurate financial business model the team would have had to rely on the most accurate information about Mexico. That was not the case. Neither did Galp send a technician to assess the conditions of the land and existing facility in Monterrey nor did Latina comply, in the length of the project, with Galp's request for information in what concerns some relevant Mexican data (selling prices, rent costs, electricity and water costs, etc.). Hence, given the time constraint of the project and Galp's urgent need to decide whether or not to go forward with the negotiations with *Latina*, some assumptions had to be undertaken. To overcome the former challenge, the team used *Matosinhos*' cost as a proxy to the Blending Plant costs in Mexico. As for the lack of information regarding Mexican data, whenever possible the team relied on Galp's informant in Mexico and where it was not possible, *Matosinhos'* costs were used as a proxy.

[23] The following content includes transcripts of the text presented in chapter 4.4 – *Stage 2* of this thesis

Analysis of the Model[24]

In order to assess the viability of the partnership with *Latina* in what concerns the construction of a Blending Plant in Mexico, the team had to perform a financial business model. The main outputs for the business model are a Profit & Loss account, a Cash Flow Statement and a set of sensitivity analysis.

Before breaking into some model specifications the key message that the team intends to deliver within the scope of this Master Thesis is that the project is economically viable. However, and as in any other financial model, the project's viability is entirely dependent upon a vast number of assumptions that had to consider during the length of the Management Consulting Lab at Galp.

Within this section, the team will first build up on the main financial indicators that support and justify the project's viability and then will focus on the overall assumptions of the model, just highlighting the most crucial ones. The first indicator of the project's viability is the NPV that for a weighted average cost of capital (wacc) of 9% is positive and equal to €32,768,522.16. ***(Appendix 19)*** The internal rate of return is 11% and the payback period is in 2023, equivalent to the 7th year of operations in the Blending Plant. In an investor perspective the project is attractive since the 2nd year of operations, with a return on invested capital (ROIC) above the wacc, which indicates that there is value creation. Regarding the capital structure of the project the team was able to find out *Latina*'s capital structure that is mainly composed by equity (Debt ratio[25] of 29%) and additionally tried to analyze another relevant player in the industry, which is Repsol YPF in Buenos Aires. In the purpose of the Blending Plant, Repsol YPF is a good comparable as it also has a lubricant blending plant in Argentina and its capital structure revealed to be mainly composed by debt (Debt ratio of 65%). Therefore, and with Galp consensus, the base capital structure for trading will be equally composed by equity and debt. The initial invested capital amounts nearly €43M, including all the capital expenditures with necessary equipment and machinery for the Blending Plant as well as Net Working Capital for the first year of operations.

The first crucial assumption is the forecast of quantities. The first indicator that had to be analyzed was the demand for lubricants in each country, and then market shares were given with the aim of estimating the number of selling tons in each country. In order to

[24] The following content includes transcripts of the text presented in chapter 4.4 – *Stage 2* of this thesis

[25] Debt ratio = D/(D+E)

mitigate potential mistakes while estimating market shares, a sensitivity analysis was performed. With the base scenario of 28 thousand tons produced in 2016 the NPV is positive and equal to €23M. However, when quantities drop by 20%, representing nearly 23 thousand tons, the NPV is set to zero. ***(Appendix 20,21)*** Clearly the price is part of the most critical assumptions. Ideally, estimation errors regarding price could have been avoided if *Latina* had sent information regarding their current selling prices with Shell. Since this was not possible, the team decided to follow Galp's methodology in terms of pricing and have added Galp's average margin of 644 €/ton to the unit cost of production. With this highly conservative base scenario the NPV is positive and equal to €23M but, if instead, Galp's margin with industrial clients of 775 €/ton is considered, the NPV of the project increases to €68M. ***(Appendix 22)***

The last P&L item that is worth mentioning is the royalties. Even though they represent a cost to the project, they are a direct source of revenue for Galp – *Latina* has to pay Galp for the right to ongoing use of Galp lubricants' formulations. In regard to this subject, the team decided to consider 4.5% as the base percentage value over sales, which is in line with the 4.75% value that Galp pays to ExxonMobil in Spain. Since Galp believes that this percentage value over sales can be strategically negotiated with *Latina*, a sensitivity analysis was conducted. For the first year of operations, royalties of 4.5% for a unitary margin of 644 €/ton mean a revenue of almost €2.5M. Under a more optimistic scenario, with Galp's margin with industrial clients and royalties of 5.5%, Galp can earn up to €3.2M. ***(Appendix 23)***

Contribution to Galp

Clearly, the financial business model evidences that the project is viable, therefore creating value for Galp. Given the company's unwillingness to invest at the moment, a minority ownership of 10% was assumed as a base for negotiation. Besides the correspondent parcel of the NPV, Galp's benefit from the partnership is traduced in royalties, which amount nearly €2.5M in 2016 up to €5.3M in 2030.

To conclude, the performance of this financial business model was fundamental to Galp not only because it evidenced that the project is viable but also because it marks the beginning of Galp's activities in Latin America while still remedying the current problem at the Base Oil Plant in *Matosinhos*,

Personal Reflections

In this section devoted to individual reflection, I will first start by sharing the results of the Belbin's Model. Afterwards, I will attempt to apply those results to the project itself by matching the results from the Belbin's Model with the real behaviors that I believe have adopted throughout the entire length of the project. Finally, I will focus on the main learnings from this consulting experience within Galp Energia and how they have influenced my perception of the real world's professional environment.

Anticipating the beginning of the project and the inherent outlining of tasks and deadlines, the team followed the advisor's suggestion of performing the Belbin's Model in order to assess how each of the team's members typically behaves in a team environment. Within a pool of 8 typical team roles, the behaviors in which I scored the highest were the *Operational, Monitor* and *President,* whereas I scored the lowest with the team roles of *Finisher* and *Intellectual*. Indeed, I was not puzzled by the results of the analysis once I clearly identify myself with the obtained results. Regarding my prevailing role, the *Operational*, it is in charge of "putting to practice the team's projects, by creating an organization frame which is efficient and effective."[26] Clearly, efficiency and effectiveness stand for what I believe to be the optimal path to attain any goal, either personal or professional, and I trust organizational frameworks to be the key for success. As for my less active behaviors within a team context, both *Finisher* and *Intellectual* comprise the need for working under urgency and stress while still focusing on emerging ideas. Definitely, working under pressure goes against any probability of attaining a goal with success. I even dare to say that the time itself poses the greatest challenge to my professional achievement as it can be obviously seen as the worst enemy of an organized and practical person, which is my case.

Once exposed my main team roles, it becomes logical to apply them to the project's environment while attempting to validate the results from the Belbin's Model. Indeed, I appeared to be the most *Operational* person within the team, with a great practical sense and the ability of enhancing the team's potential. Looking backwards, the fact of being the *Operational* led me to unexpectedly assume the role of Project Manager during the entire length of the Consulting Lab experience, even though a fair allocation has been made for that purpose at the beginning of the project. Supporting this role as Project Manager comes the good and positive relationship that I was able to build with the client. Beyond

[26] *Team Dynamics – Belbin, Consulting Lab*

the theme of the project and the industry were Galp operates, that captured the most my attention, the relationship with the client was the strongest issue among a set of positive outcomes that aroused with this project and it was where I felt larger creation of value. At this moment I have to agree with Professor Constança Casquinho when she so often says that "*syndication"* is a powerful tool to the professional world that one should embrace in a daily basis. By strategically involving the entire Galp's team with the running of project I do believe that we efficient and effectively accomplished to satisfy the client while still being able to successfully obtain support from Galp – working *with* Galp rather than working *for* Galp.

As for the main challenges of the project I must stress the constant change of the project's scope. Perhaps the biggest obstacle to the project was the fact that the project's goal was never clearly established by Galp, which made adjustments in the project's content more likely to occur. Additionally, and concerning the *Finisher* score in the Belbin's model, sometimes I evidenced lack of flexibility and felt the difficulty of adjusting to new situations, such as last minute alterations before meetings with the client. Yet, I am pretty aware that this is a consequence of my "somehow" unwillingness to deal successfully with stress and pressure but I also believe I was able to improve in this field.

Moving to the main learnings of this real life consulting experience, I will first make reference to the "roller coaster" that is the world of consulting. Life is not stationary, for the contrary, it is quite dynamic, so companies redefining objectives or changing strategies is a reality and what we need to do is to be prepared and to positively embrace those situations. Consequently, I have learned that it is fundamental to engage the client with the project so as to avoid unpleasant surprises, which require huge efforts to remedy. With effort, dedication and passion, everything is possible and despite not being one of the "Big 5 consulting firms", the team was able to create value, which was recognized at the moment where the final presentation was scheduled in order to count on the presence of one of Galp's administrator. Lastly, but not less relevant, by having the opportunity to combine the consulting environment along with a major and leading Portuguese company, I undoubtedly enhanced both my professional and interpersonal skills. I am very happy with my performance throughout the entire project and obviously with the team results, and extremely grateful for this experience that made me more prepared for the job market.

Appendix

Diana Cristina António Rosa

Theoretical Context and Methodology[27]

Galp Energia is a Portuguese energy company, engaged in the oil and gas industry. The company's strategy is to continuously increase value to its shareholders through its activities expansion. Regarding the Lubricants Division, the lubricants are produced in Matosinhos' refinery and then distributed nationally and exported through the Exports Division. The expansion of Galp's presence[28] in Latin American countries is one of the division's objectives, and this was the primary reason for the scope of this project. Since there was a contact with a local distributor, *Latina*[29], accessing a potential partnership with this company became one of the project's objectives.

In terms of methodology, the team developed the analysis divided into five chapters that together answer the following questions: "What are the most attractive countries in Latin America for Galp's Lubricant segment?" and "How should the partnership be conducted?" The first chapter is entirely focused on answering the first question. Therefore, a deep market research was conducted on the lubricant segment in Latin America with the aim of finding the most attractive countries for Galp. However, due to the lack of relevant information for the countries under consideration, the team considered the academic advices and followed a *Top-Down analysis*. This was divided into a Macro and Micro analysis, resulting in the most attractive countries selection.

The remaining four chapters are focused on answering the second question. Beginning by the partnership, this included the analysis of the partner and a culture analysis. For the culture analysis, the *Hofstede Framework* was used as well as the *Global Leadership Dimension Framework*. Once all the information was collected, a fit analysis was performed to understand the alignment of both companies in this project. The third and fourth chapters are dedicated to the analysis of the partnership's viability in each stage. For each stage, financial statements and revenue forecasts were prepared with the aim of assessing the partnership's potential.

Lastly, the fifth chapter seeks to provide to Galp valuable recommendations, specifically within the partnership models' field. The team details the key success factors for partnerships and lists the traditional steps that must be followed to achieve a successful partnership.

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[27] This content is the same for all students and is a summary of the content presented in the second and third chapters of this thesis.
[28] Currently, Galp is only present in Uruguay.
[29] Latina is a Mexican distribution company.

Development of a Particular Content - Hofstede's Framework

Diagnosis of Challenges

While analyzing this project in the context of a partnership, it became essential to analyze the partner at a deep level. Even taking into account that the companies seem to have a fit regarding the development of this particular project – they complement each other in the value chain of Lubricants' production and distribution – the majority of the joint-ventures tend to fail due to cultural conflicts. Therefore the analysis of both companies' cultures was essential to forecast the success of this partnership. As in other parts of this project, we found it very difficult to obtain specific and accurate information regarding *Latina* – we had no direct contact with the company and they were not very willing to provide information in this beginning stage of the partnership. Moreover, it's difficult to have access to this type of information, it would only be possible to perform this analysis accurately if being present in the place and conducting interviews. Therefore, I learned from this experience that we can't always find exactly the information that we need, however, the work still needed to be done, and then the use of proxys became essential. In order to overcome this challenge and perform a cultural analysis of both companies the Hofstede's Framework was used as a proxy to each company's culture.

Analysis and Recommendations[30]

Hofstede's framework allows the understanding of cultural differences regarding the human component. This framework is composed by five cultural dimensions that, for each country, are classified with a scoring from zero to 120[31]. By analyzing each dimension and comparing it for the two countries, in this case Portugal and Mexico, is possible to identify major differences. (6)

The first dimension is *Power Distance,* it expresses how inequalities of power are accepted and handled by lower classes. In this dimension both countries are considered to have high power distance, however while in Portugal the hierarchical distance is accepted and bosses are expected to control their employees, in Mexico the society is considered to be hierarchical where employees expect their bosses to tell them what to do in an almost dictatorial way. Thus, it can be concluded that hierarchical job positions are more valued in Mexico than in Portugal. To avoid that these differences become obstacles to the partnership, is recommended that when negotiating with *Latina*, Galp should not only use

[30] The following content is a transcript or a short transcript of the text present in chapter 4.2 – *Countries Culture* of this thesis.

[31] Category's scoring for each country can be seen in chapter 4.2 – *Countries culture* of this thesis.

formal treatment, by using job titles when referring to someone in the organization, but also use people of superior positions to lead the negotiations. Additionally, face-to-face meetings must be preferred. Regarding the Blending Plant, stage 2, Galp must be aware that operational employees will respond better to autocratic management, especially in the less developed regions, as is Monterrey. (6)

The second dimension is *Individualism versus Collectivism*, it reflects if individuals define themselves in the society as an *"I"* or a *"we"*. High scorings in this dimension represent individualistic societies, where people are only expected to look up for themselves and related families. On the other side, low scorings represent collectivistic societies, where individuals see themselves in the society as part of groups and where loyalty, respect and care for the group as all is expected and extremely valued. Both Portugal and Mexico are collectivist societies, and then this dimension should not lead to sources of disagreements. This way, for stage 2, it is recommended that Galp simply make use of its current management ethics and practices. Additionally, incentives and rewards should be based on team performance rather than individual performance. (6)

The third dimension is *Masculinity versus Femininity*, it reflects how individuals perceive success. High scorings represent masculine societies, where individuals are more competitive and the success is defined in terms of material achievements. Low scorings represent feminine societies, where individuals are more consensus-oriented, success is defined in terms of quality of life and there is a tendency for modesty. Portugal is a feminine society while Mexico is a masculine society, this is both reflected on how managers should behave and how incentives must be done. Contrarily to what happens in Portugal, in Mexico incentives such as free time or schedule flexibility will not be valued. Therefore, for stage 2, Galp should focus on monetary incentives. (6)

The fourth dimension is *Uncertainty Avoidance,* it expresses how individuals in the society feel about the uncertainty of the future. High scores represent more avoidant societies that behave through strict codes of behavior, where individuals exhibit the need for rules in other to try to have some control over the future. Low scores represent societies that are more relaxed regarding the future, where each day is lived at its time. Both Portugal and Mexico have inclination for avoiding uncertainty, with no significant differences Galp should take into account that well-established rules for the operation teams are important and long-term contracts or some kind of job security is valued. (6)

The last dimension is *Long-Term versus Short-Term Orientation*, it expresses how individuals perceive the urgency for results. High scores represent long-term oriented societies that focus on achieving solid results in the long term, individuals show propensity to saving. Low scores represent short-term oriented societies, where the focus is to achieve quick results, regardless of its future consistency, individuals show little tendency for saving. Portugal is considered to be a short-term oriented society and Mexico, although there is no scoring available, it is considered to have a perspective where *"long-range planning is unimportant"*. (7) Then it can be concluded that both countries present a short-term oriented perspective and thus, differences regarding this dimension should not arise. Galp must acknowledge that clear guidance regarding tasks and timelines are important to guide employees in their short-term objectives. (6)

As a conclusion, *Power Distance* and *Masculinity versus Femininity* dimensions are the ones with biggest score differences between the two countries. Therefore special attention should be given to them in order to avoid potential conflicts.

<u>Contribution to Galp</u>

The performance of this analysis was extremely important to Galp. Even thinking that at a first glance the cultural analysis doesn't seem the most important factor in a partnership, for instance comparing with financial results, it can actually become a critical factor. Simple differences in the way people talk or approach each other can be misunderstood by the other party and lead to conflicts or misunderstandings that can result in the partnership's failure. Therefore even with perfect financial results for the companies if they cannot work with each other at some point the partnership will experience troubles and end. Once again these differences exist and we can do nothing but be aware of them and try to overcome it by understanding the other party's point of view. Consequently, the conclusions and recommendations made during this analysis can become crucial for the future success of this partnership. Adding to the fact that we provided Galp with suggestions on how to deal with *Latina*, we also provided Galp with the knowledge of this widely used framework that can be used in the future assessment of other partnerships. Moreover, being aware of this framework and the cultural importance for the success of a partnership, Galp can in the future try to get access to more accurate information from *Latina* in order to improve this framework, and make it more related to *Latina*. Overall, this analysis was a great complement to the project and of huge importance to the conducting of the partnership.

Personal Reflections

The development of the present master thesis was an extraordinary experience that allowed me to develop deep knowledge about the Lubricant Business but also allowed me to grow both at professional and personal level.

Firstly, the opportunity of being able to work in one of the biggest Portuguese companies and feeling that I was contributing to its success, was for itself a rewarding experience. As a natural consequence of being in a great company we were able to work with a high qualified team of professionals with whom I got the opportunity to learn a lot about the Lubricant Business but also about the business ethics. Working in a real company forced me to improve basic soft skills regarding punctuality, availability but most of all responsibility, as this was a confidential project. Despite the great environment where we were established I learned from the practical experience that nothing in a project is set as fixed, everything is in constant change and updates and it reflected on us as continuous challenges that need to be overcome with very tight schedules. Therefore the development of a definitive guide on how to develop the project was not always feasible and this was for me a huge challenge. I recognize I need clear guidance regarding schedules and tasks to perform, in order to have very clear in my mind the steps to follow. I now realize that the challenges and plan changes that we have faced almost weekly were extremely helpful in the development several soft skills that I was lacking, like flexibility and adaptability.

Regarding the role as a consultant I believe this experience was amazing as I really feel that I performed as a consultant. Our advisor Professor Constança Casquinho was tireless what regards to constantly making us see everything within a consultant perspective. I now realize that every words and every action that we take with the client have a direct consequence on the perception of the work delivered and almost most important than doing a good work is how we deliver it and how the client perceives it. I learn how really important is to work with the client as a team and it is not easy, like building a relationship, it takes time. The first challenge we faced was indeed to prove ourselves as capable professionals – at the first glance we were just students that knew nothing about the business. During the entire project is important to exceed the expectations, but at the beginning is where it makes more impact, it is important to work really hard to prove ourselves and acquire the client's confidence and approval. Only then we are able to make the client trust us and be willing to work with us as a team, when we do so everything gets so much easy as we are together as one when things don't go as planned or when critics arise. The main learning, and I believe it was the critical factor of this project success within the client, is that the project is about working with the client instead of working for the client. This is a continuous challenge, we truly need to update the client whenever possible, be in constant contact and communication and make them feel that we are readily open to accept and incorporate their suggestions into the project as it is a common project.

Thinking about my role in the team I realize that I also got to know myself better with this project and improve. My role was always focused on organization and time schedule, I was always aware of what had to be done and the respective deadlines. In this sense I believe I contributed to the team as I ensured that we were always on track. Giving this perspective I totally agree with Belbin's Framework[32] once according to the scoring done in the beginning of the project I was clearly an Operational team player (50 values out of 140). This means that I am more an organizer, methodical, focused and efficient person but also that I lack the flexibility, which I believe I had the opportunity to work during this project.(39) Furthermore, even regarding the Belbin's Framework, one of my worst category was Prospector (5 values) and I totally agree, I was never a very extroverted person that goes out to get ideas, information and communicates with everyone and this was an extremely important role in our team since we needed information and contact with the client. Acknowledging this, I believe during this project I had the opportunity to improve this aspect, as in the end I felt much more comfortable when communicating with the client. The most remarkable thing that I personally feel that I improved regarding the communications skills was on the topic of presentations, that I believed I improve a lot.

Overall, I believe the team strengths and weaknesses complemented each other and the final result was a positive one. As a team, we've always worked with each other to achieve the objectives, however tasks were attributed to each member as a natural way of work. Regarding the tasks attributed to me, I believe I always performed it with accuracy, independently, on schedule and I was even able to exceed the expectations occasionally with extra work.

As a conclusion, this was a valuable experience that allowed me to develop deep personal and professional skills and awareness about the consulting world. Most of all, I really get to know the consulting world and truly understanding why it is so fascinating.

[32] A tool that allows the understanding of each person's role in a team.

Appendix

Frederico Almeida de Carvalho

Theoretical Context and Methodology[33]

Galp Energia is a Portuguese energy company, engaged in the oil and gas industry. The company's strategy is to continuously increase value to its shareholders through its activities expansion. Regarding the Lubricants Division, the lubricants are produced in Matosinhos' refinery and then distributed nationally and exported through the Exports Division. The expansion of Galp's presence[34] in Latin American countries is one of the division's objectives, and this was the primary reason for the scope of this project. Since there was a contact with a local distributor, *Latina*[35], accessing a potential partnership with this company became one of the project's objectives.

In terms of methodology, the team developed the analysis divided into five chapters that together answer the following questions: "What are the most attractive countries in Latin America for Galp's Lubricant segment?" and "How should the partnership be conducted?" The first chapter is entirely focused on answering the first question. Therefore, a deep market research was conducted on the lubricant segment in Latin America with the aim of finding the most attractive countries for Galp. However, due to the lack of relevant information for the countries under consideration, the team considered the academic advices and followed a *Top-Down analysis*. This was divided into a Macro and Micro analysis, resulting in the most attractive countries selection.

The remaining four chapters are focused on answering the second question. Beginning by the partnership, this included the analysis of the partner and a culture analysis. For the culture analysis, the *Hofstede Framework* was used as well as the *Global Leadership Dimension Framework*. Once all the information was collected, a fit analysis was performed to understand the alignment of both companies in this project. The third and fourth chapters are dedicated to the analysis of the partnership's viability in each stage. For each stage, financial statements and revenue forecasts were prepared with the aim of assessing the partnership's potential.

Lastly, the fifth chapter seeks to provide to Galp valuable recommendations, specifically within the partnership models' field. The team details the key success factors for partnerships and lists the traditional steps that must be followed to achieve a successful partnership.

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[33] This content is the same for all students and is a summary of the content presented in the second and third chapters of this thesis.
[34] Currently, Galp is only present in Uruguay.
[35] Latina is a Mexican distribution company.

Development of a Particular Content - Stage 1

Diagnosis of Challenges

For me, a crucial part of the project was the one concerning to the first stage of the partnership. For me, the biggest and most remarkable challenge was the lack of information. Latina did not know the MCL team and information always had to go through Galp's team. The solution for this lied on Syndication, a term that will be defined afterwards.

Process[36]

The first stage of the partnership with *Latina* considers the exportation of packed lubricants to Latin America with a length of three years, starting in January 2014. In this first stage Galp is responsible for the production and since the incoterm to be considered is FOB (Free on board), *Latina* is therefore in charge of the transportation and distribution of lubricants in Costa Rica, Panama, Guatemala and Honduras.

Products[36]

Aiming to select the right products to export to Latin America, the team analyzed both Galp and *Latina*'s portfolio of lubricants. Two different approaches were conducted: i) *Perfect match*, where viscosity grades and specifications were the same in both portfolios and ii) *Specification proxy*, where viscosity grades were the same but specifications did not match. In this latter case, specifications of greater demand in the Mexican market were selected. The outcome from this analysis was a sub-portfolio of nine products that besides covering the main lubricant segments (Passenger Car, Heavy-duty and Industrial) also covers 50% of *Latina's* 2012 lubricant sales. ***(Appendix 8)*** Additionally, Galp decided that the nine products would be exported in three different packages: pail (20 litres), drum (205 litres) and box (5 litres). To notice that smaller packages were disregarded since the main goal is to supply Heavy-duty and Industrial clients rather than individuals.

Countries[36]

As for the Latin American countries to export, it would be expected that Mexico followed by Colombia were the first targets[37]. However, Galp cannot export to Mexico until *Latina*'s contract with Shell is ended and, given the urgent need to begin the exportation of lubricants in 2014 along with the fact that *Latina* does not have operations in Colombia, these two countries do not seem to be the best alternative.

[36] The following content is a transcript or a short transcript of the text present in chapter 4.3 – *Stage 1* of this thesis.

[37] Output from the Ranking System.

Hence, the selected country to start the exportation was Costa Rica, since *Latina* believes on clients' synergies (current solvents clients are also potential clients of lubricants). In 2015, *Latina* will take advantage from the fact that Panama is a neighbour country of Costa Rica and will supply Panama through Costa Rica's sales force. For the final year of exportation, lubricants will be also sold in Guatemala where *Latina* is already present and, following the same reasoning of neighborhood, Honduras will become another country to export. ***(Appendix 9)***

<u>Model</u>[38]

The deliverable for this first stage of the partnership is a Profit & Loss (P&L) account per package so that Galp can clearly see the products and respective packages of greater profitability. At the end, a consolidated P&L account was built.

Before breaking the P&L account and highlighting the most relevant items, it is of utmost importance to refer that the Net Present Value[39] (NPV) of this 3-year stage is positive and equal to €205,711.54. ***(Appendix 10)***

The forecast of quantities led us to the first and most crucial assumption around the model: lubricant market demand in the selected countries is similar to Mexico, thus the same sub portfolio of nine products will be exported. The intuition behind this assumption lies on the fact that the team only had access to Mexico's information in what regards demand for each type of lubricant. While trying to predict the quantities to export, Galp became aware that *Latina* believed it could sell up to 450 tons in the first year in Costa Rica by benefiting from clients' synergies. However, the team, in accordance with Galp, relied on a more conservative approach and assumed 300 tons exported in 2014, which corresponds to a market share of 1%. For the remaining countries, in their first year of operations, the same market share of 1% was considered. To predict the market share for the following years, it was assumed a small percentage increase depending on the type of lubricant: Passenger Cars suffered lower market share variations, followed by Industrial and Heavy-duty that were target of higher market share variations bearing in mind *Latina*'s actual network of clients. ***(Appendix 11)***

Regarding the price of each package, the team decided to follow Galp's methodology and have added Galp's suggested margins per product (correspondent average margin of 277

[38] The following content is a transcript or a short transcript of the text present in chapter 4.3 – *Stage 1* of this thesis.

[39] Computed with Galp's weighted average cost of capital (wacc) of 9%.

€/ton) to the unitary cost of production, which includes the cost of goods sold and the FOB costs[40]. ***(Appendix 12)***Also, it was considered that Galp would have to incur in some other expenses, namely the cost of registering the brand in the selected countries and the cost with marketing as it is nowadays, one of Galp's major strengths.

Main Findings – Suggestions[41]

To validate the NPV calculation it became of utmost importance to answer the following question: How much will *Latina* profit?. Besides the purchasing price and the entire cost of transportation, *Latina*'s selling price is another relevant variable in the equation that aims to solve *Latina*'s mark-up percentage. Departing from Pemex[42] list of selling prices to retailers, it was assumed that *Latina* would be able to charge prices 5% above Pemex's prices once Galp's quality standards are far superior. Since 18% is the minimum mark-up percentage required by *Latina* and estimations had revealed no uniform values ***(Appendix 13)***, some amendments had to be considered ***(Appendix 14).*** Namely, Galp's average margin had to decrease to 206 €/ton.

Bearing in mind the team's suggestions, the new NPV is €105,341.49. Through a sensitivity analysis it became clear that even in the worst case scenario, where the market share per product is 0.75% instead of 1.5%, the NPV is still positive, which provided the team the strength to believe that Galp should go forward with this initial stage. ***(Appendix 15, 16)***

Contribution to Galp

This was a crucial stage of the project, as it worked as a foundation for the most important part of the project. Many challenges arose in this phase and were immediately solved, no longer impacting the rest of the project. Also, because the construction of the Blending Plant in Mexico is the stage of greatest interest for Galp, the analysis performed in this first stage was of utmost importance, since it would work as a pilot project and thus having an impact on the final decision on whether to invest or not in the blending plant. As results were significantly positive, for a small project such as the one contemplated in this stage, the team was able to conclude that there was, indeed, reason to further study the construction of a Blending Plant in Mexico and therefore have a significant and growing presence in Latin America.

[40] FOB costs: ground transportation, container consolidation, port taxes, *Bill of Landing* and documentation.
[41] The following content is a transcript or a short transcript of the text present in chapter 4.3 – *Stage 1* of this thesis.
[42] Pemex is a Mexican Petroleum Company.

Personal Reflections

The Management Consulting Lab (MCL) performed at Galp was, without a doubt, a milestone for my career. As a matter of fact I am sure that I landed my job in part due to my experience at MCL. In the interviews there were several questions that I would not be able to solve if I had not had this experience. MCL provided a tremendously steep learning curve, not only on the technical side, which involved the whole Lubricants Business, but also on the personal learning side, that I came to notice that is a great part of the professional world. This section provides insight on my personal learning and reflections at the end of the project.

Mary Kay Ash43 once said that "Everyone has an invisible sign hanging from their neck saying: Make me feel important. Never forget this message when working with people." Undoubtedly this is a quote that fully describes my very best learning from the Management Consulting Lab, people do need to feel that they are part of the team so as to achieve full success.

When the project started in September 2013, there were two totally separate entities, the client's team and the MCL team. As in any other new interpersonal relationship, both sides were testing the waters, and thus each one would carry on with their respective responsibilities on significantly separate grounds. There was not clear trust on our team from the Client's team, and we strongly felt the need to prove that we were competent professionals, although being "rookies" in the professional world. Consequently, the team who developed this project, in general, and me in particular, felt frustrated, because although the output was good and in accordance with the Client's guidelines and requests, there were always considerable changes to be done at the end of the meetings. Come December 2013, this was no longer a problem. A solid professional relationship had been developed over the past three months, with the Client's team and the MCL team finally working as one. The output presented during the meetings no longer constituted any type of surprise for the Client: it had been jointly developed.

Therefore, my first conclusion on this Personal Reflection regarding the project is that when two independent sides start working as a single team people finally feel that they are important to each other and to the project. The main reason for this does not solely lie on the technical side and on the fact that by working as one there is more professional

[43] American businesswoman and founder of Mary Kay Cosmetics

experience, but also on the fact that companies are made up of people and their egos. When working separately, the Client's team would not fully trust the developed output and as soon as the meetings would start, there clearly was the need to comment the output in a way that would make the Client's team feel important.

My first conclusion leads me to my next learning on the project, which is that working time is not totally dedicated to the development of the output at all, but to Syndication. According to the dictionary Syndication corresponds to "the association of people or firms formed to engage in an enterprise or promote a common interest". (41) From the beginning of the project all the way to the end the team progressively increased its time dedicated to syndicate. The more we could syndicate both teams the better the final results. This was our secret formula for success during the project, and it sure worked, as the Client's final feedback was excellent. Syndication is the key to make people "feel important", as Mary Kay Ash points, and it was a matter of working with the Client, rather than working for the Client. Through Syndication the Client's team would not feel that, by any chance, the MCL team was doing their work or "stealing their show". For this matter, it was crucial to adapt to the Client's team culture, schedules and timetable. Show absolute availability to work at any time of the day or of the week and be ready to immediately incorporate the Client's suggestions in the output.

For me, the fact that we had to fully adapt to the Client was a truly remarkable experience, as I was able to develop my open mindedness, as well as my punctuality and noted that you should never speak you mind out, as in the business world perception may often be confused with the reality. Also, and because the project was not only important for me, but also for my teammates, for whom the project would also constitute their Master's thesis, I was forced to increase my responsibility, as if I would fail I would impact their work and I would not want to be responsible for that.

Finally, I learned to work with ladies, as I was the sole male element of the team. This was certainly a valuable experience, as the number of ladies in the job market is constantly increasing and I must admit that I was not used to working with women only. From my point of view the need to organize and schedule the whole project is much more related to the female side, and I was forced to adapt to it. In the end it was fantastic, as I am sure that now I am a more organized person, as I am fully aware of my responsibilities and that I do not leave them for the last minute.