



VIGILADA MINEUCACIÓN

**STRATEGIES AND RECOMMENDATIONS TO INCREASE EXPORTS IN THE
COLOMBIAN AGRIBUSINESS SECTOR, AFFECTED DURING THE BINATIONAL
CRISIS WITH VENEZUELA**

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Medellín, Colombia

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Acknowledgements and dedication

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Summary

This research seeks to design a series of strategies and recommendations to increase exports in the Colombian agribusiness sector, which has been affected during the binational crisis with Venezuela. In the first place, the causes and effects that this crisis has provoked in this part of the Colombian economy will be identified, this allows to point out the possible solutions, analyzing the most indicated to increase exports in this sector. The analysis obtained allows us to observe some elements that can be applied to increase the level of exports in Colombia's agroindustry.

Keywords: Agroindustry, export, competitiveness and binational crisis.

Abstract

This research seeks to design a series of strategies and recommendations to increase exports in the Colombian agribusiness sector, which has been affected during the binational crisis with Venezuela. Firstly, the causes and effects that this crisis has caused in this part of the Colombian economy will be identified, this makes it possible to point out the possible solutions, analyzing the ones best suited to increase exports in this sector. The analysis obtained allows to observe some elements that can be applied to increase the level of export in the agribusiness of Colombia.

Key Word: Agroindustry, export, competitiveness and binational crisis.

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Introduction

Export is conceived as a basic engine for Colombia's economy, this aspect is framed in the relationship that the country has with other nations or communities in the world. When difficulties arise in this relationship, the conflict causes the sectors that feed the economy to lose money; moreover, when a large part of their production is directed to a few countries. Between 2015 and 2018, the agribusiness sector exporting to Venezuela experienced a decrease in trade, caused by the binational crisis between Colombia and Venezuela, a crisis that dates from 2008 to the present. To avoid conflict in this sector, companies are obliged to be flexible to adapt to change, not only looking for new markets, but also preparing strategies to be competitive in them.

According to Casas & Enrique (2006) in order to increase the production of an economy and its competitiveness, it is necessary to work on the productive and technological factors of the companies, since they are the ones that contribute to the economic development of a region. It is important to mention that for a region to have a positive growth in its economy it is necessary to analyze the demands of its exportable goods taking into account the location of the region and the needs of the client. This can reach a stage of productive specialization in order to obtain an export base.

The project seeks to find strategies and recommendations for the country to increase exports in the agro-industrial sector, thus generating a positive impact on employment and GDP of the country. In order to achieve this, a bibliographic investigation of what is happening in Colombia and Venezuela is resorted to, in order to contextualize the binational crisis; also, it resorts to other methodologies such as: problem tree, objectives tree, value chain and a bibliographic revision to possible countries in which it can be exported. The first one is a support to identify which are the causes and effects that have generated the decrease of exportation in the Colombian agroindustrial sector; for then, to develop the tree of objectives with which it is possible to identify, alternatives that help the companies to improve their strategies and to increase the exportation; with the development of the chain of value it is shown how, the strategies can direct the companies to the satisfaction of the client; finally, products are associated in the market that are potential of exportation for big consumers.

The companies consulted experienced impacts such as: low levels of income and personnel cuts, issues that increase the unemployment rate and decrease GDP in Colombia; even so, there are alternatives that allow us not to focus only on resolving the crisis to increase exports. The contribution lies in the technification and training in companies, to the point of having an innovative factor that generates attractiveness for other countries. According to (Bloomberg, 2018) Since 2017, Colombia aims to become an agro-industrial power, taking advantage of its geographical variety in desert, jungle, prairies, Andean mountains, Caribbean and Pacific coasts; and as a region suitable for the cultivation of corn, beans, barley and other products that are delicious for the world. The country's task is also to identify the gaps in the large markets so that the proposed goals are better projected. By identifying these strategies, Colombian companies can be better seen and sought after in foreign trade.

1 Formulation of the project

1.1 State of the art

Agro-industry in Colombia is being directed to benefit from productive transformation in order to increase exports in this sector, (Ulloa Ramos, Molina Fresneda, Puentés Talero, & Rayo Maldonado, 2019) The article "Prioritization of agro-industrial products for productive transformation: An analysis from trade" identifies some positive economic impacts generated by exports in this sector, also identifies economic indicators such as competitive advantages, trade balance, among others that contribute to the analysis of economic impacts to be carried out in this project.

The report submitted by (Nogués, Porto, Ciappa, Di garcia, & Onofri, 2007) "Evaluation of economic and social impacts of public policies in the agro-industrial chain" identifies a series of evaluations for the economic and social impacts generated by export barriers in Argentina, in which it is possible to identify points that generate value to this project, such as the analysis of the impacts that these policies have generated in employment, in each of the products and in the country's GDP; through graphs and indicators that demonstrate the negative and positive impacts of these.

For (Galindo & Ríos, 2015) Exports arise when a country finds it profitable to sell its production abroad. In Latin American countries, its geographical characteristics give it a great variety of natural resources; recognizing this abundance gives the possibility of exploiting the resources that can later be traded. (Ganoa, 2019) in "Modelo Primario-Exportador en México y en América Latina, 1870-1930", describes how after the independence and establishment of the States in Latin America, each country specialized in specific production activities (mining, agriculture and agricultural products) and its expansion in trade abroad was given by what, citing (Pinto, 1974) The "primary export" or "outward growth" model, where foreign demand was the engine for this commercial dynamic and the projection in time depended on the evolution of the markets.

(Baptist Gate, 2015) highlights the components mentioned by the previous authors in their research "Foreign investment in Venezuela: From trading houses to oil companies (1850 - 1975)" explains how the offer in this country was taken advantage of by European Nations and the United States. The investigation traces two moments: the first one "The coffee economy and

the commercial houses", stage in which the foreign investment was given through the creation of the commercial houses, these last ones were in charge of implanting the products of the coffee and cocoa in the exterior, with control on the local economy, on having become distributor. The second "Oil and the oil companies" occurs because of the decline of the coffee economy due to the economic crisis abroad and because Venezuela was left behind, with reference to the technological advance of other coffee producing countries, this gave way to the recession of the "agro-export economy and the emergence of the oil economy", which, due to the concessions given by the government, began in the hands of outsiders (the United States with greater participation) and then "a radical change in the Venezuelan economy was encouraged at all levels, in which the State became the main creditor of the profits coming from the oil industry". The author ends by highlighting Venezuela's position in international markets, leaving open a question about Venezuela's competitiveness with respect to other commercializers of this hydrocarbon.

Colombia had a process of economic growth similar to that of Venezuela. (Castro Figueroa, 2008) in "Manual de exportaciones, la exportación en Colombia" in chapter 1 "historia del comercio exterior en Colombia" locates the country in the colonial era where the country was exploited and began its first export process with minerals (gold). Again with the processes of independence, the economy changed for an agricultural base and gives "origin to the development of the new Colombian economy" (p. 17-53). In the book highlights through time and more recently, the new commercial processes (globalization) that, while restricting the economy for epochs, develops, encourages and links to market demand. Once again, the trade gaps of developing countries are taken advantage of and encouraged by others, such as the United States and Great Britain, which generate economic openness.

Just like that,(González Arana & Galeano David, 2014) in "Las relaciones Colombia-Venezuela: límites, desgolfización y securitización, tres variables en la política exterior binacional" observes the stages in which the relationship between Colombia and Venezuela has been framed in two categories: territory (border delimitation) and security, determining components when looking at the "convergence or divergence" in the commercial dynamics of both nations. The authors make a timeline of the conflict that the two countries have had for several governments. (González Arana & Galeano David, 2014) conclude that the binational relationship "identifies five stages": the first between the years 1830-1914, where border lines

were established. Then in 1969-1989 issues are raised regarding the Gulf of "social, economic, and political order inherent in two countries that share more than 2,000 kilometers of borders, on which various types of conflicts converge. The third stage took place in an area after the "collapse of the socialist world" where economic and social issues regarding the border were discussed. The next stage, a very critical one, from the arrival to the power of: Hugo Chávez in Venezuela and Álvaro Uribe Vélez in Colombia, where the dissolution of relations began because of ideological differences: political and commercial alliances, Colombia hand in hand with its main ally, the United States and Venezuela with allies against the U.S. regime. Finally, with the arrival of Juan Manuel Santos as president, the aim was to re-establish lost relations, with a view to the interests of the economic future of both countries.

(Duarte Herrera & Giraldo Arcila, 2018) In "Experiencia del Global Business Exchange, Internacionalización de pymes de Medellín hacia el mercado alemán" (Experience of the Global Business Exchange, Internationalization of SMEs from Medellín to the German market), the results obtained in generating an exchange between SMEs (Small and Medium Enterprises) from Colombia and Germany, through professional accompaniment stand out. During this process, the companies learned "the basis for strengthening trade and commercial relations". The information is constructed from interviews conducted with professionals who were in charge of these processes, where these companies obtain: cultural knowledge for success in the exchange, business vision, environmental thinking and sustainability, important aspects in this century and in the culture of the country with which the exercise was carried out.

Among the authors mentioned above, it should be noted that the documents that will contribute most to the project are: the report presented by (Nogués, Porto, Ciappa, Di garcia, & Onofri, 2007) which gives us a direction on how to carry out an analysis of the economic impacts of the fall in exports to Venezuela in the Colombian agro-industry sector and the article of (Ulloa Ramos, Molina Fresneda, Puentés Talero, & Rayo Maldonado, 2019) for the information it provides about economic analyses and impacts on the sectors that are exported in Colombia.

1.2 Problem Statement

The crisis that the country of Venezuela is currently experiencing, has generated in Colombia an economic crisis in many aspects and one of them has been, the concerns that Colombian businessmen have felt, because exports to Venezuela fell by more than USD 7 billion and debts also grow according to (La FM, 2019)

Colombia seeks to increase its GDP with exports, however, companies have stopped exporting because the collapse of the markets of Venezuela and Ecuador, where 30% of non-traditional exports went, became one of the reasons for not taking advantage of other opportunities, because these were only focused on the Venezuelan and Ecuadorian market (Semana Magazine, 2019).

Within 30% of exports to Venezuela and Ecuador, the agro-industry sector stands out, which has experienced a decrease in trade to Venezuela, which is identified by comparing exports made in 2015 and 2018, since in the first year the sum of exports was 1,060 million dollars and in the second was 354.2 million dollars. (Villán Bustamante, 2019).

The main causes of this trade crisis between the two countries began in 2008 when the Colombian army attacked a FARC camp in Ecuadorian territory in which Commander Raúl Reyes died. This irruption, not authorized by Ecuador, unleashed an enmity on the part of Venezuela and Ecuador towards Colombia, generating the collapse of commercial relations, which led Colombia to export US\$6,092 million to export US\$1,423 million, which means a fall of 72%. this to be better when President Juan Manuel Santo made an agreement with President Hugo Chavez, however after the death of President Hugo Chavez and the possession of Nicolas Maduro both countries (Colombia and Venezuela) entered again into the commercial crisis. (El Herald, 2015).

The commercial crisis that both countries are currently experiencing forced Colombian companies, including those in the agro-industrial sector, to reduce their exports to Venezuela and to reduce their exports in general, because most Colombian companies in the non-traditional industries sector depended largely on exports to that country.

Therefore these companies are being forced to be flexible to adapt to change, to find innovations within their products or processes and seek new markets, since in some cases these generated the largest source of income and not having them run the risk of disappearing.

What are the strategies to increase exports in the Colombian agro-industrial sector?

1.3 Objectives

1.3.1 General Objective

Design a series of strategies and recommendations to increase exports in the Colombian agribusiness sector, which has been affected during the binational crisis with Venezuela.

1.3.2 Specific Objectives

- To identify the causes and effects of the binational crisis in the Colombian agroindustrial sector.
- Identify possible solutions to increase exports in the Colombian agro-industry sector.
- Identify and analyze solutions according to variables that increase the economy, productivity and decrease unemployment in Colombia.
- Conduct research on possible countries that have high consumption of products manufactured in Colombia and that do not have a high participation in exports.

1.4 Justification

1.4.1 Theoretical justification

This project contributes to the discipline of international business, strategies and recommendations that are very useful for export specifically for the agro-industrial sector, because this type of research has not been addressed.

1.4.2 Social and/or business justification

Grade work generates greater impact for Colombian agro-industrial companies. This approach aims to increase exports in the sector through strategies and recommendations. This will generate solutions to increase the economy of the country, also covers the social field from an indirect point of view, since, if exports are increased, new markets are opened and the demands in this sector grow, generating the rate of unemployment decreases and the quality of life increases.

1.4.3 Personal Justification

The development of this work makes it possible to understand the parts that make up the economy of a country and how this can be collapsed by the decisions taken by a president. It also shows how one of the bases that is the Colombian agroindustry, is affected by such decisions and lack of vision in the face of current markets and technologies.

1.5 Frame of Reference

1.5.1 Theoretical Framework

This framework will present the theories on which the development of the degree work will be based, in order to design strategies and recommendations to increase exports in the Colombian agroindustry.

- **Neoclassical growth theory**

According to (Houses & Enrrique , 2006)This theory arose from the works of Harrod (1939), Solow (1956), who developed models that make it possible to understand the growth of the economy as a whole.

The starting point of the TNC (Neoclassical Growth Theory) is called the Solow Sawan model. This means diminishing yields and a market of perfect competition. According to this theory, it is the factors of production and technology that have a great influence on the production levels of an economy.

In order to develop this theory, it is necessary to identify how much and what is currently being produced for this sector, as well as the number of jobs it offers, the stock of capital and its level of technology. With these data, it will be possible to observe how the region is with respect to others, identify growth with historical data and identify the factors that are necessary to make the economy in the sector grow.

- **The theory of demand and the regional multiplier**

The present theory is based on Keynesian theory, which tries to explain the economic crises of a country such as unemployment and low production.

Example: the GDP indicator, which tells us how a country's economic activity is.

In the theory of demand and the regional multiplier according to (Houses & Enrrique , 2006) is focused on the analysis of the determination of the income of the regions based on the components of demand. The TRM (market representative rate) attempts to answer the question of what are the determinants of income and employment levels in a region and, therefore, of its variations.

According to TRM, the injection of investment into the regional economy has a direct impact on employment and, therefore, on the region's income.

"For TMR there are exogenous variables from which the regional growth process starts. Since these variables are the most important autonomous component of the models, they indicate the possibilities for growth from the injection of new income into the economy from external private investment, export (or external demand for goods and services) and public expenditure. On the other hand, consumption expenditure and imports are in turn determined by exogenous and endogenous elements". (Casas & Enrrique , 2006).

Therefore, this theory seeks to identify how the low level of exports affects the agro-industrial sector in terms of income and employment generation.

- **Theory of the export base**

This theory says that the growth of a region, i.e. its dynamizing component, depends on an exogenous variable, which in this case refers to the demand for its exportable goods. The thought of North (1970), one of the founders of this theory, starts from the idea that regions reach a stage of productive specialization such that, under more favorable conditions of production and transport costs, they can export goods and services to other less developed regions. North, also tells us that regions produce certain types of main goods or services, tend to become an exportable good.

This idea is largely based on the localization theory, since the growth of a region is given by the clustering and localization of enterprises generate a large scale economy, which improves the competitiveness of these goods and provides a higher income.

The basic mathematical formulation of the export base theory has a close familiarity with TMR. (Houses & Enrrique , 2006)

Theory of resources and capacities

According to (Sánchez Peñaflor & Herrera Aviles , 2015) quoting Rugman and Verbeke, considers that the theory of resources and capabilities is within the field of strategy, based on the resources of the company; since importance is given to the internal structure of the organization in order to formulate and develop strategies for the company. In this theory, Penrose (founder of

the theory of resources and capabilities), creates the foundations of this and describes the processes by which a company grows, conceptualizes the firm or the company as a set of resources with administrative organization.

This theory has evolved over the years. One of the characters involved in this theory is David Teece, who states that companies have excess resources that can be used for diversification purposes. This diversification is the key element for multi-product companies. On the other hand, Wernerfelt, refers to companies as a broader set of resources in order to get the balance of exporting them and developing new ones.

In this way, the theory focuses on the internal sources of superior performance that companies possess; it also seeks to establish a link between the capabilities that organizations have and their superior performance with respect to their competitors.

This theory has emphasized that companies are fundamentally heterogeneous, in terms of their internal resources and capabilities, which has meant being the heart of strategic management as a result of what Peteraf formulates. The elements developed in this theory are: heterogeneity of resources, limits on ex-post competition, limits on ex-ante competition and mobility of imperfect resources. (Sánchez Peñaflor & Herrera Aviles , 2015)

1.5.2 Conceptual Framework

Next, we identify the sector with which we are going to work in the grade work, the economic concepts and the export concepts.

- **Colombian Agroindustry**

Agro-industry is a basic means to transform agricultural products, to boost the manufacturing sector as a source of export and a condition for food and nutritional security. (Cortés & Alonso, 2007). In this sense(Arango Buelvas & Pérez Fuentes , 2015)This concept is reinforced by calling the relationship between two traditional sectors, agriculture and industry, the first producing raw material and the second transforming this raw material into the final product, "process of articulation of economic activities". The main products that are commercialized in the Colombian agroindustry sector are: Aquaculture sector, biofuels, cocoa, chocolate, confectionery, coffee and meat sector.

Agro-industry aims to strengthen and give better economic conditions to the sectors involved by giving a greater balance on a rural scale. This interdependence mentions (Arango Buelvas & Pérez Fuentes , 2015)which "...as a system requires natural, economic, social and political conditions for its development, which constitute the axis that dynamizes and articulates activities..." and the environment must be protected by the State. This system makes more sense when it is observed that in underdeveloped countries with imbalances and inequalities, they produce regions with equal underdevelopment in which the conception of public policies provides the necessary balance for this sector to be well conceived.

- **Economic impact**

According to(PWC Colombia, 2012) an economic impact serves to measure the impact and benefits of investments in infrastructure, organization of events, as well as any other activity likely to generate a socio-economic impact, including legislative and regulatory changes.

Within these economic impacts are evaluated a series of economic indicators which are: Dollar TRM, UVR, DTF, Unemployment, CPI, GDP, Minimum wage, Coffee, Oil (DANE, 2019)

- **Export**

For(Galindo & Ríos, 2015)Exports arise when a country finds it profitable to sell its production abroad. In Latin American countries, its geographical characteristics give it a great variety of natural resources; recognizing this abundance gives the possibility of exploiting the resources that can later be traded.(Ganoa, 2019)in "Modelo Primario-Exportador en México y en América Latina, 1870-1930", describes how after the independence and establishment of the States in Latin America, each country specialized in specific production activities (mining, agriculture and agricultural products) and its expansion in trade abroad was given by what, citing(Pinto, 1974)The "primary export" or "outward growth" model, where foreign demand was the engine for this commercial dynamic and the projection in time depended on the evolution of the markets.

- **Free on Board(FOB)**

According to(CVN, 2017)The FOB "Libre a Bordo" is a term that appears in the INCOTERM (International Commercial Terms) standards and is the value model used in Colombia for exports

and imports. This rule indicates that the responsibility (Cost-Risk) of the seller of the product is transferred to the buyer only until the goods are shipped in the (sea) means of transport. This value that is initially expressed in U.S. dollars is translated to the FOB value in Colombian pesos, using the average exchange rate of the market corresponding to the month of analysis. (CVN, 2017).

The following concepts are developed from the theory of resources and capabilities

- **Generalities of Strategic Thinking**

According to (Quintero & Sánchez, 2006) quotes Jimenez,S and Peralta,M(2004), which says that strategic thinking aims to complement the strategic planning exercise, to the extent that it provides a view and vision of the future as a dynamic perception of reality and as preconfiguration processes of viable alternatives.

Study thinkers divide strategies into 3 levels which are: strategic, strategic operational and tactical; these levels relate to each other, to fulfill a company objective. These types of reasoning aim to reduce uncertainty, minimise risks and maximise opportunities through a set of multiple analysis and learning procedures.

One of the most commonly used strategic thinking tools in planning processes is what is known as the value chain.

- **Value chain**

This concept was initiated by Porter (1986) in the theory of competitive advantage ... he expresses that the analysis of the value chain is a technique with the purpose of obtaining a competitive advantage through schemes and procedures that allow to diagnose the position of the company with respect to its competitors and to define actions tending to develop a sustainable competitive advantage. (Quintero & Sánchez, 2006)

1.5.3 Legal Framework

Article 1 of Law 48 of 1983

According to Law 48 of 1983 The Congress of Colombia, 1983, in its first article, when norms on foreign trade are issued by the Colombian Government these must be focused: First to

generate welfare in the industry and productive sectors of the country by encouraging the export of local products. Second, to allow the development of existing treaties. Finally, there are changes in international trade.

INCOTERMS 2010

They are a set of rules that allow the standardization of clauses in contracts for foreign trade. They present an interpretation of items in the exchange such as: scope of the price, point where the exchange generates risks for buyer and seller, delivery, duties of each party and the regulation (accompanied by prices) that must be complied with by each party involved in the transaction. (KANVEL LOGISTICS & BUSINESS WORLDWIDE, 2017)

Andean Subregional Integrated Agreement (Cartagena Agreement)

From this document, the countries of Bolivia, Colombia, Ecuador, Peru and Venezuela are united by a common objective "...to promote the balanced and harmonious development of the Member Countries under conditions of equity, through integration and economic and social cooperation; to accelerate their growth... with a view to the gradual formation of a Latin American common market. "(ANDEAN SUBREGIONAL INTEGRATION AGREEMENT, 1969). It is also proposed that through this agreement governments should provide the means for the inhabitants of their countries to benefit from the agreement and that conflicts should diminish the Latin American condition of underdevelopment and establish a trade balance with foreign trade.

Law 67 of 1979

As mentioned in Law 67 of 1979 of the Congress of the Republic (1980), the President of the Republic must follow the conditions indicated in this text and give incentives to companies that export their products abroad; they will also have licenses to import as long as it is to renew their market or for their production.

Law 1731 of 2014

"By means of which financing measures are adopted for the reactivation of the agricultural, fishing, aquaculture, forestry, and agroindustrial sectors, and other provisions are issued related to the strengthening of the Colombian Corporation for Agricultural Research (Corpoica). "(LAW 1731 , 2014)

This law promotes the primary and secondary sectors of the Colombian economy, accompanied by an entity in charge of generating development and research for these sectors of the economy. By strengthening the rural sector, it not only gives them options and tries to balance the social balance, it implements means to generate knowledge and be competitive in the international market.

Decree number 210 DE 2003

This estate creates an entity in charge of the direction and the economic vision of the country; in such a way that it is from a scale of micro to macro-companies the integral enough so that the social imbalance does not grow. Not only this, the management of this entity depends on relevant indices in the country such as the development index, the unemployment index and the GDP.

In Colombia, the Ministry of Commerce, Industry and Tourism:

Its main objective within the framework of its competence is to formulate, adopt, direct and coordinate the general economic and social development policies of the country, related to competitiveness, integration and development of the productive sectors of industry, micro, small and medium-sized enterprises, foreign trade in goods, services and technology, promotion of foreign investment, domestic trade and tourism; and to execute foreign trade policies, general plans, programmes and projects.(DECREE 210 OF 2003, 2019)

1.1 Methodological Framework

1.1.1 Investigation Method

- **Research Approach**

This research has a mixed approach, since in the qualitative part an inductive inquiry is carried out, which is associated with a survey that is carried out in order to have primary data on the causes of the variations that companies have had in exports and the negative effects that these have generated; on the other hand, an investigation will also be carried out on the quantitative approach associated with the deductive because we will use tools such as statistics to identify the main causes for which companies have stopped exporting to Venezuela and because this has negatively affected the Colombian agro-industry guild.

Type of study

The degree work will be developed through the type of descriptive study, understanding this, according to the faculty of exact sciences and technology (Universidad Nacional de Santiago de Estero, 2008) as: "Descriptive studies serve to analyze how a phenomenon is and how it manifests itself and its components. They allow to detail the phenomenon studied basically through the measurement of one or more of its attributes" p. 6. According to the above, this research will study the different phenomena that cause the decrease of exports to the country of Venezuela of the Colombian agro-industrial companies and the effects that these have generated in the economy of these and of the country.

1.1.2 Research Methodology

- **Data collection techniques and tools**

In order to obtain information for the development of the degree work, a bibliographic investigation is carried out in scientific journals and in newspapers of the state of agroindustry since 2008; the bibliography used by the articles mentioned in the state of the art is also identified, which will give us information about the effects of the binational crisis and its causes.

In order to identify primary and more specific information on Colombian agroindustry exports to Venezuela, a survey is carried out and in order to be able to develop it, we identify what we want to investigate and what its objective is.

As it has been manifested in the work one of the main negative situations that the country of Colombia has had has been the decrease of exports that has had in the last years in all its sectors. In this paper we will focus on the agro-industry sector and specifically on exports to the country of Venezuela.

- The main concerns that this paper seeks to resolve are: Why has the Venezuelan crisis impacted Colombian companies? How could the effects that this crisis has generated in Colombian companies in the agro-industrial sector be mitigated? and What have been the most relevant effects that this binational crisis has caused in the agro-industrial sector?
- The objective of the survey is to identify the main difficulties that companies have had due to the crisis between the two countries.
- The criteria of the companies to be surveyed are: they must be from the Colombian agro-industrial sector and must export or have exported to Venezuela.
- The survey is aimed at companies that exported or export agro-industrial products to the country of Venezuela.

The question that will be embroidered in this survey are the following:

1. Name of respondent
2. Identity card
3. The Company
4. Position in the company
5. Does the company still export to Venezuela?
 - a) Yeah.
 - b) No
6. If question 5 was negative, why do they no longer export to Venezuela?
 - a) Due to high transportation costs to Venezuela
 - b) Because of the binational crisis
 - c) Because it is no longer profitable
 - d) None of the above
7. If the previous answer was no, what was the percentage of products exported to Venezuela compared to the total exported to other countries?
 - a) Between 91% to 100%
 - b) Between 81% to 90%
 - c) Between 71% to 80%
 - d) Between 61% and 70
 - e) Between 51% to 60%
 - f) Between 41 % A 50%
 - g) Between 21% and 40%
 - h) Less than 20%
8. Before the binational crisis (Colombia-Venezuela), was it easier to export to Venezuela than to other countries?

- a) Yeah.
 - b) No
9. In relation to the binational crisis, indicate in the following effects, the level of impact that the crisis has caused in the company. Rank each effect from 0 to 3, where 0 does not apply, 1 lesser impact, 2 medium impact and 3 greater impact.
- a) Low income levels
 - b) Personnel reduction
 - c) Increase in products in inventories
 - d) Low product prices
10. If question 5 was whether sales to Venezuela have decreased?
- a) Yeah.
 - b) No
11. If the answer 10 was positive, What was the percentage of products that you exported to Venezuela with respect to the total that you export to other countries?
- a) Between 91% to 100%
 - b) Between 81% to 90%
 - c) Between 71% to 80%
 - d) Between 61% and 70
 - e) Between 51% to 60%
 - f) Between 41 % A 50%
 - g) Between 21% and 40%
 - h) Less than 20%
12. If the answer to question 10 was positive, what percentage has exports to Venezuela decreased?
- a) Between 5% and 10%
 - b) Between 11% and 20%
 - c) Between 21 and 30%.

- d) Between 31% and 40%
- e) Between 41% and 50%
- f) Greater than 51

13. If question 10 was positive, why has export to Venezuela decreased? Rank each cause from 0 to 3, where 0 does not apply, 1 lesser impact, 2 medium impact and 3 greater impact.

- a) Due to high transportation costs to Venezuela
- b) For the relations between the two presidents
- c) Because Venezuela has no way of backing the payments.
- d) Another one.

14. In relation to the binational crisis, please indicate in the following effects the level of impact caused by the decrease in the company's exports to Venezuela. Rank each effect from 0 to 3, where 0 does not apply, 1 lesser impact, 2 medium impact and 3 greater impact.

- a) Low levels of company revenues
- b) Cutting back on company personnel
- c) Increase of products in the company's inventories
- d) The prices of the company's products have decreased.

15. If the answer to question 10 was no, which of the following causes have caused them to continue exporting without any inconvenience?

- a) Good relations with Venezuelan companies
- b) Because of the high demand in this country
- c) For the ease of trading with the Venezuelan currency system (DICOM)

The survey is carried out using the Google form tool and will be distributed to well-known companies in the agro-industrial sector that have exported or are exporting these products to Venezuela.

The analysis of this survey will be carried out using statistical and graphical tools.

Information selection and analysis

To carry out the analysis of the information collected, the problem tree tool is used to identify the direct and indirect causes, the direct and indirect effects generated by the binational crisis, and the objectives tree will be used to identify alternative solutions to mitigate the negative effects caused by the binational crisis.

Using graphs, the results obtained from the survey are shown and a detailed analysis of each of the questions with its respective graph is carried out.

The value chain tool is also used to show the strategies that add value to the increase in exports in the Colombian agro-industrial sector.

- **Bias control**

For the control of bias, it is guaranteed that all the information provided in this degree work will be carried out with data researched in scientific journals, in books, in recognized newspapers and by means of a survey that is carried out on companies of the Colombian agro-industry.

The product of the work will be based on the information provided by secondary and primary sources; and with an objective and correct analysis.

For the development of the degree work, researchers have no particular interest in the results. The realization of this is solely and exclusively to solve the problem posed

1.2 Scope

This work will be carried out with information produced (mostly) between 2008 and 2019, reflecting the timeline of the binational crisis between Colombia and Venezuela, causes and effects of the crisis on the Colombian agroindustry sector, analysis of possible solutions to increase exports in this sector, identifying the most viable options and describing some cases on which the elements to increase exports can be applied.

The intention is to collect and describe the facts that are relevant to this project, on an international, national and regional scale around the agribusiness sector, allowing an analysis from these data to make a projection on the possible future of this economy and highlight at the global level.

It is expected that these strategies can serve until the year 2030, because the strategies contained in this project serve, for companies in the agro-industrial sector, which seek to export independently of the economy that is living in the country.

2 Development of research

2.1 Causes and effects of the binational crisis.

2.1.1 Binational crisis

According to the article in(Olaya, 2019)The crisis that Venezuela is currently experiencing in its politics and economy from 2012 until now, has generated great negative impacts on Colombian businessmen, who say that exports to the neighboring country fell by more than 7 billion and debts continue to grow.

This crisis that Colombia has been experiencing, with respect to the economy, is caused to a great extent by the binational crisis that exists between Colombia and Venezuela, which to understand must take historical data that has occurred between both countries.

The following table shows a chronological summary of the coexistence between Colombia and Venezuela.

Table 1 Timeline: Relationship between Colombia and Venezuela

Year	Month	Event	Bibliography
2008	March 1st	The attack of the Colombian army on March 1, 2008 against the Revolutionary Armed Forces of Colombia (FARC), in Ecuadorian territory and after the death of the commander, guerrilla Raúl Reyes, triggered a serious crisis that positioned Venezuela and Ecuador against Colombia.	(British Broadcasting Corporation(BBC), 2010)
2008	2nd March	Venezuela saw this act as an interference in Ecuadorian national sovereignty. For this reason, Venezuela and Ecuador at the time withdrew	(British Broadcasting Corporation(BBC), 2010)

Year	Month	Event	Bibliography
		<p>diplomats from Colombia and concentrated troops on the country's respective borders.</p>	
2008	March 8th	<p>To mitigate the conflicts between the two countries against Colombia, a summit meeting of the Rio group was held in the Dominican Republic and relations were re-established.</p>	<p>(British Broadcasting Corporation(BBC), 2010)</p>
2009	19th March –	<p>Despite the reconciliation between Venezuela and Colombia in 2008, there was another relapse in relations after Colombian Defense Minister Juan Manuel Santos declared that: pursuing terrorists outside national territory was an act of legitimate defense. Because of these words Chavez (president of Venezuela at the time) responded qualified to the minister of the Uribe government as: pupil of the Yankee right and threat to the continent.</p>	<p>(British Broadcasting Corporation(BBC), 2010)</p>
2009	April 14th	<p>In spite of the controversy between the two countries, Álvaro Uribe (president of Colombia) said relations were re-established in order to work for the present and future of both peoples.</p>	<p>(British Broadcasting Corporation(BBC), 2010)</p>

Year	Month	Event	Bibliography
2009	July 21st	Colombia-U.S. military agreement authorizing U.S. military personnel to operate on several Colombian bases, once again straining the relationship between the two countries.	(British Broadcasting Corporation(BBC), 2010)
2009	July 28th	Hugo Chavez ordered the withdrawal of his ambassador from Bogota and froze diplomatic and commercial relations.	(British Broadcasting Corporation(BBC), 2010)
2009	November 8th	Chávez called on Venezuelans to "prepare" for war; according to him, to defend Venezuela.	(British Broadcasting Corporation(BBC), 2010)
2010	March 31st	An alleged case of Colombian espionage in Venezuela came to light, with the arrest of eight alleged spies in Venezuelan territory.	(British Broadcasting Corporation(BBC), 2010)
2010	April 25th	Less than a month later, the Venezuelan president said that if Santos was elected there could be a war.	(British Broadcasting Corporation(BBC), 2010)
2010	June 20th	Santos was elected president of Colombia and in his first speech called for harmony and cooperation with neighboring countries.	(British Broadcasting Corporation(BBC), 2010)
2010	July 22nd	Colombia denounces to the OAS that it has evidence of the "consolidated" and "active" presence of Colombian guerrillas	(British Broadcasting Corporation(BBC), 2010)

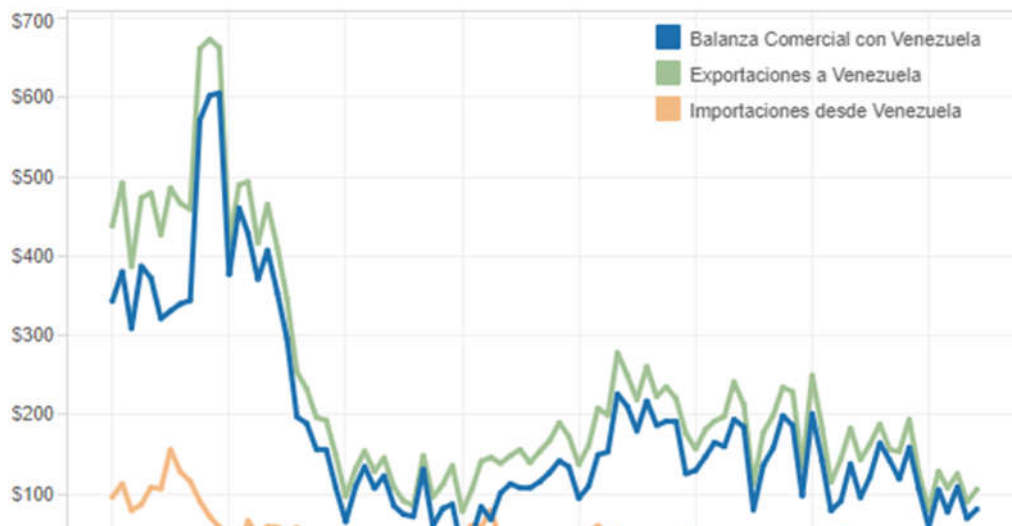
Year	Month	Event	Bibliography
		in Venezuela. That is why Chavez feels attacked and responds: "We have nothing left, for dignity, but to totally break off diplomatic relations with the sister Republic of Colombia.	
2010	August 10th	In the agreement embodied in the declaration of principles at the Santa Marta meeting, Presidents Juan Manuel Santos and Hugo Chávez Frías renewed trade relations.	(Cardo, 2011)
2013	March 5th	Maduro announced the death in national broadcast on the death of Hugo Chávez Frías.	(Gil Gutiérrez, Flórez, & Puentes , 2019)
		Maduro is appointed president.	
2013	April 14th	Maduro wins Venezuelan elections and proclaims himself president	
2013	May 8th	Protests unleash in Venezuela (Venezuelans take to the streets massively against the regime)	(Gil Gutiérrez, Flórez, & Puentes , 2019)

Note: From 2013 until today, Colombian companies have had heavy losses, because exports in the neighboring country (Venezuela) has declined rapidly by the relations of the presidents of both countries. (El Herald, 2015).

Source Own elaboration

The table above shows that relations between Colombia and Venezuela have fluctuated very strongly in recent years, which has brought economic difficulties for both countries.

Below is a graph in which the fluctuation of bilateral trade can be identified.



Graph 1 Bilateral trade

Source (El Heraldo, 2015)

The graph above shows that in 2008 exports were high compared to other years, this year Colombia and Venezuela still had good relations, but when there begins to be stronger conflicts, a decline in exports is generated, beginning in 2009.

2.1.2 Competitiveness: Favourable environments for companies in Colombia.

One of the main items, for a region to increase productivity and competitiveness, are technologies and constant training of workers. (Houses & Enrique , 2006)

Colombia, in the technology sector, has a very large gap with the rest of the world, according to the ANDI (National Association of Entrepreneurs of Colombia), 2019, instead of moving backward, last year fell 3 positions, going from 57 to 60. This fall is explained in the first place by deterioration in infrastructure, adoption of Tics, skills, among others.

According to (Portfolio, 2018) There are 28 departments that promote agrifood products, while only 17 focus on solutions of greater industrial or technological innovation: chemicals, pharmaceuticals, medical equipment, petrochemicals or software services.

It is also identified that Colombia has a long way to go. In the pillar of the abilities I decrease 2 positions, in the indicator it is located in the box 80, this is due to the trainings and critical

thinking of the teachings in the institutions. (ANDI(National Association of Industry of Colombia), 2019).

The table below shows Colombia's position vis-à-vis other countries in the competitiveness pillar. The indicator shows four categories that are considered important for boosting countries' productivity within the framework of the fourth industrial revolution.

Table 2: Global Competitiveness Index 4.0

INDICADOR	Reporte 2017	Reporte 2018	Cambio
Número de Países	135 países	140 países	
Indicador General	57	60	-3
Entorno favorable	72	72	0
Instituciones	91	89	2
Infraestructura	81	83	-2
Adopción de TICs	80	84	-4
Estabilidad macroeconómica	57	56	1
Capital Humano	49	51	-2
Salud	35	35	0
Habilidades	78	80	-2
Mercados	46	45	1
Mercado de productos	87	85	2
Mercado laboral	79	80	-1
Sistema financiero	46	53	-7
Tamaño del mercado	37	37	0
Ecosistema de Innovación	53	60	-7
Dinamismo de los negocios	39	49	-10
Capacidad de innovación	72	73	-1

Taken from (ANDI(National Association of Industry of Colombia), 2019)

2.1.3 Agroindustry in Colombia

The following is an analysis in ¹FOB values of exports, which the Colombian agroindustrial sector carried out in 2008, 2009, 2011, 2013, 2015 and 2018. The data analyzed in the following tables and graphs are provided by DANE².

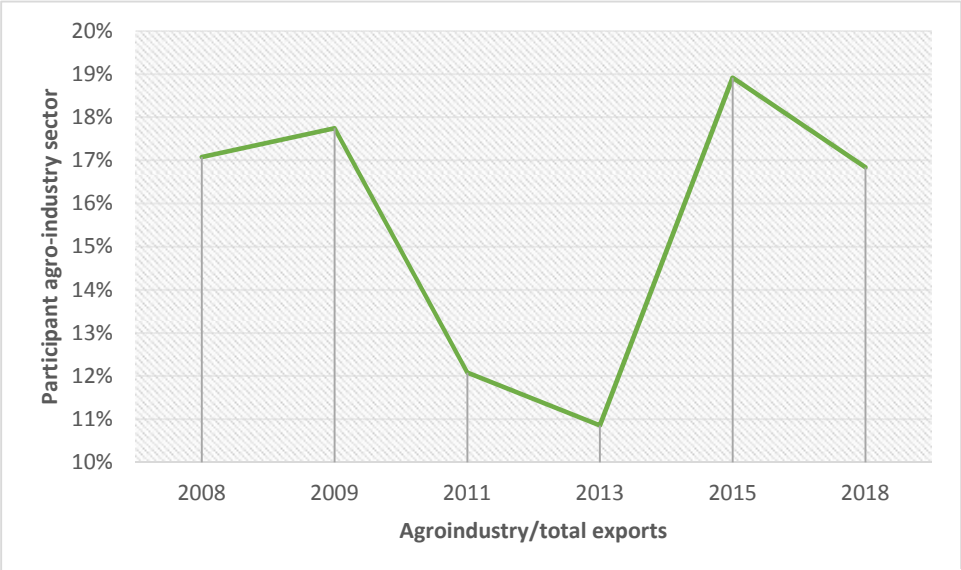
In order to analyze how the exports of the Colombian agroindustrial sector to Venezuela are, first an analysis is made of how the agroindustrial sector is with respect to the total exports made in the country.

According to graph 1, on average, the agro-industrial sector in Colombia represents 16% of the total of all the sectors that export to the country. Also, it is observed that the sector, had a strong fall in 2013 (in this year the president Nicolás Maduro assumed the power of Venezuela) and although in 2015 had its best moment with 19% of participation, last year fell back to 17%.

¹Free on board (FOB) is a term used to value exports and is defined in Spanish as "libre a bordo" (free on board). This refers to the sales value of the products at their place of origin, plus the cost of freight and other expenses necessary to get the goods to the customs office of exit. (Inflation Colombia, n.d.).

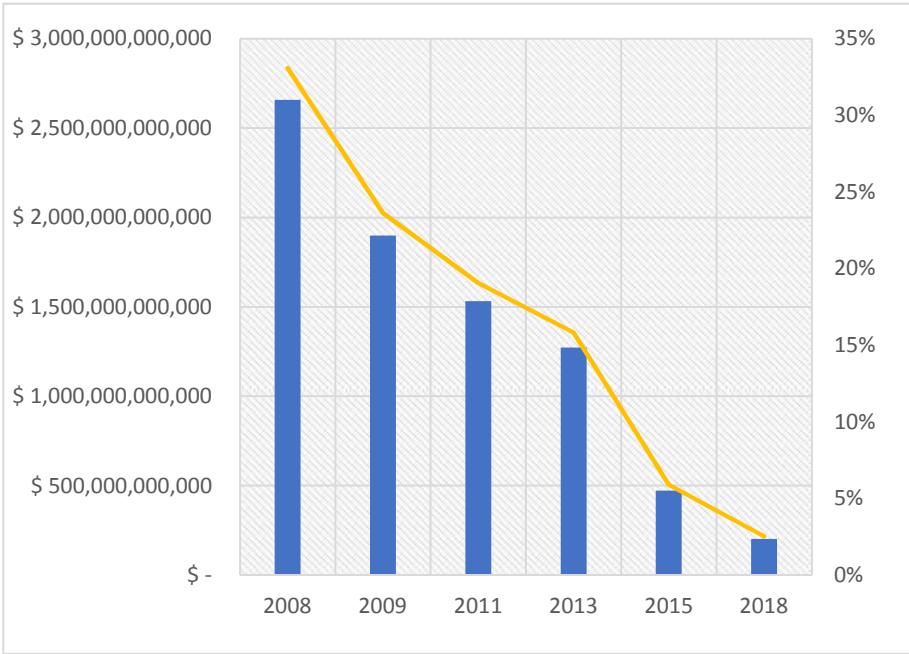
² The information was provided by DANE's CIAC (Centro de Información y Atención al Ciudadano) in the offices located in the city of Medellín.

This is negative for the country, since the national development plan (NDP) seeks to double production in this sector. (DNP(National Planning Department), 2018)



Graph 2 Percentage share of agro-industry in all products exported per year. Own source

The following graphs and tables show, in FOB values and as a percentage, the decrease in exports of the Colombian agroindustrial sector to Venezuela.



Graph 3 Representation of Venezuelan imports in Colombian agro-industrial products.

In the graph above, it can be seen that exports to Venezuela in the agro-industrial sector decreased each year with respect to total exports to Venezuela in this sector in the years analyzed.

In table 2, we can see that exports have decreased to Venezuela, as shown in the previous graph. At the same time it can be observed that the exports of the agro-industrial sector as a whole have had variations, for example: at times not as good as in 2013, under \$ 570,038,503,678 FOB with respect to 2008 and at times very good as 2018, in which \$ 8,315,849,957,324 FOB more than in 2008 was exported. For Colombia, this increase is very significant; however, it must be taken into account that in recent years exports to a country such as Venezuela, which represented a good percentage of exports, have stopped and have decreased by 92% in 2018, which represents a loss of approximately \$ 2,457,223,258,552 FOB in monetary value.

Table 3 Exports of the Colombian agro-industrial sector to Venezuela with respect to total exports of this sector

YEARS	VALORES FOB OF COLOMBIAN AGRO-INDUSTRY EXPORTS TO VENEZUELA	VALORES FOB OF ALL COLOMBIAN AGRO-INDUSTRY EXPORTS	PERCENTAGE SHARE OF EXPORTS TO VENEZUELA
2008	\$ 2.659.054.875.080	\$ 12.508.273.217.617	21,26%
2009	\$ 1.898.865.375.739	\$ 12.481.788.899.268	15,21%
2011	\$ 1.488.162.322.525	\$ 12.711.616.750.177	11,71%
2013	\$ 1.271.478.802.209	\$ 11.938.234.713.939	10,65%
2015	\$ 472.621.249.827	\$ 18.357.434.634.437	2,57%
2018	\$ 201.831.616.528	\$ 20.824.123.174.941	0,97%

Source: own

2.1.4 Unemployment rate in Colombia.

With regard to unemployment, it can be observed that the rate has increased in recent years.

According to Mincomercio (2019), "in the first half of 2019 there was a fall of 0.6% compared to the same period in 2018. For ramás of activity, there was a reduction of 5.8% in agriculture, livestock, hunting, forestry and fishing. (p12)

The following graph shows the unemployment levels from 2003 to 2019.

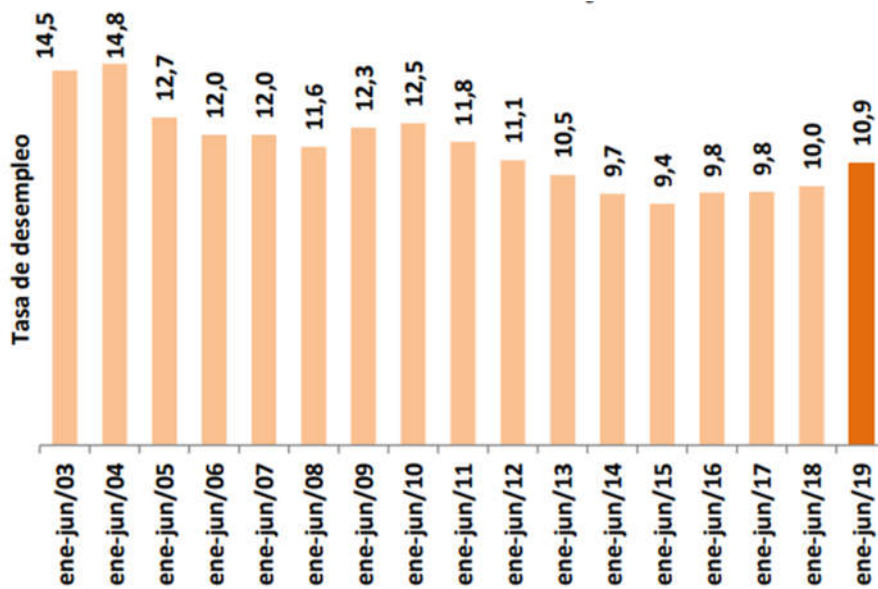


Chart 4 Unemployment rate, for the unemployment rate an analysis is made from January to June 2003 until 2019, recovered from DANE. OEE-MinCIT calculations

One of the main factors that causes unemployment to increase according to the (Mincomercio, 2019) is the binational crisis due to the high rate of Venezuelan immigrants in the country.

2.1.5 Analysis: Survey of companies in the agro-industry sector

Three companies participated in the survey: S&J Flowers SAS, Colcafé and Corporativa Agraria de Banano Orgánica.

The 3 companies replied that today they do not export to Venezuela. All 3 responded that it is due to the binational crisis as shown in graph 4.

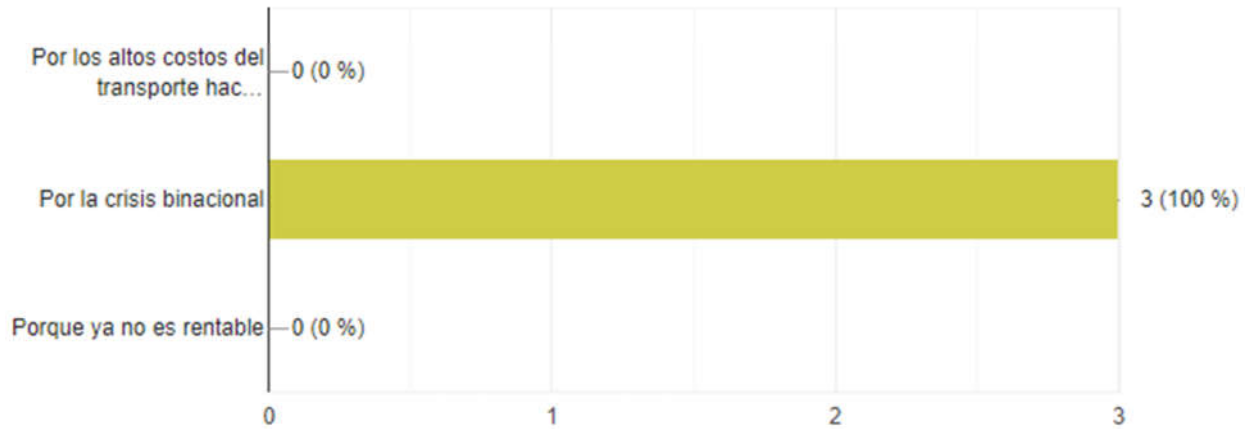
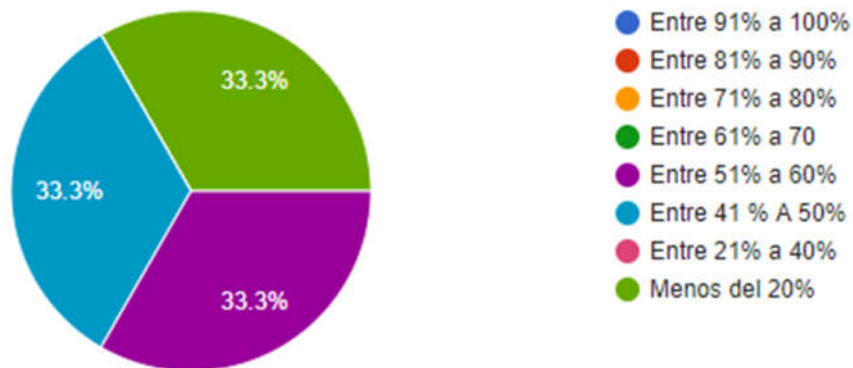


Chart 5 Exports to Venezuela, Own Source

As for the percentage of products that the companies exported to Venezuela with respect to the total they exported to other countries, Colcafé responded that it exported less than 20%, Corporativa agraria de banano orgánica exported between 41% and 50% and S&J Flowers SAS responded that it exported between 51% and 60%.

Below is the graph that identifies how much each company exported.



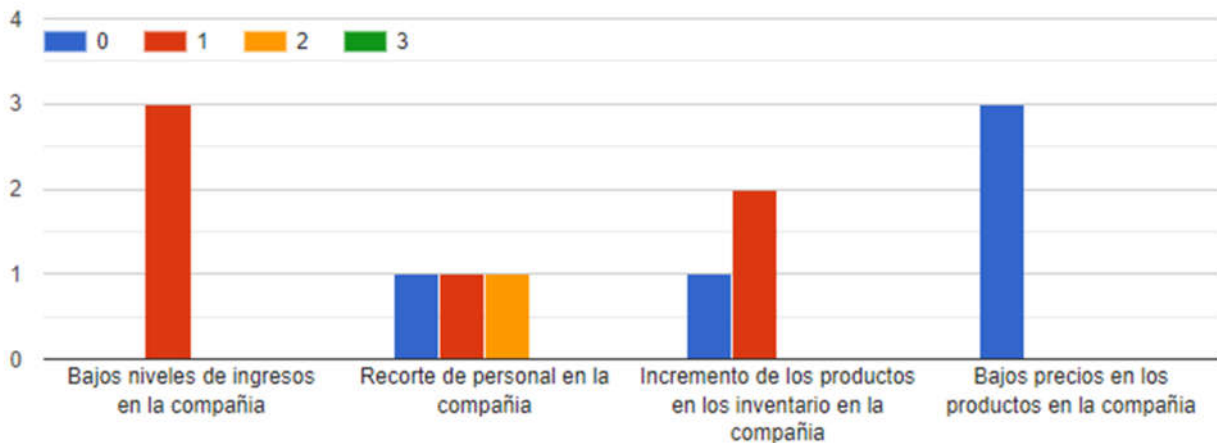
Graph 6 Percentage of products that the surveyed companies exported to Venezuela, Own source

The 3 companies replied that it used to be easier to export to Venezuela than to other countries as shown in the following graph.



Graph 7 Exports to Venezuela before the binational crisis, own source

Some of the major impacts of the binational crisis are: in the medium term, the company's low income levels, staff cuts and product increases in inventories (see graph 7).



Graph 8 Impacts generated by the binational crisis on the companies surveyed

The previous survey shows that the crisis in relations between Colombia and Venezuela generated negative impacts on companies in the Colombian agro-industrial sector. It is also of

great importance to mention that two of the companies exported between 40% and 60% of their products to Venezuela, which is a large amount for companies that are currently SMEs and medium enterprises.

2.1.6 Tree of problems of the agro-industry sector in Colombia

Next, a tree of problems is made in which the causes and effects of the decrease in exports in the agro-industrial sector are clearly identified.

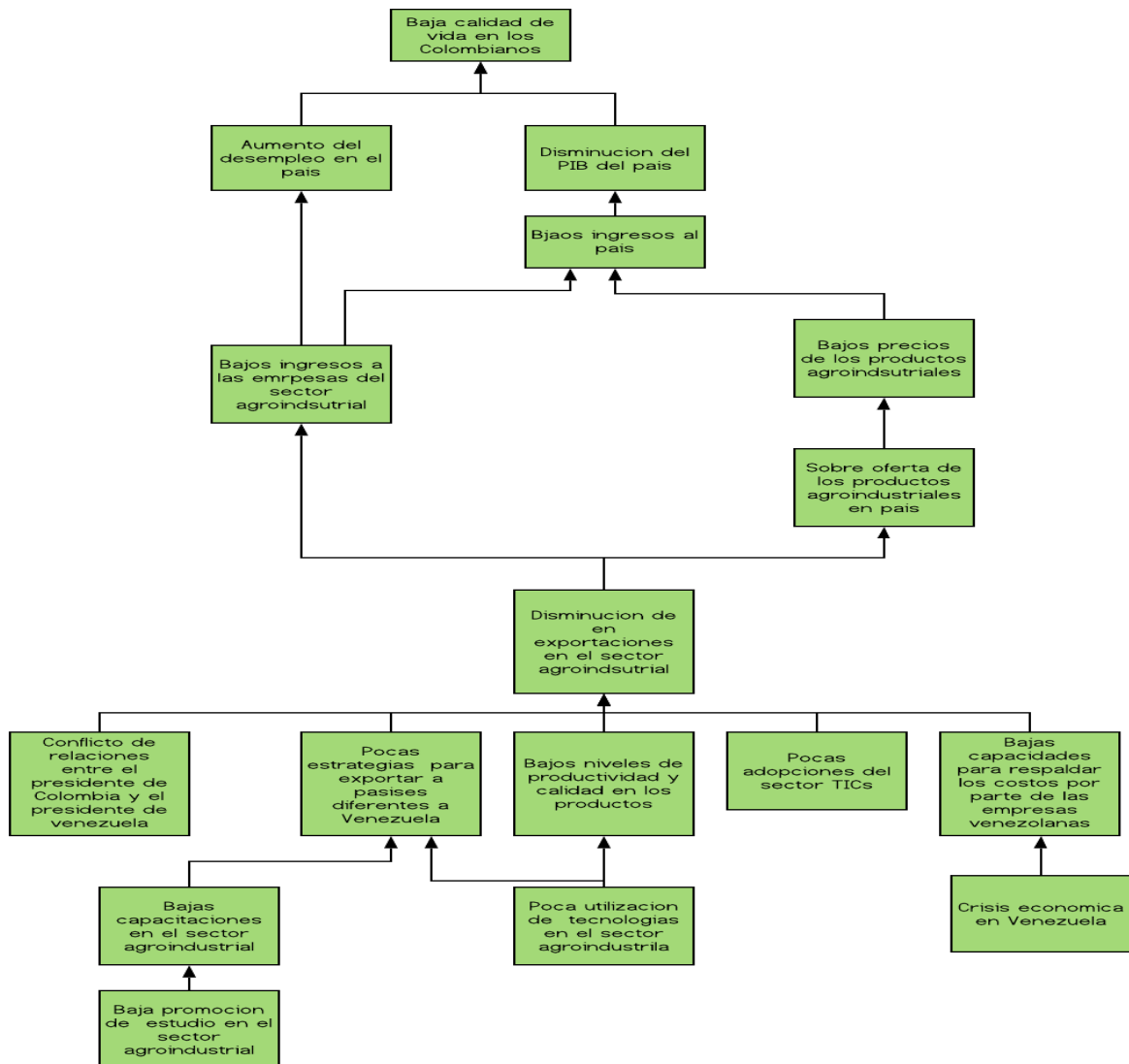


Figure 1 Problem tree, own source

An analysis is made of the relationship between Colombia and Venezuela, from 2008 to the present; it is evident that the relations between both parties brought great economic problems to

both countries. Also, an analysis of the competitiveness in Colombia is made comparing 135 countries, of which (on average), the country occupies the position 75, really low number as far as the adoptions of technology, Tics and negotiations. This reflects that the country must give more strength to the revolution that is being lived this year, there is the future of Colombian companies and the opportunity to export and increase GDP.

In the analysis of exports (agro-industry), it is identified that the country has allowed itself to receive large incomes due to the binational crisis, which not only affects companies, but also the population that is employed in these sectors. This largely contributes to the country's current unemployment rate of 10.9; compared to previous years it is very high and has been a major setback for the country. However, it is currently growing and has advanced to the digits, to which is added the immigration that there is in the country of the Venezuelan people; but this reflects the use of a great entrepreneurial muscle that, not having it, unleashes unconformities in the economy, the quality of life of a country and the internal commercial balance.

In the analysis of the survey although it was small, confirms the discomforts that have been exposed during all the work of degree; this alludes to the need for new strategies to increase exports of the country, in this case in the agro-industrial sector, because although they do not represent a high percentage in export compared to the mining / energy goods, has always been a base for export of the country, as it has the right conditions to be a large exporter, because it contributes with 19.7% of exports despite being a small sector that represents 2.7% of total Colombian companies. (DANE, 2019).

The tree of problems that can be identified in figure 1 focuses on the causes and effects generated in the country by the decrease in exports to Venezuela and to the rest of the countries in the agro-industrial sector. This methodology allows us to understand how all causes point towards a general effect, in this case the quality of life of Colombians.

2.2 Possible solutions to increase exports in Colombia.

In order to identify possible solutions to increase exports in the Colombian agro-industrial sector, a tree of objectives must first be developed.

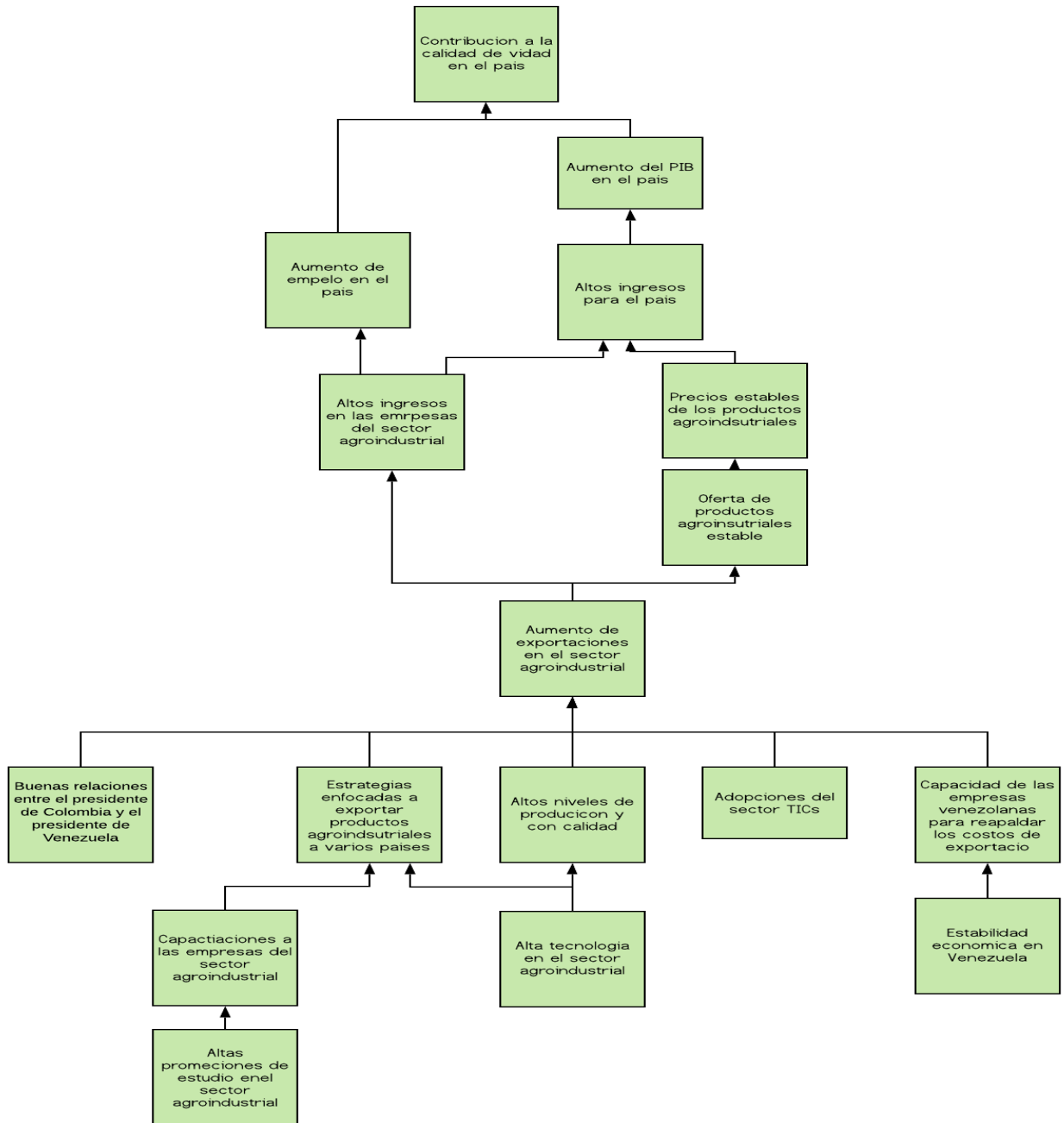


Figure 2 Objective tree

2.2.1 Solution Alternatives

Solution Alternative 1: Good Relations between the President of Colombia and the President of Venezuela

Solution Alternative 2: Promote education in the agro-industrial sector.

Activities

- Train teachers in the agro-industrial sector
- Conduct workshops on agro-industry in rural and urban schools
- Encourage companies through training the importance of growing and not just stay in SMEs in order to increase their capacity for job offers.

Solution Alternative 3: Increase technology in the agro-industrial sector.

Activities

- Carry out a technological review of the agro-industrial sector in South American countries.
- Train farmers on the importance of technology.
- Make a plan for the creation of guilds in the different regions so that farmers can support each other and buy the different machinery they need for their crops.
- Conduct workshops on the use of technology according to the needs of each guild

Solution Alternative 4: Adoption of Tics in the agro-industrial sector

Activities

- Train farmers in the importance of Tics in this sector.
- To carry out workshops in order to show the different systems based on the Tics that exist in order to control agro-industrial productions.
- Carry out workshops on how Tics can be used in favour of products produced in each of the subdivisions of the agro-industrial sector.

Solution Alternative 5: Economic Stability in Venezuela.

Objective 2 was developed based on the objectives tree which seeks to identify what would be the ideal conditions to achieve a general objective in this case to increase exports in the Colombian agro-industrial sector, which contributes to the quality of life of the Colombian population.

Based on these ideal conditions, alternatives for solutions to increase exports in the Colombian agroindustrial sector are identified; each alternative has some activities, which allow them to be developed in a logical and efficient manner.

2.3 Solutions that increase the economy, productivity and contribute to the reduction of unemployment in Colombia

Next, a weighting table is made, where a weighting percentage is assigned, according to the importance of each alternative of solution exposed in objective 2, based on Taha's definition (2004) that says: "The determination of the specific values of these factors is subjective" p352.

In the following image, it is presented the qualification that can obtain each one of the alternatives of solution and the percentage of importance of each one of the items, with which these alternatives are evaluated. This percentage of importance is developed according to the degree of contribution to which the solution strategies are focused, based on the national development plan and the strategies the country needs to close the quality of life gap.

#	ITEM	PORCENTAJE DE IMPORTANCIA
1	Contribuye al aumento economico en el pais	20%
2	Contribuye a la generacion de empelo	20%
3	Ayuda a aumentar la productividad en las empresas agroindsutriales	15%
4	Ayuda a amunetar la caldiad de porductos	15%
5	Genera un atractivo comercial internacional en las empresas	20%
6	Alternativa no politica	10%

Calificacion	
Impacto directo	3
Impacto medianamente directo	2
Impacto nulo	1

Figure 9 Rank and percentage of importance, own source

A weighting table is presented below, which is elaborated by means of the restrictions presented in the previous image.

Table 4 Weighting table

ALTERNATIVE	1	2	3	4	5	6	WEIGHTING
Good Relations between the President of Colombia and the President of Venezuela	2	2	1	1	1	1	1,4
Promote education in the agro-industrial sector	2	2	2	2	3	3	2,3
Increasing technology in the agro-industrial sector	2	2	3	3	3	3	2,6
Adoption of Tics in the agro-industrial sector	2	2	3	2	3	3	2,5
Economic stability in Venezuela.	2	2	1	1	1	1	1,4

This table identifies viable alternatives for increasing the exports of agro-industrial companies.
Source, own.

According to the results of the previous table it can be observed that the alternatives of solution that are viable to increase the exports in the country are:

Alternative 2: Promote education in the agro-industrial sector

Alternative 3: Increasing technology in the agro-industrial sector

Alternative 4: Adoption of Tics in the agro-industrial sector

These alternative solutions give added value to companies in the agro-industrial sector, since they help them to be more productive and competitive at a global level.

The following diagram shows how these three strategies help agribusiness firms become more competitive.

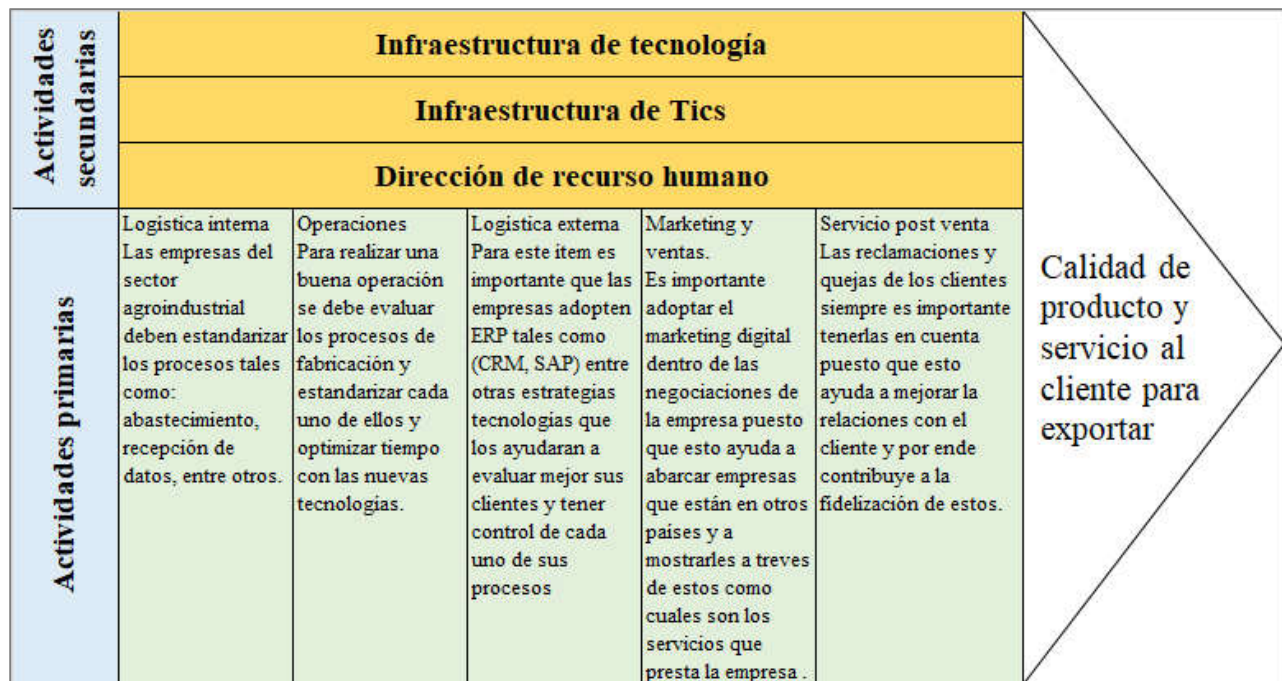


Figure 3 Value4 for the Colombian agribusiness company.

The weighting table helps to understand which strategies should be applied in the agro-industrial sector in order to increase exports and the value chain is a support to show how strategies should be applied to increase the quality of service and products so that countries see the Colombian agro-industrial sector as a good trade to buy.

2.4 Countries and key products to increase Colombia's exports.

Based on the FTAs (free trade agreements) in force in Colombia and the register on exports provided by DANE, some countries are identified to which Colombia has exported during 2019; it is also analyzed, based on bibliographic records, the greater demand for agro-industrial products that are consumed in these nations. This makes it possible to identify which products Colombia produces, but does not export to these countries.

For effects of this work of degree, it will only be contributed in the relation to the following products exported by the country: meat³ (not fish), mango and common guava, for being of the most productive products in the country, great appreciation in other countries and of those that have better expectation to be exported according to the data supplied by the DANE.

2.4.1 Meat

According to (Ritchie, 2019) Today the production and consumption of meat is 5 times higher than in 1960, while for that year consumption was 70 million tons, in 2017 the figure reached 330 million tons, values that are explained not only by the exalted population growth (from 3000 to 7600 million people in those years), also by the purchasing power in different populations. This is how it refers to the consumption of some countries, "United States, Australia, New Zealand and Argentina ... exceeded 100 kg of meat per person per year.

By placing the meat in the DANE export database, it was found that it is only exported to the countries of the Dominican Republic, Russia, the United Arab Emirates and several Asian countries. The FTAs that the country has with communities such as the European Union are observed and countries that integrate this alliance are identified, such as New Zealand, to which it exports several articles, presented in table 5, which add up to a percentage (in FOB) of representation of 0.10% with respect to the total of all the countries.

³ The DANE, in the database on exports from Colombia, groups in a single code, all types of meat of the species: bovine (fresh or refrigerated), horse, ass or mule.

Table 5 Exports to New Zealand in 2019

Produkte	FOB	Total, of products exported in FOB	Percentage of New Zealand representation with respect to all countries in FOB
Sweets, candies, candies and pastilles.	\$ 5.247.776.249		
Bile, whether or not dried; glandules and other substances of animal origin, used in the preparation of pharmaceutical products.	\$ 730.868.308		
Fresh roses cut for bouquets or ornaments.	\$ 6.121.743		
Aster, fresh, cut for bouquets or ornaments.	\$ 39.408.937		
Other coffees, not roasted, not decaffeinated.	\$ 9.347.408.323	\$ 15.599.236.705.269	0,10%
Chewing gum, sugar-coated.	\$ 9.017.597		
Mangoes otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit.	\$ 48.363.635		
Other fruits and edible parts of plants, including mixtures, otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, excluding mixtures of subheading No. 2008.19.	\$ 199.703.950		
Total	\$ 15.628.668.740		

In this table are filtered, only the values pertaining to the exports that Colombia made to New Zealand, during the first half of 2019. (DANE, 2019)

Table: own elaboration

As can be seen in table 5, Colombian meat is not part of the products that are traded to New Zealand, a country that is not only a great consumer, but also a great producer.(CONtextoganadero, 2017). This last aspect may explain why it is not exported, but its

economy does not include equine meat, which has high nutritional values, less fat (with respect to weight) and at a lower cost than the rest of the offer with 30% less. In the market, "recently there has been an interest in alternative sources of meat other than beef, pork and poultry".(Vanegas Azuero & Gutierrez, 2016). Therefore it is a great opportunity for Colombia to increase the export of this type of meat.

2.4.2 Handle

Another product that at the moment is wasting its export is the mango, which according to(GBD network, 2015) has a great projection for 2020 and the biggest consumers are: The United States, Canada, the European Union and China.

According to the data supplied by DANE it is identified that Colombia, having commercial relations with the European Union and China, does not export products derived from mangos, bearing in mind that in Colombia the climatic conditions allow harvesting high quantities of mangos that are even lost, as Urieles(2019) affirms. "Due to the dusty trails in Cienaga(Magdalena) mountains of mangos that rot in the sun without anyone taking them to a market grow during these times".

According to the commercial relations that Colombia has with China, Croatia, Luxembourg and Malta, these high consumers of mango are strategic countries to start exporting this fruit and increase export levels in these companies.

2.4.3 Common guava.

According to Castillo, 2012 the guava is considered the queen of fruits because it contains 16 vitamins, the highest amount of antioxidants and concentration of vitamin C. In Colombia the production of guava has a large share with 97,970 tons per year (2018) and compared to other countries ranks 6th among the best producers of guava, however, only exported in 2018 33.8% of the guavas produced, which does not even reach half the production of guava in the country. (Mini-Agriculture, 2018).

Colombia has a great opportunity to export guava, not only because of the amount of production of this exotic fruit, but also because it is a very demanded fruit in countries such as Australia according to the following (Bicknell, 2016) says: "The development of the Australian

market is increasing as the knowledge of this exotic fruit continues to grow" and Bosnia and Herzegovina, this country is also an important focus for exporting guava because in its food market guava has a large amount of demand and producers in the country do not have to supply it. (Bajramovic' & Rodriguez Fuentes, 2016).

Colombia is a country rich in biodiversity so it has great scope to increase its agricultural products and transform them, the country has to grow and offer the world its wonders, there are many customers who export, but you need organized methods, a strong technological muscle to conduct research in agricultural products and be able to compete with large agro-industrial exporters such as the United States and Holland.

3 Conclusions and Recommendations

3.1 Conclusions

- In the course of the investigation it is identified that the companies of the Colombian agroindustrial sector experienced economic impacts such as: low levels of income and personnel cuts; this due to the economic crisis that Venezuela is currently experiencing and due to the commercial relations that exist between both countries; the above also affects in an indirect way the whole Colombian territory: in the increase of the unemployment rate and the reduction of the GDP index, which contributes to the low quality of life of Colombians.
- The degree project also refers in large measure to the various alternatives that the country has to increase its exports without having to focus on the binational crisis.
- Technology and training (agro-industrial knowledge) in the companies of the agro-industrial sector are alternatives that help to be competitive not only to the company but also to the country. These help to make the processes more technical, efficient, productive and to improve the quality of the products.
- The qualities that companies find in the alternatives contribute to make them more attractive in foreign trade and thus increase exports in the country, leading to improved working conditions and income for Colombians.
- The work identifies different countries which are possible clients for Colombia, for the products produced here and for the products they demand; this shows that there is a lot of field to cover and there are possibilities to increase the country's economy based on exports. Therefore, it is identified that Colombia has great potential to be one of the big producers of the agro-industrial sector, but in order to achieve this, it is necessary to invest in agricultural education, technology and Tics.

3.2 Recommendations

- Colombia is a country that has large hectares to plant according to the following statement (Medina, 2018) "of the 40 million hectares it has for agricultural development, only 7.6 million (about 20% of the agricultural frontier) are cultivated" p2. This shows that Colombia has to produce more agricultural products and has more opportunity to carry out research for the transformation of these products, and to focus on countries that are within the FTA and that have the capacity to respond economically.
- The country must take advantage of the present alliances, continue acquiring knowledge and making use of new technologies to apply them to the agroindustry, until the moment when it can compete and recognize itself as a power in these aspects. Just as relations were established with New Zealand to innovate in the dairy industry and meat production, it is important not to abandon other sectors such as agriculture. For this, references such as Holland (belonging to the European Union), whose successes are due to the implementation of high technology in agriculture to the point of creating a "Silicon Valley of agriculture, known as Food Valley".(Segura, 2017).

There, all kinds of experiments are carried out to optimize resources, not only thinking about the interests of their country, but also in those of underdeveloped areas where technology could be efficient to alleviate food shortages. But the involvement of small farmers is essential if the plans initiated by the government a few decades ago are to bear fruit. (Segura, 2017).

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