



**Universidad del Azuay**

**Facultad de Ciencias Jurídicas**

**Escuela de Estudios Internacionales**

*“Market research for the export of ceramic tiles to Guatemala  
applied to Graiman. Cuenca-Ecuador”*

**Graduate work prior to obtaining a degree in**  
International Studies mention Foreign Trade

**Author:** Priscila Catalina Guillén Carpio

**Director:** Eco. Xavier Patiño Aguilera

Cuenca, Ecuador  
2016

## **Dedication**

I dedicate this thesis to a special person, who always believed in me and whose unconditional love has been and will always be the most valuable thing in my life. This is to my grandfather Franches that with his good example of work, discipline, honesty, solidarity and great heart taught me to be a strong person, someone who fights for what she proposes and always seeks to do more for herself and others. This and many other achievements are and will be dedicated to him, wherever he is.

May God reward you Franches.

## **Acknowledgements**

First, I want to thank God for his infinite love that during this long path has filled me with strength to finish this important project. I also thank my parents, my grandmother and my siblings for encouraging me every day to keep striving and achieving my goals. In the same way I am grateful for all the love, support and trust from my friends. Finally, I want to thank to all the people who have come into my life and have stayed to brighten my mornings or have followed their own path, because without them I would not be the person that now feels, lives, cries, loves, dances and smiles through this life.

Thanks for everything.

## Table of Contents

Dedication .....	ii
Acknowledgements .....	iii
Table of Contents .....	iv
Illustration Index .....	vi
Resumen .....	vii
Abstract .....	viii
Introduction .....	1
CHAPTER I .....	3
GRAIMAN'S CURRENT SITUATION .....	3
1.1    Introduction .....	3
1.2    General information about the company .....	4
1.3    Production .....	6
1.4    Exports and growth expectations .....	9
1.5    Conclusion .....	12
CHAPTER II .....	13
GUATEMALAN MARKET SURVEY .....	13
2.1    Introduction .....	13
2.2    Market information .....	14
2.2.1    General information .....	14
2.2.2    Guatemalan ceramic producers .....	17
2.2.3    Existing demand .....	26
2.2.4    Consumer profile .....	29
2.2.5    Additional information .....	31
2.3    Foreign Trade .....	33
2.3.1    Ceramic imports in Guatemala .....	34
2.3.2    Ceramic exports in Guatemala .....	37
2.4    Competition .....	40
2.5    Trade barriers .....	42

2.5.1	Customs barriers .....	42
2.5.2	No duty barriers.....	44
2.6	Product requirements.....	45
2.6.1	Labelling .....	45
2.6.2	Packing.....	46
2.7	Logistic analysis .....	47
2.7.1	Santo Tomás de Castilla Port .....	49
2.7.2	Quetzal Port.....	50
2.7.3	Airports .....	51
2.7.4	Road system .....	51
2.7.5	Distribution channels .....	52
2.8	Conclusion.....	53
CHAPTER III .....		56
RELATIONSHIP GUATEMALA-GRAIMAN .....		56
3.1	Introduction .....	56
3.2	Trade agreement .....	57
3.2.1	Background .....	58
3.2.2	Negotiation rounds .....	59
3.2.3	Objectives.....	60
3.2.4	Content .....	61
3.2.5	Trade relations Ecuador-Guatemala.....	64
3.2.5.1	Exports to Guatemala .....	64
3.2.5.2	Imports from Guatemala .....	66
3.2.5.3	Foreign trade of ceramic tiles between Ecuador and Guatemala .....	67
3.3	SWOT analysis .....	68
3.4	Implementation of the trade agreement in Graiman's exports .....	70
3.5	Conclusion.....	76
Conclusion .....		78
Bibliography.....		80

## Illustration Index

Figure 1: Guatemalan Construction Sector Growth.....	27
Figure 2: Starting a business in Guatemala.....	32
Figure 3: Guatemalan ceramic imports .....	35
Figure 4: Ceramic imports USD .....	36
Figure 5: Ceramic imports in 2014 .....	37
Figure 6: Guatemalan ceramic exports .....	38
Figure 7: Ceramic exports USD.....	39
Figure 8: Ceramic exports in 2014.....	40
Figure 9: Tariff preferences granted by Guatemala .....	43
Figure 10: International symbols for labeling.....	47
Figure 11: Guatemala's Port System .....	48
Figure 12: Distribution graph of imported ceramics.....	53
Figure 13: Ecuador's exports to Guatemala.....	64
Figure 14: Ecuador's imports from Guatemala.....	66
Figure 15: SWOT Analysis.....	69
Figure 16: Guatemalan imports of the tariff heading 6907.90.00.....	73
Figure 17: Tariff preferences granted by Guatemala .....	74

\*

## **Resumen**

La Industria Cerámica Graiman, busca expandir sus mercados para la exportación de sus productos de cerámica plana, por lo que la presente prospección de mercados tiene la finalidad de identificar si Guatemala representa un mercado potencial para la comercialización de este producto. En el presente trabajo de investigación se analizarán las características del mercado y la influencia del acuerdo comercial con Guatemala, para evaluar la factibilidad de introducir los productos que ofrece la empresa. Todo esto por medio de la realización de un estudio de mercado y el análisis de los requisitos que el producto debe cumplir para ingresar en este nuevo mercado.

## **Abstract**

Graiman Ceramics Industry seeks to expand its export markets for products like ceramic tiles. The purpose of this market research is to determine if Guatemala represents a potential market to commercialize this products. In this investigation I will analyze some of the market's characteristics and the influence of the commercial agreement with Guatemala, which will help determining the feasibility of introducing the products that this industry offers. All of this will be accomplished with a market research and the study of all the requirements that this product must meet to be in the market.



## **Introduction**

The expansion of the Ecuadorian industries to new markets is an imminent need for their ongoing existence in the national and international market. The National Plan for Good Living and the Constitution of 2008 establishes the revitalization of the Ecuadorian productive sector, by implementing an active trade policy to diversify the products and markets of its exports. Along with this the change in the productive matrix has been a flashpoint to emphasize the export of value-added goods which contain high levels of knowledge, innovation and technological bases.

Knowing which the best markets are for a company or its products to enter is a fundamental factor to determine their success in the future. The purpose of this research work is to define the opportunities to expand Graiman Ceramics Industry in Guatemala, based on the situation of the trade agreement between Ecuador and Guatemala. To accomplish this research, it will be necessary to consider all the market factors related to the introduction of a new brand of ceramic tiles, such as the opportunities and threats that the market presents.

As it will be explained later, Graiman is a company located in Cuenca, Ecuador which manufactures ceramic and porcelain tiles since February 1994. The company has high expectations for entering new markets in the future, but the lack of external objective studies has determined the need to develop an investigation to meet these markets, which will be guided by the next research question: Is Guatemala an additional potential market for the export of ceramic tiles from Graiman Ceramics Industry?

A direct and indirect research will be conducted to develop this thesis, as well as qualitative and quantitative methods will be also needed to know the current situation of the company. It will be fundamental to have information about the company and its expectations of growth abroad. This information will be obtained by interviewing the leaders of the export and sales area of the company, and through the application of statistical data with the purpose of knowing better how Graiman's activities of foreign trade have changed during these years.

On the other hand, it will be necessary to know the characteristics of the Guatemalan market and to have statistical information that supports this investigation by a literature search in the available sources. Finally, a descriptive and bibliographic analysis will be carried out to achieve the objectives of this research work, such as determining the principal requirements to enter in the target market and the influence of the trade agreement between Ecuador and Guatemala.

## **CHAPTER I**

### **GRAIMAN'S CURRENT SITUATION**

#### **1.1 Introduction**

This chapter will talk about the main aspects about Graiman Ceramics Industry. In the first subtitle here can be found information about the history of this company, the growth of its operations through time, Graiman's mission and vision and which have been the strategic axes that have given it the success it has today.

Then an analysis about the company's production will be made, which will contain a description of the production process of ceramic tiles, characteristics of the plant, technological innovation that has been implemented, characteristics of the ceramic tiles this company manufactures and their applications.

At last, a study of this company's exports and growth expectations will be found. In this part it will be possible to know which the principal destinies of Graiman's ceramic exports are, how those target markets are selected and which qualities should the distributors have. Finally, I will talk about the competition that the ceramic tiles face at the international market from the perspective of Graiman's export area.

## 1.2 General information about the company



Source: Grauman

Grauman is a company founded in February 1994 in Cuenca, Ecuador. It produces ceramic and porcelain tiles. In the beginning the production plant, considered as one of the most modern plants in America, had the capacity to produce 1,500 meters per day. This added to the advantage of having its own raw material has let this factory to produce 32,000 meters per day. Its activities are directed to satisfy its clients' needs at the local and national level, as well as requirements from North American and Latin-American markets by its different strategies of marketing and sales.



Source: Ekos

Graiman's operations are based on its mission which is to produce and commercialize ceramic and porcelain tiles through the usage of advanced technologies, having in mind the importance of all quality standards, providing an efficient service, promoting the compliance of ethical and moral principles and consequently, allowing its human talent to improve their abilities and professional success (Graiman, 2015).

Similarly, the company focuses on three important elements that guide its developments through time. First, the company considers profitability as an aspect through which it obtains the expected earnings, which are the result of the added value it gives to its clients through the affordable products it manufactures. Leadership is the second part of Graiman's vision because it seeks to be at the vanguard and to have an important position in the market of building finishes. Some of the aspects that can determine the position that the company has are: design, technology, market tendencies and consumer tastes. Finally, the company and its employees consider to last over time is an important situation

that can be achieved with their everyday effort in keeping their prestige and recognition in the market (Graiman, 2015).

Graiman has defined its quality policy around the satisfaction of customers, compliance with quality standards, training of human talent and continuous improvement of its activities and processes by being a company with an important market growth and expansion into other countries of Latin America, and which has gained experience and knowledge about the dynamics of the market during its more than twenty years of existence. As a result of its success, Graiman has allowed the emergence of various competitive advantages that today demonstrate the contribution offered to the country and society from the company's quality products and services.

### **1.3 Production**

The ceramic production processes of either the products for floor and wall covering or the ceramic products that are used as containers, emerged with the first sedentary groups of human beings. It is considered that this activity appeared with the first civilizations because the techniques they developed are fundamentals that have lasted over time and now with all the technology and specialization “they continue to be the basis of modern ceramics industry” (Abad, 2013).

The word “ceramic” comes from the Greek “keramikos” meaning “of mud” (Galán, 2015). Thus it has been agreed to describe ceramic products as: “molded object with plastic natural raw materials and permanently hardened by heat” (Galán, 2015). In this case, it is about a product obtained from an industrial or ceramic process by which raw materials like natural clays, minerals and other additives form the ceramic tiles, and are transformed and hardened.

The manufacturing process of ceramic tiles has five stages: first selection and preparation of raw materials. Second, preparation of the ceramic body, that is to say, the process of mixing, homogenization and kneading all the components. Third, is the molding process, then drying, and finally, the firing process when the ceramic body gets in the furnace. As a result of this set of activities the ceramic tiles are created to be one of the most important elements in the sector of the building finishes and a product whose quality and design has given it the opportunity to be part of the goods that are traded internationally through exports.



Source: Graiman

Graiman has had an important technological innovation since 1992 when its general manager Alfredo Peña Payró and his coworkers drove some reforms to automate the factory's facilities to the point that each of its processes (grinding, atomization, pressing, drying, firing, enameled, selection and packing) had developed around integrated systems, interconnection with its suppliers through online web systems, applying robotics and standardized processes, which have improved the factory's competitiveness and put it at the forefront thanks to its technological platform (El Mercurio, 2012).

In regard to the product that Graiman offers to the market, it is important to emphasize its main characteristics, as well as its applications and formats. The company manufactures ceramic tiles with unique designs for lining floors and walls in different environments. In the case of the ceramic wall, Graiman provides 20x30 cm, 25x35 cm and 25x44 cm formats, and the formats for the floor are 30x30 cm, 40x40 cm and 45x45 cm. Furthermore, these products are classified in three big categories: classic, rustic and contemporary. Each category and ceramic style has its own lines within which it is possible to appreciate diverse shades and colors that differentiate them from each other.

One of the factors that has determined the excellent productivity of this and other companies in the ceramic industry in the digital printing technology known as Inkjet. This technology provides multiple competitive advantages over companies that continue to use traditional techniques that represent higher costs in terms of limited product customization and production time. The Inkjet digital printing “is based on the formation of an image from the controlled deposition of droplets which coalesce to form the image” on each tile (Cemitec, 2008). Besides its high-speed printing is determined by electronic advances and in the manufacture of high definition heads, thereby enabling to obtain unique products with sharp finishes that provide strength and color durability of the ceramic tiles.

As mentioned above, Graiman has a major competitive advantage due to its automated production system. Thus Graiman has successfully implemented the usage of robots to transport ceramic to and from the furnaces. Robots move by a laser system to predetermined areas through preprogramming made by the operators of this machines. It is thought that the implementation of such systems can cause a staff reduction in the company; however, as its managers assert, it has been possible to reallocate the workforce in other stages of the process in a more efficient way (El Mercurio, 2012).





Source: Ekos

On the other hand, it is important to mention the quality certificates and compliance with standards such as ISO 9001 (2008) and Carbon Neutral Certificate, that Graiman obtained and they have been useful to show a perfect presentation folder when expanding outside its home market.

#### **1.4 Exports and growth expectations**

The exportation process of Graiman as well as of other Ecuadorian and international companies has many aspects that should be considered like the markets to export their products and the possibilities to expand their company. Graiman annually exports approximately 6,000,000 meters of ceramic and porcelain tiles, which are commercialized in nine countries of the American continent and the Caribbean such as: Argentina, Chile, Colombia, United States of America, Panama, Peru, Dominican Republic and Venezuela.

According to information obtained from the company, 47% of the exports go to the United States, 17% to Colombia, 14% to Panama, 11% to Chile, 6% to Peru and 5% to Venezuela and lower percentages go to other countries. It should be noted that in order to introduce its products in these countries, Graiman has had to consider several characteristics that the product must fulfill to be exported, such as international production standards (ISO), the requirements of the importing country on labeling, packaging, weight, formats, among others, and having an export quality product.

On the other hand, it should be considered the way in which Graiman identifies its target markets and its distributors in each of them. To define a market the company conducts a market study that helps determining the demand of construction finishes concerning ceramic and porcelain tiles. Moreover the country's growth rate and the competition within it, are also considered in this analysis. This study provides important information for the company and helps to come to a conclusion about how feasible the market is to enter and establish its brand and products at competitive prices for that market.

Logistics are also considered because transit and freight rates are very important for the customer through the cost of the product and the profit that the exports bring to the company. Another important fact is that Graiman does not have more than one distributor in each country, except the United States, because managing a unique distributor in such a big market with the size of its existing demand is impossible. As well as Graiman performs market studies to know which countries are the best to export its products, this company also conducts studies to know some references, portfolio information, reputation, and size of the distributor. All of this is done because when exporting a product the company gives a credit of 30 to 90 days and it is important to know that the reliance and credibility of the distributor are ideal to avoid future problems.

The ceramic products face a very hard competition in the international market because there are all kinds of products of varying quality and price. The star markets, according to the company, are Italy and Spain since they manage high prices and quality, as well as trendsetters like design and innovation that define the ceramic and porcelain styles around the world. However, there is another global provider, China, that in recent decades has stood for manufacturing its products with all kinds of quality and designs, thanks to the development of new technologies and its low cost raw materials. Graiman's main competitors in its target markets are the products from Peru, Colombia, México and Brazil that in a certain way are at the same level as Graiman in relation to design, innovation and price.

In regards to growth expectations, Graiman has an annual growth projection that in 2015 was to reach 10% to 15% growth in existing markets. To achieve this there are several factors that have allowed the company to differentiate itself in markets such as quality, logistics, transit time of merchandise, freight costs, production, reduce the time it takes to fill an order, the use of inkjet technology, being a recognized brand in more than seven countries and compliance with international certificates.

The aspects that contribute to its expansion are the use of new furnaces, which have been implemented in the first quarter of 2015 and would provide enough stock to export to new markets. Besides what has generated an important contribution to the company are the technological advances within the plant, creating new formats and designs, as well as new strategies for advertising and marketing to deliver a greater value to the distributors and therefore, to the final consumer.

## **1.5 Conclusion**

Thanks to information provided mainly by Graiman's export department, it can be concluded that this company is in one of the best stages of its path because its experience in national and international markets have provided the necessary knowledge to be a competitive company in the different environments in which it works.

Graiman has been developed as a distinguished brand from the start in its country of origin, because it has opted to build strategies that include and integrate the various areas that make up the company to provide greater customer satisfaction. Besides this, it has focused on issues such as constant investment in innovation and technology that allow it to apply new market trends in its products due to changes in preferences and consumer's behavior.

All of this has been reflected in Graiman's expansion to the markets in which it has participated for a long time so that their production and exports have significant growth through the proper selection of its distributors in Latin America, the Caribbean and North America. As it was known in this chapter, all the decisions made by the company towards going to other destinations require a preliminary market study that allows to know the advantages and disadvantages of its expansion. For this reason, in the next chapter a research of the Guatemalan market can be appreciated as the purpose of this research work.

## **CHAPTER II**

### **GUATEMALAN MARKET SURVEY**

#### **2.1 Introduction**

A market research is a study that is meant to inform various aspects of a market that the company wants to enter. In this research work the market that is going to be studied is Guatemala mainly due to the existence of a trade agreement between Ecuador and this Central American country. Next, some points related to the characteristics of the market will be studied. This analysis will contain general information, such as location, currency, social, economic and political data, and a more detailed research about the ceramic products' market of Guatemala.

Adding to this market research, ceramic imports and exports will also be examined with the objective of recognizing the principal providers and destinies of this product's exports and at the same time to analyze the competition. As a next point, tariff and non-tariff barriers will be considered, as well as the requirements that a product must meet to enter the market.

Finally, some aspects will be shown about access routes to this country for the export of ceramic products. As it can be seen, seaports, roads for ground transportation and the major airports in Guatemala will be analyzed. Hand in hand with what was mentioned above it will be found a description of the channels that are used in Guatemala to distribute ceramic products until it gets to the final customer's hands.

## **2.2 Market information**

### **2.2.1 General information**

The Republic of Guatemala is located in Central America, it is bordered by México to the north and west, El Salvador and Honduras to the southeast, Belize and the Caribbean Sea to the northeast and the Pacific Ocean to the south. This country of Mayan roots, a civilization that reached its peak during the first millennium, after three centuries as a Spanish colony it won its independence with the signing of the minutes on September 15, 1821. Its first constitution was written on October 11, 1825. It has a land area of 108,890 km<sup>2</sup> and is made up of 22 departments and 334 municipalities. Its capital is the city of Guatemala. It has a total population of 16 million 176 thousand 133 inhabitants (INE, 2015).

Guatemala's currency is Quetzal and its official language in Spanish; however, there are also 23 Indigenous languages that are spoken in this country. In regard to the religion professed in Guatemala, Catholicism has more followers, and because the Guatemalan constitution, as in most countries around the world, guarantees freedom of worship in some indigenous communities this religion is practiced along with pre-Columbian rites and Mayan beliefs. On the other hand, Protestantism is another religion which has approximately 20% of adepts.

As for the political aspects of this country, Guatemala is a free, independent and sovereign state, whose form of government is republican, democratic and representative (Constitution of the Republic of Guatemala, 1993). Political power in Guatemala is made by the Legislative, Executive and Judicial branches. The Executive branch is headed by

the President of the Republic, who plays the role of Head of State and Government, is currently represented by Lic. Alejandro Maldonado Aguirre since September 3, 2015. On its behalf, the Legislative branch is represented by the Congress of the Republic and the Judicial branch by the Supreme Court of Justice.

The Republic of Guatemala maintains diplomatic relations with 155 countries and has 40 embassies in various countries around the world. In regards to its multilateral relations, Guatemala is part of the following international organizations of different type: the United Nations, the World Trade Organization, the Central American Common Market, the Community of Latin American and Caribbean States, the Central American Integration System, the Organization of American States, among others.

In the economic sphere, the per capita GDP of Guatemala according to World Bank data in 2014 was \$3,667,00, and taking into account previous years' data (in 2011 \$3,166,60, in 2012 \$3,278,60, and in 2013 \$3,432,00) it can be inferred that this economic indicator has been growing regularly representing an increase of 2% in 2011, 3,0% in 2012, 3,3% in 2013 and 4,2% in 2014. In addition analyzing the GDP divided into sectors, agriculture represents 11,5% of this indicator's composition, industry 29% and services 59,5% of the GDP.

On the other hand, considering the foreign trade activities of the country, it can be seen that in the last year registered in the World Bank data (2014), exports represent 23,1% of Guatemala's GDP and imports 33,2%. In the year 2014 according to information from Trade Map, Guatemala's exports totaled \$10,890,691, being the main products: sugar, edible fruits, clothing, coffee, oil, minerals, among others; and the countries to which it exports: are the United States, El Salvador, Honduras, Nicaragua, Mexico, etc. As for imports, in 2014 these were \$18,263,244. The imported products are: fuels, machinery, mechanical appliances, vehicles, building materials, pharmaceutical products, chemicals,

etc and the main suppliers: the United States, Mexico, China, El Salvador, and Panama, among others.

Taking into account the demographics of this country, Guatemala is the most populous country in Central America with one of the highest population growth rates in Latin America. As mentioned above, according to data of 2015 from the National Institute of Statistics, Guatemala has 16,176,133 inhabitants of which 51% are women and 49% are men. The annual population growth in Guatemala is 2,34% due to high fertility rates and a large population in reproductive age. The highest percentages of population can be found between the ages of 0-14 years (35,57%), 15-24 years (21,99%), and 25-54, (3,93%) of the total population (The World Factbook, 2015).

Guatemala City is the largest urban center of this country and since it is its capital, it is home to 2,918 million Guatemalans. Additionally, it should be known that 51,6% of the population lives in urban areas. Expenditures on health with reference to Guatemala's GDP are 6,5% giving as a result that 92,8% of the population has access to water sources and 63,9% has access to health services. In addition, it must be considered that education expenditures account for 2,8% of gross domestic product; however, it can be seen that of all the population 81,5% is literate and has attended schools for a minimum of 11 years. As for the activities that the population develops it can be found that 38% of the population is engaged in agriculture-related activities, 14% in industrial work and the remaining 48% works in the services sector.

In regards to access roads and resources that allow the development of this country, Guatemala has 16 airports, and the largest seaports in Guatemala are Quetzal port and Santo Tomas de Castilla port. Its pipeline system has a total length of 480 km. Its railways cover a total of 800 km.



Finally, the technological development in Guatemala is in charge of the National System of Science and Technology -SINCYT- whose role is to foster activities to organize and promote science and technology. The SINCYT is composed of public, private and academic organizations related to the topic. The strategy that manages this system is guided by the National Plan for Science, Technology and Innovation 2005-2014, which has three action lines: development and strengthening of the system, through human resources, education, research and development finance and cooperation, etc.; development of productivity, quality and competitiveness through the creation of products and services, research, technology transfer and innovation, scientific publications, quality; and scientific and technological contribution, through education, health, environment, natural resources, energy and mining, farming industry, culture and improving public services (Agexport, 2015).

### **2.2.2 Guatemalan ceramic producers**

Among the main producers of ceramic floors in Guatemala the companies that stand out in this market are Samboro, Hispacensa and Pisos El Águila, which will be analyzed below.

## **Samboro**



Source: Samboro S.A.

Samboro S.A. is a Guatemalan company founded in 1989. The first objective that this company had in its origins was to manufacture tile; however, over time and for various reasons the horizon of this thriving company was changed towards the creation of ceramic floor, tiles and fachaletas to distribute them inside and outside the country.

One of the successful factors of this company has been the implementation of new technologies and the constant modernization of the machinery, which in 1997 gave it the opportunity to establish itself in the market and within the industry to offer its customers unique and exclusive designs with which they could start decorating their environments in different ways.

Thus the company has expanded to local and international levels reaching markets such as Chile, Peru, Colombia, Venezuela, Panama, Central America, Belize, Mexico, Dominican Republic, Puerto Rico, the United States, Martinique and French Guiana where it currently exports its recognized products (Samboro, 2015). That is why it has been possible to demonstrate an increase in its production which initially was 760 m<sup>2</sup> per day and currently reaches 35,000 m<sup>2</sup> per day.



Source: Samboro S.A.

An important milestone that marked new trends worldwide and a major impact in the case of this company in particular has been digital printing, Inkjet technology. According to the sales manager of Samboro S.A., Alejandro Delgado Ayau, this technology has been applied in the company for three years with the intention of offering natural styles and finishes in ceramic such as wood or granite.

As for the designs and formats that this company manufactures, it should be noted that these are differentiated by the use of digital technology and that this year a new format of 61 cm x 61 cm has been incorporated with the purpose of having more opportunities to compete with ceramics imported from other countries such as China or Spain. Moreover, thanks to the innovation of techniques and machinery Samboro S.A. has succeeded to manufacture the products of the Spanish brand Keraben in Guatemala, brand whose final destination are the United States, Latin America and the Caribbean.

Finally, it must be highlighted that one of Samboro's competitive advantages is the investment of its partners in technological aspects that have provided extensive support and great benefits for the company to develop different projects that their clients rely on them to develop. Samboro S.A. products can be appreciated in various projects ranging from homes, restaurants, supermarkets to Guatemala's buildings, as well as residential complexes that have been built in Panama, and fast food chains like McDonald's.



Source: Samboro S.A.

## Hispacensa



Source: Hispacensa

Hispacensa is a company of Guatemalan origin whose long career of over 30 years in the market has contributed to become a major ceramic center with cutting-edge products in both design and quality. Its leadership in Central America and the Caribbean has been achieved through three key aspects the market demands: price, beauty and accessibility (Hispacensa, 2015). As for the important features in the manufacture of its products, Hispacensa has been concerned about quality, design, technology, and durability to give its brand prestige and recognition and in turn to make their products required in the market.

Its factory is located in Sanarate, Guatemala, it has over 400,000 square meters and is the most advanced factory in Central America and the Caribbean. The plant produces monthly more than 700,000 square meters between tile and ceramic and it exceeds national and international standards through its excellent technical team and qualified human talent. The company's distributors are located in Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Puerto Rico, Dominican Republic and Belize.



Source: Hispacensa

Hispacensa's collections and designs are the result of a process in which business partners around the world investigate, collect and transmit current information about the trends which have had better acceptance in other countries to adapt them locally. All of this thanks to a feedback generated from customers' tastes and preferences to better meet their needs. Therefore, Hispacensa enables the fact of providing complete assurance and trust in their products in regards to quality and modern designs that meet the consumer's demands.

The development that the company has had since its origin in February 1981 has allowed to focus his vision and mission towards creating a strategy based on creativity, innovation and design of its products, while generating a competitive advantage in its marketing and "brand positioning as a symbol of quality and service" (Hispacensa, 2015). That is why the company has established its vision to be the largest producer of ceramics, whose knowledge is not only limited to its procedures but also focuses on customers in order to offer the best solutions and designs. All of this with the purpose to be defined as a company that not only offers its products, but also worries about offering a quality service with high added value to its customers.



As for its mission, the company makes clear its purpose to develop and join its activities altogether so that it is leader in Central America and the Caribbean as producers of ceramic of first quality with modern designs, through the use of innovative technology, to then offer competitive prices with a greater profitability, taking into account ethical and moral values, and meeting the needs of its customers (Hispacensa, 2015).



Source: Hispacensa

## Pisos El Águila



Source: Pisos El Águila

Pisos El Águila is a Guatemalan company with more than 85 years of experience, which has given it the possibility to be one of the oldest companies within the ceramics industry in Latin America. This company is specialized in the manufacture of floor and wall coverings, such as tile, ceramic and porcelain tile, curbs, “fachaletas”, mosaics, natural stone, etc. Its main objective is to create high quality products that allow easy installation and offer consumers high durability after being installed. Its important path has allowed Pisos El Águila to become a regional leader in the creation of indoor and outdoor environments.

The company is mainly characterized by constantly innovating its designs, shapes and textures, by manufacturing its products with advanced equipment and high technology, and by using raw materials and supplies of excellent quality. As discussed below, the products of Pisos El Águila can be found in different infrastructures such as residential, commercial, industrial areas and have managed to raise the return on investment of customers, and of course, provide added value to the design and finish of these buildings.



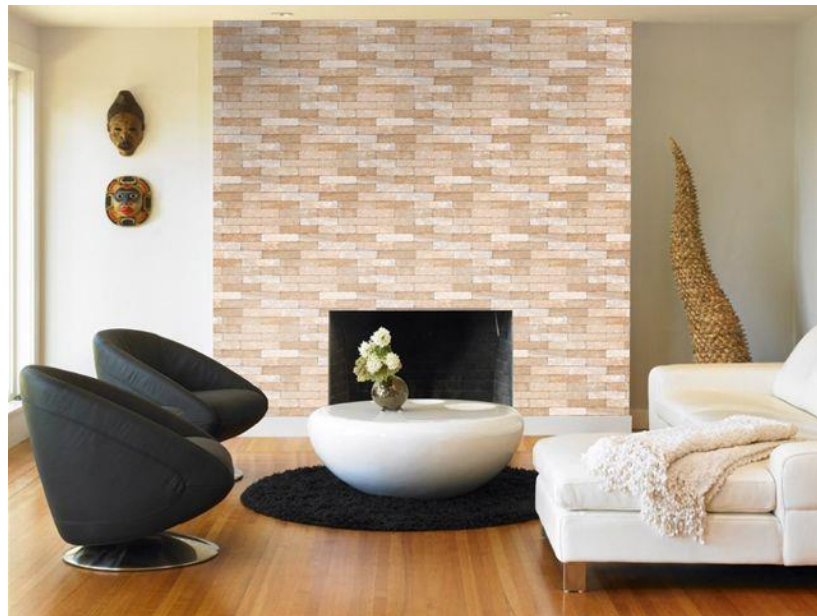
Today, the company's tiles and ceramic floors can be seen in a "great number of major buildings and facilities throughout Central America and the Caribbean" (Pisos El Águila, 2015). Its products are distributed in five countries of this region such as Belize, El Salvador, Honduras, Nicaragua and Costa Rica.



Source: Pisos El Águila

Pisos El Águila has been able to define its target market within a broad sector that includes different socioeconomic levels. All this because of the extensive range of products and options for covering floors and walls. A common feature that can be distinguished between the company's customers is that all of them examine and require products and services of the highest quality, from the widest variety of formats, designs and latest technologies; and the support, as well as warranty and responsibility that the company has strengthened during its lifetime.

The projects in which this company has participated are shopping centers (C.C Portales, Centranorte, Plaza Pacific Zona 15, Plaza Sankris, etc.), restaurants (Wendy's and San Martín Majadas), buildings (Continental Motores and Torre Condesa), residential projects (La Ponderosa, Vía 7, Santa Elena del Lago), hotels (Camino Real Antigua Guatemala, Costa Real El Salvador, Ramada Inn Costa Rica) and other projects of different kinds in which its products have been part of the decoration and architectural finishes of different spaces (Pisos El Águila, 2015).



Source: Pisos El Águila

### **2.2.3 Existing demand**

To highlight the use of ceramic products in Guatemala it is important to consider the data provided by the Guatemalan Construction Chamber, because there is a close relationship between construction and ceramic floors as a construction finish. For this reason the licenses granted for the construction are analyzed, which in 2013 were 7,769 authorized licenses (ABG, 2014). Compared to 2010, year in which 3,378 licenses were issued, in

2013 an increase is shown of 43,48%. According to this data it is possible to say that thanks to the expansion of urban centers through the construction of various commercial and residential projects, the ceramics demand in Guatemala grows constantly giving companies the opportunity to participate in this important Central American market.

In the following graph of the Guatemalan Construction Chamber this is demonstrated, representing construction sector’s annual growth from 2001 to 2014, which has not been sustained, but has had notable declines especially in the period from 2009 to 2010, when the global economic crisis affected most sectors of the world’s economies. However, it can be seen that since 2012 there has been an increase of 0.9% in 2013 and 2.7% in 2014.

Figure 1: Guatemalan Construction Sector Growth



Source: Guatemalan Construction Chamber

In addition to this, the location of the ceramics demand should be considered, which is possible through an analysis of the construction in different regions and main urban centers of this country. According to data from the Guatemalan Construction Chamber most projects are located in Guatemala City, Quetzaltenango and Escuintla. The buildings that have been made in these sectors can be defined according to the total licenses of December 2013 that 62,0% has been approved for housing, 31,70% for expansions, 5,8% for trade and 0,5% for building industry (ABG, 2015).

Internationally Guatemala is considered as a country where the demand for ceramic products is very high due to the reactivation of the construction sector in its different regions. An example of this is a publication of Proexport Colombia (2014) in which Central American countries like Guatemala and Costa Rica are considered as the main destinations of ceramic products exports for "representing a great potential in the region" within the business rounds in Norte de Santander on March 24 and 25, 2014.

As it can be seen Guatemala is one of the main destinations for ceramics' export; however, domestic production also plays a key role in the supply of this product. This is reflected in the analysis of the product's situation in Guatemala which suggests that the domestic product's consumption is 75% and imported ceramic floors represents 25% of total consumption of the product (Pro Ecuador, 2011). With this analysis we can infer that Guatemalan ceramic manufacturers, including those discussed above have managed to specialize in the production of this type of construction finishes offering customers competitive products both in quality/design and price, making them cover three-quarters of the product's demand.

As for the qualitative characteristics of the ceramics demand in Guatemala, one should consider that it is high, since ceramic is one of the products whose purchase remains constant throughout the year. This is mainly because construction is an activity that

remains more active in the summer, i.e. from October to May, however, this product is purchased by the consumer in advance to be subsequently placed (ICEX, 2012).

By analyzing the Guatemalan ceramics demand there are three important factors to consider, and these are: price, quality and innovation. These three aspects define both domestic producers and foreign companies' approach, since being a vast market that covers a great competition within, to develop a strategy that combines everything that the client requires and demands to get the offered products is ideal. Therefore, these elements will be discussed in more detail in the next section of the consumer profile.

#### **2.2.4 Consumer profile**

As stated above, the most important aspects considered by Guatemalan ceramic consumers are price, quality and innovation. As in most markets around the world thanks to globalization, in Guatemala it is possible to obtain products of all kinds of quality, from different places and prices that vary depending on product features and its manufacture. It is for this reason that although the Guatemalan demand takes into account price and differences between products depending on this factor, it also considers product's quality.

In the Guatemalan market, the supply of tiles for finishes is too broad, as foreign trade provided new competitors the ease to enter the market and the economy's self-development at the national level has allowed producers to consider quality as an important factor in determining customer preferences when making their purchases. Quality is an issue that has had a major impact in recent decades being able to create certifying institutions of quality standards for products, services and processes, and a variety of concepts that have raised consumer's awareness about their right to get products whose real value is in accordance with what they are paying.

Quality is one of the aspects that provides differentiation between brands and products that compete to position their name in the market. Quality is also defined as the strength and durability of the products, thus consumers have also defined a market niche in which ceramic is chosen and selected from others by the advantages it provides to the consumer, who wants to get a product for life which does not require constant maintenance. Another factor that goes hand in hand with quality is the recognition of the brand or product in the market, since they influence consumer's decisions and facilitate them.

On the other hand, the customer also has another fact in mind and this is innovation and design of the ceramic product with which he/she decorates his/her spaces. As discussed above, ceramic producers in Guatemala are very conscious about ceramic styles, new lines and global trends for the manufacture of this product. For this purpose several market studies which analyzed the real requirements and customer expectations are done, and this is how companies keep their mind focused on the customer and shape the market to suit their desires. Today there are a large number of consumers who are very concerned about luxury, exclusivity and customization of products or environments that can be created with the ceramic tiles in their homes. Such clients have a high purchasing power that allows them to also obtain a high quality product with a unique design and that personalizes their spaces.

This trend to supply and demand innovative products, quality and at a low cost was also born from international demands that is to say from the consumers of Guatemalan products and in general foreign products entering through commerce in first world countries such as the European Union. Due to the Association Agreement between the European Union and six Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama) which was signed on June 29 2012, Central American exporters began to consider the existence of two types of consumers in Europe. There is

a segment that because of their purchasing power is concerned to acquire good quality products with certifications regardless of price, and another segment of consumers who are more affected by high prices on the market and look for products of the same quality that please their needs but at a lower cost.

This justifies the producers' interest to meet customer needs and manufacture products that meet them. And it is for this reason that the relationship between the national and international market is very important because it allows to establish new patterns of consumer behavior and seek efficient strategies to meet them and benefit from that information.

In Guatemala it is common for the customer to make several visits to hardware stores, ceramic centers and showrooms to analyze products, prices and information to select their favorite place to shop. In addition it must be taken into account the purpose of the purchase, that is to say the place or environment that the customer wants to decorate in order to define what type of ceramic has the best qualities to coat that environment. Therefore, it is important that customers are guided either by their architects, designers, consultants or salesmen in shopping centers so that they can make the best choice. All this because, as explained above, the ceramic factories or trading centers offer different types of products such as glazed or not glazed ceramics, rustic tiles, "listelos", friezes, tiles, porcelain, different styles to decorate floors, bathrooms, kitchens, patios, halls, and a number of environments that are available to the final consumer.

### **2.2.5 Additional information**

In addition to what was detailed above it is important to consider the existing information on starting a business in Guatemala. This information has been obtained from "Doing

Business" a web page of the World Bank, which allows to analyze the ease of starting a business in 189 countries around the world through various indicators that provide a good starting point for decision-making. The following table will allow to observe each of these indicators and in turn, the position of the country analyzed in this research.

Figure 2: Starting a business in Guatemala

Topics	2016 Rank	2015 Rank	Change in Rank
Starting a business	101	99	-2
Dealing with construction permits	106	104	-2
Getting electricity	21	18	-3
Registering property	75	74	-1
Getting credit	15	12	-3
Protecting minority investors	174	173	-1
Paying taxes	50	54	4
Trading across borders	78	81	3
Enforcing contracts	173	173	-
Resolving insolvency	153	153	-

Source: Doing Business

As it can be seen in the table, Guatemala has lose position in most indicators, however, regarding the handling of building permits it should be considered that in accordance to Doing Business (2015), there are 11 procedures for obtaining these permits in Guatemala when normally in Latin America and the Caribbean 14 procedures should be done. As for the time to obtain them, it takes 158 days to get a construction permit while in the rest of the region 178 days are needed.

To start a business in Guatemala, 6 procedures must be accomplished in a period of 18 days, while in the rest of the region is common that there are more than 8 procedures and their compliance takes approximately 29 days (Doing Business, 2015). The indicator that shows big difference is "Registering property" when pointing out that this can be



completed within a period of 24 days, while in Latin America and the Caribbean it requires an estimated time of 63 days.

Finally, it should be mentioned that the indicator “Trading across borders” obtained from the analysis of coffee’s import and export from the United States, it has been possible to know that this product’s import in Guatemala involves a cost of \$405 compared to \$665 in the rest of the region in regards to meeting border procedures, and in a period of 72 and 107 days respectively. While the cost and time for documentary compliance are \$140 and 32 days in Guatemala, and \$128 and 93 days in Latin America and the Caribbean.

## **2.3 Foreign Trade**

Part of the purpose of this research is to analyze foreign trade activities carried out in Guatemala in relation to ceramics with the aim of meeting its main foreign tile suppliers, as well as the destinations of the national ceramics’ production and the percentages that each represents.

That is why to start analyzing the product’s imports and exports it is essential to know the tariff classification of the product under study. In Ecuador NANDINA (Common Tariff Nomenclature of the Andean Community), and in Guatemala SAC (Central American Tariff System), are the tariff classification for ceramic floors and walls is 6908.90.00. This classification consists of a chapter, item and tariff fraction as shown below:

**Chapter:** 69 Ceramic products.

**Item:** 69.08 Slabs and ceramic tiles, varnished or enameled for paving or lining; cubes, dice and similar ceramic articles, for mosaics, varnished or enameled, even with support.

**Tariff fraction:** 6908.90.00 other floor tiles and glazed tiles.

### **2.3.1 Ceramic imports in Guatemala**

Guatemalan ceramic imports have grown regarding the FOB value during the period 2010-2014. Analyzing the percentage growth of the ceramic imports in Guatemala according to the FOB value, it can be obtained that this has decreased over the years obtaining the following results: 23,5% growth in 2011 over the previous year, 15,9% in 2012, 7,8% in 2013 and -1,57% in 2014. Total imports of the product reached \$16,374,000 in 2010 and \$24,874,000 in 2014 according to the website of foreign trade statistics Trade Map (2016).

The following table shows the main exporters of the tariff heading 690890 to Guatemala.

Figure 3: Guatemalan ceramic imports

Exporters	2010	2011	2012	2013	2014
World	16,374	20,230	23,444	25,272	24,874
Mexico	7,224	10,538	12,113	15,113	14,092
China	3,452	3,404	5,256	4,223	3,983
Brazil	1,450	1,396	1,225	1,578	2,348
Spain	2,055	2,310	2,351	1,623	1,877
United Arab Emirates	297	359	609	336	607
Colombia	561	558	682	666	598

Source: Trade Map

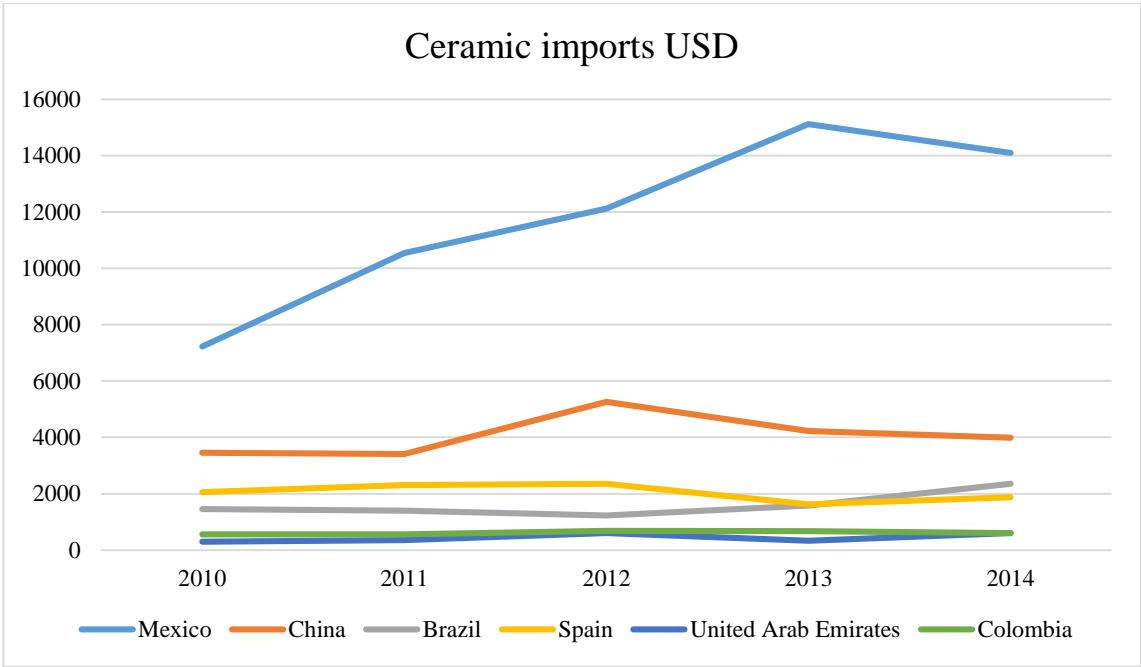
Unit: USD thousand

As shown in the table above, ceramic imports come mainly from Mexico, China, Brazil, Spain, United Arab Emirates and Colombia according to the statistics web page Trade Map (2016). As it can be seen, in the case of Mexico during the past five years ceramic imports have had an accelerated growth ranging from \$7,224,000 in 2010 to \$14,092,000 in 2014 (Trade Map, 2016). The most significant growth that can be seen goes from 2011 to 2013, when imports from Mexico grew by approximately 109%.

The second largest supplier of ceramics to Guatemala is China, which despite maintaining low export levels of this product in 2010 and 2011, during the following three years it has demonstrated a sustained growth, not as high as Mexico but reaching 3,983 thousand dollars exported to this country. In the case of Brazil, considered the third largest exporter of ceramic to Guatemala, it has shown a growth of 91,6% from 2012 to 2014. In the past year Brazilian exports of the tariff heading 690890 to Guatemala reached \$ 2,348,000.

Finally, it can be found countries like Spain, United Arab Emirates and Colombia in the fourth, fifth and sixth position respectively, the first one with ceramic exports totaling \$1,877,000 in 2014, \$607,000 the second country and \$598,000 the third country.

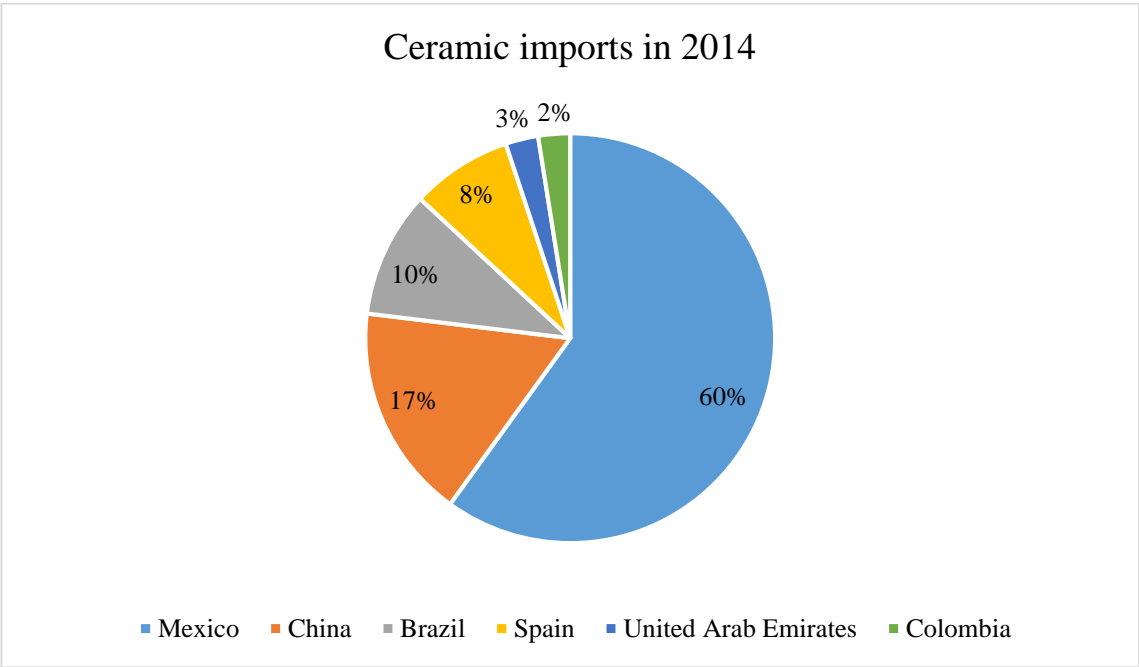
Figure 4: Ceramic imports USD



Source: Trade Map

To culminate with the Guatemalan imports of this product it should be noted that Mexico represented 60% of the imports in 2014, China 17%, Brazil 10%, Spain 8%, Arab Emirates 3%, and Colombia 2%.

Figure 5: Ceramic imports in 2014



Source: Trade Map

**2.3.2 Ceramic exports in Guatemala**

In general ceramic exports in Guatemala as shown in the following table have not been constant, and they have had variations from one year to another. The years in which more ceramic was exported, considering FOB value, were 2011 and 2012. However, it should be considered that there has been a significant decrease of 11,4% and 6% in 2013, and in 2014 it has shown a minimal growth of 0,16 % (Trade Map, 2016). These inequalities

between import and export trends that can be analyzed as one being constant and the other variable, allow to consider that in Guatemala, as in other Latin American countries, the number of imports exceeds exports, besides the fact that the demand for foreign products remains constant and grows over time which disables domestic manufacturers to completely satisfy it.

Figure 6: Guatemalan ceramic exports

Importers	2010	2011	2012	2013	2014
World	38,906	44,697	47,487	42,052	42,122
Honduras	14,450	17,297	17,728	14,827	14,874
El Salvador	10,938	12,316	14,304	13,046	13,285
Nicaragua	5,470	5,307	6,327	6,364	5,721
Costa Rica	4,380	5,890	5,619	5,507	5,061
Panama	1,017	1,445	1,030	868	1,019

Source: Trade Map

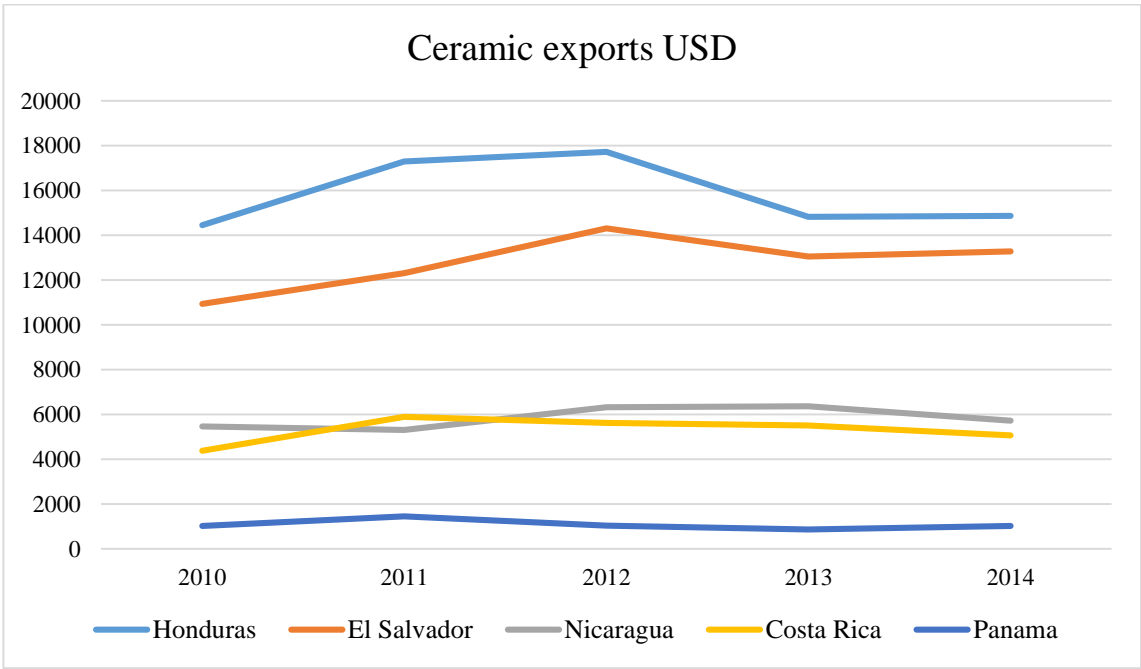
Unit: USD thousand

On the other hand, in the case of ceramic exports from Guatemala it can be seen that the main destinations for this domestic products are Honduras, El Salvador, Nicaragua, Costa Rica and Panama. According Trade Map, exports to Honduras have had variations considering that in 2010 they represented \$14,450,000, in 2012 they came to \$17,728,000, but in 2013 exports dropped to \$14,827,000, and from that year they increased to \$14,874,000 in 2014 (2016). In the case of El Salvador something similar happened, being 2010, 2011 and 2012 the years in which the Guatemalan product imports grew, and in 2013 they presented a decrease of 8,8% and a small increase in 2014, 1,83%.

Exports to Nicaragua and Costa Rica over the past five years have been found in the same rank from \$4,380,000 to \$ 6,427,000, being the highest and lowest exports to Costa Rica

in 2010 and Nicaragua in 2012. Moreover, Panama, by being in the fifth place, has been a non very desired destination for Guatemalans to make their exports, considering that, from 2011 to 2013 its imports showed a decrease and in 2014 they increased almost insignificantly but still this country continues ranking fifth in the ceramic exports of Guatemala.

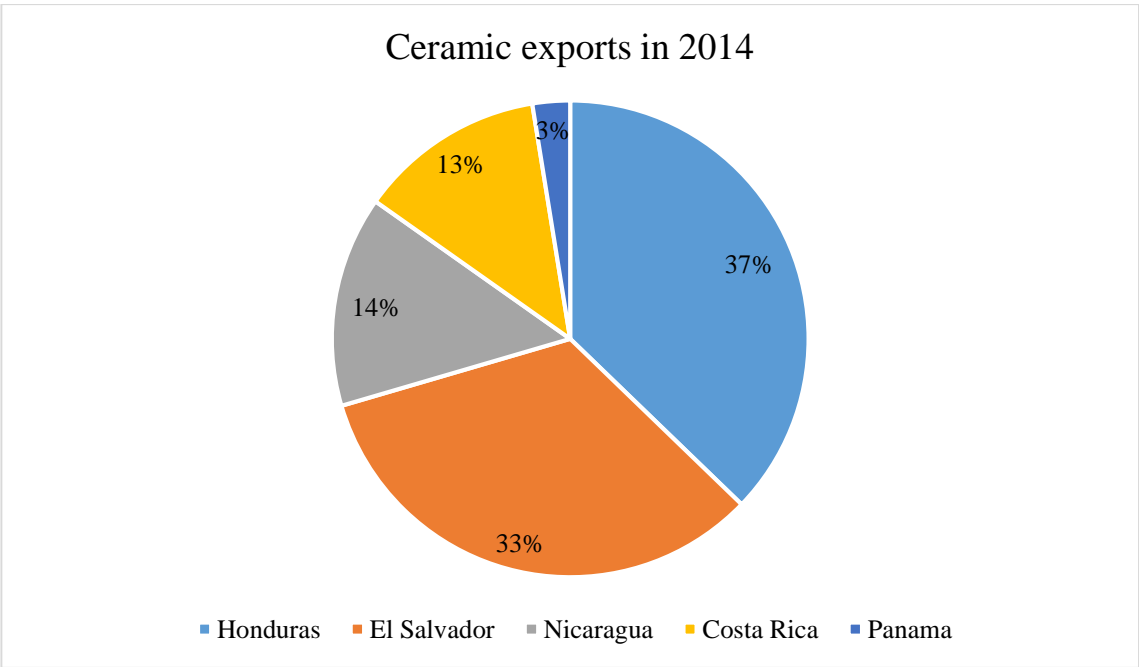
Figure 7: Ceramic exports USD



Source: Trade Map

As shown in the graph below, ceramic exports have two preferred destinations to which they are exported mostly these are Honduras and El Salvador, which represent 37% and 33% of the exports respectively. 14% of ceramic products exports goes to Nicaragua, then it is followed by Costa Rica with 13% and finally Panama with 3%.

Figure 8: Ceramic exports in 2014



Source: Trade Map

**2.4 Competition**

In Guatemala companies face national and international competition. Among domestic companies there are producers like Samboro, Hispacensa, Pisos El Águila, shopping centers such as hardware stores, department stores, building companies and building materials distributors, among others.



It can be said that in recent years this competition has grown thanks to new market trends of providing better service to the final consumer that has driven the direct sale of ceramic products allowing a closer relationship between manufacturer and consumer. Therefore, there are more Guatemalan companies that have a retail outlet with showrooms and areas dedicated to the design of environments, where designers and clients meet with the objective of decorating their spaces with ceramics whose qualities suit customer's needs. Thus manufacturers can boost their products' sales and provide immediate solutions to any consumer's requirement fostering their relationship after the sale. This type of services offered by companies today will provide added value to the product and thus raise sales making them increasingly competitive within the market.

Meanwhile, dealers are also seeking ways to stay in the market and through various advertising campaigns in print (newspapers and magazines) and digital media (television and radio), promotions and through their participation in fairs, they seek to offer products at lower prices than manufacturers. One of their competitive advantages may also be the variety of products that the customer can find in their facilities, as it is the case of hardware stores because they have a wide variety of materials that the builder may need from the beginning to the completion of his/her work, where coatings and innovative finish materials of different price and quality are needed. Similarly, the distributor also benefits from selling supplemental materials to ceramic floors that consumers are looking for. Among the main distributors of building materials and ceramics are: Cerámicas Decorativas SA (The Ceramicón), Instalaciones Modernas, Super Mayen, Ferretería y Materiales de Construcción FERCO Corporación Arcoíris, El Punto de la Cerámica, Interceramic and Cemaco, among others.

As for the international competition, it is mainly represented by the Central American Common Market countries such as Costa Rica, El Salvador, Honduras and Nicaragua,

whose advantages are geographical proximity, uniform customs clearance and the fact that they manage a 0% tariff in their imports from the members of the Common Market of this region (Pro Ecuador, 2011).

Additionally, there are also world powers like China and the United States whose exports of ceramic products often exceed those of Guatemala's neighboring countries. In the case of China, traders can find suppliers and Chinese companies that offer products of a vast range of designs, prices and quality. In several countries in the world, China has been characterized by offering low price products with which it is difficult to compete, especially for domestic firms because they find workforce and machinery a little more expensive than this industrial giant. However, surviving in this competitive market is a daily challenge of all companies who in one way or another seek and develop new strategies to satisfy their customer and give the best of themselves to achieve it.

## **2.5 Trade barriers**

### **2.5.1 Customs barriers**

According to the tariff system of Guatemala, the tariff heading 6908 "Slabs and ceramic tiles, varnished or enameled for paving or lining; cubes, dice and similar ceramic articles, for mosaics, varnished or enameled, even with support" has a special treatment because of the treaties and trade agreements this country has signed with some countries of the region, the American continent and the European Union. Next, the existing agreements and import duties (DAI) of the tariff heading 6908.90.00 will be detailed.

Figure 9: Tariff preferences granted by Guatemala

AGREEMENTS	VALUE
General treatment	15%
FTA between Mexico and the Republics of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua	0%
FTA between Central America and Chile	8%
Association Agreement between the European Union and its Member States and Central America	9%
FTA between Colombia and the Republics of El Salvador, Guatemala and Honduras	8%
FTA Dominican Republic – Central America – United States of America	0%
FTA between Central America and Dominican Republic	0%

Source: Superintendencia de Administración Tributaria

As it can be seen in the table above, ceramic imports coming from Mexico, the United States and Dominican Republic and as mentioned before, the products made in countries of the Central American Common Market have a 100% tariff release. However, it should be noted that of the leading ceramic exporters to Guatemala only Mexico has 100% tariff duty release, while Colombia's ceramic exports have a duty of 8%, Spain 9% and China, Brazil and United Arab Emirates 15% (SAT, 2016). In the case of Ecuador, it is not in a competitive position in terms of import duties in regard to other potential exporters of this product to Guatemala because the Central American country gives Ecuador the general treatment in the tariff heading 690890.

However, we must recognize that under heading 690790 "Slabs and ceramic tiles, unvarnished, for paving or lining; cubes, dice and similar ceramic articles, for mosaics, unvarnished, even with support" thanks to the Partial Agreement of Economic Complementation between these countries' governments it was agreed to grant Ecuador 100% tariff release in imports of this product which will be discussed in the third chapter of this research.

### **2.5.2 No duty barriers**

Regarding non-tariff barriers, commonly it can be found sanitary and phytosanitary requirements if they were products of the food industry or pharmaceuticals, among others, but in the case of ceramic floors they do not require any sanitary or phytosanitary records.

On the other hand, it is also important to note that no quotas for ceramic imports in Guatemala are applied, nor it has any applicable technical standard that could or should be considered for its implementation by the Guatemalan Standards Commission. The latter entity is directed to the management of standardization in Guatemala with the aim of encouraging the development of products and quality services, thus contributing to improve domestic enterprises' competitiveness and raise the quality of products and services offered to the final consumer.

- Documents required for import

There are two documents which are essential for the import of any kind of goods from any country of the world to Guatemala and these are the commercial invoice and the shipping document previously legalized by the Embassy of Guatemala in the country of origin of the goods. Also in the case of Ecuador and other countries that have trade agreements with Guatemala, it is necessary to present the certificate of origin which purpose is to authenticate the origin of the imported products allowing the importer to get the corresponding custom duties release.

## **2.6 Product requirements**

### **2.6.1 Labelling**

As noted above, the Guatemalan Standards Commission is the national body responsible for standardization that issues regulations and laws detailing the characteristics that a quality product or service should have. In the case of ceramics and other imported goods, COGUANOR has established that these products must contain a label in Spanish which allows to identify the product's description, physical characteristics (weight / net volume), lot identification, manufacturing date, country of origin, name and address of the manufacturer or responsible, name and address of the Guatemalan distributors, and other indications of use or operation. Furthermore, labels should not have "legends with ambiguous meanings, misleading illustrations, or a description of the product's characteristics that cannot be verified" (COGUANOR, 1985).

In Guatemala imported and domestic products must follow a set of rules and standards that ensure consumer's satisfaction and comfort, therefore, the Regulation of the Law on Consumer and User Protection made by the Minister of Economy of Guatemala in November 2003, describes some of the most important points to consider in this issue. Among the articles that this regulation contains, Article 10 can be highlighted because it deals with performance testing of products in which it is also included a revision of the products purchased by the consumer or user to verify its good condition and that it meets the characteristics required. Additionally, art. 19 mentions the joint responsibility of the suppliers in the distribution and marketing by failing to comply with the obligation to provide basic product information, which is on its labels or packaging, as well as the characteristics required about each item in their possession (Ministry of Economy, 2003).

### **2.6.2 Packing**

In Guatemala the applicable standards for packing ceramic products are the same as the current international standards, which determine that the boxes should be labeled so as to indicate the product's brand, number of units, maximum resistance regarding the stack and the number of boxes.

Packaging must also have a label in the language of the destination country showing information in either adhesive labels, hand calligraphy, etc. whose writing is made of an indelible material that allows handling and transferring, and should be placed in the upper left part. The information to be included according to ICHCA (International Cargo Handling Association) are: main brand, with the name and address of the consignee, port or airport of unloading and destination country, weight, dimensions, number of each package in a batch, country origin, auxiliary marks (Pro Ecuador, 2011).

Finally, the necessary warnings should be placed under international symbology as follows:

Figure 10: International symbols for labeling



Source: Pro Ecuador

## 2.7 Logistic analysis

Guatemala is made up of five major ports of which two stand as international standards multipurpose ports, on the Atlantic coast Puerto Santo Tomas de Castilla and the coast bordering the Pacific Ocean Puerto Quetzal. These ports account for 80% of maritime traffic and allow Guatemala for its strategic location on the continent, to enter 90% of cargo by sea.

Figure 11: Guatemala's Port System



Source: National Port Commission.

As can be seen in the map above, the other ports of Guatemala are Puerto Barrios, San José and Champerico, the first located on the Atlantic coast and the other two ports on the Pacific coast.



### 2.7.1 Santo Tomás de Castilla Port



Source: National Port Commission.

Santo Tomas de Castilla Port is located 295 km. away from the capital of Guatemala in the Free Trade Zone of Santo Tomas de Castilla (ZOLIC). This port operates under a state system since its inception in 1955, but it has started to authorize the provision of certain services to private companies by Government agreement. Its operation throughout the year allows to mobilize 2,4 million metric tons of cargo per year. The dock is marginal and its facilities allow to manage container ship, vans, general cargo, liquid bulk, solid bulk, tanks, cruise ships, tankers, barges, refrigerators, roll on - roll off and cargo ships different from the previous (National Port Commission, 2015).

In addition, the port has storage areas for full/empty containers and vehicles. It has 6 docking places of 152 meters each, which are multipurpose except some that focus on certain types of ships. The sea access channel is located in the bay of Santo Tomás, which has a length of 10,700 meters. The freight cost from the seaport Libertador Simon Bolivar Guayaquil, Ecuador, to Santo Tomas de Castilla Port is \$1,300 per 40-foot standard container according to information from Graiman exports department (2016).

### 2.7.2 Quetzal Port



Source: National Port Commission.

Quetzal Port is located in the department of Escuintla 98 km. away from Guatemala's capital with which it is connected by paved road. It began its operations in 1983. As the previous port, this has state management, but also allows individuals benefit from its services by charging fees set by Quetzal Port and approved by Government Agreement.

The main dock is marginal. Its modern infrastructure of 6 docks and the characteristics of the services offered allow it to serve ships like: solid bulk, container ships, tanks, gas carriers, barge, refrigerators, general cargo, roll on - roll off, cruise and cargo ships other than the mentioned above. This port has the capacity to mobilize 824,000 metric tons per year in containers (National Port Commission, 2015). The freight cost from the Port of Guayaquil to Quetzal Port in Guatemala is \$ 1,100 per 40-foot standard container.

### **2.7.3 Airports**

Guatemala's major airports are La Aurora International Airport and Mundo Maya Airport. There are also other regional airports located in Escuintla, Alta Verapaz, Poptún, Puerto de San Jose, Izabal and Puerto Barrios. However, the most important airport due to air traffic ranks as third after Panama City and San Jose, Costa Rica, is the International Airport La Aurora. This airport is one of the largest and most modern airport in Central America. It is managed by the Civil Aviation Authority, an entity of the state of Guatemala. It is located 15 minutes from Guatemala City's downtown and has a network of 29 daily international flights to major cities of the American Continent and Europe.

The second International Airport "Mundo Maya" which is located 507 km. from the capital in Santa Elena, department of Petén in northern Guatemala, it is an airport in expansion. Today it is used for tourism purposes to visit Tikal and other places of the Mayan world.

### **2.7.4 Road system**

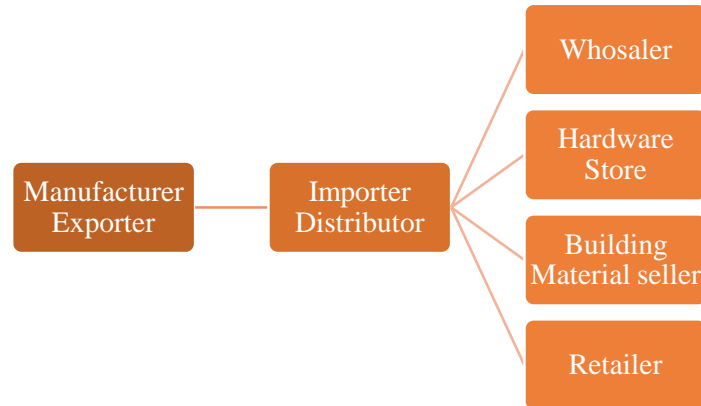
Guatemala's road system consists of main, secondary and tertiary roads. The main roads are the Pan American Highway that links Guatemala with Mexico and El Salvador, the Interoceanic Highway, which connects Barrios Port and Quetzal Port, and the Coastal road parallel to the Pacific Ocean's coast. Secondary roads or second order roads are those that are also paved and complement the major networks. These roads provide access to areas of the southern coast, part of the high plateau and the Northeast. Finally, tertiary roads are those of smaller size in width and are used for interregional land communication. Together they form a road network of 15,187,7 kilometers (Robles, 2013).

### **2.7.5 Distribution channels**

Distribution channels are very important in a product or service's logistics because they allow to introduce the new brand or product in the market and make themselves known for their characteristics and other services that the manufacturer can offer. In the case of this study a distinction between physical distribution of imported ceramic products into Guatemala and domestic products should be made, mainly because manufacturers of domestic products have the ability to manage their own point of sale, while foreign ceramic manufacturers comply with the role of exporting the product and the ones who continue the distribution chain are importers.

As shown in the chart below exporters or manufacturers send their products through different channels of international trade to importers in other destination, in this case Guatemala. Next national distributors can sell the imported product to different market players such as wholesalers, hardware stores, building materials dealers or retailers. For the product to reach the final consumer, retailers or shopping centers offer imported products making their brand and features known, and make available to the customer an after sales service that allows a closer relationship with the client through attention and performance guarantee of the ceramic product which the latter acquired.

Figure 12: Distribution graph of imported ceramics



Source: Author Priscila Guillén

When selecting a dealer it is very important to know its experience in the market and the confidence other companies have to maintain their long-term relationships (ICEX, 2012). For that commercial references and other documents that prove the distributors' loyalty and commitment, whether they are importers or retailers in the country, indicate a great help to know the fundamentals that will sustain the relationship between traders. Finally, it is necessary to emphasize the importance of the customer throughout the entire distribution process, that is to say, to keep in mind that he/she needs a product and quality service that allows positioning the brand in the market and its expansion in it.

## 2.8 Conclusion

Once completed the Guatemalan market investigation in relation to ceramic floors trade it is possible to say that the country under analysis proves to have stable conditions in

various aspects such as politics, economy, social and technological development, since they have enabled the growth of major industries, and in this case, ceramic producers. The national competition of ceramic production has been formed from experience and continuous efforts of companies like Samboro, Hispacensa and Pisos El Águila. These companies for their relationships with consumers of construction finishes defined common characteristics among them who are seeking good prices, quality and innovation.

The study of the demand has helped define that the construction sector's growth in recent years has allowed new products and brands have a presence in the market. That is why several companies have been able to supply part of the consumption of quality products at a lower price and containing an added value that the customer can appreciate at the time of purchasing them. Later, in the analysis of foreign trade of this product it was observed that over time both imports and exports have been increasing their amounts making Guatemala a country where there is tough competition between domestic producers and ceramic importers.

As for the barriers to foreign trade, it could be distinguished customs duties on imports applicable to this item, which vary depending on the origin of the product. There are different countries with tariff preferences or releases up to 100% on imports of its ceramics due to the different agreements mentioned in this chapter. However, Ecuador has no preference regarding this item by not being included in the trade agreement with Guatemala and imports of this product are forced to pay the general tariff of 15%. On the other hand a brief summary of the requirements to be met by the product for its commercialization in this country as the correct labeling to inform the product's basic characteristics, its certifications and packaging to protect it and allow its mobilization from one place to other.

As it was noted later, the distribution channels for this type of product is the importer or producer to wholesaler to retailer and who distributes this to the final consumer or other intermediaries are also defined. Finally, and in hand with the previous topic, logistics and Guatemala's access roads were analyzed proving this country is a strategic point for the commercialization of this and other types of products in other Central American countries.

## **CHAPTER III**

### **RELATIONSHIP GUATEMALA-GRAIMAN**

#### **3.1 Introduction**

In this chapter we will focus on a study that enables to establish a connection between Graiman Ceramics Industry and the Central American country analyzed in this research. To start with the development of this chapter, in the first subtopic the Partial Agreement of Economic Complementation between Ecuador and Guatemala will be analyzed, in which it will be shown the main features of the agreement, its background, the drafting procedure, its objectives and content.

As a second point and with the aim of deepening the relationship between Ecuador and Guatemala, the activities of foreign trade between these countries will be studied by an analysis of the imports and exports of their main products, in order to know the influence of the trade agreement in these countries' relations over the past five years. Furthermore, a closer look to foreign trade of ceramic products between Ecuador and Guatemala will take place, which will enable an approach to the product under study in this work.

Continuing the development of the relationship Guatemala-Graiman a SWOT analysis will be developed to reveal what characteristics of the company represent strengths and weaknesses for its expansion in other markets and the qualities of Guatemala as a potential market that represent opportunities and threats to this Ecuadorian company.



Finally, thanks to the structure of this chapter that goes from the general to the specific, it will be possible to define the main points that will link the company Graiman with Guatemala through the implementation of the trade agreement in its exporting products, allowing to know the influence of the agreement and its effectiveness for Ecuadorian companies as the one analyzed in this graduation work.

### **3.2 Trade agreement**

The agreement between Ecuador and Guatemala known as Partial Agreement of Economic Complementation between the Government of the Republic of Ecuador and the Government of the Republic of Guatemala, was signed on April 15, 2011 in Guatemala. The representatives who signed this important document were the Ambassador of Ecuador Vicente Véliz and the Minister of Economy of Guatemala Erick Coyoy.

By signing this agreement the countries expressed their consent and formalized their intention to promote trade and cooperation between their peoples, seeking through negotiations to reach agreements that benefit their industries, these being different in nature and scale. Another important purpose of this agreement is to promote the integration of Latin American countries, because although each party has diplomatic relations and trade and cooperation agreements with other countries in the region, this agreement will encourage more participation and development of the productive sectors of both countries in their economies.

The agreement came into effect on February 19, 2013 after being sent to the legislative bodies of each country for its approval and ratification. The fact that this agreement came into effect according to the Minister of Foreign Affairs, Trade and Integration (2011) for Ecuador means "the gateway to Central America and the beginning of greater trade

integration with the whole Isthmus." This strategic insertion in international trade allows 593 products access the Guatemalan market with 100% tariff release, and other 84 products will obtain in the period of 3 and 7 years after the date when the agreement came into effect, a release between 20 % and 100% (PRO ECUADOR, 2013).

This agreement has been perceived as an opportunity to improve the non-oil trade balance of Ecuador, because; as it shall be seen later, there has been a significant opening to products that are within the exportable supply of Ecuador also including 200 products belonging to MSMEs (micro, small and medium) Ecuadorian companies.

The tariff preferences granted to Ecuadorian products offer the opportunity for new products to be exported to Guatemala. However, we must take into account what have been the products traditionally exported by Ecuador before this agreement as: oil, shrimp, gas stove for domestic use, pharmaceuticals, toilets, lavatories, sinks, cocoa preparations, bananas, plastics, footwear and leather products, among others (PRO ECUADOR, 2013).

### **3.2.1 Background**

According to the analysis of the Ecuadorian exports to Central America made by the Ministry of Foreign Affairs, Trade and Integration, they have had an annual growth of 15%, which outperforms the other exports to the rest of the world which represent 12% (2011). When considering exports of industrial goods this region occupied the sixth place in 2007 and fifth in 2008, until in 2009 and 2010 it managed to occupy the fourth place after Colombia, Venezuela and the European Union. On the other hand, in recent decades Ecuador's trade balance with Central America has shown to be positive, given that in 1990 it was 12,3 million and in 2010 it increased to 472,1 million (Central Bank of Ecuador, 2011).

From the information above, and other aspects that have been showed around Ecuadorian exports to the world over the last ten years, on August 26, 2010 in San Salvador, the Ministers of Economy of Guatemala and Ecuador agreed to start the negotiations to form the agreement. It should be noted that the negotiation process had a duration of less than six months for the countries and their representatives to establish the main points of the agreement. Today this document represents an essential tool in trade and cooperation activities because it benefits both economies allowing joint development and in a harmonious way.

### **3.2.2 Negotiation rounds**

The first round of negotiations between Ecuador and Guatemala was held from January 24 to January 28, 2011 in the capital of Ecuador, Quito. This round was considered a success by the Vice Minister of Foreign Trade, Francisco Rivadeneira and the Chief Negotiator of Guatemala, Sonia Lainfiesta (Ministry of Foreign Affairs, Trade and Integration, 2011). Both authorities were very optimistic about the direction the construction of the agreement was taking, mainly because they had arrived at the most important points of cooperation and economic integration among these countries.

According to the chief negotiator of Guatemala the progress observed in the negotiations represent great opportunities for producers who until that time had not been considered in international trade, or much less had given them proper attention to promote their development and to be involved in these activities. At the same time the Vice Minister of Foreign Trade of Ecuador expressed his satisfaction with the negotiations by saying that both economies have many things in common and that the relationships that are formed as a result of the agreement will not only focus on imports and exports, but also they will

emphasize the complementarity of these countries, which with their great potential for trade in the medium term they could come together to export to other markets.

The second round of negotiations took place from March 7 to March 11, 2011 in Guatemala, and led to important advances which were reflected in the conclusion of most of the texts. Among the most important issues discussed at this round there are: Sanitary and Phytosanitary Measures, Trade's Technical Barriers, Market Access, Trade Facilitation, Trade Protection, Rules of Origin, Customs Cooperation, Institutional Affairs and Dispute Resolution (Minister of Economy of Guatemala, 2011).

Later it was held a two-day round, from April 7 to April 8 in Panama, called "Mini-round." The third and final round were the ones with which the agreement was closed and ended the negotiations between the two countries. These rounds took place in Guatemala from April 11 to April 14. Finally on April 15, the agreement was signed in Guatemala.

### **3.2.3 Objectives**

The objectives of Partial Agreement between Ecuador and Guatemala are described in Article 1 which is in Chapter I "Initial Provisions", and are as follows:

- a) To grant tariff preferences and eliminate tariff barriers to facilitate, expand, diversify and promote trade between the parties.
- b) To facilitate the trade of goods through the provisions in this agreement on customs, standards, sanitary and phytosanitary measures, etc.

- c) To promote cooperation between the parties to deepen the relations of production sectors, considering their needs and the reality of MSMEs in each country.
- d) To establish an agile, fair, transparent, effective and predictable system that allows the settlement of any dispute that arises.
- e) To encourage the development of investment on production, innovation and technology.
- f) To promote Latin American integration through trade of goods with added value and quality.

### **3.2.4 Content**

In order to know the results of the negotiations between the representatives of the two countries, it will give way to a brief review of the content of the Partial Agreement of Economic Complementation between Ecuador and Guatemala.

When starting the analysis of this agreement the Preamble can be appreciated which is where it shows the contracting parties and the various situations in which they coincide an improvement should implement, the reason why this agreement was created. In Chapter I "General Provisions" the objectives of the agreement mentioned above are detailed. Continuing with the description of the parts to the agreement. Chapter II

presents the General Definitions of what an agreement is, as well as customs duty, customs authority, origin goods, harmonized system, etc.

Chapter III mentions important aspects about National Treatment and Access to Goods' Market for those products that are specified in the annexes of the agreement, with the aim of identifying the tariff preferences to be applied, to establish the tariff release schedule, to extend or modify the products on the list and commit the parties not to do any activity that goes against the provisions of the agreement.

Chapter IV discusses about rules of origin, and defines that the parties agree to give a preferential tariff treatment to goods originated in their territories included in the annexes. Then Chapter V mentions the main customs procedures allowing trade facilitation between the two countries. Thus countries undertake to use simplified customs procedures for the clearance of goods through the use of technologies that streamline any paperwork, publishing laws, regulations or customs procedures electronically, impose administrative, civil or criminal penalties for breaching customs laws and regulations, etc. In addition it establishes a Committee on Customs Affairs and Trade Facilitation whose functions will be to propose the adoption of practices, solutions, among others.

Chapter VI addresses the issue of Sanitary and Phytosanitary Measures "in order to protect life, human, animal and plant health, and strengthen cooperation for agricultural development of the parties" (Partial Agreement Complementación económica Ecuador-Guatemala, 2013). In Chapter VII "Technical Barriers to Trade" the parties undertake not to establish any procedure or regulation to mean a trade barrier. In addition they agree to act in accordance with the provisions of the Agreement on Technical Barriers to Trade of the WTO in the development and adoption of standards, technical regulations and procedures of conformity assessment.

Chapter VIII on Trade Defense addresses issues on safeguard measures, anti-dumping and countervailing duties. In the case of bilateral safeguards this will be applied four years after the agreement becomes effective in the event that the importation of any product of the parts causes serious damage to the domestic industry. The maximum time for the application of a safeguard will be of two years. In addition Articles 56 and 57 establish the application of a Safeguard for development and Agricultural Special Safeguard respectively.

In Chapter IX it could be found the topic of Commercial Cooperation between Ecuador and Guatemala, which has the objective to contribute technical and professional skills, strengthen cooperation and capacity of the parties, promoting the inclusion of small farmers and promote sustainable development. This cooperation is made in export promotion matters, technological cooperation, in environmental matters, energy efficiency, tourism, to facilitate transportation, and institutional strengthening in commercial matters.

Finally, in Chapter X about Agreement's Administration there are specified which authorities and bodies are responsible for ensuring the normal performance of the agreement and that the members who subscribe it respect its provisions, and also mentions their functions. This agreement also addresses Dispute Resolution in Chapter XI and Final Provisions in Chapter XII where there are disclosed the entry into force, duration, information about reserves, accession, denunciation, amendments, etc.

### 3.2.5 Trade relations Ecuador-Guatemala

#### 3.2.5.1 Exports to Guatemala

Next it can be seen a table about the top ten export products of Ecuador to Guatemala.

Figure 13: Ecuador's exports to Guatemala

Product label	2011	2012	2013	2014
All products	184,022	220,178	134,743	68,025
Fish and crustaceans	17,076	4,840	7,446	40,317
Articles of iron or steel	3,797	4,027	6,201	5,384
Mineral fuels, oils	152,629	196,608	108,708	4,764
Plastics	1,319	1,903	2,656	3,934
Pharmaceutical products	814	1,231	762	2,937
Raw hides and leather	245	452	628	2,557
Cocoa and its preparations	595	969	1,198	1047
Ceramic products	760	561	1,116	1,038
Animal, vegetable fats and oils	668	796	677	1,008
Machinery, nuclear reactors	108	357	504	999

Source: Trade Map

Unit: USD thousand

When analyzing what products have been exported and have tariff preferences thanks to the agreement between Ecuador and Guatemala, one can conclude the following. For the second export product called articles of iron or steel the tariff heading is 73211110 which includes cooking appliances and plate warmer. It has been the most exported product,



and although it has a 100% tariff preference its FOB value has decreased by 13% in 2014 according to data from Trade Map (2015).

Another example is the tariff heading 30049091 "Medicines consisting of mixed or unmixed products for therapeutic or prophylactic dosed uses." This item also has a 100% tariff preference established in the agreement, and in 2014 it has increased by 315% because it step of \$664,000 in 2013 to \$2,675,000 in 2014 (Trade Map, 2015).

Additionally the statistics page Trade Map has made possible to obtain the following data (2015). As in the previous examples the tariff heading 18031000 "Cocoa paste, non-defatted" it has a tariff preference of 100% and has shown an increase in exports of 32% in 2014. However, the tariff heading 69109000 "Other sinks, washbasin, tubs and similar products" has decreased by 7,85%. In the case of "fish fats and their fractions, except liver oils" from the tariff heading 15042000 which has a 100% tariff preference in 2014 it has shown a growth of 50%.

Finally, the tariff heading 84181000 of "Combined refrigerator-freezers with separate external doors" that also owns 100% release in the cancellation of import duties, it grew by 65% (Trade Map, 2015). With this we can conclude that within ten products exported by Ecuador to Guatemala, six of them have tariff preferences thanks to the Partial Agreement of Economic Complementation between these countries, and five of these six products have shown significant growth in its exports in the last year, proving the benefits this agreement has given to the Ecuadorian exports since its entry into force.

### 3.2.5.2 Imports from Guatemala

In the table below it can be seen the products exported to Ecuador from Guatemala during the period 2011-2014.

Figure 14: Ecuador's imports from Guatemala

<b>Product label</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
All products	24,215	22,054	22,166	28,280
Chemical products	1,545	3,063	3,297	7,467
Pharmaceutical products	1,185	974	1,513	3,750
Pulp of wood, fibrous cellulosic material	3,138	4,149	3,668	3,633
Residues, wastes of food industry	0	4	0	2,601
Tanning, dyeing extracts, pigments	1,314	1,665	1,420	1,935
Plastics	4,572	3,726	3,954	1,893
Sugars and sugar confectionery	2,025	1,364	1,696	1,882
Gunpowder and explosives	0	0	372	852
Salt, sulfur, lands, stones	857	179	217	765
Coffee, tea, mate and spices	602	3,128	988	761

Source: Trade Map

Unit: USD thousand

From Guatemala's exports to Ecuador it can be identified the first product that has a tariff preference of 100% and its heading is 30049010 Medicinal Products for Human Use, which in 2014 had a growth of 364%. Another product which belongs to the tariff heading 17049000 "Other confectionery not containing cocoa" has grown by 11% (Trade Map, 2015).

Additionally it can be found another export product within tariff heading 36050000 "Matches, other than pyrotechnic articles from heading 3604" that in the last year has shown an increase of 129% in 2014.

Being just three products showed by Trade Map (2015) that Guatemala exports to Ecuador with tariff preferences of 100%, one can say that the agreement was more beneficial for Ecuadorian exporters of the top six products with tariff preference that Guatemala consumes from Ecuador.

With this chart it can be inferred that in recent years imports of the main Guatemalan products has increased considerably, so it can be concluded that the agreement and the relationship that it has been fostered between these two economies has been very beneficial allowing them to introduce their products in more markets and to publicize each countries' industries in the rest of the region.

### **3.2.5.3 Foreign trade of ceramic tiles between Ecuador and Guatemala**

Up to this point it has only been analyzed trade relations of Guatemala with its main exporters of ceramic, however, it is important for the development of the following topics to consider how ceramic exports have been developed from Ecuador to this destination during the last five years.

According to the website of foreign trade statistics Trade Map (2016), in 2010 and 2012 export values in dollars represented 0%, however in 2011 Ecuador exported \$65,000, which in 2013 rose to \$110,000 and in 2014 these exports came to \$114,000.

Exports from Ecuador to Guatemala regarding the tariff heading 69089000 "Other tiles and glazed tiles (ceramic tiles)" in relation to imports this country made from other countries in 2014 they represented 0,45% which means that it is not within of the main suppliers of this product in the Central American country and puts it in a position of disadvantage compared to other countries with tariff preferences as discussed above.

### **3.3 SWOT analysis**

In this section of the research paper an analysis of the strengths, weaknesses, opportunities and threats of exporting ceramic products from Graiman to the Central American country of Guatemala will take place. SWOT analysis is intended to highlight the internal aspects of the company and the external aspects of the environment in which it develops or wants to enter.

In the case of this work, it will be analyzed the situation of the company in terms of the strengths and weaknesses that the company has to enable it to enter a new market, and the market factors of Guatemala previously studied in order to know what opportunities and threats it presents.

Figure 15: SWOT Analysis

	Strengths	Weaknesses
Internal Analysis	<p>High quality products.</p> <p>Recognized brand in different countries of the region.</p> <p>Solid company. Graiman is more than 20 years in the domestic market and exports for more than 12 years United States.</p> <p>Customer satisfaction according to new industry trends and the market.</p> <p>Constant technological innovation (digital inkjet printing).</p> <p>Compliance and quality standards (ISO).</p> <p>High production capacity.</p> <p>Diversity of products, designs and formats.</p>	<p>Increased costs of raw materials resulting in the increase of the final price on products and the decrease of their competitiveness in the market.</p> <p>Managing low inventories.</p>
	Opportunities	Threats
External Analysis	<p>To join the largest market in Central America, with agreements with countries across the region and diplomatic relations with major international bodies.</p> <p>Construction industry and urban areas growth.</p> <p>Competition demands to be always at the forefront and constantly updated.</p> <p>Access roads in good condition to neighboring countries for cross-border trade.</p> <p>Conscious consumer about product's real value who requires quality and good price.</p> <p>Being a large market it has different sectors that could be the companies' target and help it differentiate from competitors.</p>	<p>Important competition of the leading Guatemalan producers of ceramic and imported products.</p> <p>Companies with more experience in the market in terms of time and knowledge.</p> <p>Consumer orientation towards prices and very little to quality.</p> <p>Consumer loyalty to a type of service or product.</p> <p>New designs and collections constant launch.</p> <p>Direct relationship between producers and consumers, after-sales service.</p>

Source: Author Priscila Guillén

### **3.4 Implementation of the trade agreement in Graiman's exports**

As discussed above it can be inferred that the trade agreement between Ecuador and Guatemala does not include the ceramic heading 6908.90.00 "Other tiles and glazed tiles", but it includes the tariff heading 6907.90.00 of unglazed tiles and ceramics, which has the release of 100% in terms of import duties granted by Guatemala to Ecuador.

However, as stated in Article 6 of the treaty it may be given the elimination or tariff reduction of about 84 tariff headings over a period of five to seven years after the agreement's entry into force. According to information from Graiman's exports department and the Ecuadorian Federation of Exporters FEDEXPOR, heading 6908.90.00 would be included within the items to be gradually tax-deductible over the coming years according to the tariff reduction schedule established between the parties of the agreement.

As purpose of this research it is very important to know what link could be established between the company and the new export destination, in this case Guatemala, so that it must be found a common ground which would allow to know the feasibility of exporting there. For this reason it was considered essential to make a brief analysis of heading 6907.90.00 "Slabs and ceramic tiles, unvarnished, for paving or lining; cubes, dice and similar ceramic articles, for mosaics, unvarnished, even with support" both as an export product of Graiman Ceramics Industry and as an import product of the Central American country.

To begin this analysis it should be known some information about the product that Graiman exports under this tariff heading which is technical porcelain tile. The technical

porcelain also known as "all mass" or "true body" is a type of porcelain that has the same design from the base to the surface, as it is composed of a single pressed mass to which it can be added any color and does not apply any enamel on the surface. It could be found polished and natural technical porcelain tiles, as well as rectified and not rectified porcelain, which means that when it is a rectified porcelain tile it is cut by a special machine that when placing it allows to leave a gap of 2 mm between pieces, while unrectified porcelain can be placed at a distance of 4 millimeters between each piece (Sodimac, 2016).

A special advantage of technical porcelain in which a greater emphasis should be done is the design it has from the base to the surface allowing it to hide any imperfection caused by a strong impact or the falling off a heavy material on the floor, so no contrast can be noticed. Another case that could be presented is the wear of the pieces when the porcelain tile has been placed in commercial centers where there is a lot of influx of people and the presence of different chemicals that stain it, causing the worn surface to be replaced by the next layer without allowing its deterioration to be noticed. Also other advantages of this porcelain are durability and resistance to high traffic due to the high compaction pressures that reduce the amount of breaking points (MundoArquitectura.Org, 2016).

As for the collections that Graiman ceramic industry handles this type of porcelain can be appreciated in the Constellazione and Pizarra lines, offering the first in a format of 50x50 cm and the second in a format of 32x32 cm. These porcelain tiles can be found in the case of Constellazione collection with shiny or matte finishes and in the colors blue, beige, white, black, gray and snow, and in the case of Pizarra collection in beige and terracotta but always with matte finish.

Constellazione Blue 50x50



Pizarra Terracotta 32x32



Source: Graiman

Additionally it should be mentioned that the tariff heading 690790 represents 1% of total exports of Industria Cerámica Graiman, and the main markets for this type of porcelain are located mostly in South America such as Peru, Colombia and Chile, and other important market is represented by Panama in Central America.

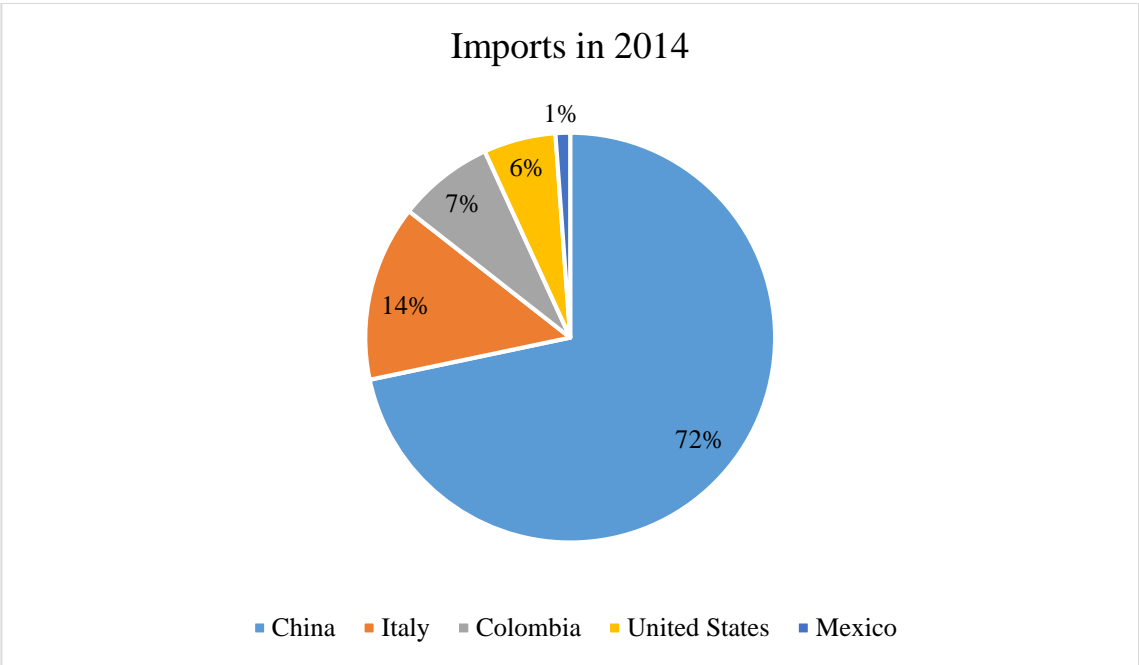
Once the main features of technical porcelain as a product of the tariff heading 69007.90.00 and product exported by the company Graiman were analyzed, it is possible to continue the study of this product's imports in Guatemala and the influence of the agreement discussed earlier in this chapter.

Thanks to the website of foreign trade statistics Trade Map (2016) it could be observed what has been the trend of imports' growth of technical porcelain to Guatemala, which allows to observe a rapid growth during the period 2010-2014. Analyzing the growth that has existed from year to year it can be said that in 2011 in regard to the previous year imports rose 47%, in 2012 21%, in 2013 33% and in 2014 26%. On the other hand this shows that total imports of this product reached \$557,000 in 2010 to \$2,677,000 in 2014,



being the main exporters China, Italy, Colombia, United States and Mexico (Trade Map, 2016).

Figure 16: Guatemalan imports of the tariff heading 6907.90.00



Source: Trade Map

As it can be seen in the chart above, the largest exporter of this tariff heading to Guatemala is China, occupying 72% of the product’s imports in the country. Next is Italy with 14%, Colombia with 7%, the United States with 6% and finally Mexico with 1%.

In Guatemala, as well as in other countries of the world, foreign trade has been developed around the signing of agreements and treaties in order to establish certain tariff preferences and reduce non-tariff barriers for goods and services to deepen economic integration among countries. In regard to this research it is essential to know which those

agreements are because they affect trade in the case of the tariff heading 6907.90.00 " Slabs and ceramic tiles, unvarnished, for paving or lining; cubes, dice and similar ceramic articles, for mosaics, unvarnished, even with support" in Guatemala.

Therefore, the following table details the trade agreements and treaties between Guatemala and other countries in the region, the American continent and the European Union, which according to the tariff system of Guatemala offer an special treatment to the tariff heading in study (Superintendencia de Administración Tributaria, 2016).

Figure 17: Tariff preferences granted by Guatemala

AGREEMENTS	VALUE
General treatment	15%
FTA between Mexico and the Republics of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua	0%
FTA between Central America and Chile	9%
Partial Agreement of Economic Complementation between the Governments of the Republic of Ecuador and the Republic of Guatemala	0%
Association Agreement between the European Union and its Member States and Central America	10.5%
FTA between Colombia and the Republics of El Salvador, Guatemala and Honduras	6%
FTA Dominican Republic – Central America – United States of America	0%
FTA and Preferential Exchange between Panama y Guatemala	4,5%
FTA between Central America and Dominican Republic	0%

Source: Superintendencia de Administración Tributaria

The tariff preferences regarding the heading 6907.90.00 that Guatemala granted to the countries with whom it has signed trade agreements, offer competitive advantages especially when these are among the leading exporters of products with total or partial

duty-free. As shown in the table above, imports of the products coming from Mexico, Ecuador, the United States and the Dominican Republic and those produced in member countries of the Central American Common Market have a 100% release.

Considering the major exporters of technical porcelain tile to Guatemala and preferences it granted, only Mexico and the United States have 100% import duties' release, while for Colombia the tariff is 6%, Italy 10.5% and China 15%. In the case of Ecuador, it is in a competitive position in terms of import duties with respect to other potential exporters of this product to Guatemala thanks to the Partial Agreement of Economic Complementation discussed in this chapter.

Thanks to this brief analysis to find a common ground between Graiman and Guatemala for the export of its products because of the conjuncture of the Trade Agreement between Ecuador and Guatemala, it is possible to say that it would be interesting to consider Guatemala as a destination for Graiman's technical porcelain exports, by having such an important competitive advantage as the release of 100% of import customs duties for the potential importers interested in marketing this high quality product in their market, whose growth is becoming bigger and more promising.

Knowing the applicability of trade agreements in the industries' activities being these either large or small, it is vital to take into account the contributions that they provide to the enterprises' growth, and with them their country and its inhabitants. On the other hand, it is considered that such agreements also promote cooperation, social and technological integration between them, since the joint of efforts among different subjects of the international community promotes the creation of internal and external positive changes to serve as an example for other countries.

### 3.5 Conclusion

After analyzing the trade agreement between Ecuador and Guatemala, the trade relations between the two countries, the SWOT analysis of the Graiman company and the implementation of the trade agreement in Graiman's exports it is possible to conclude the following. As for the trade agreement there have been several positive points such as the 100% import duties' release granted by Guatemala to 593 Ecuadorian products, the possibility to include 84 products more, over a period of 5 to 7 years, the supplementation and technological cooperation to expedite the procedures, the control mechanisms and consent of both countries to comply with the agreement on mutual consent to integrate their economies and peoples.

Thanks to the analysis of trade relations between these countries it was found that the aforementioned treaty was of much help to generate the export growth of several of both Ecuadorian and Guatemalan main products. In this way it can be demonstrated the effectiveness of trade agreements on creating strong ties between states and the benefits whose effects can be evidenced in the statistics and operations within each country.

On the other hand, the SWOT analysis of the company Graiman and the Guatemalan market has allowed to identify that both have positive and negative characteristics which represent strengths and weaknesses in the company, and opportunities and threats in the case of the market. However, after considering all these aspects it can be said that the company Graiman has a great opportunity in the Guatemalan market to function and expand the coverage of its products in the American continent, since it has many features like constant innovation, management of high standards of quality and experience in the international market, that is to say everything a company currently requires to stay or enter new markets. For its part, Guatemala is a prosperous market that has shown tremendous

growth in recent years, it allows to enter in Central America for its connections with the other countries of the region and the expansion of activities engaged in construction.

Finally, the implementation of the trade agreement in Graiman's exports has allowed to contemplate another possibility of potential product to be exported to this market as the technical porcelain. All this because in the case of the tariff headings of ceramic products, this is a product manufactured by Graiman which is considered with a 100% import duties release in the trade agreement. In addition it must be recognized that the features of this porcelain such as durability, strength and elegant designs would allow it to be a competitive product, very demanded by consumers in the Central American country.

## **Conclusion**

Foreign trade is a set of activities that relate a large number of people from different countries with the aim of bringing consumers the products or services that best meet their needs. It is a fundamental part of the areas that are the responsibility of each government and its public entities through the promotion of trade, streamlining processes and providing better services, since this activity by being part of their interests also contributes to the prosperity of their country. In addition it cannot be ignored a very important factor as the private entities that dedicate their work to better develop transparent trade and above all to benefit the final consumers and of course allow them to grow and stay in the market with good positioning and prestige.

Due to the large background of an activity such as trade, during the development of this graduate work it was done a study of the company, the Guatemalan market, the different factors that shape it was made and it was completed by establishing the relationships that could be built between the company and the market. All this in order to know if Guatemala could be a potential market for the export of ceramic floors that Graiman manufactures. Thanks to the study that has been carried out it is possible to conclude that Guatemala itself represents an ideal market for the introduction of this Ecuadorian product. The main reasons are the high demand for innovative and quality products, the customer's tendency to purchase products that give added value, the construction sector's growth and the opportunities that arise from entering this market.

The reasons why Graiman could successfully develop in this new market are given by its orientation towards continuous improvement and focus on the customer. Since in the first case this has allowed it to be at the forefront in regards to updating their systems, machinery and procedures. On the other hand, the focus on the customer has been very

important to know what he/she really needs and what the company with the support of its qualified human talent and team can do to improve and demonstrate their ability to meet these needs. In addition it must be considered that Guatemala has a favorable environment for this type of enterprise to develop, since the company has distinguished itself by offering better products continuously and the great competition in this country will serve as motivation to stay in constant evolution in order to differentiate itself in this market.

As could be seen, although the trade agreement between Ecuador and Guatemala does not include heading 6908.90.00 of ceramics being this product the most exported one by this company, it should be considered that besides the existing possibility of it being include in the agreement over a period of 5 to 7 years; the trade agreement has also helped to foster relationships between these countries through the trade of other products, which according to existing statistics have increased their exports to Guatemala since the signing of this treaty.

However, to meet the objective of this research, it has been possible to look from another perspective the way in which Graiman Ceramics Industry could enter this market in addition to the export of ceramics, and it has been found that it could also insert a relatively new product as is the technical porcelain tile. This type of porcelain by its characteristics has many advantages to offer Guatemalan consumers, which in some ways might be more beneficial than the contribution that could provide ceramics. Therefore, the guaranteed delivery of a material with long duration and resistance, and primarily it will be offered a very competitive product in the market.

With the above it can be said that the results were as expected from the beginning of the investigation. In this graduate work each of the objectives were fully achieved through the use of appropriate research methodology, which allowed to obtain the information required for its development.

## **Bibliography**

Acuerdo de Alcance Parcial de Complementación Económica entre el Gobierno de la República del Ecuador y el Gobierno de la República de Guatemala. Registro Oficial N. 891. February 2013. Accessed: 09/12/2015. Obtained from: <http://cancilleria.gob.ec/wp-content/uploads/2013/05/Acuerdo-de-Alcance-Parcial-Complemenacion-Economica-Ecuador-Guatemala.pdf>

Agexport. “Potencialidades y desafíos del sector TIC en Guatemala”. Accessed: 08/11/2015. Obtained from: <http://portal.export.com.gt/portal/competitividad/Cap4PotencialidadesyDesafiosdelSectorTICenGuatemala.pdf>

Asociación Bancaria de Guatemala AGB. (2014). Sector Construcción. Accessed: 23/11/2015. Obtained from: <http://abg.org.gt/pdfs/Marzo-2014/SECTOR%204%20CONSTRUCCI%C3%93N%20MARZO%202014.pdf>

Banco Central del Ecuador. (2011). Balanza Comercial. Accessed: 09/12/2015. Obtained from: <http://www.bce.fin.ec/>

Banco Mundial. PIB per cápita (US\$ a precios actuales). Accessed: 27/10/2015. Obtained from: <http://datos.bancomundial.org/indicador/NY.GDP.PCAP.CD>

Cámara Guatemalteca de la Construcción. Indicadores de la Construcción. Accessed: 21/11/2015. Obtained from: <http://www.construguate.com/>

CentralAmericaData.com. (2013). Centroamérica y el consumidor europeo”. Accessed: 26/11/2015. Obtained from:



[http://www.centralamericadata.com/es/article/home/Centroamerica\\_y\\_el\\_consumidor\\_europeo](http://www.centralamericadata.com/es/article/home/Centroamerica_y_el_consumidor_europeo)

Central Intelligence Agency. The World Factbook. Accessed: 23/10/2015. Obtained from: <https://www.cia.gov/library/publications/the-world-factbook/geos/gt.html>

COGUANOR NGO 34 039. (1985). Accessed: 06/12/2015. Obtained from: <http://www.atpconsultores.com/conservasymermeladas/normas/COGUANOR%20N%20GO%2034%20039%201a.%20Revisi%C3%B3n%20Etiquetado%20Product.%20envasados.pdf>

Comisión Guatemalteca de Normas. Accessed: 06/12/2015. Obtained from: <http://coguanor.gob.gt/>

Comisión Portuaria Nacional de Guatemala. Accessed: 06/12/2015. Obtained from: <http://cpn.gob.gt/>

Constitución de la República de Guatemala. 17 de Noviembre de 1993. Accessed: 22/10/2015. Obtained from: [http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/GTM\\_constitucion\\_politica.pdf](http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/GTM_constitucion_politica.pdf)

Doing Business Ease of Doing Business in Guatemala. Accesed: 06/12/02015. Obtained from: <http://www.doingbusiness.org/data/exploreeconomies/guatemala>

Doing Business. Comercio transfronterizo en Centroamérica y la República Dominicana 2015. Accesed: 06/12/2015. Obtained from: <http://espanol.doingbusiness.org/data/exploretopics/trading-across-borders-in-central-america-and-the-dominican-republic>

Ekos. (2013). *Visitamos a, Graiman y sus ejes de éxito empresarial*. Accessed: 15/09/2015. Obtained from: <http://www.ekosnegocios.com/negocios/verArticuloContenido.aspx?idArt=1666>

El Mercurio. *Graiman, pionera de robotización industrial en el Austro*. Accessed: 07/09/2015. Obtained from: <http://www.elmercurio.com.ec/351953-graiman-pionera-de-robotizacion-industrial-en-el-austro/#.Ve44af15N8E>

Embajada de Guatemala. Guatemala. Accessed: 13/10/2015. Obtained from: [http://www.embajadaguatemala.es/turismo/GUATEMALA\\_Corazon\\_del\\_Mundo\\_Maya.pdf](http://www.embajadaguatemala.es/turismo/GUATEMALA_Corazon_del_Mundo_Maya.pdf)

Graiman. *Quienes somos*. Accessed: 02/09/2015. Obtained from: <http://www.graiman.com/quienes-somos/>

Hispacensa. Accessed: 16/11/2015. Obtained from: <http://www.hispacensa.com/>

ICEX. El mercado de Ceramios en Guatemala. Accessed: 08/11/2015. Obtained from: <http://www.cadexco.bo/actual/boletin-inteligencia/EL%20MERCADO%20DE%20CERAMICA%20EN%20GUATEMALA%20-%20ICEX.pdf>

ICEX. (2012). El mercado de cerámica en Guatemala. Accessed: 21/11/2015. Obtained from: <http://www.cadexco.bo/actual/boletin-inteligencia/EL%20MERCADO%20DE%20CERAMICA%20EN%20GUATEMALA%20-%20ICEX.pdf>

Instituto Nacional de Estadísticas Guatemala. Accessed: 06/11/2015. Obtained from: <http://www.ine.gob.gt/index.php/estadisticas/tema-indicadores>

Instituto de Promoción de Exportaciones e Inversiones, PRO ECUADOR. (2011). Perfil de pisos, paredes y artículos similares de cerámica en Guatemala. Accessed: 23/11/2015. Obtained from: [http://www.proecuador.gob.ec/wp-content/uploads/2015/02/PROECU\\_PPM2011\\_CER%C3%81MICA\\_GUATEMALA.pdf](http://www.proecuador.gob.ec/wp-content/uploads/2015/02/PROECU_PPM2011_CER%C3%81MICA_GUATEMALA.pdf)

Ministerio de Economía de Guatemala. Evaluación de las relaciones comerciales entre Guatemala y Ecuador. Accessed: 09/12/2015. Obtained from: [http://www.sice.oas.org/TPD/ECU\\_GTM/Studies/Review\\_2014\\_e.pdf](http://www.sice.oas.org/TPD/ECU_GTM/Studies/Review_2014_e.pdf)

Ministerio de Economía de Guatemala. (2013). Congreso Ratifica Acuerdo de Alcance Parcial de Complementación Económica entre Guatemala y Ecuador. Accessed: 09/12/2015. Obtained from: [http://www.sice.oas.org/TPD/ECU\\_GTM/into%20force/Ratification\\_GTM\\_s.pdf](http://www.sice.oas.org/TPD/ECU_GTM/into%20force/Ratification_GTM_s.pdf)

Ministerio de Economía de Guatemala. (2011). Concluye la II Ronda de Negociación Guatemala-Ecuador. Accessed: 09/12/2015. Obtained from: [http://www.sice.oas.org/TPD/ECU\\_GTM/negotiations/2Round\\_s.pdf](http://www.sice.oas.org/TPD/ECU_GTM/negotiations/2Round_s.pdf)

Ministerio de Economía. (2003). Reglamento de la Ley de Protección al Consumidor y Usuario. Accessed: 06/12/2015. Obtained from: <https://www.unican.es/NR/rdonlyres/AE228033-9F87-4E98-9089-34F20CAC4464/0/LEYDEPROTECCI%C3%93NALCONSUMIDORYUSUARIOR EGLAMENTOACUERDO7772003.docx>.

Ministerio de Relaciones Exteriores, Comercio e Integración. (2011). Ecuador y Guatemala suscriben un Acuerdo de Alcance Parcial de Complementación Económica. Accessed: 09/12/2015. Obtained from: [http://www.sice.oas.org/TPD/ECU\\_GTM/negotiations/Signature\\_s.pdf](http://www.sice.oas.org/TPD/ECU_GTM/negotiations/Signature_s.pdf)

Ministerio de Relaciones Exteriores, Comercio e Integración. (2011). Negociaciones Exitosas entre Ecuador y Guatemala. Acceso: 09/12/2015. Recuperado de: [http://www.sice.oas.org/TPD/ECU\\_GTM/negotiations/1Round\\_s.pdf](http://www.sice.oas.org/TPD/ECU_GTM/negotiations/1Round_s.pdf)

Ministerio de Relaciones Exteriores de Guatemala. Accessed: 23/10/2015. Obtained from: <http://www.minex.gob.gt/>

Misión Permanente de Guatemala ante las Naciones Unidas. “Información sobre Guatemala”. Internet. Accessed: 13/10/2015. Obtained from: <http://www.guatemalaun.org/guatemala.cfm>

Mundo Arquitectura.Org. Pisos de Porcelanato – Ventajas y desventajas. Accessed: 24/02/2016. Obtained from: <http://www.mundoarquitectura.org/pisos-de-porcelanatoventajas-desventajas/>

MundoArquitectura.Org. Los Porcelanatos Técnicos - Altamente Resistentes y Estéticos. Accessed: 21/02/2016. Obtained from: <http://www.mundoarquitectura.org/los-porcelanatos-tecnicos-altamente-resistentes-y-esteticos/>

Pisos El Águila. Accessed: 17/11/2015. Obtained from: <http://www.pisoselaguila.com/>

Proexport Colombia. (2014). Empresas de norte de Santander van a Centroamérica por nuevos negocios. Accessed: 21/11/2015. Obtained from: [http://www.procolombia.co/sites/default/files/periodico\\_de\\_las\\_oportunidades\\_norte\\_de\\_santander\\_v2.pdf](http://www.procolombia.co/sites/default/files/periodico_de_las_oportunidades_norte_de_santander_v2.pdf) Samboro S.A. Internet. Acceso: 12/11/2015. Recuperado de: <http://www.samboro.com/>

Pro Ecuador. (2013). Entra en vigencia reducción arancelaria de productos ecuatorianos en Guatemala. Accessed: 11/12/2015. Obtained from: [http://www.sice.oas.org/TPD/ECU\\_GTM/into%20force/IntoForce\\_s.pdf](http://www.sice.oas.org/TPD/ECU_GTM/into%20force/IntoForce_s.pdf)

- Promotora del Comercio Exterior de Costa Rica, PROCOMER. (2008) Análisis del sector construcción en el mercado guatemalteco. Accessed: 03/12/2015. Obtained from: [http://servicios.procomer.go.cr/aplicacion/civ/documentos/EE-IM-25-2008\\_Construccion%20Guatemala\\_VM.pdf](http://servicios.procomer.go.cr/aplicacion/civ/documentos/EE-IM-25-2008_Construccion%20Guatemala_VM.pdf)
- Robles, Elsa. (2013). Aeropuertos de Guatemala. Accessed: 07/12/2015. Obtained from: <http://www.deguate.com/artman/publish/infraestructura-guatemala/aeropuertos-de-guatemala.shtml#.VmWez7jhBD8>
- Robles, Elsa. (2013). Sistema o Red Vial/Carreteras de Guatemala. Accessed: 07/12/2015. Obtained from: <http://www.deguate.com/artman/publish/infraestructura-guatemala/sistema-o-red-vial-carreteras-de-guatemala.shtml#.VmWaTbjhBD8>
- Sinc. *Inkjet, la revolución de la impresión digital en la industria*. Accessed: 11/09/2015. Obtained from: <http://www.agenciasinc.es/Noticias/Inkjet-la-revolucion-de-la-impresion-digital-en-la-industria>
- Sistema de Información sobre Comercio Exterior. Centroamérica-Unión Europea. Accessed: 26/11/2015. Obtained from: [http://www.sice.oas.org/TPD/CACM\\_EU/CACM\\_EU\\_s.ASP](http://www.sice.oas.org/TPD/CACM_EU/CACM_EU_s.ASP)
- Sodimac. Guía de porcelanatos. Accessed: 21/02/2016. Obtained from: [http://www.sodimac.cl/static/site/guiasdeCompra/porcelanatos\\_2014/index.html](http://www.sodimac.cl/static/site/guiasdeCompra/porcelanatos_2014/index.html)
- Superintendencia de Administración Tributaria. Arancel Integrado. Accessed: 05/01/2016. Obtained from: <http://portal.sat.gob.gt/sitio/index.php/esat/autoconsultas-aduanas/arancel-integrado.html>
- Trademap. Comercio bilateral entre Ecuador y Guatemala, Producto: 690890 las demás baldosas y azulejos esmaltados (revestimientos cerámicos. Accessed: 12/01/2015. Obtained from: [http://www.trademap.org/Bilateral\\_10D\\_TS.aspx](http://www.trademap.org/Bilateral_10D_TS.aspx)

Trademap. Comercio bilateral entre Guatemala y Ecuador. Accessed: 10/12/2015.  
Obtained from:  
[http://www.trademap.org/Bilateral\\_TS.aspx?nvpm=3|320||218||TOTAL||2|1|1|2|1|1|1|](http://www.trademap.org/Bilateral_TS.aspx?nvpm=3|320||218||TOTAL||2|1|1|2|1|1|1|)  
1|

Trade Map. Exportaciones de Guatemala. Accessed: 05/01/2016. Obtained from:  
[http://www.trademap.org/Product\\_SelCountry\\_TS.aspx?nvpm=3|320||||TOTAL||2|1|1|2|2|1|1|1|](http://www.trademap.org/Product_SelCountry_TS.aspx?nvpm=3|320||||TOTAL||2|1|1|2|2|1|1|1|)

Trade Map. Estadísticas de Comercio Exterior. Accessed: 05/01/2016. Obtained from:  
[http://www.trademap.org/Country\\_SelProductCountry\\_TS.aspx?nvpm=3|320||||690890||6|1|1|1|2|1|2|1|](http://www.trademap.org/Country_SelProductCountry_TS.aspx?nvpm=3|320||||690890||6|1|1|1|2|1|2|1|)