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# IGUARIVARIUS' INTERNATIONALIZATION TO CUBA

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### **Abstract:**

This work project provides a deeper comprehension of the Cuban current situation and suggests processual and investment choices to Iguarivarius - a Portuguese meat exporter. We analysed the macro and micro environments and we also studied the application of Just-In-Time methodology, evaluating its impacts, as well as an internationalization approach based on the Uppsala model.

With business opportunities arising from an increased number of tourists that demand more and higher quality meat, we concluded that Iguarivarius should enter the market, following a sequential entry strategy with low commitment of resources, applying a logistic methodology that allows cost-efficiency and customer satisfaction.

Keywords: Cuba, Meat, Internationalization, Export

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# **Company Overview:**

IGUARIVARIUS S.A. is a Portuguese company created in 2010 specialized in the export of food products, but also engaged in several other business areas, such as industry, IT Services or consultancy to exports

With the motto "From Portugal to the world, together we do it better", its mission is to strengthen the competitiveness of Portuguese firms by identifying opportunities in foreign markets and meeting the needs of their consumers, taking advantage of the experience, know-how and flexibility of Portuguese companies, increasing production and creating value and profitability for their partners.

Iguarivarius S.A. is considered the biggest Portuguese trader of food products and the biggest exporter of fresh and frozen meat. In 2014, RAPORAL – the largest Portuguese company in the agro-food sector – entered Iguarivarius' shareholder structure, representing an important partnership and strategic alliance.

In 2015, Iguarivarius achieved 57 million Euros from direct and 276 million Euros from indirect business, where 95% of that revenue came from the export business. It operates in 36 markets with offices in several countries such as Venezuela, Brazil, USA and Hong Kong.

AGROVARIUS is the business unit responsible to manage all the agro-food business, acting as a commercial entity of Portuguese companies in foreign markets. It operates in all agro-food and processed products, trading from meat to the raw materials or finished products according to business opportunities identified and developed together with domestic suppliers and international customers.

### **Country Overview:**

The Cuban state is an archipelago with an area of 109 884 km<sup>2</sup> and 11.2M inhabitants of which 2.137 million live in Havana, the capital and most important city in the country.

First discovered in October 1492 it became part of the Spanish empire until Spain lost control over this region, in the Spanish-American War. In 1952, a "coup d'état" by Fulgêncio Batista established a dictatorship in the country, which was overthrown in 1959 with the victory of Cuban Revolutionary forces. After the revolution, Fidel Castro

took power and Cuba became a Communist state, which meant several changes in the country as the abolishment of land ownership. In the following months, diplomatic relations with the United States were significantly severed. During the Cold War, Cuba become even more isolated from the USA with the imposition of financial blockades. Fidel's regime has boost literacy in the country and transformed it in a reference in terms of health care. However, this regime, alongside with the economy embargo imposed by the US, has kept Cuba very poor and isolated, a country in which people have limited access to food, transportation, electricity and several other needs.

In 2008, Raul Castro took power after his brother resigned for health reasons. Since then, the regime has been changing, re-establishing relationships with several countries.

In order to be successful while doing business with Cuba, one needs to understand not only the history of this country but mostly the external environment in relation to the specific business situation that is being analysed. Hereinafter we describe the details on each of these factors, organized according to the PESTLE framework:

Politically, Cuba is a one-party Socialist country since 1959. The Cuban Constitution clearly restricts private ownership of businesses, property and goods in large and middle scale, and in small-scale is limited to small family

In 1961, USA cut diplomatic relationships between both countries and started the trade embargo that has been exacerbated over the years and it is still in effect today, forbidding almost all kinds of commercial trade between

the USA and Cuba. However, this embargo is not supported by the UN.

business and personal goods.

In 2008, when Raúl Castro, became the new president, Cuban Government started an ambitious program of structural reforms, re-establishing diplomatic relationships with other countries. Raúl Castro mentioned the establishment of term limits for political offices, announcing his retirement in 2018.

Nowadays, Cuba has close political relationships mainly with Venezuela, China, Spain, and other Latin American countries and, in the last few years, it started negotiations with the EU to cooperate politically and economically. In what concerns Portugal, relationships have been strengthened over the years, and the commercial trade between

both countries grew 25% from 2010 to 2014<sup>1</sup>. In March 2016, the President of the US officially visited Cuba after 88 years which represented a political rapprochement between both countries, but the trade embargo is still on. Economically, as a socialist country the Cuban Economy is highly controlled and regulated by the government. The majority of the companies are 100% state-owned and foreign investment and private companies normally operate as joint-ventures where the government owns at least 51% of the capital.

Cuba's GDP is 80.66 Billion Dollars and the GDP per capita 6.156 USD (2014)<sup>2</sup>. In the recent years, Cuba has shown a sustainable economic growth, with a growth-rate of 3% and an expected growth of 4.7% for 2016-2018. However, the domestic supply is not enough to cover the internal demand. Particularly, the agricultural sector has a low productivity rate, importing 70% of the food-products.

Cuba operates with a dual-currency system: the Cuban Peso (CUP) traded in the exchange market and used by the local entities to pay salaries (1USD=25CUP); and the Convertible Peso (CUC), it is only for internal purposes, used to price some imported goods (e.g. petrol) and by tourists visiting the island (1CUC = 1 USD).

Since Raúl Castro's presidency began, several economic reforms were taken to support sustainable growth, reduce foreign dependency and increase liquidity in the economy. Measures like the liberalization of some private business initiatives, increase of domestic production and reduction of imports dependency were taken. In addition, there were created some policies to open the economy to international trade and foreign investment, such as the creation of ZEDM, a special economic development area with transparent legislation and benefits for investors in terms of tariffs. In 2013, the Law on Foreign Investment was approved, regulating all the foreign investment in the country. These measures and changes became even more urgent in the recent times as there is a cash shortage in the country. This is in a big extent due to the economic crisis in partner countries like Venezuela and it is a huge limitation to trade as it implies longer payment terms for those supplying the country. Despite these changes, it is important to clarify that Cuban economy is still highly regulated by the government which controls 75% of the

<sup>&</sup>lt;sup>1</sup> Data from Instituto Nacional de Estatística (INE)

<sup>&</sup>lt;sup>2</sup> Data from World Bank http://data.worldbank.org/country/cuba

economy and is responsible for the decisions to import or to invest.

In a Social-Demographic context, 75% of Cuba's population live in urban areas, mostly in the capital, Havana. The country is #68 in the Human Development Index.

The Government operates the health system, which is known worldwide for its high-quality (Lamrani 2013), and of free access to all the citizens. The educational system is also free, including higher education, with an illiteracy rate under 1%. The average salary is 687 CUP, and the minimum wage is 225 CUP<sup>3</sup>. The purchasing power of an average Cuban citizen is very low; however, according to the Ministry of Finance and Prices (2016), there is an increasing trend. The distribution system of some products, including meat, is rationalized according to the number and age groups of each family. There is a government office specially created for this task and the products sold under this system are sold at a subsidized price (Navarro, 2006).

In what concerns Technological factors, it is relevant to understand that Cuba is a country with several deficiencies and shortages at all levels and technology is not an exception. Cuba is one of the countries with worst internet connection in the world and, when compared to its neighbours, Cuba has the lowest ratio of computers and mobile phones penetration. Although the situation has been slowly improving, in 2014 Cuba still had an Internet penetration rate of only 30%. Even when available, due to the high costs associated, most people cannot afford it. The industry and available machinery is also obsolete. In fact, Cuba is in urgent need of new, modern equipment, in order to take advantage of its skilled workforce that struggle with primitive and outdated technical infrastructure. The agricultural machinery industry is not an exception and this is one of the main reasons why Cuba has the need to import a huge amount of its food consumption.

If on the one hand the underdeveloped IT infrastructure may be a considerable limitation for any company trying to make business in Cuba, on the other hand the obsolete industry means that the need to import several goods will still exist for many years, representing an opportunity for Iguarivarius.

<sup>&</sup>lt;sup>3</sup>Data from http://www.tradingeconomics.com/cuba/wages

Environmentally, Cuba is a country with strong environmental laws and an assumed commitment to protect the country's natural resources. At the same time, Cuba is known for its high healthcare standards and it is considered by the UN's World Health Organization an example for all countries worldwide. Given the environmental concerns referred, it is only expected that the country has strong concerns for the quality of its imports of animal source products to preserve human health. To export these products to Cuba, there is the need to obtain a previous license or authorization from competent authorities in Cuba, as well as to do a sanitary registration. However, even if theoretically Cuba has these high hygiene standards, there are several statements from tourists referring to the low hygiene conditions in food markets and health institutions, contradicting this information.

In Legal terms, it is relevant to refer that Cuba has a very strict and limited trade regime which makes it difficult to export for this country, namely in the agricultural sector with the existence of a state controlled licensing system for both entities and products. However, in the last few years, things have started to slowly change and the country has had an increasing presence in terms of international trade.

Still on this topic, Cuba and Portugal have signed two agreements that facilitate trade and investment between the two countries: the Agreement on Promotion and Protection of Investment, in which each country promises to protect investments from the other; and the Convention to Avoid Double Taxation, which constitutes a key element to improve bilateral economic relations and facilitate trade.

It was also in this context that several laws were approved, from which the most relevant is the Foreign Investment Law, allowing for tax incentives for new investors and introducing the possibility of totally foreign capital owned companies. This law clearly shows the will to attract foreign investment which will most likely translate in the entrance of several foreign investors in the country, representing a threat for those trying to export to Cuba.

In terms of corruption, Cuba ranked 56th out of 175 countries in 2015's Corruption Perceptions Index reported by Transparency International, while Portugal is in the 28th position. However, CPI does not evaluate corruption but its perception, and it may not translate the exact Cuban reality: an economy owned by the state, a censored flow of information and only one political party. This is also related with the high level of bureaucracy and formalities

in the country, which represses efficiency.

With this analysis, we are able to identify the major macro-trends that might influence the situation in Cuba at different levels. It is clear that there is a changing environment in this country which is gradually opening its market at all levels. However, uncertainty is still high and major changes are expected.

### **Industry Analysis: Agri-food products**

Cubans nowadays have more access to food-products, but they still mainly eat rice and beans with pork, chicken or fish. The American Government started authorizing exports of certain agricultural goods (\$150 million in exports of agricultural products in 2015) to Cuba in 2000, but the economic embargo is still in place and transactions are still forbidden in the majority of the sectors.

Beef has a chronic shortage in Cuba and for that reason the state has total control over its sales. It is very hard to find beef available for sale, even in the black market, in a country where slaughtering a cow is considered a heavy crime. Generally, the quality of the meat consumed by locals in Cuba is considered very low. Higher quality meat, especially beef, is very hard to find for affordable prices. Cubans cannot purchase it since it is only available in CUC's and priced at values that only foreigners and very few Cubans can afford. Privately owned restaurants that sell meat dishes have to buy the meat in the local markets or other retailers. In these restaurants the price of meat is considerably expensive for an average Cuban - a pork burger costs around 1USD (25CUP) and a beef burger 2,5USD (60CUP) and it can go up to 5USD - in a country where the average salary is 25USD/month<sup>4</sup>. The state-run restaurants are operated by the government or by big hotels and they get their food deliverable directly from the government warehouses (Gollner, 2014).

Considering the global analysis of the industry, the structure of the business and the average purchasing power of Cubans, we believe that the best way to enter the Cuban market of pork and beef meat is to target the HORECA channel whose customers are mainly foreigners.

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<sup>&</sup>lt;sup>4</sup>Currency convertions made in http://www.xe.com/currencyconverter at 2016, October 08.

A Porter' 6 Forces Model was used to better understand this industry and its competitive environment:

The meat industry in Cuba is mainly protected against new entrants due to the strict legal barriers and regulations imposed by the government. Cuba as a whole has very strict conditions in terms of economic transactions.

Moreover, the food sector is particularly regulated due to health constraints and only producers that were certified by the Cuban government have the export permit, which might be a very slow process. Access to channels of distribution is also difficult for new entrants because the government is the one controlling those channels so only after government approval it is possible to gain distribution.

Economies of scale exist only to a certain extent: meat products come from other countries essentially using seafreight in containers of around 25 tons. This means that exporting smaller amounts may be a strong barrier to small entrants that have not gained their market share yet, increasing unit costs. In this sense, although economies of scale are not the biggest barrier, they may make more difficult for new entrants to succeed. Nonetheless, there is no need for big initial investments as we are considering exporting firms, with no need to build infrastructures. In terms of economies of learning, its influence should be considered. As meat is a relatively undifferentiated product, the advantage that an already established company may have over new entrants on this is related to the fact that there is a certain degree of customer loyalty in this market: It is known that in Cuba knowing the people you make business with is important as relationships of trust are valued.

Finally, there is the threat of retaliation from established companies against a new entrant, which may take the form of aggressive price cutting, for instance. However, this market is big and is growing with the increase in tourism so there is still space for new entrants as domestic production will not be nearly enough to satisfy the demand for now. For these reasons we considered the threat of new entrants as moderate low.

The number of suppliers in the pork and beef industry is considerably high and competes worldwide. All farms and cattle producers and exporters around the world are considered possible suppliers of the industry in Cuba. Since we are talking about a commodity, the product differentiation is almost non-existent, so the cost structure and logistics network of each supplier will make a big difference on its bargaining power and profitability. In

theory, the switching cost of moving from one supplier to another is relatively low, however when it comes to the details it gets harder. The main reason is the permits and certifications that certain producers need to export meat to Cuba, which go from preliminary authorizations to sanitary certifications issued by domestic and international entities. Other reason is that the relationship with those suppliers is covered by legal contracts that cannot be easily broken. The product supplied is extremely important for the business, so the suppliers will have to follow certain standards that guarantee quality and consequent loyalty of the buyers.

Supplier concentration depends individually from each player in the market. In Portugal, the concentration ratio is high, due to a reduced number of Portuguese meat producers being authorized to export beef and pork to Cuba. The threat of forward integration by the suppliers, in the Portuguese case, is low because none of the operators in the country has capacity for a move like that. On the other hand, a backward integration may occur and the exporter will vertically integrate its supplier gaining efficiency and cost advantage. A similar move can also happen in different places of the supply chain, where a buyer (e.g. a hotel) may get an import permit and buy the product directly from the exporter firm or even from the producer, eliminating steps through the supply chain, although this situation in Cuba is extremely rare. For these reasons suppliers' bargaining power is considered moderate high. Buyers: The number of foreigners visiting Cuba is relatively high when compared to its population and it has been exponentially increasing in the last few years, being expected to increase even more in the next years, especially if the US takes away the trade embargo. In 2015 there were 3,5M people visiting the country, where 1,3M came from Canada, followed by 390 thousand Cubans living abroad and after it by 175 thousand Germans. A highlight for the number of American visitors that increased 76% when compared to 2014<sup>5</sup>. This increase in tourism will naturally force the country authorities to import larger volumes of meat to fulfil the needs of this incremental demand. All the food imports in Cuba are highly concentrated in a few government-run importers, with rare

exceptions, who import in large scale.

<sup>&</sup>lt;sup>5</sup> Data from Oficina Nacional de Estadistica e Informacion (ONE) http://www.one.cu/publicaciones/08informacion/panorama2015/28%20Turismo.pdf

These tourists are the customers of Hotel chains and restaurants which, in turn, are the constituents of HORECA channel in Cuba. This means that the needs of the importers, which are the clients of foreign exporter companies, will depend significantly on the number of tourists, on its origins and their habits, tastes and preferences. The products for tourists are priced in CUC's and 80% of these tourists tendentiously stay in hotels of 4 or 5 stars<sup>6</sup>, which is indicative of a relatively high purchasing power and a willingness to pay a premium price for quality. Buyer's information is high, since they are multinational hotel chains and importers who must have very good knowledge about the consumer needs, supply chain networks, legislation, prices and other market factors. The high level of information will increase the buyer's bargaining power, however their final decision will be based on the tourism trends and preferences. In relation to price sensitiveness, despite the fact that tourists may be willing to pay more for quality, price will be an extremely important factor as the objective of hotel chains and restaurants is to have as much profit as possible, taking in consideration the fact that meat products are undifferentiated.

Meat products, generally, are products that cannot be kept and preserved for long periods and have to guarantee several safety and hygiene standards according to national and international norms. Taking into consideration that each buyer orders very large amounts of meat, it is possible to conclude that losing a buyer comes with high costs. Adding to this the fact that buyers will demand products adequate to the type of tourism that comes to the island, one may say that buyers have a relatively high bargaining power.

We consider as Substitutes any food product that is not made of beef or pork and can be used as a main dish. This range is very broad and can go from other types of meat, fish and other seafood to vegetables with high nutritional value, and the cost for the buyers to switch from one product to another is almost none. Poultry meat is the most available and affordable type of meat, for almost everyone. In fact, a very typical Cuban dish is rice and beans with vegetables and chicken. Chicken meat is one of the few agricultural products not included under the US embargo, and "U.S. chicken exports to Cuba totalled \$147.5 million in 2014" (Frank, 2015). The fishing and aquaculture

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<sup>&</sup>lt;sup>6</sup>Data from Oficina Nacional de Estadistica e Informacion (ONE) http://www.one.cu/aec2014/15%20Turismo.pdf

industry is growing in Cuba and is able to supply both, the domestic and the tourist market. Cuba's seafood, especially lobster, is worldwide recognized for its quality and it is a high-value product for the country's exports. Whether the poultry industry represents a substitute threat for its price and availability, seafood represent the same threat for its quality, with the advantage of being a "local brand" allying a high-valued product with relatively affordable prices (Adams, 1998). However, the perceived level of differentiation between pork and beef and the other substitute products is considerably high, especially because we are considering HORECA channel and not the local population as our target. Therefore, the threat of substitutes will be low.

The availability of complement product may determine the value of a good, which grants bargaining power to the complement's supplier. Despite the fact that Cuban food is reputed to be bland, salt or spices are mandatory in a meat dish, regardless of the quantity. Moreover, considering HORECA's channel, tourist habits will be the ones to be considered, which means that spices and salt will most likely be highly valued and meat will not be eaten without the presence of these products. However, the likelihood of a salt shortage is very low, and there are so many different spices that their individual power is very small. This being said, it is possible to conclude that the force of complementors does not play an important role in the competitive environment of this industry.

Industry Rivalry is tendentiously the most important of Porter's forces, being the major determinant of the general state of competition and industry profitability. The direct competitors are all the companies around the world that are exporting meat products to Cuba. However, domestic producers and foreign investors are also competitors in this industry. For that reason, it is relevant to understand the nature of the Cuban meat imports:

In terms of pig meat, Cuba was importing \$8.23M from which 58% came from Spain, 37% from Canada and 4.1% from Chile. Frozen Bovine Meat imports, in turn, summed up to \$4.4M with Canada being responsible for 50% of this value, Mexico 16%, Chile 15%, Spain 8.5% and Argentina, Brazil and Panama in the bottom with 4.4%, 3% and 2.2% respectively. Finally, Cuba imported \$2.84M in preserved meats in which 57% came from

Spain and 43% from Canada (2014)<sup>7</sup>.

Diversity of competitors plays a very significant part in the intensity of competition in this industry as competitors are very different among themselves. Different countries will have different cost structures. Portugal, for instance, when compared to its European counterparts, has a cost advantage as the living standards are lower. Diversity means more intensity in competition as it becomes easier to compete in prices.

Product differentiation in meat industry is typically low. However, in this case there is a certain level of differentiation, namely in terms of product quality and effectiveness of the service provided by the company, as for instance respecting schedules. Moreover, meat may be customized to attend customer preferences and exporters need to understand how to prepare the meat according to the specificities of each market.

For these reasons, industry rivalry is considered moderate high.

Given that there is a relatively high supplier's and buyer's power as well as the industry rivalry, and a considerably low threat of new entrants, threat of substitutes and entrants, it is possible to conclude that, according to Porter's framework, this market has a moderate attractiveness. However, the recent changes in the country bring good prospects, creating an opportunity for foreign companies interested in the market.

### **Industry Opportunity:**

With the combination of the macroeconomic trends with the industry situation, we can clearly identify a window of opportunities. The first one is related to the beef sector, with the large number of North-American visitors, especially from Canada, and the number of US visitors growing exponentially with the expectations of the embargo lift. These countries are within the top 8 countries with highest beef consumption per capita, according to OECD data. The second one concerns the pork sector, where the opportunity emerges for *pork processed products* and *spanish-style pork*, as it can integrate Cuba's culture and values, and also matches the eating habits of American and European visitors - EU is the largest group of pork consumers. This strategy was already

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<sup>&</sup>lt;sup>7</sup>Data from Observatory of Economic Complexity (OEC)

identified by the EU, which is desperate to find new export markets to solve the oversupply crisis in the pork sector, and sees Cuba as a priority market. European authorities are giving credit to increase competitiveness of regional operators in foreign markets. It is also part of Iguarivarius' strategy to achieve greater diversification of markets and products, so it seems ideal to move now and take advantage of community support.

Moreover, as previously seen, there are big regulatory barriers to enter the Cuban market and this industry in particular, so in these situations <u>first-mover advantages</u> might be important since later entrants will possibly wait longer for permits and will have to fight harder for buyers and distribution channels.

Iguarivarius already has the required permits to export Portuguese pig and bovine meat to Cuba, and some of its suppliers are certified by the Cuban authorities.

### Consumption patterns:

Tourism in Cuba is one of the sectors that have contributed the most for the economic growth of this country. As previously said, the number of tourists in Cuba has been continuously increasing throughout the years, reaching 3.5M in 2015 – a 17.4% increase when compared to the previous year, and this number is expected to increase considerably in the next years. Since we are focusing on HORECA channel, these are important factors to consider as they considerably increase potential opportunities.

In what concerns tourism composition in 2015, 36.9% of the total amount of tourists were Canadians, followed by Germany which represented on 5% of the total, then the USA with 4.6% However, with the upcoming end of Cuba travel restrictions for US citizens it is expected that the USA to be one of the main, if not the main source of tourism. One other important evidence shown is the fact that a big portion of the visitors is made of Cubans living outside the country. (*see Appendix B*)

**Meat Consumption Patterns:** Since we are focusing on HORECA channel, tourists will be the ones to influence the type of food demanded. From this analysis it is possible to infer that there are two main groups to consider:

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<sup>&</sup>lt;sup>8</sup>Data from Oficina Nacional de Estadistica e Informacion (ONE) http://www.one.cu/aec2015/15%20Turismo.pdf

Canadians, who are by far the biggest portion of tourists; and Americans, which may overcome Canada in the future as restrictions are ending.

However, it is important to note that although tourists have their own eating habits and preferences, they are likely to be interested in trying local food, attributing just a relative importance to eating what they are used to it. Moreover, Cubans living outside the country represent a significant parcel of total visitors, and they will have enough purchasing power to eat in restaurants and hotels.

Canada: Total consumption of meat in Canada is expected to increase by 13% in the next years even if red meat consumption is decreasing given the significant growth in poultry consumption, in great part due to the view that this is a healthier meat option. Canadians are increasingly valuing quality cuts of red meat as well as regional specialty meats, and will privilege quality over price. However, beef and pork consumption continue to be very significant with an average consumption of 24.4 kg and 22.63 kg per capita according to *Statistic Canada* (2015). Canadian pork is said to be leaner than ever, according to a study on Nutrient Value of Canadian Pork by Canada Pork, which concludes that it is possible to include pork in a healthy diet. When compared with US pork, Canadian is leaner and with a different cutting style. To refer that around 50% of all Canadian pork is processed into cooked and cured products like bacon, ham or sausages. In fact, bacon is said to be an obsession of Canadians. Pork tenderloin, pork loin roast and pork chops are among the most used pork cuts.

Beef is a constant in menus across Canada. As seen before, despite the decreasing trends in beef consumption, there continues to be a strong demand which is even expected to increase. Beef is used in many traditional dishes, such as the well-known "Pâté Chinois" and "Tourtiere" both using ground beef, "Alberta beef sandwiches" made from sirloin roast beef, "Braised beef short ribs" with fall of the bone short ribs and steaks, with beef tenderloin being considered the best cut. Canadians are also very keen on burgers and love to barbecue their meat, habits that probably result from the proximity with the USA.

USA: Americans are meat lovers and it is, in fact, one of the countries in the world that consumes more meat. Following USDA data from 2014, Americans consumed about 34.55 Kg of beef and 26.8 Kg of pork, per

capita<sup>9</sup> and the 2014 OECD-FAO Agricultural Outlook predicted that per capita consumption of beef in the US will increase around 5% between 2014 and 2023. The US is the third largest producer and consumer of pork in the world, with more than 68.000 pork producers that market, per year, more than 110 million hogs. The most famous pork products in America are pork chops and bacon. Ham or sausages are also a must in American daily diets. As barbecue fans, Americans consume a lot of barbecue ribs - spareribs, baby back ribs, etc.

There is also a shift towards healthier eating habits and consumer preferences have changed into beef that has been trimmed of fat, increasing the demand for leaner cuts of meat. In terms of cut preferences, ground beef (typically from brisket, chuck, shank or ribeye, cuts with higher fat content) is the most popular beef product, being usually eaten as hamburgers. Although steak is not eaten as often, it is the most enjoyed, with ribeye, tenderloin, t-bone, flank and top sirloin being the most popular cuts. According to the American Angus Association, 38% of the retail cuts on a carcass weight basis is ground beef and stew meat, 31% are steaks and other 31% are roasts.

Cuba: Meat is an essential part of any meal. Pork, mainly cooked in Spanish style, along with seafood, are two of the most commonly eaten products, however, chicken and beef are present in many traditional dishes as well. (see Appendix B). In 2011, 649 tons of pork were consumed and only 211 of beef. This low level of beef consumption is related with the shortage of beef in the country and not with consumer preferences. In fact, beef is the basis for several of the most traditional Cuban dishes such as "Boliche Cubano" (made with beef eye of round roast), "Ropa Vieja" and "Vaca Frita" (both made with beef flank steak) or "Bistec de Palomilla" (made with beef sirloin steaks). As a matter of fact, steaks are very common in Cuban cuisine, with T-bone, ribeye, (top) sirloin and tenderloin being the most preferred cuts. Ground beef is also used in many different occasions. Although it is very difficult for Cubans to cook these dishes nowadays, they are very present in the diets of Cubans living outside the country which, as seen, represent a considerable part of the tourism. Pork, as previously stated, is very common in Cuban meals and it is also present in several traditional dishes such as "Pemil" where pork shoulder or pork shank is the

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<sup>&</sup>lt;sup>9</sup>Data from National Geographic www.nationalgeographic.com/what-the-world-eats/

main element, Pork Chops or the very typical "Cubano Sandwich" made with roast pork and ham. Barbecues, as in the US and Canada, are frequent.

Based on the analysis of the most popular dishes in the 3 countries selected, the following table sums up the products which were considered more relevant:

Pork Cuts	Tenderloin, Loin, Chops, Spareribs, Baby back ribs	
Beef Cuts	Steaks: Tenderloin, (Top) Sirloin, Ribeye, T-bone, flank; Ground beef: Brisket, Chuck, Shank, Ribeye; Burger meat	
Transformed Meats	Bacon, Ham, Sausages	

Table 1. Relevant Meat Cuts

# **Company Resources and Competitive Advantages**

Iguarivarius' total gross sales grew 1.8% comparing with 2014, reaching 49.1M€, which represents 15.2 thousand tonnes, with a gross margin of 12.6M€. To mention the company's experience in developing markets, that represents 96% of its sales, with special highlight to Venezuela and Israel.

### Architecture of relationships:

**A1.Operators:** Iguarivarius' mission is, in fact, to concentrate the efforts of Portuguese companies to export their products, acting as a commercial entity and the front runner of those companies. For this to be possible, values as trust and union must be well established in the company's culture and that is what makes Iguarivarius the larger Portuguese exporter of fresh and frozen meat, building good relationships with all different operators.

Raporal takes a special importance as the largest Portuguese meat producer and one of the main suppliers of Iguarivarius, assuming a completely vertical position in the company, from livestock to the production of animal feed, slaughter and rendering. The strategic importance of this alliance is crucial to obtain service efficiency, cost advantages and speed in decision-making. The relationship network of Iguarivarius is not restricted to Portugal, and currently the company is able to cooperate with other operators around the world, particularly with *FRB Group* an operator of poultry and bovine cattle from the south of Brazil (Paraná).

**A2. Freight Forwarder:** The relationships with several Global Freight Forwarders take a leading role when talking about export of agro-food products. The product must reach the final consumer in its best qualities and it is

important to guarantee that the time the product is in transit is minimized and it is delivered as soon as it gets in Cuba. Being Cuba a country with chronic meat shortage, logistics operations may also be a source of differentiation if a company is able to provide a regular supply without delays. Iguarivarius has good relationships with several logistic partners able to export to Cuba.

**A3. Foreign Importers** are the entities in the foreign markets that establish a direct relationship with Iguarivarius. However, as they might not be the final buyers, they also take distribution responsibilities in the foreign country. Iguarivarius has been able to establish trusted and long-term relationships with importers in other markets which is one of the reasons for its success and a source of competitive advantage over competitors. The firm should do the same in Cuba, creating relationships that allow it to grow and succeed in this market.

In the Cuban case, import authorities take a big role in the whole process: they represent almost all the buyers and take responsibility for the distribution and payment, even if they are not the final customer, which might represent some risks. *Alimport* is the government-run agency responsible to import and commercialize 80-90% of food-related products, in both currencies. Besides *Alimport*, there are other state-run importers for specific products or regions like *Habaguanex*, which supplies tourist facilities located in Havana. In some rare cases, private companies might have the limited-right to import directly from foreign entities, like the *Melia* hotel chain.

#### **Competences:**

- **C1. Human Resources Management:** Iguarivarius is proud of its motivated and hard-working collaborators and strong leadership team, which all share common goals for the company. The professional qualities and experiences of its human capital and the good work environment enhanced by a strong team building attitude represent a valuable asset for this company.
- **C2. First-Rate Service:** Efficiency, in-time delivery, volume and speed in processing orders: this is what describes Iguarivarius' logistics processes.
- C3. Service Flexibility: One of Iguarivarius' competencies is to identify business opportunities according to the customer needs, and adapt and develop new offers, together with the suppliers, according to those needs. The

capacity of response with efficiency to more, larger and more frequent orders and the diversification of markets, products and services throughout the years, are good examples of Iguarivarius' flexibility.

**C4. Product Customization:** In order to provide the best product and service, Iguarivarius customizes its catalogue of products according to customer specification. Nowadays, the company offers meat in all formats, from the farm to the table. It was the first Portuguese firm to export bovine livestock to countries outside EU, and it trades meat from raw materials to finished products.

C5. Financial Management: Since its foundation in 2010, Iguarivarius has been growing and the proof is the financial results that show an increasing slope every year. In 2015, Iguarivarius grew 3,6% in sales volume and 67,3% in EBIT, representing 2,2 times the social capital of the company. Despite the problems in the Portuguese banking system, shorting the granting of credit at Portuguese firms, Iguarivarius managed to get financing adjusted to the development of its activities. In the same year, the firm increased its capital structure and is planning to do it this year as well. The good financial performance which is the result of wise decisions regarding the financial management of the firm reduces the risk of new investment and allows the company to go forward with its strategy of exploring new markets.

#### **Specialized Assets:**

**S1. Experience Curve:** Iguarivarius was created in 2010 and was able to overcome the difficulties resulting from the serious financial and economic crisis in the world, particularly in Portugal. During this period of 6 years, the company was able to grow and achieve positive results built on confidence, determination and hardwork.

Through the years, Iguarivarius became the biggest Portuguese exporter of meat and developed a network of relationships, partnerships and strategies, operating in 36 different countries with the ambition to expand its operations further. Nowadays, we can say the company is able to take advantage of learning economies, with accumulated experience and know-how at all levels.

**S2.** Quality Reputation: Being the largest Portuguese exporter of agri-food products, Iguarivarius has built a strong reputation of quality of its products and services. For this to be possible, this company has strict quality

management processes in which the product is certified by several entities and, since the majority of the operators that work with Iguarivarius are Portuguese, they necessarily follow European rules and standards that are recognized worldwide as top-quality.

**S3.** Certification and Permits: As previously explained, exporting agri-food products to Cuba requires several permits and certifications, especially at diplomatic and sanitary levels.

In the European context, the rapprochement between Cuba and EU is recent, and the agreements between European operators and Cuba are scarce, however the will of European authorities to export to Cuba is increasing, mainly in the pork sector. Due to the U.S. embargo to Cuba, none of the U.S. operators currently has export permits to Cuba and it is unlikely they will have it any time soon, even if the U.S. Meat Export Federation is seeking to obtain those approvals. Iguarivarius, however, already has all the permits and certifications required to export bovine and pig meat to Cuba, being one of the few Portuguese companies to fill those requirements. The company is theoretically ready to export beef and pork to Cuba, giving it an important advantage over competitors.

**S4. Location:** Portugal has a prime location to the Atlantic Ocean, with maritime routes directly connected with Cuba and other Caribbean Islands that might be more competitive than other routes from other countries. Moreover, Portugal benefits from the high European standards for meat producers and even though these require a considerable effort and costs in terms of labour force and raw materials, Portugal has the comparative advantage of having lower salaries than the European average as well as a lower price level than many of the world's biggest meat producers, which means lower costs with raw materials, for instance. In this sense, Iguarivarius is able to produce with same quality standards but more competitive prices than countries like Spain or Denmark, the two largest European producers of pork.

After describing all these resources, it is possible to analyse their Strategic Importance and Relative Strength within the industry, as well as analyse these resources according to the VRIO framework, so as to clearly define which resources may be sources of Iguarivarius' Competitive Advantage(See Exhibit 1 and 2). The competitive set considered for the RS-SI matrix comprises all the firms worldwide that already export or intend to export to Cuba

in a near future, with Canada and Spain being the most relevant competitor countries.

By comparing the VRIO table with the RS/SI matrix it is visible that all the resources that were classified as sources of competitive advantage or temporary competitive advantage are in the "key strengths" quadrant, corroborating the results from VRIO analysis. The capacity to customize its product according to customer requirements, and its flexibility in adapting and developing products and services to match customer needs and market changes are the resources that provide Iguarivarius potential for sustainable competitive advantage over its worldwide competitors. These resources, when combined with strong market power and proprietary rights (such as exclusivity contracts), empower the firm to capture this potential and benefit from a sustainable competitive advantage while pursuing a differentiation strategy.

Resources like Operators Relationship and Permits/Certifications also provide potential for competitive advantage, however this advantage is only temporary, mainly due to the current changing environment in the Cuban Macroeconomic context, which reinforces the importance of first-mover advantage.

We consider that Iguarivarius should continue to focus on customization and flexibility and improve them as these seem to be the resources with higher potential. The company should not rely on the temporary ones, however, it must use those resources and take benefits from them while they still determine advantage over competitors.

Nevertheless, some resources representing Competitive Parities have a high strategic importance, and deserve particular attention and investment, especially in the architecture of relationships.

# **Logistics and Operations:**

Identified the opportunity in the Cuban market, targeted the customers and analysed the company's competitive advantages, we will analyse in detail the logistics management of Iguarivarius and its operations. Especially in the food industry, an effective logistic system is extremely important in order to deliver quality products to the consumers, in organized and fast delivery times.

The first step is to understand the path in which the product goes through the whole supply chain from the farm to

the final consumer, as it is illustrated in Exhibit 3.

The second step is to know the different agents along the process and the relationship they have with Iguarivarius. Iguarivarius works as a "matchmaker" between the different agents and manages all the relationships and payments, with the only independent entity being the Safety and Security agency, responsible to control and check the sanitary conditions of the shipments. The most relevant agents are the suppliers, who are the cattle producers that have a contract with Iguarivarius; the foreign client/importer, who is Iguarivarius' client and the one who demands product specifications, quantities and the order frequency; the warehouse owner(s) who store and sort the product in refrigerated warehouses; and the Freight Forwarder company, which is responsible for the product's transport process managing the inland transport and sea-freight lines with different ship-owners and is also responsible for the paperwork related to the transport and import/export issues. Iguarivarius works with two refrigerated warehouses, one in Carregado, Lisbon and the other one in Matosinhos, Oporto. The shipments usually depart from the closest harbour from the warehouse, Lisbon and Leixões respectively.

#### Venezuela's Case

The most significant export process of Iguarivarius is to Venezuela, the company's biggest client and the most complex logistic operation. This process will be seen as a reference because of its importance to the company but mostly because it has certain constraints that represent inefficiencies in terms of process flow, mainly due to the large volume of meat exported, which requires coordination with a large number of suppliers. All other operations are considerably smaller in terms of volume which will represent gains in terms of efficiency along the process. The Venezuelan contract is signed once a year with the National Government of Venezuela with an agreed quantity of 14 thousand tons of pork shank to be totally delivered before 22nd of December, and the transit time of the product from Portugal to Venezuela is about 30 to 35days. The product is to be consumed by the entire population only in the Christmas time and it is subsidized by the Government. Besides the specifications of this contract, Venezuela is a country very similar with Cuba in several macroeconomic aspects which influence some logistic details, especially in terms of sea-freight.

The contract is negotiated and signed with the suppliers, at the same time it is negotiated with the client and after that the different suppliers will deliver the product to Iguarivarius when it is available. When the embark process starts, Iguarivarius already has about 50% of the total quantity stored in the warehouse. The time the products spend in there is also used to inventory, packaging and registration of the packing list. The packing list is extremely important because it is the document that states all the shipment's specifications and product details, also used to issue bills and to identify and track the shipment.

**Specifications:** Each shipment has an average net weight of 1000 kg to which is added a Europallet as base, and is transported in reefer containers with 40' foot and a gross weight of 27 tons and a net weight around 26 tons. To maximize the container utilization it is necessary to optimize the ratio volume/weight, which results on an average of 22-23 shipments per container. This formula is also limited by transit regulations on the total weight to be transported, inland and overseas, in both Portugal and the destination country.

In terms of product, Iguarivarius mostly exports frozen meat (pork and beef) stored in a warehouse with an average temperature of -25°C and transported in reefer containers with an average of -18°C, always packed in vaccum. Under this conditions the meat products can be preserved from 4 to 18 months depending on the product type according to the *Exhibit 4*.

#### **Cuba's Characteristics**

Due to its economic context in the global market, Cuba imports are way higher than the exports and it is a destination with low rotation of containers, being a less attractive country for sea-freight companies. Adding the fact it is a socialist country, most of the international freight forwarders do not work directly in the country, having to sub-contract a local intermediary. These factors represent less direct sea-freight lines connecting Cuba with other countries, longer transit times, and higher costs to the several agents in the export process.

In Cuba the product will be distributed through the HORECA channel and consumed by tourists, which represents a significant difference in terms of order routine. The demand of meat in Cuba is influenced by the tourists'

seasonality which has a constant pattern over the years, reaching its peak between December and March and the lowest level in September<sup>10</sup>. Instead of a giant logistic operation once a year, it might represent a continuous operation through the whole year with higher volume in certain seasons and lower volume in others.

In contrast with Venezuela's case where Iguarivarius only exports one specific product - pork shank, Cuban case demands a greater variety of products, including different cuts of beef and pork transformed meats. It represents a greater effort especially in terms of sourcing, storage and inventory management.

Lastly, the relationship with the client and the contract negotiation might be different as well. In Cuba there are some risks and uncertainties related with payments and contracts, and according to the UK Department for International Trade (2016) payment delays in Cuba are common and is a standard for the State-run companies to buy on credit terms of 1-2 years, which might represent an important factor when making the decision to start exporting to Cuba.

#### Just In Time and process improvement

As we previously analysed, Iguarivarius' Service Flexibility is a source of competitive advantage and it is only possible due to the large number of suppliers they work with but also to the freight forward companies they use. In fact, the success of the operation highly depends on the freight forwarder performance.

According to Krajewski and Ritzman (1999), a service environment with repetitive operations and high volumes, with wide variety and customized products will easily benefit from Just-In-Time principles. In overall, the export operation of Iguarivarius fits in these characteristics, the flexibility and involvement with suppliers are Iguarivarius strengths, and Cuba's demand characteristics are attractive for the implementation of JIT approaches. To create sustainable competitive advantages over competitors we will use the *Just-In-Time (JIT)* methodology and figure out how to best apply it to the company's business strategy.

JIT is an operational methodology with the aim to maximize process efficiency and consistent improvement of

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<sup>&</sup>lt;sup>10</sup> Cuba Tourist Arrivals 2008-2016. http://www.tradingeconomics.com/cuba/tourist-arrivals

productivity. JTT can be translated in flexibility increase and adaptability to customer needs; total visibility over people, products, process and equipment; elimination of waste; and/or higher balance and control over the output (Benson, 1986).

The basic premise is to identify the key points where we can reduce the time and the inventory up to the exact amount that meets the demand needs (Larson, 2005). It is also important to know the different agents within the process and coordinate their activities and goals.

Sourcing, transport, inventory management and time-to-delivery are the main variables that can be changed in order to increase efficiency (Larson, 2005). They are also the key impact variables in Iguarivarius operations. According to JIT principles, the inventory of finished goods must be demand-driven to be continuously replaced, which highlights the importance of the relationships with suppliers. The reorder of raw materials should be more frequent and in smaller quantities, the inventory should be minimized, the lead times must be reduced, and any unnecessary buffer must be eliminated (Chase et al., 1998; Hernandez, 1989; Schonberger and Gilbert 1983). While bulk quantities need to be handled and stored, consuming a lot of resources and representing a great deal of capital, JIT supports the idea that reordering products in smaller quantities will reduce those costs and decrease the risk of inefficiencies. If we order in bulk quantities, a problem with quality would represent huge losses and it would be necessary more time to replace the production, smaller orders also represent shorter lead time and increase efficiency. By consolidating items for shipping purposes, buyers and shippers can reach increased shipping weight and lower freight rates without substantial increase of the order quantity of content items (Gupta and Bagchi, 1987)JTT goal is to produce a good or service without producing any waste, the idea is to simplify every process activity making it easy to detect problems and find solutions, delivering the right items at the right time (Benson, 1986).

The relationships with the suppliers should not be based only in quality and unit costs, but also in flexibility and ability to change readily from one product to another. JIT principles require changeover times, changeover patterns and process flexibility, the purchasing manager must be very familiarized with the supplier's capabilities and a

strategic sourcing must be done when choosing the right supplier (Larson 2005).

Williams defends that in JIT the number of suppliers must be minimized to the ones that are close by and are able to supply the products quickly, also the negotiation power over the suppliers must be high in order to enforce flexibility from their part (Chase 1991). To export to Cuba, Iguarivarius should focus in only one supplier to obtain greater cooperation and easier delivery schedules. With a single supplier, the sum of every order will totalize a significant volume, even with a smaller volume per order, which might allow Iguarivarius to benefit from the same unit price as large discounted orders. This will also reduce the complexity of managing different suppliers complying with JIT principles. The supplier is also encouraged to reduce the production in lot sizes and restrict it only to the exact quantities needed.

Managing this must be relatively easy to the company because it has a huge network of suppliers to work with, that already have the required permits to export to Cuba. Due to the high level of cooperation needed, an integrated logistics with the supplier would be an advantage, for these reasons the most obvious choice would be Raporal, the major supplier and fully integrated in the company structure.

Warehousing is where Iguarivarius has greater control over the operation and so is the variable where major changes can be made. The *JIT* movement assumes smaller quantities to be stored and moving more frequently (Hernandez, 1989). In the Venezuelan operation, large quantities are stored in the warehouse for a long time, however this operation happens once a year and represents an extreme scenario. Cuban operation will include significantly smaller volumes purchased, but a wider variety of product types that can last from 18months, like beef steaks, to only 4months like bacon.

The idea is to manage with the suppliers the required quantities to be produced at the same rate as the demand so the products are constantly flowing through the process and buffer times are minimized. At the same time the client is being supplied in regular basis according to its demand, reducing storage costs for both agents. The operation to Cuba allows Iguarivarius to eliminate all the warehouse activities in the process, reducing it to the

formulation and report of the packing list and required paperwork and the security check done by an independent agency. The trucks will be loaded directly in supplier's facilities.

Assuming a total quantity of 125 tons of meat to be exported to Cuba and a current storage of 15€/ton, this change will allow the company to save 1.875€ which represents the price of 37.5% of a 40'ft container.

Inventory management is a crucial tool for the success of this operation, requiring a fast and efficient packing list formulation and an automation of the storage process, where the products with shorter life-time have priority over the others but also where the process flow can be easily adapt to the demand needs.

In terms of transport to Cuba, the transit times are considerably high, between 30 and 40 days, and this part of the operation is almost totally by the freight forwarder. Reducing the transit time and the unit costs must always be a priority, but Iguarivarius has been focus on shipping large volumes of meat in reefer containers by sea-freight, which requires huge inventories and complex operations. *JIT* supports the idea of shipping smaller quantities, even if in more frequent basis, with some methods that allow smaller lots to be moved for the same unit cost as larger loads (Schwarz & Weng, 1999). Transporting smaller quantities at a time will also need smaller quantities to be produced at the same time, reducing the need of working with several suppliers at the same time to achieve scale, and reduce storage costs.

As already mentioned, the Cuban market demands different types of products - pork, beef and processed pork - these products have different process time and might be delivered by the suppliers at different times, requiring a huge flexibility from Iguarivarius to match the delivery times of every single supplier.

Harvey (1989) defends that to improve a process (workflow) it is required to meet the client needs. Smaller and more flexible deliveries would be appreciated by the customers in the HORECA channel, so they can also adjust their orders to their own demand of tourists. To mention the fact that with *JIT* process, a container can transport shipments of different products, which can also be a factor to maximize the capacity utilization of the container.

Using a Global third-party logistic (3PL) provider that allows Less than Container Loads (LCL), Consolidators or

load-switching is the most likely solution to export shipments in even smaller quantities over the year and work with the freight forwarders to ship it together with other smaller loads and achieve economies of scale in the same way, allowing the company to enjoy the same unit costs as with Full Container Loads (FCL); (Giunipero et al.,2005; White, 2005). This will create a supply flow distributed evenly over the year and adjusted to the demand flow, i.e., the delivery quantities will vary from release to release but the whole contract quantities will be fixed.

Assuming a transit time of 35 days and a total loading time of 5 days (including paperwork), the product must leave Portugal, in the exact ordered quantities, 40 days before being needed by the client in the destination. Tourism numbers of 2015 show an increasing trend starting in December until March, totalizing 42% of the total visitors, decreasing from there on until reaching the lowest level in September, with a smooth increase in July. This pattern has been constant over the years showing almost none variations and is following an increasing tendency of 20% per year, which helps in the implementation of JIT processes since the risk of unexpected variations is low. Following the assumption of a contracted quantity of 125 tons, negotiated with all the intervenient in the process (Supplier; Freight Forwarder and Importer), the export process workflow will follow the demand with the required advance, in order to provide the product to the client, just-in-time (see Exhibit 5). We also estimate that with the demand increase, it would be possible to export FCLs in the peak season, instead of using Consolidators.

Nowadays, third-party logistics (3PL) providers are growing and getting able to provide a full service through the

also it is harder to consolidate different shipments in those containers.

In conclusion, and comparing with the current logistics operations which are based on transporting bulk quantities of products, mass production of meat at a time, and coordination of several different suppliers, requiring a large logistic effort and significant costs of warehouse and inventory management, not only for Iguarivarius but also for

whole supply chain, working together with the company to maximize its efficiency, including activities like co-

packaging, which might be an advantage to Iguarivarius and its suppliers. However the limitations of LCL might

be reinforced because we are dealing with Reefer containers that might have lower rotation, especially in Cuba,

its clients and suppliers. The implementation of a JTT logic, will result in a significant reduction of work-in-process inventory, with a continuous but simpler operation, as well as reducing lead times (Chapman 1992). Problems with quality, delays, losses or supply failures would be minimized, since the quantities transacted at each time are considerably smaller, while in with the current system, any failure would represent significant costs. On the other hand, JTT demands a tighter control and coordination, and more frequent dispatches are necessary to contain transportation costs, also the dependency of a 3rd Party Logistic Partner increases significantly. Summing up, the adoption of a JTT approach comparing with the current one, represents a reduction of operational risks, costs and efforts, however it requires a higher management effort.

As mentioned, the specifications of the Cuban market combined with the export operation services are attractive to apply the JIT and more likely to produce positive outcomes, especially considering the Horeca channel as a target customer that demands quality products without any production waste, minimizing costs, and meeting consumer needs. Iguarivarius would be able to provide different quality meat products on a monthly basis and in the exact quantities needed by the client, reducing the effort, working force and risks inherent in high volume operations, with virtually the same unit costs (Wong et al., 2005).

To succeed, changes should be made, even if some might go against the company's current practices, especially in terms of transport logistic, as in our opinion, the final outcome would result in an improvement in productivity. The use of improved information systems is a tool that might help the implementation of JIT procedures, as well as the use of performance control systems. Nevertheless, JIT process reinforces the importance of Iguarivarius' architecture of relationship as a key asset to create sustainable competitive advantages, creating closer ties with the client, supplier and freight forwarder (Harper & Goodner, 1990).

### **Entry Modes**

One of the most important decisions regarding international business has to do with the entry mode in the foreign market, which is defined as *an institutional arrangement that makes possible the entry of a company's products*,

technology, human skills, management or other resources into a foreign country (Root, 1987, as cited in Wagner, 2009) and may have a critical impact in the business international performance and its sustainable growth, as it affects all the future decisions and operations of the firm in the new market (Barber, Peinado and Madhok, 2010). When deciding to enter a new foreign market, firms may choose between a wide variety of entry modes that go from a completely domestic production which is exported, to producing in the foreign market itself. Although there is not one broadly accepted classification of these entry mode types, there seems to be a general consensus around the division in three groups first proposed by Root (1987): Export Modes which may be indirect exporting, in which the products are carried abroad by intermediaries, or direct exporting that includes, for instance, a sales representative in the host country, a branch or even selling directly to the end consumer; Contractual Modes which include licensing and franchising or other non-equity entry modes and Investment Modes which involve equity ownership like in the case of joint ventures or wholly owned subsidiaries (WOS).

Despite the importance of this decision, identifying the appropriate entry mode in a given context is necessarily a difficult and complex task (Hill, Hwang & Kim, 1990). This has to do with the fact that each of these modes entails different levels of resource requirements, organizational control, expected future returns and risk exposure (Ahsan and Musteen, 2011), and the choice should be made in a way that considers the trade-offs between the risks and expected returns and control versus commitment, as an entry mode that provides the firm a higher control and better prospects of profitability will require a stronger commitment, higher resource requirements and, consequently, a higher risk exposure. In this sense, export will represent the entry mode where there is least control and commitment, as well as low risk and potential returns, while WOS are chosen when firms want maximum control and are willing to make maximum commitment and take on maximum risk (Brouthers and Hennart, 2007).

For the purpose of this project it will be considered an internationalization process of the firm based on a sequential entry in the foreign market instead of focusing only in one mode. The support for this approach lies on the existence of vast literature on international business emphasizing the idea that uncertainty regarding market-specific

knowledge, defined by Buckley and Ghauri as *characteristics of the specific national market—its business climate, cultural patterns, structure of the market system, and, most importantly characteristics of the individual customer,* leads firms to opt for a gradual internationalization process. The Uppsala Model (Johanson, J. and Vahlne, J.-E., 1977), a model of internationalization in which entry mode decisions are seen as a time-dependent process, is one of the theories frequently used to explain sequential internationalization of firms, being the most used in international business research. For these reasons, I will focus on the premises of this model.

This model, which is based on empirical research, suggests that market commitments will be made not at only one stage but in small incremental steps formalized through what is known as the Establishment Chain. This sequential entry helps to overcome the *liability of foreignness* (unfamiliarity with the foreign market conditions) which is larger when the host and domestic markets have a larger *psychic distance*, (the sum of factors that prevent the flow of information between the two markets), making it difficult to understand the foreign market. The firm should first decide on a less risky entry mode and it is only after acquiring experience on the new foreign market that it will be willing to commit higher level of resources, *as experience builds a firm's knowledge of a market, and that body of knowledge influences decisions about the level of commitment and the activities that subsequently grow out of them, leading to the next level of commitment (Johanson, J. and Vahlne, J.-E., 2009). Firms change their commitment decisions by learning from their experience, in a process that is sequential and requires time. However, this model does not aim to be deterministic: commitment may decline or even end if performance and expectations are not favourable.* 

It is important to notice that the Uppsala model is not the only model on internationalization process neither it is always applicable. In fact, this model has been frequently criticized as, not all firm internationalization is of the traditional incremental type (Oviatt and McDougall, 1994) especially for cases of very large multinational enterprises, companies with extensive international experience and those with high-technology equipment (Kubíčková, 2013). The current business trends may also affect the basic assumptions of this model, as the global business community is becoming more and more homogeneous and, according to Oviatt and McDougall (1994),

there is a much higher global integration of trade and great technological evolutions, facilitating access to information on international markets.

As previously said, there are other models for internationalization, and these critiques led to the development of even more. Even the Uppsala Model itself, in the light of the changes in business practices and advances in theoretical research, was further developed and fundamentally revised in 2009, highlighting the importance of networks and the view of business as a web of relationships while introducing the concept of *insidership*. The revised model, strongly influenced by the Network Theory, states that knowledge acquisition is not just the consequence of the firm's activities on its own, but also the activities of the partners within its business network. Therefore, *liability of outsidership* will be at least as decisive as liability of foreignness, given that when a firm is not an insider its lack of relationships will most likely translate into lack of business opportunities. This new network-based view adds to the idea of a "step-by-step" internationalization process of a firm the need to involve business relationships in the new environment as a factor that fastens and facilitates the adaptation and success of the firm in the new market, which might fasten the process.

Besides the Network Theory, it is also worth mentioning models like the Transaction-Cost Approach, the Eclectic Paradigm or the Born Global Theory, but others could be referred. The first one *suggests that the most efficient choice of internationalization pattern is one that will help minimise production and transaction costs* (Osarenkhoe, 2008) in such a way that a firms' choice of how to enter a foreign market is mainly affected by transaction costs. These costs increase with asset specificity, uncertainty and the frequency of transactions.

The Eclectic Paradigm, in turn, *predicts that production will be established where advantages can be enjoyed* (Hadjikhani, 1997). It explains internationalization decision based on 3 main conditions: the firm should have ownership advantages; the foreign market should be attractive (e.g. lower wages, natural resources) and should have an advantage in internalising production.

Finally, the Born Global Theory, most likely the one that more strongly contradicts Uppsala Model, focus on the fact that a relevant group of firms have been enjoying accelerated internationalization processes and being successful, specifying the cases of *new venture firms that have skipped incremental stages and/or have been international virtually from inception* (McDougall, Shane, & Oviatt, 1994), which stage theories are unable to explain.

Despite what has been said, the incremental internationalization process is very intuitive and it is still commonly observed. The fact that Uppsala model cannot be applied in some conditions and in all cases, does not mean it does not apply to others. Moreover, none of these models is necessarily right or wrong, they apply to different situations and in many cases more than one may apply. We consider that the incremental stages model is the one that better fits the specificities of our case since Cuba is a completely unknown market with little credible available information making it very important to learn about the market before going deeper into it. The best way to learn is entering the market with a low commitment approach and, only in case this decision pays off, change to the next step, in a stage process of incremental risk and commitment. For these motives, this was our chosen approach.

Having explained the internationalization model that will be applied in this project, it is now possible to describe which were the selected entry modes for Iguarivarius in this specific market.

Given the specificities of this firm, which is a trader and not a manufacturer, the opinions of its management team and the fact that Cuba is an unknown market with a high level of uncertainty, complex legislation and high instability, we decided to focus on the entry mode that requires a lower level of commitment: exporting. Moreover, it is being considered an horizon of only 10 years, which means that after this period, depending on the results, it might make sense to consider more complex strategies, namely the creation of a Cuban subsidiary which could directly control storage and distribution in Cuba (if legally possible in the future). Conconi et al (2016) showed that the majority of the firms will start by exporting, as it is only after operating in the foreign market that firms will discover their ability (or not) to earn profits. As firms are uncertain about their profitability in a foreign market, they will test this market via exports and, for intermediate levels of profitability they will continue exporting without engaging in FDI. The more uncertain the destination, the higher will be the expected delay of FDI entry modes. Therefore, three exporting entry modes were chosen, with different and increasing degrees of commitment of resources, instead of selecting contractual or establishment entry modes which were considered to have an

unfavourable risk-return ratio and a higher level of complexity.

The selection of the entry mode for the first phase of this internationalization process was very straightforward as, for now, and when excluded investment modes, is almost the only feasible alternative. This is because although the Article 26.1 of the Foreign Investment Act states that the majority of firms are allowed to directly import whatever they need for their operation, our research shows that this is not being put in practice. In fact, the firms that are members of the HORECA channel are, in general terms, not allowed to import directly. The acquisition of imported goods is made mainly through state trading entities (from which the most relevant is Alimport) that purchase the goods from foreign firms and then made them available for the HORECA channel in a "central purchasing body". For this reason, the first step towards entering the Cuban market should be to negotiate a deal with these state-owned importing entities. This entry mode may be considered a form of indirect exporting if one considers the hotels and restaurants as the final client, since there is a "buying agent" purchasing the products and acting as an intermediary. Although indirect exporting is the option with lower return prospects, it has the advantage of being a cheap, simple, straightforward and with a low degree of risk method. For these reasons, it seems a good option for the initial stage of this internationalization process.

Following the logic of a sequential process with an incremental level of resource commitment, the next stage would be to change for direct exports, providing a greater degree of control and increasing expected profitability. The best way to enter direct exporting in this market would be through hiring a Commercial Agency that would act similarly to a Sales Representative, and that, in the specific case of Cuba, would most likely be a state owned company called "Representaciones Platino" which is part of the MINCEX and is authorized to represent foreign companies, as the concept of an individual sales representative does not legally exist. The role of these agents is to promote operations in this market, on behalf of the foreign country, which is, in this case, Iguarivarius. To do this, the agent may use foreign firms' product literature to present and promote the product to potential buyers. Commercial Agents do not have importing license neither take ownership of the goods they promote, assuming no risk. The payment is typically made based on a commission of the sales value that the agent generated. It is

very important to highlight that the shift towards this entry strategy will only make sense on the assumption of a change in Cuban market: hiring a commercial agent has as main objective to capture new clients. If the clients continue to be almost only a few state-owned importing companies, this may not make much sense. Therefore, for the purpose of this analysis it is being considered that at least some Hotels/Restaurants will in fact start to have the possibility of importing directly and not only through governmental traders.

The third entry mode option considered is also a direct exporting method and will also rely on the previously stated assumption. For this stage, given that there are the conditions for a higher commitment, a Representative Office would be the best choice. Although this continues to be a "risk-averse" option, it increases once again the degree of control of the firm. Moreover, customers may finally "know" the company and the company may have a better understanding of the market and potential customers, as it is present in the market. It also makes easier to have performance feedback. Although this entry mode means a higher allocation of resources, it should increase sales and profitability. This is, in fact, the most common operating strategy of foreign firms which export to Cuba and its main function is, as stated on the name, to represent a firm in a foreign market. A Representative Office is not a separate legal entity and it also does not grant the right to import or export directly, neither to distribute the products: its purpose is to carry out commercial support to the export transactions that the parent company performs, facilitating the search for commercial operations and sustaining the ones that are already in place.

However, there are some requirements that must be fulfilled in order to open a Representative Office in Cuba: the firm should have at least 5 years of existence, a minimum share capital of 50.000 USD and a minimum of 3 years of prior trade relations with Cuba with sales amounts exceeding 500.000 USD/ year. The first two conditions are already fulfilled, but the last two may constitute an obstacle, depending on the situation of the company by the time it decides to open the Branch.

After defining the entry modes and explaining the sequential nature of the internationalization process, it is important to understand what will be the trigger of change from one stage of the process to the other. In order to

reach a conclusion on this topic, we decided to perform a "projected operating account" for this project, and then, based on this account, develop a basic model able to determine the above mentioned trigger, which will be the sales volume, in terms of quantities.

The first step of this process was to compute the operating inputs needed for the operating account, assuming a project lifetime of 10 years.

Market Size: In order to compute the expected quantity sold per year, it was first necessary to understand the expected size of the market and the market share of Iguarivarius. As in 2015 the number of tourists in Cuba was 3.5M and the growth rate was higher than 17% compared to 2014, it may be assumed that tourism will continue to grow at a rate of at least around 18% per year, given that the growth is likely to increase in the next few years since American tourism is expected to boom (fewer restrictions, new flights and direct connection to Florida). Knowing how the market will probably evolve, it was possible to predict the market size at year 0 (2017). For this it was assumed that each visitor would stay an average of 7 days in Cuba and would eat 1 meal of red meat per day, considering 200 grams of meat per meal. Therefore, the market size for year 0 would be (3.5M\*1.18\*1.18\*7\*0.2) over 1000, which is around 6823 tons.

For the next years, market size will be growing at the annual growth rate (18%/year).

Market Share: The firm told us that the minimum they would be willing to export was 100 tons, so market share in year 1 would be 100 tons over (3.5M\*1.18\*1.18\*1.18\*7.0.2) which is 1.2%.

Quantity: Will be equal to the market share\*market size in each year. For entry mode 2 it was considered that market share would be 2.7%, assuming that the commercial agent would be able to capture more 1.5% of the market. The same reasoning was applied to entry mode 3, in which the new market share considered was 4.2% as these new entry strategies are aimed at attracting new clients, increasing the market share.

COGS: This value is equal to the cost per kg of meat times the total quantity and the first step to compute it was to know the average cost of the identified cuts of meat for this market, information that was given by the company.

Afterwards, Cuban imports of red meat were analysed, in order to understand the weight that pig meat, bovine

meat and transformed meat products have, separately, in the total red meat imports (50%, 30% and 20%, respectively). Having the average cost for each meat price (average of the cost of all the cuts in each meat category: pork - 3.25; bovine - 10.4; transformed - 3), it was then computed the final value with a weighted average: 3.25\*0.5 + 10.4\*0.3 + 3\*0.2 = +/- 5\$/kg (for entry mode 1). As in the case of market share, it will vary when different entry modes are in place, representing a smaller portion of sales in entry mode 2 (4.63\$) and even smaller in entry mode 3 (4.48\$), considering the impact of economies of scale.

Margin: The firm considers 30% as the minimum margin for a market like Cuba. Taking this into consideration, a margin of 1/3 was considered for this calculations, which meant a price of 7.5\$ per Kg, which was kept steady for the different entry modes (even if this does not correspond to the real situation, it was nearly impossible to anticipate the fluctuations in price). If the price is constant and the COGS are decreasing in the different entry modes, margin is increasing: 33% < 38% < 40%. The increase in the margin is higher in the first change then in the second as diminishing marginal gains are being assumed.

Storage: No storage needed for these quantities; Transportation: 5000\$/container, according to the firm. As each container has a capability of around 25 tons, the cost per ton will be 200\$, and the total cost will be 200\*quantity. However, this cost is expected to slightly decrease for entry modes 2) and 3) to 198 and 196, respectively, as there might be quantity discounts; Freight Costs: 0.1% of the total bill value; Harbor Dues: 220\$/container which is equal to 9\$ per ton.

Costs with Labor: In this topic it was necessary to consider different numbers of workers for each entry mode and different labor associated costs.

Entry Mode 1: 1 export manager for Cuba (2500\$/month) and 1 sales administrative (1500\$/month), both working in Portugal. The manager travels to Cuba 4 times a year: flight cost – 2500\$; Accomodation (1 week) – 700\$; Food (1 week) – 200\$.

Entry Mode 2: 1 export manager for Cuba and 2 sales administrative, as the sale volume increased; the same number of trips. Social Security and Life Insurance are 23.75% and 1%.

Entry Mode 3: As there is an office in Cuba, the number of employees changes. There is 1 export manager for Cuba working in Portugal that only travels twice a year to Cuba, 4 Cuban sales representatives and 1 secretary, all of them costing the firm 687\$/month as they are hired through a state employing agency; 1 country manager, 2 sales administrative and 1 operations administrative, all Portuguese working in Cuba. In terms of Social Security Contributions, the company will pay only 14% for the Cuban workers, and 23.75% for the Portuguese ones. Other Costs: Entry Mode 2 - Commercial Commissions: are paid to the commercial agency as a percentage of the incremental sales captured. The commission is assumed to be 5% and it is applied only to the incremental sales (represented by the increase in market share); Entry Mode 3 - As there is an office there are costs with: Rent: the average in Cuba is 7\$/sqm, with furniture we assume 10\$/sqm and 8 sqms/worker; Water, Gas, Electricity: 50\$/month; Office Material: includes office supplies or computers and the value assumed was 200\$/month.

After having computed all these values for each year (given a 10 years project lifetime), it was then possible to build the model that will forecast which will be the trigger of change from one entry mode to the other. To do this, it was formulated a function of profit and quantity for each entry mode type, based on the different cost and revenue specifications of each entry type, translated in the following formula:

```
Profit = Price * Quantity – ((COGS % * Price * Quantity) + (% Variable Costs * Price * Quantity) + ((Transportation + Harbour Costs) * Quantity) + Fixed Costs)
```

The final equations are as follows:

```
1) f(q) = 7500*q - 0.000667*7500*q - 0.67*7500*q - 209*q - 83460
```

The next step was to represent each function on a graph with profit on the y axis and quantity on the x axis, and then identify the interception between function 1 and 2 and between function 2 and 3. The quantities on each of these interception points represent the triggers of change from entry mode 1 to 2 and 2 to 3, respectively. (See Exhibits 6 and 7)

Given the values used in the "projected operating account", which are not exact values but only a forecast based on the explained assumptions, Iguarivarius should enter the market through indirect exports, change to hiring a

**<sup>2</sup>**) f(q)=7500\*q-0.02797\*7500\*q-0.62\*7500\*q-207\*q-109657.5

**<sup>3</sup>**) f(q)=7500\*q-0.000597\*7500\*q-0.6\*7500\*q-205\*q-239661

Commercial Agent after reaching a volume of sales of 152 tons and open a Representative Office when the quantity is higher than 364 tons, as these would be the most profitable options for each of these quantity ranges.

After knowing the triggers, it was possible to identify the year in which these change would happen: entry mode 1 would last the first two years of business, on year 3 the Commercial Agent would be the most profitable option and from year 4 onwards the best option would be the Representative Office.

This model also provides some projections regarding the quantification of the market opportunity for Iguarivarius. Although there are some variables missing in the model due to lack of information and some reference values, it is possible to get a notion of what would be the expected quantities and profits in this market. According to this model, at year 1 Iguarivarius would start with 100 tons which would represent an EBT of \$145 160 and by year 10, these values would be at 1 514 tons and \$4 025 659, respectively. (see Appendix C)

In order to understand which input variables have a higher impact on quantity and therefore influence the results on a bigger scale, it was also performed a sensitivity analysis. This technique consisted in attributing different values to the variables that were considered to be more relevant, simulating pessimistic and optimistic scenarios. Given that what determines the profit, and consequently the decision for a different entry mode, is the quantity (as the price is constant), the chosen variables were the ones that determine the quantity: market share 1, annual growth rate and the change in market share 1) to 2). There were created 6 different scenarios, each of them with one variable changing 10%, either up or down. After having the new values of quantities, it was computed the average percentage change in quantities for each scenario and the annual growth rate was the variable that showed a strongest impact, increasing the quantities in 12.1% (on average) when 10% up, and decreasing them in 10.8% when 10% down. However, none of these scenarios would have an impact significant enough on quantities to change the previous conclusions. They would slightly increase/decrease the quantities in the interception points, but not enough to change the year in which the switch of entry strategies would happen.

Finally, in order to understand if a critical situation in the country would change these conclusions, it was created a "worst case scenario" in which annual growth rate would be only 10% (and not 18%) and both market share

and change in market shares would decrease in 10%. In this scenario, conclusions would change and the Representative Office would only be a good option in the sixth year. Following the same reasoning, in a "best case scenario" with the exact opposite changes, conclusions would also change: the Commercial Agent would make sense right in the second year of business and the Office would be the most profitable in the third year, despite not being possible to open a branch before having 3 years of trade relations with Cuba. (*See Exhibit 8*)

The main conclusion that is possible to draw from this analysis is the fact that, if tourism growth rate meets expectations (allowing the volume of sales to increase considerably with time) the best option for Iguarivarius will be to go deeper into the market, adapting their entry mode strategy towards a higher commitment of resources for Cuban market, as that would increase the profit derived from this market.

For indirect exporting not many resources would be needed: two persons working from Portugal would be enough — one to close deals and manage clients and the business and another to administrate the sales. The biggest challenge at this stage would be to make contacts in a country that is unknown, which is why the manager for Cuba would have to travel to the country and meet potential partners and clients in person. A good first step to make contacts could be to participate in the FIHAV, for instance. The second phase will not demand much more resources as the Agency will be making the necessary contacts on behalf of Iguarivarius. The most important at this step is to negotiate a beneficial commission on the extra sales. If the increase in the volume of sales is high enough, a second sales administrative should be hired. The biggest limitation at this step is the fact that firms in Horeca channel should then be able to import directly or the work of the Agency will be extremely limited. Opening a Branch is what will require bigger changes as several new employees will need to be hired, some of them Cuban. Therefore, opening a Representative Office requires some extra work, such as searching for a suitable space to rent, understanding the laws related to labour (mainly regarding taxes) and related to profits, even if the Branch will not be able to actually close deals. There will also be needed sales representatives which will replace the Agency, a country manager, sales and operations administratives to ensure quality and efficiency in all

operations, and a secretary.

However, it is important to realise that many external factors may shape a different outcome, in which our conclusions would no longer apply. Trump's election as the president of the USA may be one of these factors, if he retreats the promises of restrictions lifting made by Obama.

## **Conclusion**

The combination of favourable macroeconomic trends with Cuban industrial situation, transform Cuba in what we believe to be window of opportunities for a firm looking for new markets, such as Iguarivarius. The insufficient internal production of meat products, together with an increasingly high number of tourists in the country, creates a strong opportunity, which will become even more significant if travel restrictions from USA are lifted. Moreover, we concluded that the timing is very convenient as entering the market now may bring to the company significant advantages from being a first mover in relation to, for instance, American companies.

We consider JTT methodology the best logistical approach for this market, although it is not easy to apply and requires all agents involved in the process to be synchronized and all components to be visible, to allow economies of learning and a continuous improvement (Benson's, 1986). To succeed, changes should be made, even if some might go against the company's current practices, changes might be uncomfortable, however the long-term gain of collaboration and improvements in production, customer satisfaction and cost savings are well worth the short-term discomfort (Larson 2005).

Finally, we suggest that the internationalization process to Cuba should be sequential, following steps with an incremental level of commitment, as explained in the Uppsala Model. Given the risks and uncertainty associated to this market, it is our opinion that the most adequate entry strategy for this market, would be to focus on exporting only, although going through three exporting phases in the first 10 years of business, with increasing levels of resource commitment and degrees of control: first enter with indirect exports selling to governmental institutions that will then distribute the products, then change to direct exports via a commercial agent which will be

responsible for increasing the number of clients and finally a last step with the opening of a branch in Cuba.

The logistic process will suffer changes over time, according to the internationalization stage model that was just referred. Independently of the strategy used, it is assumed that the volumes demanded will increase with time; even if this does not change the JTT premise, it might represent the need to have a higher number of suppliers to satisfy the increasing demand and the use of FCL on the high-season, instead of Consolidators and LCL. With the 2nd stage, the importance of an effective export operation is reinforced, with more picky clients needing a regular and quality supply, "just in time". Finally, with a Representative Office in the country we predict that the service operation will improve as a whole, not only because there is a closer contact with the final client and a deeper knowledge of demand, but also because Iguarivairus will have a higher control of resources and distribution channels in the destination country, which might allow the implementation of a JTT approach also in the delivery process in Cuba. Nevertheless, current innovation in the logistic sector worldwide and the macroeconomic trends in Cuba allied with Globalization, will allow Global Forwarder companies to improve their services, connections and decrease transportation costs to Cuba, so as to improve alternative logistic methodologies.

From our model based on assumptions and forecasts, it was also possible to conclude that the trigger of change from Indirect Exports to the Commercial Agency would be the company reaching a volume of sales of Q=152 tons, which in our prediction would happen at year 3 and from the Agency to a Branch at Q=364 tons, at year 4. It was also possible to conclude that the variable with highest impact on quantity and profit would be the annual growth rate of the market, which we expect to be higher than the one projected, if the predictions regarding the lifting of American restrictions come true.

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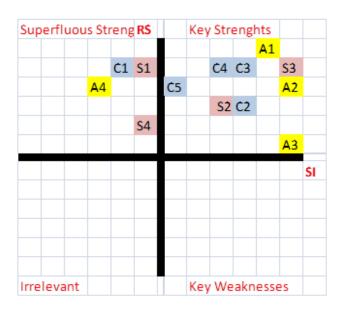
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## **Appendices:**

Exhibit 1: VRIO Framework

Iguarivarius, SA									
	V	R	I	0	Competitive Consequences				
Competences									
C1. HR Management	•	*	*	~	Competitive Parity  Competitive Parity				
C2. First-Rate Service	~	*	*	~					
C3. Flexibility	~	~	~	~	Competitive Advantage				
C4. Customization	~	~	~	~	Competitive Advantage  Competitive Parity				
C5. Financial Management	~	*	*	~					
Specialized Assets									
SA1. Experience	~	*	*	~	Competitive Parity				
SA2. Quality Reputation	~	*	*	~	Competitive Parity				
SA3. Certifications & Permits	~	~	*	~	Temporary Competitive Advantage				
SA4. Location	~	*	~	*	Competitive Parity				
Architecture of Relationships									
AR1. Operators	~	~	*	~	Temporary Competitive Advantage				
AR2. Freight	~	*	*	~	Competitive Parity				
AR3. Importers	~	~	*	*	Competitive Parity				

Exhibit 2: RS-SI Matrix



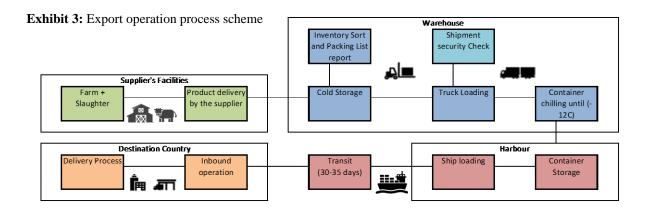
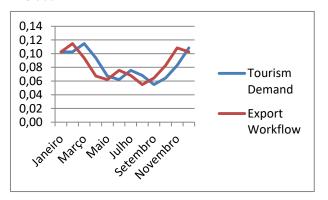


Exhibit 4:

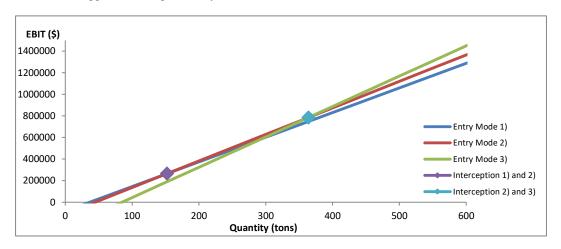
## Practical storage life in months Products -30 °C 24 24 -18 °C -25 °C Beef carcass Roasts, steaks, packaged 12 18 10 >12 24 Ground meat, packaged, (unsalted) >12 12 Veal carcass 10-12 12 Roasts, chops Lamb carcass 24 15 15 Roasts, chops 10 12 12 12 Pork carcass Roasts, chops Ground sausage Bacon (green, unsmoked) Lard 12 12 Poultry, chicken and turkeys, eviscerated, well packaged 12 24 24 Fried chicken Offal, edible

Exhibit 5:



From: Recommendations for the processing and handling of frozen foods, International Institute of Refrigeration, Paris, 1972.

Exhibit 6: Triggers of change in entry modes



**Exhibit 7:** Interceptions

Interception 1) and 2)						
Quantity	152					
EBT	264267					
Interception	n 2) and 3)					
<b>Interception</b> Quantity	n <b>2) and 3)</b> 364					

Exhibit 8: Scenarios

1	i <b>dit 8:</b> Scenarios						
more or section tos		Change In Entry Modes					
	Scenario (10% changes)	Entry Mode 1)	Entry Mode 2)	Entry Mode 3)			
			YEAR				
	Mkt Share Up	0		3 4			
	Mkt Share Down	0		3 4			
	AGR Up	0		3 4			
	AGR Down	0		3 4			
	Change Up	0		3 4			
	Chande Down	0		3 4			
	Worst Case Scenario	0		3 6			
	Rest Case Scenario	0		2 3			