



Faculty of Legal Sciences

International Studies Career

**ANALYSIS OF THE EXPORT DETERMINANTS
OF SPECIALTY COFFEE OF THE COMPANY
CAFEXPORTO AND DEVELOPMENT OF AN
IMPROVEMENT PLAN FOR EXPORT TO THE
UNITED STATES.**

**Degree work prior to obtaining the degree of
Bacheloror in International Studies**

Author:

Rafael Alejandro Zúñiga Peñafiel

Director:

Mgst. Adrián Ramiro Alvarado Guzmán

Cuenca – Ecuador

Year 2023

Dedicated to

This degree work is dedicated to my parents, who have supported me unconditionally throughout my life, their effort and dedication are the greatest example and guide.

It is also dedicated to my beloved Amalia Victoria, all my achievements and successes obtained are and will always be by and for you.

Acknowledgments

My thanks are addressed to those who have supported me during the preparation of this degree work, my family and friends.

To my thesis supervisor, Adrián Alvarado, for guiding me throughout the process, supporting me with his extensive knowledge and showing me the way forward when difficulties have arisen.

To the company CafExporto and its owner Juan Peña, for the favorable reception it gave and the access provided to information necessary for the realization of this titling work.

Table of Contents

<i>Dedicated to</i>	<i>i</i>
<i>Acknowledgments</i>	<i>ii</i>
<i>Table index</i>	<i>¡Error! Marcador no definido.</i>
<i>Figure index</i>	<i>iv</i>
<i>Index of annexes</i>	<i>iv</i>
<i>Summary:</i>	<i>v</i>
<i>Abstract:</i>	<i>v</i>
INTRODUCTION	1
CHAPTER 1: ANALYSIS OF THE COMPANY'S CURRENT PRODUCTION MODEL	2
1.1 Background of the company CafExporto	2
1.2 Analysis of the production model at national level	3
1.2.1 On-farm production	3
1.2.2 Management and advice to producers.....	9
1.2.3 Monitoring and quality control	12
1.3 Processing and packaging plant	14
CHAPTER 2: ANALYSIS OF THE EXPORT PROCESSES CARRIED OUT DURING THE PERIOD 2017-2022	16
2.1 Export process	16
2.2 Specialty coffee exported during the period 2017-2022	19
2.3 Traffic lights of problems	20
2.3.1 Production.....	21
2.3.2 Sourcing.....	23
2.3.3 Distribution.....	25
CHAPTER 3: PREPARATION OF CAFEXPORTO'S EXPORT IMPROVEMENT PLAN	28
3.1 Production	28
3.2 Sourcing	32
3.3 Distribution	33
CONCLUSIONS	39
RECOMMENDATIONS	41
REFERENCES	43
ANNEXES	45
<i>Informed consent for interview</i>	45
Interview Transcript	46

INDEX OF TABLES, FIGURES, AND ANNEXES

Index of tables

Table 1	21
Table 2	24
Table 3	25
Table 4	29
Table 5	32
Table 6	34

Index of figures

Figure 1	4
Figure 2	5
Figure 3	5
Figure 4	6
Figure 5	7
Figure 6	10
Figure 7	10
Figure 8	11
Figure 9	13
Figure 10	15
Figure 11	17
Figure 12	19
Figure 13	20
Figure 14	21
Figure 15	36

Index of annexes

Annex 1	47
Annex 2	48

Summary:

Within this degree work, a case analysis of the company CafExporto was carried out, where two objectives were proposed, first the qualitative analysis of the export determinants and second, the evaluation of its logistics chain through the use of the internal audit tool known as traffic lights. The results obtained showed that there is a significant increase in the production and therefore export of specialty coffee, on the other hand, it was determined that there are difficulties within its logistics chain, especially in the process of export and distribution to the Western market of the United States. Based on these results, the main solutions were to control the application of technologies by current coffee growers, avoid dependence on neighboring coffee growers and implement a winery in the state of Kansas to supply the entire destination country.

Keywords: Logistics chain, United States, specialty coffee, exports, improvement plan

Abstract:

Within this degree work a case analysis of the company CafExporto was carried out, where two objectives were proposed. First a qualitative analysis of the determinants of export in this company was carried out. Second, the evaluation of its logistic chain through the use of the internal audit tool known as semaphoresis was also carried out. The results showed that there is an important increase in the production and consequently export of specialty coffee. On the other hand, it was determined that there are difficulties within its logistic chain, especially in the process of export and distribution to the Western market of the United States. Based on these results, the main solutions proposed were to control the application of technologies by current coffee growers, to avoid dependence on neighboring coffee growers and to implement a warehouse in the state of Kansas to supply the entire country.

Keywords: Logistic chain, United States., exports, improvement plan, specialty coffee



This certificate is in the digital repository of the University of Azuay, to verify its authenticity scan the QR code

This certificate consists of: 1 page

INTRODUCTION

At present, there are new trends in the development of niche markets that consist of taking traditional products and raising them to a level that requires greater specialty, unique characteristics, highly meticulous processes and other specialized processes that result in products with a high added value. (Otoniel Dilas Jiménez et al., 2021) This is the case of specialty coffee, a product that has gained strength within the last decade due to its physical and sensory characteristics in the cup. In Ecuador, there is a limited number of companies that dedicate their productive activity to specialty coffee, which seek to make real exports to international markets where the trend of specialty coffee consumption is gaining strength (Belduma-Gia et al., 2022).

Within this last aspect, the company CafExporto is identified as one of them, since the Cuencan company stands out in the national and international market for its outstanding practices of production of specialty coffee, as well as for the quality of its coffee beans, obtaining in this way important recognitions and first places in international barista contests (CafExporto, 2023).

However, the company currently presents several difficulties within its logistics chain that do not allow a correct development of its exports to the leading market of the same, the United States. It is then that, because of this, the company seeks to solve them to open a new market in the eastern part of the country in question.

For this reason, the objectives set out in this degree work are 2: first, to carry out an analysis of the determinants of the export of specialty coffee of CafExporto and second, to analyze the logistics chain of the company and identify the errors that the company currently faces through a semi-structured interview with the general manager of the company, and after this it is proposed to evaluate the problems through the use of an internal audit tool known as traffic lights, this methodology will identify the problem, evaluate it by assigning a color (green, yellow and red) in addition to a score (between 1 and 10) to assign a timely solution applicable in the short term and allow the company a correct development of its logistics chain that, in turn, will have a direct impact on the development of the Eastern market of the United States.

CHAPTER 1: ANALYSIS OF THE COMPANY'S CURRENT PRODUCTION MODEL

1.1 Background of the company CafExporto

The company CafExporto constituted in the city of Cuenca, through the modality of a Joint Venture¹ where its general manager and partner, Juan Peña carries out a process of cultivation of specialty coffee that occurs in Saraguro, province of Loja specifically in the hacienda La Papaya. This process is carried out in conjunction with neighboring producers in the area in question, who are advised by the necessary technology to meet the high levels of quality of specialty coffee required by the international market. This technology involves electronic equipment that allows to know first-hand the temperature and humidity to which the coffee plants are subjected within each plantation block. On the other hand, the company registers exports to different countries, being the main destination the United States market.

The company CafExporto arises from the increase in the demand for specialty coffee worldwide, also presents facilities such as owning several hectares of land, ideal for growing coffee. It is necessary to understand that the varieties of coffee grown by the company need specific factors on which their flavor, aroma and tonalities will depend, these factors range from a specific height above sea level, direct hours of sunshine throughout the day and even the climate of the region. CafExporto's plantations are located in the Saraguro region, in the area known as La Papaya, at 2000 meters high, with perpendicular sunlight every day of the year and an extremely favorable climate. These factors are what allow the quality of coffee to be among the highest in the specialty coffee market.

The product that the company currently exports to different destinations internationally has one of the highest qualities in this market. By 2022, the quality of the coffee bean of the company CafExporto stood at 92 points according to the scale of the international coffee classification system developed by the Specialty Coffee Association (SCA), where the minimum score that a specialty coffee bean can obtain is 80 points and the maximum is 100 points. Then, the coffee bean that obtains a lower score than

¹ Joint Venture: It is the Collaboration between companies for the realization of a specific project or activity, which is characterized by the parties maintaining their autonomy and sharing control over the common business.

mentioned is considered a commercial type coffee. In addition, the coffee exported by the company has been awarded in several international barista contests, among the most important are the first and second place in 2018 and 2020, respectively in the US Coffee Championship². In addition, the company CafExporto has been recognized by Sprudge.com³ in the years 2018, 2019 and 2020 for its remarkable coffee production practices.

The company CafExporto has the following departments:

-Managerial: In this department is Juan Peña, who performs the functions of general manager of the company and is responsible for production on the farms.

-Administrative: In this department is Cristina Yerovi, who in addition to taking care of the administrative in the company, is in charge of the logistics and exports of the company.

-Commercial development management: In this department is Philip Smith, who is responsible for international sales and marketing of the company.

1.2 Analysis of the production model at national level

1.2.1 On-farm production

The company's specialty coffee cultivation process is carried out on the La Papaya farm and in surrounding farms owned by coffee growers in the area. The harvest of coffee cherries is done once a year, during the month of September, after this, coffee samples are sent to customers and potential customers for tasting and from November the coffee is exported to different international markets.

Within the production of specialty coffee, there are varieties in the coffee bean and post-harvest processes that are applied to the coffee beans and on which the

² US Coffee Championship: Competition in the United States of America, where competitors have 15 minutes to prepare a signature coffee-based drink for 4 expert specialty coffee judges, while they are technically evaluated by two additional judges.

³ Sprudge.com: World's largest network of international specialty coffee journalists since 2009.

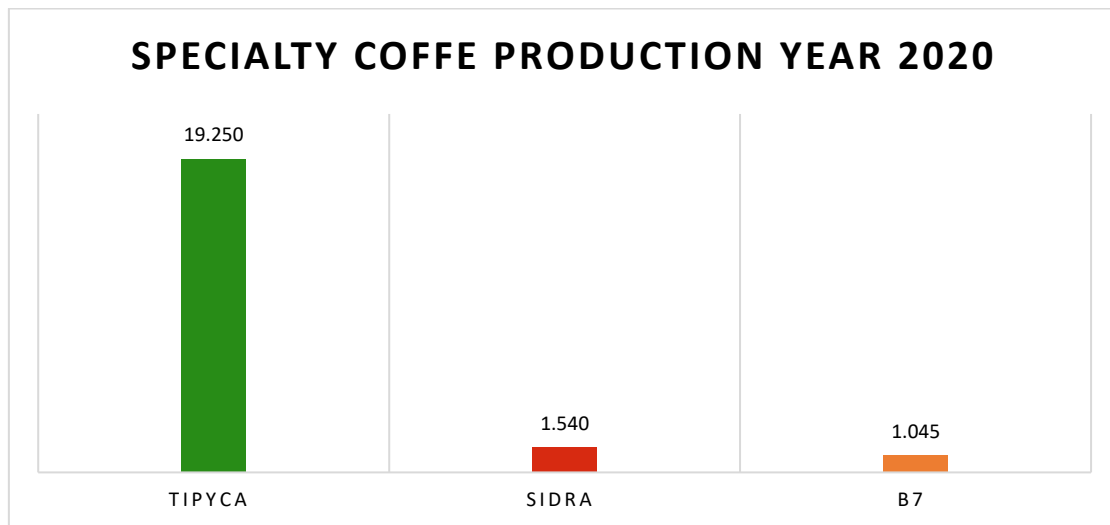
tonalities in the final drink will depend. The diversity of the coffee bean with which the company works consists of five types of coffee: B7, SIDRA and TYPICA being the main coffee beans grown by the company, in addition to the varieties GEISHA and PACAMARA. On the other hand, the post-harvest processes that are applied to the coffee cherry are extensive, the most used by the company are: the anaerobic process, the barrel process, the honey process, the washing process and the natural process.

Regarding the production of coffee varieties by the company CafExporto, the following graphs show from 2020 to 2022 its production in kilograms for each variety of coffee.

For the year 2020 the company cultivated only three varieties, TYPICA, SIDRA and B7 as evidenced in the following graph:

Figure 1

Specialty coffee production year 2020 (in lbs)

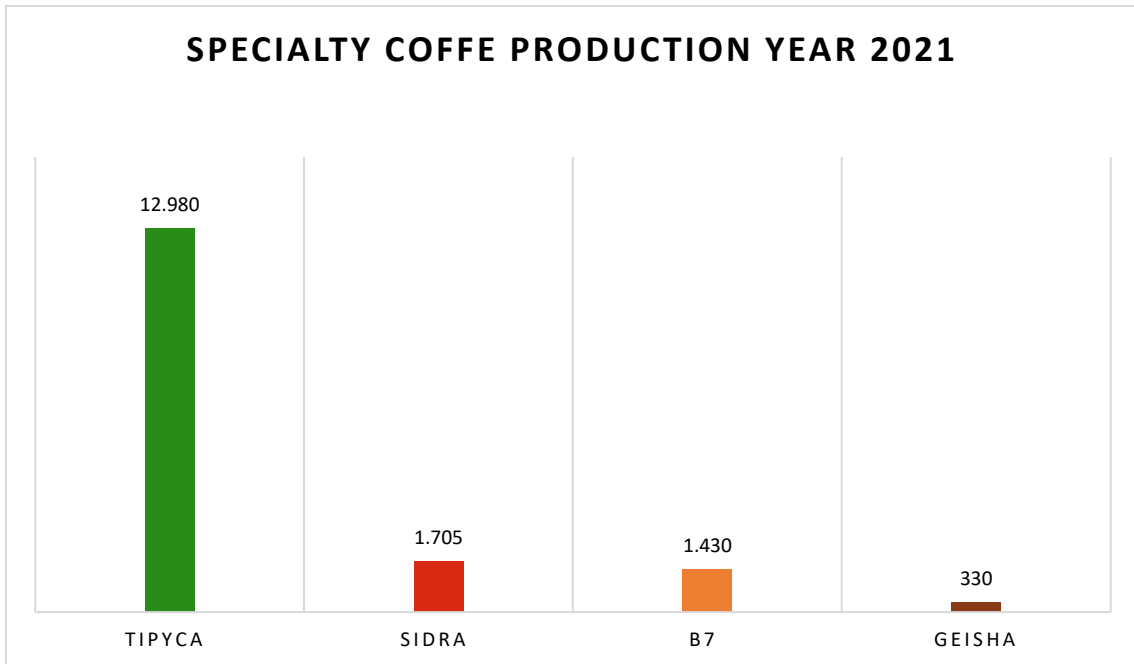


Source: Adapted from CafExporto, 2022.

For the year 2021, the company added to its production the GEISHA coffee variety, increasing the production of the B7 and SIDRA varieties, and this resulted in a decrease in the production of the TYPICA variety as shown in the following graph:

Figure 2

Specialty coffee production year 2021 (in lbs)

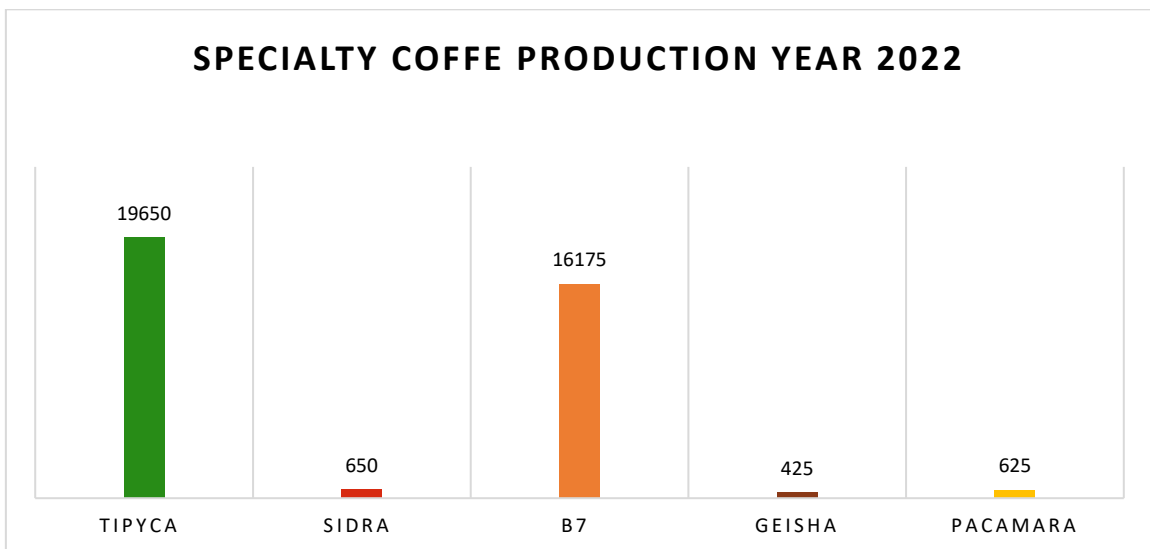


Source: Adapted from CafExporto, 2022.

By 2022, the company added a new variety of coffee bean, known as PACAMARA, in addition to increasing or considerably the production of the TYPYCA and B7 varieties, as shown in the graph below:

Figure 3

Specialty coffee production year 2022 (in lbs)



Source: Adapted from CafExporto, 2022.

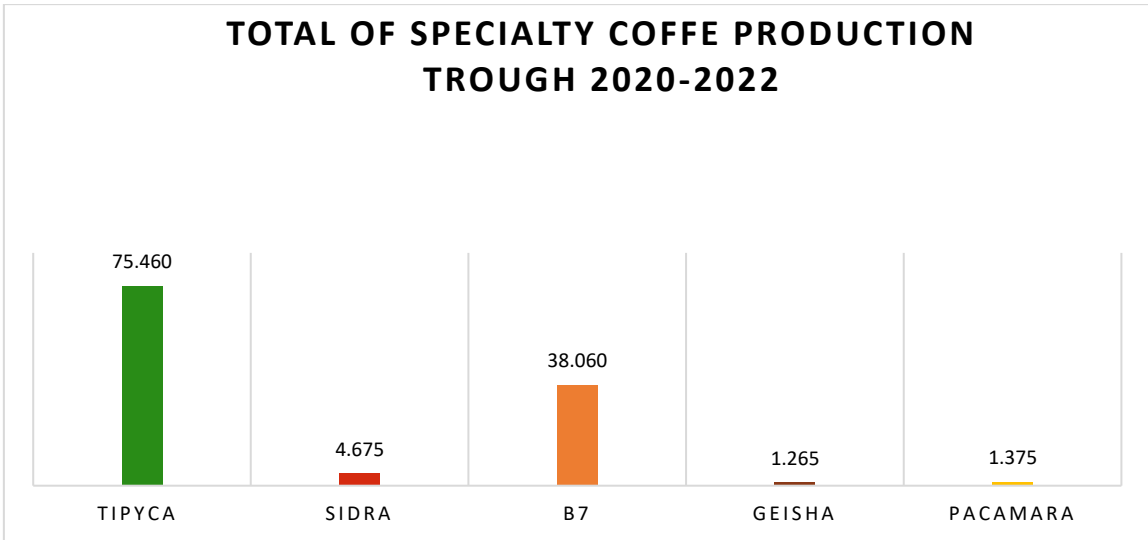
With the graphs prepared as a result of information provided by the company, there is evidence of an important growth in the production of specialty coffee, specifically we can observe what was mentioned within the TYPICA variety, which, although for the year 2021 with respect to the year 2020 presents a decrease in its production of 28.5%, for the year 2022 it presents an increase of 137.5%.

It is necessary to highlight that, for the year 2021, where a reduction in production is evident, there are important factors to consider that allow a clear explanation of this fact; because this year the company chooses to increase the production of other coffee varieties such as the B7 variety, the SYDRA variety and the GEISHA variety with the aim of experimenting with these varieties and analyzing the characteristics of the grain once the respective process is completed.

The following graph shows the total production of specialty coffee within the last 3 years by the company, the production of the same has been defined by 5 varieties of coffee, being the TYPICA variety the main one produced due to the demand for the final flavor in glass by the international market. In addition, the company demonstrates an efficient and updated market intelligence which has allowed on-farm production to be based on the demand of the international market, as the company year after year carries out new agronomic research, and tests with new varieties of coffee to give way to the cultivation and production in tons of them; so what has been described is evidenced in the increase in production of the B7 variety, the same that has been developed in a research laboratory by CafExporto.

Figure 4

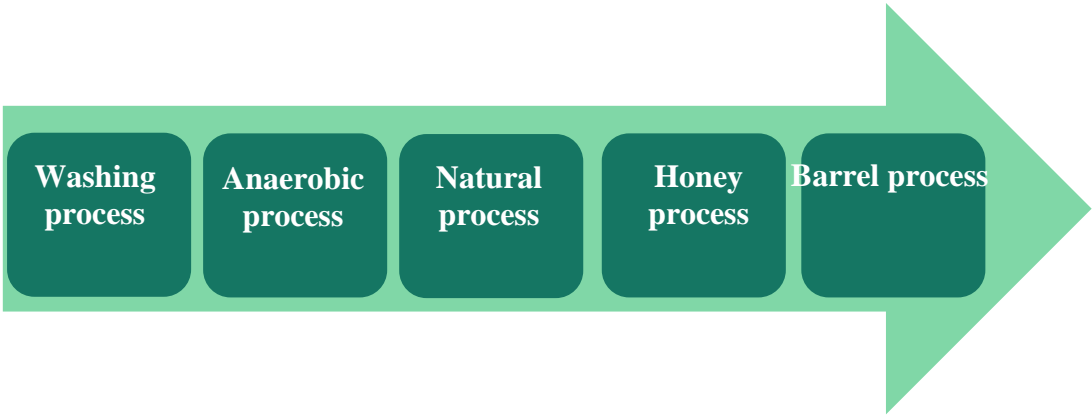
Total specialty coffee production year 2020-2022 (in lbs)



Source: Adapted from CafExporto, 2022.

Referring to the processes carried out once the coffee cherries have been cultivated, selected according to their physical defects and they have gone through the drying process, the 5 main processes applied to coffee are exhibited:

Figure 5
Processes applied to coffee cherry for fermentation



Source: Adapted from CafExporto, 2022.

First, the washing process, where it is important to mention that the process below is carried out with coffee cherries of the TYPICA variety, where what is sought through this process is to obtain greater density in the grain, which guarantees a result as soon as possible. A characteristic in aromas and flavors, the washing process focuses mainly on demucilaginating the coffee beans, that is, detach the mucilage⁴ from the coffee bean, to then perform a controlled process of fertilization with pure water for 15 hours and finally take the coffee beans to drying rooms for a directed time of 11 days. This allows the farm to obtain clean and delicate flavors that meet the objective set when carrying out this process.

The second process, known as anaerobic, is carried out in coffee cherries of the B7 variety, where after having been collected the coffee cherries and carefully selected, they are taken to tanks containing polyethylene to carry out the fermentation process for 100, 120 and up to 240 hours, then this is where the process is carried out without oxygen, in the shade and at temperatures during the process that cannot exceed 24 degrees Celsius. Once fermented, the coffee cherries are transported to drying rooms where they remain for approximately 30 days.

The third process, known as the natural process, is carried out on coffee cherries of the TYPICA variety, where after having followed the process of collection and selection, they are spread by the producers of the farm in layers lying in patios that receive direct sunlight and during this process the coffee cherries are constantly scrambled between 3 and 4 times a day to ensure uniform drying of the same. This drying process lasts between 20 and 30 days.

The fourth process below, known as the honey process, is carried out on coffee cherries of the TYPICA variety, where once the cherries have been harvested and selected, they are taken to polyethylene tanks to be fermented for 120 hours. After this, the anaerobic process is carried out in rooms with a controlled environment where the temperature does not exceed 24 degrees Celsius. Once the cherries have been fermented, they are demucilaginated and it is when the Honey process is obtained characterized by the pink color that is obtained as a result.

The fifth and final process, known as the barrel process, is carried out on coffee cherries of the TYPICA variety. This process was carried out 4 years ago by Juan Peña,

⁴ Mucilage: Layer located between the pulp and the parchment, consisting of tissues that do not contain caffeine.

where once he understood the fermentation process, Juan decided to experiment by placing the coffee cherries for 5 days in a closed and monitored environment, inside barrels where rum had rested for 20 years. The result of this process was that the coffee cherries absorbed all the aromas and flavors coming from the barrel, obtaining shades of passion fruit, wine, tangerine and chocolate. It is important to mention that for this process to occur, the barrels must remain in dark rooms at a temperature below 18 degrees Celsius. Once removed from the barrels, the cherries are taken to drying rooms for a period of 28 to 30 days(CafExporto, 2022).

1.2.2 Management and advice to producers

In the first place, the company CafExporto is a company that owns its production farm that operates in the La Papaya area of the city of Saraguro, in the province of Loja. This company is dedicated to providing support to local coffee farmers who seek to improve the quality of their coffee beans and access national and international markets.

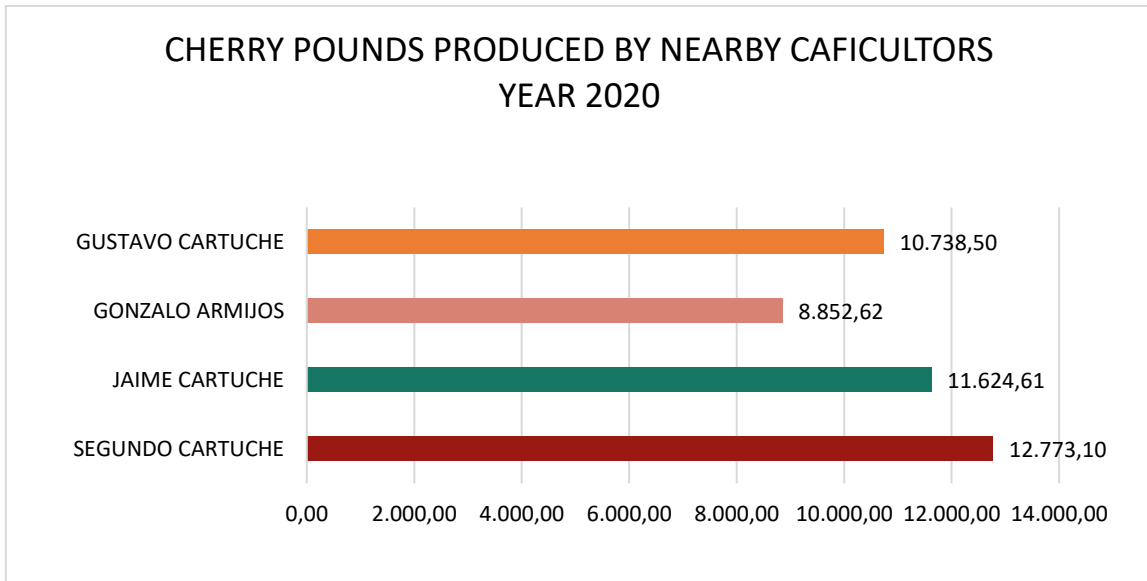
The coffee growers surrounding the company CafExporto have an empirical knowledge about coffee cultivation, which means that they have acquired skills and knowledge through experience and observation. However, these farmers do not have access to the technology and information needed to meet the needs of the market to which they seek to sell their products.

This is where CafExporto plays an important role, as it provides local coffee growers with the scientific and technological knowledge necessary to improve the quality of their coffee beans and increase their competitiveness in the market. In addition, the company also provides important information about national and international markets and how to access them, information to which coffee farmers in the area do not have access and if they do, it turns out to be incomplete or inaccurate.(CafExporto, 2022).

In the following graph it can be seen that the company helped with processes and technology only four neighboring producers, the same ones that represented a total of 43,988.8 pounds cherry in 2020, although it is true that these numbers decrease once the coffee cherries have been selected and processed, they are quite significant since they exceed the amount of coffee produced by the CafExporto farm.

Figure 6

Pounds cherry produced by nearby producers year 2020

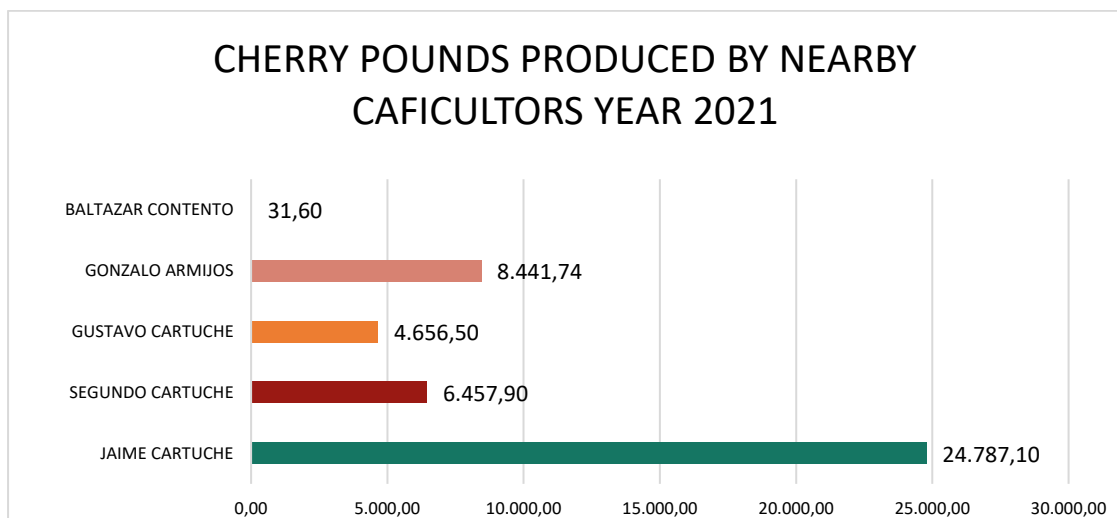


Source: Adaptado de CafExporto, 2022.

In 2021, CafExporto worked together with five local producers in the area, that is, it added one more producer compared to 2020. Additionally, it is important to mention that in 2021, the production of these producers represented a total of 44,374.84 pounds cherry, an amount that significantly exceeds that produced by CafExporto during the same year.

Figure 7

Pounds cherry produced by nearby producers year 2021

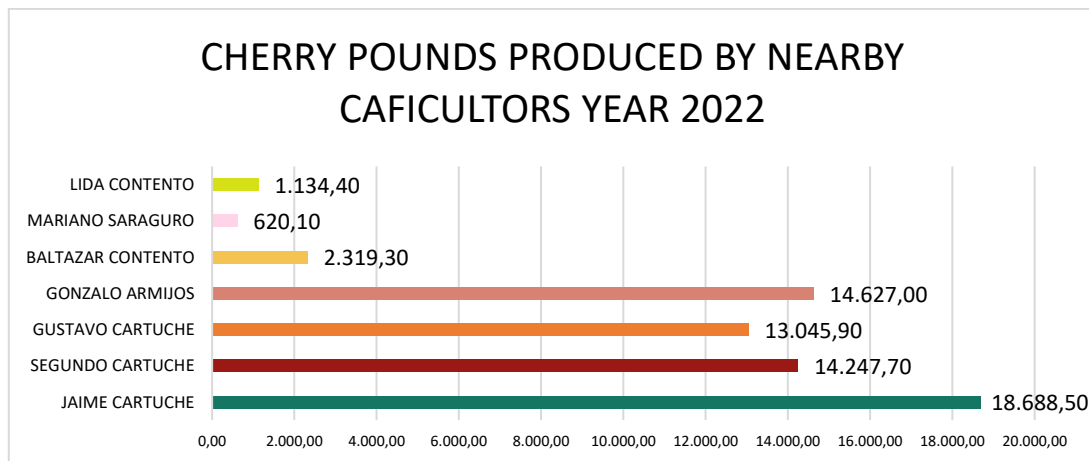


Source: Adaptado de CafExporto, 2022.

In 2022, CafExporto worked together with seven local producers to provide more support to the region and improve its cultivation practices, processes and marketing. The following graph establishes the number of pounds of cherry harvested during the year 2022 by the producers in question, which represents a total of 64,682.90 pounds of specialty coffee cherry.

Figure 8

Pounds cherry produced by nearby producers year 2022



Source: Adapted from CafExporto, 2022.

After the preparation of the graphs presented, the following analysis should be carried out:

First, it is observed that Jaime Cartuche has an average production during the last 3 years of almost 18,360 thousand pounds cherry, this means that the technical and technological advice by CafExporto has been a great support to maintain the same level and quality of production year after year, which reprepfeels great profits for both the La Papaya area, and for Jaime Cartuche in terms of economic growth.

Second, it is observed that the production of Segundo Cartuche and Gustavo Cartuche increases by more than double for the year 2022 in relation to the year 2020, because according to Juan Peña, the producers were significantly affected by the pandemic and chose to invest less in production during this year but with the help of CafExporto for the following year they increased their production and it is expected to continue so from this year.

Third, the company's commitment to sustainable development and social responsibility in the region is evident, impacting the way of life of the surrounding

coffee growers, because as can be seen in the graphs year after year, CafExporto adds new producers to its ranks, to whom it provides advice from the moment of sowing the coffee seeds to the national and international sale of the same., an activity whose purpose is to support them by improving their quality of life and strengthening their local economy.

Cuarto, the importance of producers for the company is evidenced due to their levels of production of specialty coffee themselves, which greatly exceed those produced by the main farm part of CafExporto.

1.2.3 Monitoring and quality control

Within this section it is necessary to start by distinguishing that both monitoring and quality control are two processes that are totally different and complement each other in order to obtain the best results in terms of the handling of the coffee bean from the beginning of its cultivation to its final destination.

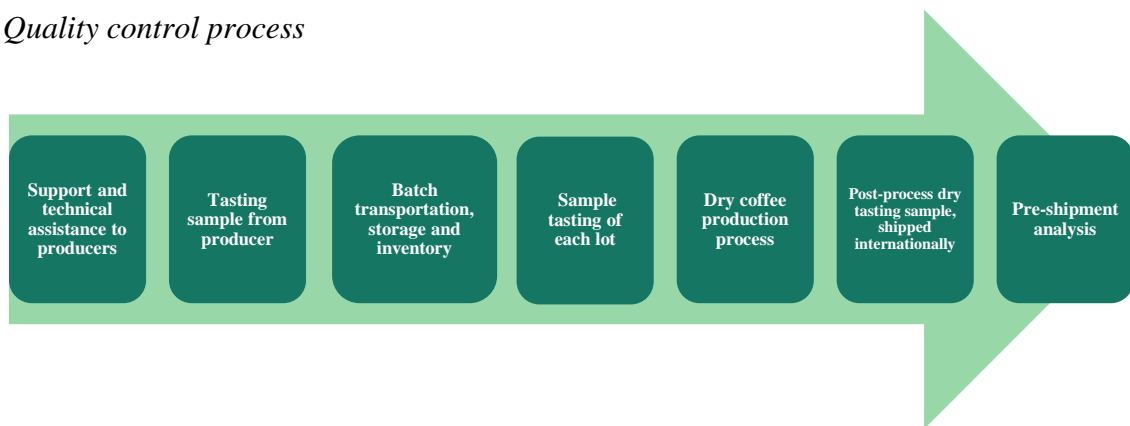
CafExporto is aware that each step of the dry process of the coffee bean is of vital importance both for the producer, exporter, as well as for the end customer and that is why the company guarantees traceability and continuous monitoring from the moment the coffee bags enter the warehouse until its dispatch.

The harvest of each farm arrives in the months of September, October and November to the laboratory and deposit of CafExporto, at this point each of the sacks are coded with a reference number and name. During this intake process, small samples are taken from each bag that has been coded for analysis before starting the dry brewing process to the coffee beans.

Once the coffee beans have passed satisfactorily throughout the quality control process, they are packed in 25kg boxes where at this point, small samples are taken again to perform a new quality control analysis in the CafExporto laboratory, once the last sample taken has passed said final control. The boxes with specialty coffee are ready to be sent to different roasters worldwide.

Figure 9

Quality control process



Source: Adapted from CafExporto, 2022.

Now, as for quality control, it starts from the moment the producer sows the seeds of the respective coffee variety. After this, processes are carried out based on technology that allows to know first-hand several determinants within the coffee plantations, such as temperature, humidity, height above sea level, the level of precipitation and the amount of nutrients that the soil is able to absorb, the same that will directly influence the coffee plant providing it or not, of the necessary nutrients so that it can produce coffee cherries without any physical defects or defects in its flavor.

Once the harvest process has been completed in October, and the different processes addressed in the previous subtitle have been successfully carried out, small samples are taken from each plantation of each producer, which are transported to the CafExporto laboratory to carry out the cupping of the sample, as well as assign a score to the coffee bean following the due protocol established by the Specialty Coffee Association, the same that is carried out by a Q Arabica grader⁵ certified by the same international institution. In this laboratory, a physical and sensory analysis of each sample is carried out, where it is also carried out: the process of a specialized roasting, monitoring and control of experimental processes on farms, as well as a final approval and support to coffee grower partners in terms of price and shipment to end customers.

Once the sample has been qualified according to the scale of the SCAA in said laboratory, the harvest blocks from which the samples were taken are approved and

⁵ Q Arabica Grader: Professional tasters who evaluate coffees and analyze their quality, in addition their evaluations serve to establish the score and price of specialty coffee.

authorized for shipment to the dry production and storage plant of CafExporto, once they have arrived at the company, an inventory is made and the sacks are stored ordered according to the harvest block number from which Come.

The next step to follow when the previous step has been rigorously complied with is again to take samples of each block of coffee previously stored to perform a new cupping and ensure that the quality and characteristics of the grain are the same as in the first cupping performed.

As a subsequent point within the quality control by the company, samples are taken again once the dry production process has been completed so that, once these samples have been analyzed, samples are sent internationally. These samples consist of a weight of 1kg of the existing supply, analyzed and ready to be exported once the negotiation process of the sale of coffee is completed.

Finally, an analysis and final quality control is carried out prior to export with small samples of each box that is ready to be exported, with this CafExporto performs an optimal and detailed monitoring at each point where the coffee bean is handled, thus guaranteeing a unique quality that satisfies the final customer(CafExporto, 2022) .

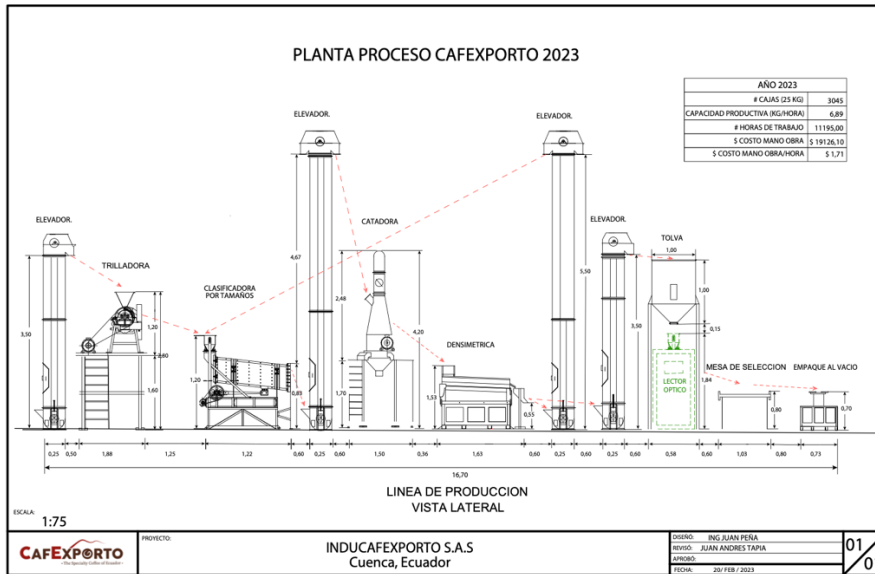
1.3 Processing and packaging plant

Once the cupping of the samples of each batch has been carried out, the total amount of the coffee beans that had been previously stored pass through the dry processing plant of the coffee beans, which by 2023 was expanded with the aim of generating a productive capacity per kg / hour of 6.89, that is, 3 will be produced.045 boxes of 25kg each. Where, the number of working hours is 1.1195 with a labor cost of 19.126 thousand US dollars which means that the cost of labor per hour of work is 1.71 US dollars.

This process plant listed below has a production line consisting of a thresher, four elevators, a size sorter, a taster, a densimetry, a hopper, an optical reader, a sorting table and a vacuum packer.

Figure 10

CafExporto 2023 processing plant



Source: Adapted from CafExporto, 2023.

CHAPTER 2: ANALYSIS OF THE EXPORT PROCESSES CARRIED OUT DURING THE PERIOD 2017-2022

Within this chapter, what is sought to be carried out is an analysis of both the pounds exported by CafExporto since 2017, as well as an analysis of the international sales processes with which the company has satisfactorily complied, which has allowed it to make sporadic exports to several markets worldwide. In addition to applying a semi-structured interview to the general manager of the company in order to identify problems and then evaluate them through an internal audit tool known as traffic lights, which will allow to establish a detailed vision of the problems that the company currently faces. and provide a solution to each of them, with the aim of supporting CafExporto to improve its export processes to the western market of the United States and with this, enter the eastern market of that country.

2.1 Export process

Among the main importing countries of specialty coffee of CafExporto is the United States. This market accounts for approximately 80% of the exportable offer by the company, because it is here where there is a specialty coffee culture already positioned, there are also national and international competitions where they evaluate the taste and quality of coffee, as well as the process of creating a cup of coffee in barista contests that bring together experts in this nature from around the world, In addition specialized coffee roasters who often own important coffee shops that worship the specialty coffee culture, which are based in different states throughout the North American country(CafExporto, 2022).

The foregoing paragraph determines an already developed market for the export of specialty coffee by Ecuadorian companies. This is the main activity of the company CafExporto, which registers exports since 2017 and has been developed regularly until this year, however, by 2023, the company expects to increase its production levels thanks to the recent implementation of a dry coffee processing plant, which has been previously exposed in chapter one.

For the export of specialty coffee to the United States it is necessary to take into account that the tariff applied to coffee imports in this country depends on the presentation and type of coffee, in this case, for unroasted specialty coffee is exempt from tariffs. However, if the coffee has been roasted or packaged, it is subject to the ad

Valorem tariff of 7%, which is applied on the CIF value of the merchandise. The latter, because Ecuador does not have any type of trade agreement with the United States, which hinders competitiveness with companies engaged in the same commercial activity located in Colombia, for example, a country that has a free trade agreement with the United States since 2012(Pro Ecuador, 2021).

The company CafExporto has complied with the requirements dictated by the government of Ecuador and its institutions for the regularization of its product and obtaining the necessary documents for export, which consist of 8 steps:

Figure 11

Requirements for the export of specialty coffee



Source: Adapted from Pro Ecuador, 2023.

First, CafExporto has successfully fulfilled the verification of phytosanitary status in Agrocalidad, a process where it is verified if there are phytosanitary requirements in the destination country, in this case being the United States the main requirement is to comply with standards established by the FDA⁶ when dealing with food.

Second, CafExporto has been successfully registered as an Agrocalidad operator through the guide system, this system allows the user to register the number of production farms, their extension, as well as detail each existing area within the farms or the collection center.

Third, CafExporto has successfully requested and approved the Agrocalidad inspection based on the registered form, where it is verified by specialized technicians that both the crop and the installation comply with the standards of the destination country and sanitary standards of Ecuador.

⁶ FDA: U.S. government entity that It protects public health through regulations on pharmaceuticals and biologics.

Fourth, CafExporto has successfully obtained the registration of the coffee export code by the Vice Ministry of Production and Industries.

Fifth, CafExporto registered as an exporter with the Coffee-Cocoa Project Office, which requests data identical to those provided by the Vice-Ministry of Production and Industry in the previous point.

Sixth, CafExporto carried out the operator registration in the Ecuadorian Single Window (VUE) system.

Seventh, the application for the phytosanitary export certificate, which is granted by Agrocalidad prior to the shipment of the coffee and involves an inspection where a report is developed, which establishes compliance with phytosanitary requirements in the destination country.

Eighth and final step, the application for the certificate of origin, obtained through the Undersecretariat of Marketing, which is part of the Ministry of Agriculture and Livestock(Pro Ecuador, 2021) .

As mentioned earlier in this chapter, coffee exported from Ecuador currently pays a specific tariff. In addition, it must meet a series of non-tariff requirements to be exported to the American market. These requirements are part of the requirements established by the FDA, which has the freedom to perform physical examinations and take samples for respective examinations of the product. This institution is responsible for the administration of several aspects such as the law against Bioterrorism, control of acidity in products, control of food additives, labeling and packaging of the product, among others(Prom Peru, 2015) .

CafExporto effectively complies with all aspects regulated by the FDA, also has a certification that ensures compliance with current legal requirements and prevents the company's operations from being involved in illicit activities such as drug trafficking, terrorism, corruption, bribery, money laundering, among others, known as BASC certification, which guarantees safe trading (CafExporto, 2022).

Once CafExporto has fulfilled the necessary requirements, mandatory and additional certifications to carry out the export process, it begins. According to Juan Peña, currently within the American market, the company can not make direct sales to final consumers, coffee shops or roasters because they need a special identification as

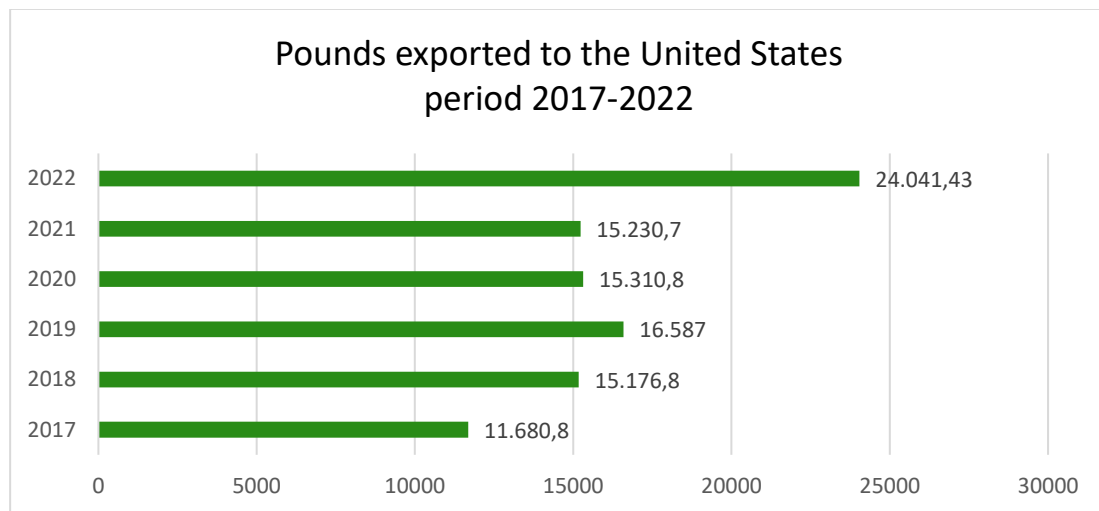
importers, known as Import ID, which hinders the sale of coffee to US consumers and that is why the company has chosen to lease a warehouse in the state of California. This winery allows CafExporto the direct sale to established customers of its product, new customers and optimal distribution in the west of the country.

2.2 Specialty coffee exported during the period 2017-2022

Cafexporto carries out the international sale of specialty coffee since 2017, these exports made during the first years were sporadic sales to different destinations worldwide, the main destination being the United States. Below are the pounds of coffee exported to that destination during a period of 6 years:

Figure 12

Pounds exported to the United States, period 2017-2022



Source: CafExporto, 2023.

In the graph you can see the following: first, that the year 2017 when exports begin by the company, it only exported 11,680 pounds of specialty coffee to the American market, that is, just 10.600 dollars, this taking into account that total sales by competing Ecuadorian companies in the same year and to the same destination reached 4.6 million dollars (CafExporto, 2023).

Second, for the year 2018 the exported pounds of specialty coffee increase by 29.9% compared to the previous year. For the following 4 years, the company registers a minimum variation in pounds of coffee exported, with an average within these years of

15,070 pounds. On the other hand, the total exported by competing companies in this market was 10.5 million dollars (CafExporto, 2023).

Third, by 2022 the exported pounds of specialty coffee increase significantly by 57.8% compared to 2021, this phenomenon is due to 2 key factors, the increase in crop land and, therefore, an increase in production by the company and the surrounding coffee growers. The amount exported in 2022 represents 21,800 dollars.

2.3 Traffic lights of problems

Once the description and analysis of the activities developed by the company has been carried out, it is necessary to proceed with an analysis of the 3 main activities within the CafExporto supply chain, which for said analysis will be divided into 3 general parts: production, supply and distribution. It is necessary to mention that, when finding a problem in any of the defined parts, a solution will be proposed in the chapter following this. In addition, according to Juan Peña, what CafExporto currently faces as the greatest challenge is the distribution of specialty coffee in the destination country.

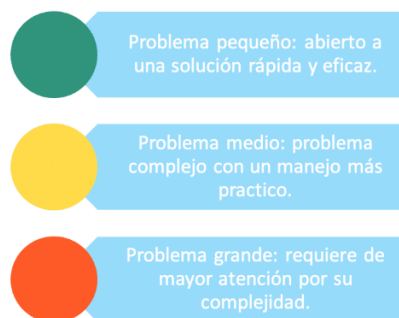
To develop what is established in the previous paragraph, the methodology known as traffic lights of the problem will be carried out, which allows classifying the problem depending on its nature that may be: large, medium or small.

It has been established 2 phases that are:

1. Identification of the problem.
2. Traffic lights of the problem.

Figure 13

Traffic lights of problems



Own elaboration

Figure14

Traffic lights problem level






Own elaboration

2.3.1 Production

As can be seen below in the production section, which is part of the first link in the logistics chain of CafExporto, the existing problems were identified and evaluated with a color and assigned an assessment according to the level of the problem:

Table 1

Production analysis

1.Problem	Inconsistent production by nearby coffee growers.	Lack of projection in the amount that coffee farmers will produce based on seeds delivered.	Absence of international certifications for coffee.
2.Evaluation			
2.1Level of the problem	2	5	4

Source: Author's own

1.1 Problem A

The first problem that emerges from the analysis of the data provided by CafExporto at production levels is the existence of inconsistent production by neighboring coffee growers year after year. Problem that is evident and has been framed within the production section, because for the company this represents a lack of regularity in the final product, which means for the company that one year a certain amount of coffee is offered, for the following year it is reduced by 25% and for the following year it will increase by only 50%, completely contrary to what was projected by the company at the beginning of each fiscal year and against the company's policy of maintaining and even improving quality standards year after year.

Evaluation

The problem identified is low, with a level 2 since it affects the exportable supply by the company directly. Being a small problem, it presents a quick and effective solution, because according to Juan Peña, this problem in mention is given by a lack of application of technologies and knowledge by coffee growers and that is why their production levels vary, because at the time of selecting the grains, which is done according to the physical characteristics of the grain, they do not meet the quality standards set by the company and represent a loss in annual production because they are rejected by CafExporto.

1.2 Problem B

The second problem that is evident after the analysis of the data provided by the company regarding production, is the lack of projection based on the seeds that are delivered year after year to the surrounding producers, which creates a vacuum and ignorance about the potential production of that year. Therefore, there is a lack of control in this aspect. This problem arises, according to Juan Peña, because the production of the surrounding coffee growers is considered as additional and its relevance is given most of the time not by its quality of excellence, but by its volume and quality of medium-high level.

Evaluation

The second problem identified in the distribution section is considered a medium problem, with a level 5, because it significantly affects the exportable supply of the company. In addition, the problem in question has not been specifically addressed by the staff in charge of the area. This problem according to the evaluation, is characterized by meaning an easy and fast handling.

1.3 Problem C

The third problem that is identified after the analysis of the company's data related to production is the lack of international certifications for coffee. This problem is due to the lack of knowledge about the benefits that certifications offer to products of this nature in the global market. In addition, it is evident that CafExporto meets several requirements necessary to obtain important certifications such as Fair Trade certification.

Evaluation



The problem identified in the distribution section is medium, with a level 4, because accessing these certifications means high costs to obtain them. In addition, the problem is given by the ignorance of the advantages that these certifications bring in the preference of the consumer when acquiring an organic product such as specialty coffee.

2.3.2 Sourcing

As can be seen below in the supply section, which is part of the second part of the CafExporto logistics chain, the existing problems were identified and evaluated with a color and assigned an assessment according to the level of the problem:

Table 2

Supply analysis

Problem	Part of the company's exportable supply depends on the production of the surrounding coffee growers.	Advance sale of production.
Evaluation		
Level of the problem	4	8

Source: Author's own

1.1 Problem A

Through the analysis in chapter one of the current situation of the company, it is evident that part of the exportable supply of CafExporto depends on the production of the coffee growers that, if it is not regular year after year in terms of quantity and quality, the supply by the company will be affected due to this high dependence on them.

Evaluation

The problem identified is medium, with a level 5, because it directly affects the exportable supply by the company, but this problem presents a complexity with a practical handling. According to Juan Peña, what the company is currently looking for is to expand the farmland of the main farm, which is owned by CafExporto. In the latter mentioned, the climatic conditions of the possible new cultivation areas for specialty coffee are a limitation of expansion.

1.2 Problem B

After the analysis of the data provided by the company , a problem is identified that specifically affects the supply area within the supply chain by the company. Currently,

the company has chosen to sell specialty coffee production in advance to customers globally, especially customers located in the United States.

Evaluation





The problem identified is high, with a level 8, because the risk of implementing this put option is highly high since they depend entirely on the existence or not of external factors beyond the control of the company such as climatic phenomena. Implementing this sales modality compromises the production of the company in the future, so it is forced to improve its traceability and improve existing problems in order to guarantee the quality of the product in the future and comply with its customers.

2.3.3 Distribution

As can be seen below in the supply section, which is part of the third part of the CafExporto logistics chain, the existing problems were identified and evaluated with a color and assigned an assessment according to the level of the problem:

Table 3

Distribution analysis

Problem	Export in USA to end customer through IMPORT ID.	Lack of sales through website.	Inefficient after-sales service.	Administrative department in charge of exports and logistics.
Evaluation Level of the problem	 8	 4	 2	 5

Source: Author's own

1.4 Problem A

The distribution in the destination market, in this case the United States, is given by the fact that, when importing merchandise to this country, a license known as importer identification or in English, Import ID is needed. This is a necessary requirement to import into the American country, so, when looking for the acquisition of specialty coffee by customers in this country, there are very few who have this requirement, which is why CafExporto is forced to move its coffee to the winery they keep for rent in the state of California, for a cost of 14 thousand dollars per month, meaning high costs for the company monthly.

Evaluation

The problem identified is of high level, because it affects the last point of the logistics chain and sales process of the company, it is a complex problem that requires greater attention by its nature, that is why it is qualified with a level of 7. The company must cover the costs that nationalizing the merchandise implies, and in turn with the rental costs of the winery which raises the costs and, therefore, the final price of the coffee is affected.

1.5 Problem B

After the analysis of the data provided by the company, a problem is identified that directly affects the sales process of the company. Currently the company maintains its website, but in it there is no option to access a catalog and place an order by this means. Although it has contact details of the person in charge of sales, the purchase process is tedious and long for the buyer.

Evaluation

The problem identified is of medium complexity, which represents a more practical handling of the problem and is assigned a score of 4 points. The company, although it is promoted through its website, does not follow the closing of successful sales, due to the lack of electronic commerce in it in addition to not having a presence in e-commerce platforms such as Shopify, WooCommerce, Magento, etc.

1.6 Problem C

After the analysis of the data provided by the company, the problem that is identified is framed in the after-sales service by the company, which maintains an inefficient after-sales service, because the current after-sales service only depends on the customer, even if you have any type of complaint or comment regarding the product or the delivery of the same, you will contact the company. And as a result of this assumption, the company will seek a solution or otherwise, it takes customer satisfaction for granted.

Evaluation

The problem identified is of low level, with a simple handling that will give a quick and effective result, that is why it is assigned a score of 2 points. The company currently does not develop an adequate after-sales service, which is crucial when it comes to satisfying the customer and generating brand loyalty by the same, due to exceptional service and customer experience.

Once the analysis of the processes and quantities of specialty coffee exported by the company since 2017 has been carried out, and also the identification and evaluation of the problems that CafExporto currently faces within its logistics chain has been carried out based on the internal audit tool known as traffic lights of problems, It is necessary to establish solutions to these problems, which will be addressed in the chapter below.

CHAPTER 3: PREPARATION OF CAFEXPORTO'S EXPORT IMPROVEMENT PLAN

Within this chapter, the most convenient solutions for each of the problems identified in the previous chapter will be proposed, with the sole objective of establishing a guide for CafExporto on the necessary improvements that must be taken into account and implemented, which will give way to improve its export processes and thereby lead to the opening of the E market .This is useless to simply introduce a product into a new market without first having solved existing problems within the company's logistics chain, not improving these problems will only result in the appearance of bottlenecks.

The solutions that will be proposed, are composed of two parts, the first will consist of the solution to the problem and the expected result. The second part will cover the control of the proposed solution, the control period and the person in charge of said control.

It is necessary to remember that, for the identification of problems in the previous chapter, the separation of the logistics chain of CafExporto into 3 main stages was carried out, with the aim of improving the organization of the problems encountered. The problems found add up to a total of 9, where 2 of them have been qualified with green color due to the score assigned between 1 and 3 points, in the same way 5 problems with yellow color according to the score between 4 and 6, finally 2 problems with red color for obtaining a score between 7 and 10. It is important to mention that these 9 problems identified are significant and it is recommended to solve them in the short and medium term.

3.1 Production

In the following table you can see a summary of the problems that have been identified within the logistics chain of the company, specifically in the production section:

Table 4*Problems identified in production*

Problem	Inconsistent production by nearby coffee growers.	Lack of projection in the amount that coffee farmers will produce based on seeds delivered.	Absence of international certification for coffee and business.
Solution	Implement periodic crop controls.	Projections by the head of the administrative department.	Obtaining certifications such as: Fair Trade and B corporation.
Control	Designate manager in the production farms for a monthly control.	Report of the projections before delivery of seeds and post-harvest, on an annual basis.	Control of compliance with the requirements year after year.

Prepared by the author

Inconsistent production by nearby coffee growers.**Solution**

To address a solution to this problem, it is necessary to implement greater control in the surrounding farms, specifically in the coffee plantations. For example, make sure that the instruments that measure temperature, soil moisture, precipitation levels, among others are working correctly. In addition, to control the surrounding coffee growers in terms of the application of technologies and knowledge provided, this control should be periodic, at least once a month, this guarantees an optimal development of the coffee plant and therefore the quality of coffee cherries will be maintained year after year and production levels will have a consistent level that will directly benefit the company (Rivers, 2016).

Control

In order to carry out a correct control, the company must assign a person who is specifically responsible for carrying out periodic controls of the technologies provided

to coffee growers as well as a review of the knowledge granted to them. In addition, it is established that a monthly record of the status of electronic devices, placed in each block of specialty coffee plantation, is kept. This control must be carried out by a person part of the production farm, who has the facility to visit the surrounding farms and carry out the established control.

Lack of projection in the amount that coffee farmers will produce based on seeds delivered.

Solution

To address a solution to this problem, it is necessary to implement projections based on the seeds that are going to be delivered to coffee growers, that is, seeds are currently delivered "blindly", without prior knowledge of the seed production potential based on agronomic analysis. To exemplify the established, each amount of seeds (depending on the variety of coffee seed) will give rise to a certain amount of coffee trees that in turn will give way to a certain amount of coffee fruits (Gamboa, 2023). So, if the company plans to deliver 10 pounds of coffee seeds of the Pacamara variety, it must have previously made the projection and the results will establish that the amount of seeds to be delivered will generate 4 tons of specialty coffee cherries. Then, the way to implement the established solution is through the designation of a person from the administrative area with financial knowledge to whom the analysis of the production potential of the seeds that will be delivered to the neighboring coffee growers will be delivered one month before said delivery, which will allow this person to make the respective projections and with the results of the same, Inform the General Manager who will be responsible for the decision to reduce or increase the number of seeds that will be delivered to coffee growers, depending on the benefit that the company obtains.

Control

The way to carry out a correct control of the established solution is through annual reports on the projection made, because once a year the seeds are delivered to the coffee growers, between the months of February and March. In addition, a control that will be carried out at the end of the harvest, which will lead to a comparison between the projections made and the amount harvested and based on this, improvements will be chosen for the following year on the amount that is delivered to coffee growers.

Absence of international certifications for coffee.

Solution

Considering the problem exposed in the previous chapter, it is important that the administrative part that within the company is responsible for export and logistics, take greater consideration of the importance that certifications have in the final consumer, since currently the organic product of CafExporto does not have any type of international certification. What makes it difficult for specialty coffee to enter new markets, because there is a worldwide trend where consumers of organic products prefer those that have international certifications compared to products that lack them, (Dilas JiméNEZ et al., 2020) especially due to the proliferation of regulations and laws in the United States that require companies to demonstrate their labor practices and ensure the absence of work. child labor, forced labor and involuntary labor, with this exporters to the American market are obliged to ensure that their supply chains do not incur in the aforementioned labor practices and must officially document the measures established (International Trade Centre, 2022). The most appropriate way to comply with the above is through international certifications. Thus, according to the certifications (Steven et al., 2020) that meet the requirements of the United States market, there are 3: the certification known as **Fair Trade**, the certification known as **Rainforest Alliance** and the **UTZ Certified** certification, these certifications will allow the company to document its correct social, environmental and economic practices. In addition, obtaining these certificates will benefit the company in terms of lasting business partnerships, as well as training and support from the organization that is responsible for delivering the aforementioned certificates. (Kononets & Treiblmaier, 2021)

Control

Considering the solution that will address the problem mentioned in the previous paragraph, the control will exist on a quarterly basis, the general manager will be the person in charge of carrying out strict internal control over compliance with the standards required by this certification, in this way the control carried out year after year by Flocert will be successfully approved and this will guarantee the company the benefits that this certification offers.

3.2 Sourcing

The following table summarizes the problems that have been identified within the company's logistics chain, specifically in the supply section:

Table 5

Problems identified in sourcing

Problem	Part of the company's exportable supply depends on the production of the surrounding coffee growers.	Advance sale of production.
Solution	Investment in new farmland nationwide.	For the following year, the modality of advance sale is prohibited.
Control	Quarterly control on factors that affect the level of soil productivity by the person in charge of the new plantations.	Strict control by general management to the marketing department annually.

Prepared by the author

Part of the company's exportable supply depends on the production of the surrounding coffee growers.

Solution

The way in which this problem will be addressed is given by the investment by the company in new land suitable for the production of specialty coffee. There are two solutions for which the company can choose, rent or purchase of these lands in question. This with the sole objective that everything produced in these lands is the exclusive property of CafExporto, where it is the company as such who is responsible for controlling the activities carried out by coffee growers and implementing processes, knowledge and technology to maintain and even improve the quality of specialty coffee

and with this, generate more production that does not depend on neighboring coffee growers as is currently happening in the region of La Papaya.

Control

As it is a solution that involves the acquisition or rental of new land for cultivation, the control must be carried out on a quarterly basis on the soil, climate, precipitation level and other natural factors that have a direct interference in the level of soil productivity (Jawo et al., 2022), said control will be carried out by the person in charge of the management and control of the new areas of cultivation.

Advance sale of production.

Solution

The solution focuses on prohibiting this modality of sale by general management to the sales and marketing department, because the risk of the existence of assumptions external to the company is high. When signing sales contracts of this nature, it is not possible to predict the appearance of a pest, presence of heavy metals in coffee, torrential rains, droughts, among others. Once completed this year, it is recommended that the company not opt for this type of sale because of the risks involved.(Ministry of Agriculture and Rural Development, 2019)

Control

Once the current year is over, the general manager must rethink the sales strategies in conjunction with the person in charge of the marketing and sales department of the company, here the success or failure of this sales modality will also be evaluated, and regardless of the result the general manager must perform a stricter control over the sales strategy to be implemented for the following year.

3.3 Distribution

In the following table you can see summarized the problems that have been identified within the logistics chain of the company, specifically in the distribution section:

Table 6*Problems identified in distribution*

Problem	Export in USA to end customer only through IMPORT ID.	Absence of e-commerce.	Inefficient after-sales service.	Administrative department in charge of exports and logistics.
Solution	Investment in infrastructure for product storage.	Implement the purchase option within the CafExporto website.	Implement a true after-sales service.	Creation of an export and logistics department.
Control	Designate expert personnel in logistics and storage, who will be in charge of managing the warehouse.	Monthly verification of the correct functioning of the website, purchases section. Monthly update of available stock.	Control of after-sales service by the marketing and sales department, on sales made.	Management control of the department created by general management, on a monthly basis.

Source: author's own

Export in USA to end customer only through IMPORT ID.**Solution**

The solution that addresses the problem of importing from the United States through the requirement of the IMPORT ID and in turn minimizes the operating costs currently covered by the company, is the investment in infrastructure necessary to implement a warehouse in a central state in the United States. This is the case of Kansas, a state whose average climate during the year 2022 was 22 degrees Celsius and a humidity below 50% (Kunkel et al., 2022), the climate of this state meets the

recommended temperature conditions for the correct storage of coffee, thus avoiding the appearance of moisture and fungi in the coffee beans (Association National N of CAFé of Guatemala, 2023).

On the other hand, the state in question has a favorite location in logistical terms, because being in the center of the country, it allows a balance of supply for both the West market and the East market of the American country, with the latter the company does not need a second warehouse to supply the East market once it has entered it, you can also continue exporting your product using the DDP incoterm and thus completely solve the limitation of the Import ID.

According to the (Elizabeth & Zambrano, 2008) winery, it needs specific characteristics to guarantee the conservation of the coffee bean, such as high ceilings that guarantee proper air circulation, guarantee the correct sealing of the roof and windows to prevent the grain from getting wet when there is rain, in addition the coffee beans can not be exposed directly to sunlight.

Taking into account the needs of CafExporto for the creation of the warehouse where the exports will be stored in the destination country, it has been established that it has a height of 6 meters from the floor to the wall and a height of 8, 60 meters from the floor to the tip of the ceiling, In addition to this a front of 30 meters and a length of 40 meters, that is, a total of 7.200 cubic meters, which will allow the maximum storage of 75 tons of specialty coffee.

On the other hand, it is also estimated that the cost of a land of 1300 square meters within the industrial zone of Kansas City is approximately 27 thousand dollars (Kansas City Real Estate Listings, 2023) and the construction cost of the warehouse is around 25 thousand dollars according to the construction company Arco, which is dedicated to the construction of prefabricated metal buildings, which allows to reduce costs when assembling a warehouse (Arco Steel Building Systems, 2023). So, the necessary investment by CafExporto for the winery in question is 52 thousand dollars, a value that is close to the amount of 56 thousand dollars that the company would currently pay for the 4-month lease of the existing winery in the state of California.

In addition, the storage of coffee beans must be carried out in jute bags of 25kg each, which must be seated on pallets of 1.50 square meters, to prevent the humidity of the floor from affecting the beans, which must also be separated from the wall by 1

meter and there will be 0.5 meters of separation between the pallets, to ensure adequate air circulation(Elizabeth & Zambrano, 2008).

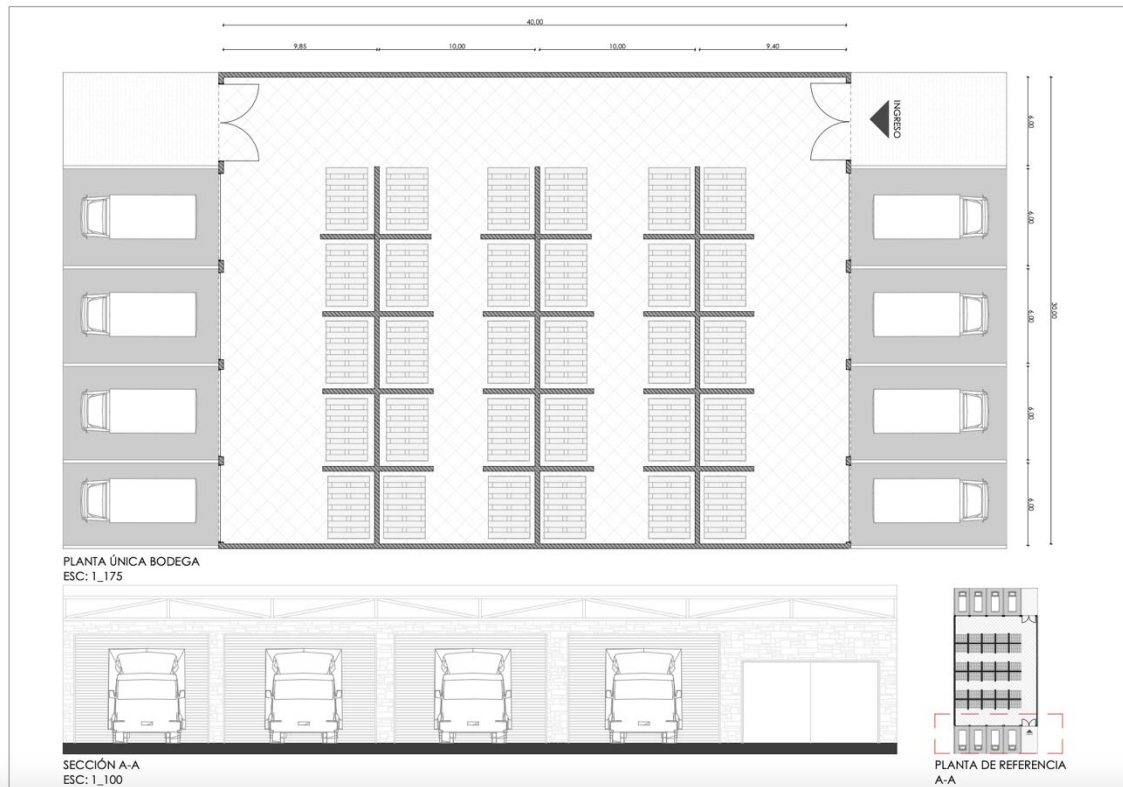
Control

For the proper control of the winery in the state of Kansas, it is recommended to designate a person with knowledge in the logistics and storage field who is responsible for controlling the warehouse, its operation and keeping track of the amount of coffee that enters the warehouse for supply and exit of the same for sales. The manager will carry out inventory control every 15 days to generate updated information on the product available in the warehouse.

Next, you can see a graphic approximation of the warehouse that is suggested to be built, which has only one floor, with an access door and an exit door, as well as 5 lanfor-type doors on two of the four sides of the warehouse, as well as two stalls dedicated to the arrival and departure of the trucks that will be responsible for transporting the merchandise.

Figure 15

Graphic description of the suggested warehouse.



Source: Authors.

Lack of e-commerce.

Solution

The solution to address this identified problem is given by the implementation of the "buy" section within the company's website, in turn in this section add a catalog of the available offer where the user in addition to knowing about the company and specialty coffee, has the option to purchase the product by this means, In addition to implementing the payment buttons taking into account the most used means to make transactions such as Visa, MasterCard, PayPal, among other options. With this solution, the company will experience an increase in sales, because according to, companies that carry out electronic commerce can experience up to 20% growth in sales in a year , as (Taher, 2021)well as attracting new customers who search the internet interested in specialty coffee.

Control

Once the recommended solution for this problem has been implemented, the control will be based on verifying the correct functioning of the buy section, that all the

payment buttons are enabled, in addition to the verification and comparison that the existing offer in the winery is the same as what is offered on the website. This control will be carried out on a monthly basis by the head of the sales and marketing department, Philip Smith.

Inefficient after-sales service.

Solution

The solution established for this identified problem is based on the improvement and implementation of the after-sales service, which will be done with each purchase order from the moment the delivery of the product is confirmed. This is intended to meet two objectives, the first will be to measure customer satisfaction, which will provide feedback to the company and improve specific processes and second, achieve brand loyalty by customers and a long-term relationship with them (Aslam & Farhat, 2020), through the application of sales strategies focused on after-sales service. such as the tool known as root cause analysis, which allows the company to recognize failures in the organization of after-sales service and address them within or not of the guarantee (González-Prida et al., 2014).

Control

The control that will be carried out will be carried out by designated personnel within the sales and marketing department, with expertise in after-sales service of exports, this control will be carried out on each purchase order that has been made, in addition to the person in charge of the sales and marketing department will follow up on the designated person on the development of the after-sales service.

Administrative department in charge of exports and logistics.

Solution

The solution for this identified problem focuses on the creation of a sub-department specialized in exports and logistics, in addition to hiring a professional with expertise in the area that improves effectiveness and efficiency in this sub-department, in addition to improving processes and implementing tools focused on exports. , creation of international business relationships and market expansion that will directly benefit the company (Suarez & Restrepo, 2019) In addition, d e this way eliminates the saturation of work of the administrative department which will allow the person in charge of it, focus specifically on their administrative functions.

Control

The appropriate way to carry out a control of the proposed solution is through the preparation of monthly reports on the efforts made by the sub department of exports to general management, in this way the latter, will have full knowledge of the activities carried out by the sub department.

After having established solutions and a method of control to each one based on the problems previously identified in chapter 2, it is evident that the company faces mostly mid-level problems, but that they have a quick and practical solution. The objective of having addressed the solutions in this chapter is specifically to give way to the improvements in the processes of international sales to the United States market by the company, thus directing it to make real exports and a correct opening of the market of the mentioned country taking into account that the current problems of CafExporto have been timely solved.

CONCLUSIONS

The company CafExporto, presents excellent results in terms of production and international sales of its product, specialty coffee. This is evident in international barista

competitions, among the most important the 2020 US Barista Championship, the 2023 Korea National Barista Championship and the 2023 China Barista Championship Shanghai Division, within the 2020s which its coffee has obtained several first place trophies, in addition to sales made to numerous countries worldwide, the main destination being the United States market. However, within the company the logistics chain presents certain difficulties that have prevented it from expanding at a pace at which it should towards the market. On the east of the mentioned country, additionally the problems identified are mostly of an internal nature such as the incorrect management of a warehouse in the state of California in the United States and specific external problems such as the dependence on the production of nearby coffee growers by CafExporto, which represents 35% of the company's exportable supply. These are just two problems of a total of nine that were analyzed, which were assigned a specific solution for an improvement of their logistics chain in order to perfect these processes and in turn allow a correct opening of new markets in the eastern United States.

There are companies that establish as a final objective the export of their product to international markets and once they have achieved it, they generate compliance, leaving aside tools such as management audit processes, which allow the correct development of processes such as export. CafExporto is an example of this type of companies, it is doing well, but it was in need of a situational analysis such as the one that has been carried out to identify aspects that currently afflict its logistics chain and be able to improve them, with the aim of enriching its export processes and entering new markets successfully.

To address a relevant solution to the identified difficulties that currently exist within CafExporto's logistics chain, it is of utmost importance to carry out a thorough evaluation of each of these difficulties, seeking to understand the root cause of the same so that the recommended solution is effective and applicable in the short term. In addition, control actions are recommended by the company's own personnel, directing it to the verification and monitoring of the solutions to be implemented. Finally, the company to comply with the solutions provided, will find a more practical management in terms of the process of exports and opening new markets.

It is important to mention that despite the problems present in the export process of CafExporto, the pounds of coffee exported by the company have experienced an

annual growth of 17.9%, which was evidenced in the figures analyzed since 2017, however, once the company has solved the difficulties currently present in its logistics chain, Especially the refronts to the distribution as is the case of the winery for example, its exports will be directed to a highly significant increase, provided that there are no factors external to the company that affect the exports of the same.

All the improvements that will be implemented in the short term within the processes of production, supply and distribution at an international level, especially to the American market, are aimed at guiding CafExporto to success in terms of positioning within the US market due also to its coffee excellence and its practices of high social and environmental impact within the region where its specialty coffee producing farms operate.

RECOMMENDATIONS

The main recommendation that is established is the implementation of the winery in the state of Kansas, which will improve the current export process to the West market of the United States, as well as a correct insertion in the East market of the country by having a centralized and operationally efficient storage warehouse.

It is established as a recommendation the biannual review of the entire logistics chain within the company, which must be carried out thoroughly in order to identify difficulties that mean inefficient processes and negatively affect other processes, thus affecting the satisfaction of the final customer.

To carry out a successful operation by the company, it is necessary to take into account the opinions provided by the client through the after-sales service, as well as to take into account the opinions of the company's staff and thus solve future problems in the short term.

Delegate specialized personnel to supervise the 3 general processes within the logistics chain: production, supply and distribution. Personnel who will be responsible for anticipating cases that affect the logistics process or, failing that, are able to provide practical solutions immediately.

Although the company complies with all legal requirements in both the country of origin and destination, CafExporto is recommended to obtain international certifications for both its product and the company, certifications such as Fair Trade or B Corporation respectively. Because they provide greater advantages over the same product of the competition that lacks certifications when entering new international markets.

Develop within the company an area specialized in logistics and foreign trade, headed by a specialist in these topics who will be responsible for developing correctly and effectively new markets, new international business relationships and the timely analysis of international consumption trends of specialty coffee.

Register with the Institute for the Promotion of Exports and Investments, known as Pro Ecuador, which offers services for exporting companies, the most important being the opportunity to participate in international fairs of different kinds, in addition to also considering being part of the Association of specialty coffees of Ecuador (ACEDE) that works with the support of Pro Ecuador, and contributes with benefits such as the free transfer of the product to international specialty coffee fairs.

Finally, it is recommended that the company CafExporto examine and carry out the solutions assigned to the current difficulties within its logistics chain, since they

have been carried out based on a theoretical foundation with the sole objective of benefiting the company.

REFERENCES

Arco Steel Building Systems. (2023). *Arc Steel Building Systems*.
<https://www.arcosteel.com/building-types/mini-warehouse-buildings/>

Aslam, W., & Farhat, K. (2020). Impact of after-sales service on consumer behavioural intentions. In *Int. J. Business and Systems Research* (Vol. 14, Issue 1).

National Coffee Association of Guatemala. (2023). *BASIC RECOMMENDATIONS FOR PROPER COFFEE STORAGE*.

- Belduma-Gía, A., Carvajal-Romero, H., Prado-Carpio, E., & Espinosa-Aguilar, M. (2022). Analysis of the economic situation of coffee production in the Zaruma canton in the period 2017 – 2020. *593 Digital Publisher CEIT*, 7(2), 229–238. <https://doi.org/10.33386/593dp.2022.2.1047>
- CafExporto. (2022). *CafExporto*. <https://cafexporto.com>
- Nicolás Steven Palma Sanchez, Gina Paola Raba López. (2020). *International Certifications of Specialty Coffees*. Edu.Co. <http://repository.unipiloto.edu.co/bitstream/handle/20.500.12277/9975/Certificaciones%20Internacionales%20de%20Cafés%20Especiales.pdf?sequence=2&isAllowed=n>
- International Trade Centre. (2022). *The Coffee Guide Fourth edition*. <http://www.intracen.org>
- Dilas Jiménez, J. O., Zapata Ruiz, D. M., Arce Almenara, M. E., & Ascurra Toro, D. (2020). Comparative analysis of the production costs and profitability of the special coffee with certified organic and non-certified. *South Sustainability*, e017. <https://doi.org/10.21142/ss-0102-2020-017>
- Elizabeth, J., & Zambrano, M. (2008). *POLYTECHNIC SCHOOL OF THE LITTORAL*.
- Gamboa, P. (2023, January 5). Guide to buying coffee seeds. *Perfect Daily Grind Spanish*. <https://perfectdailygrind.com/es/2023/01/05/guia-para-comprar-semillas-cafe/>
- González-Prida, V., Barberá, L., Crespo, A., Viveros, P., & Kristjanpoller, F. (2014). Root cause analysis in after-sales service management. *Revista Técnica*, 37(2), 176+. <https://link.gale.com/apps/doc/A490550893/AONE?u=anon~cc1e8d65&sid=googleScholar&xid=ee85ba6e>
- Jawo, T. O., Kyereh, D., & Lojka, B. (2022). The impact of climate change on coffee production of small farmers and their adaptation strategies: a review. *Climate and Development*, 1-17.
- Kansas City Real Estate Listings*. (2023). Kansas City Real Estate | Mary Giangalanti & Associates. https://www.marygsellshomes.com/results-gallery/?city=50149&custom=188217&gad=1&gclid=CjwKCAjwkLCKBhA9EiwAka9QRIV3DVxhVQXdOn_orBxBKzabMLMuhTUExewPs3qclpmvPYXSVu32xoCeUwQAvD_BwE&photo=1&proptype=VC&sort=importdate&source=adwords&status=A%2CAC
- Kononets, Y., & Treiblmaier, H. (2021). The potential of bio certification to strengthen the market position of food producers. *Modern Supply Chain Research and Applications*, 3(1), 41–55. <https://doi.org/10.1108/mscra-05-2020-0013>
- Kunkel, K.E, Frankson, R., Runkle, J., Champion, S. M., Stevens, L. E., Easterling, D. R., Stewart, B. C., McCarrick, A., & Lemery (Eds.), C. (2022). *State climate summaries for the United States 2022*. NOAA technical report NESDIS 150. <https://statesummaries.ncics.org/chapter/ks/>

- Ministry of Agriculture and Rural Development. (2019). *Harvest and Sell to the Fixed*.
- Otoniel Dilas Jiménez, J., Carol Cernaqué Miranda, O., & Nacional Agraria La Molina Perú, U. (2021). *OPPORTUNITIES FOR THE COMPETITIVENESS OF PERUVIAN COFFEE SECTOR IN A GLOBALIZED MARKET*. <https://orcid.org/0000-0003-4256-8393>
- Pro Ecuador. (2021). *Flyer-CAFE-GREEN-2021*.
- Prom Peru. (2015). *Guide to Food Access Requirements to the United States*.
- Rios, W. (2016). *TRANSFER OF AGRICULTURAL TECHNOLOGIES IN THE PRODUCTION OF ORGANIC COFFEE (Coffea Sp.) AND ITS IMPACT ON THE PROFITABILITY OF THE COFFEE POPULATION IN THE ALTO TULUMAYO SUB-BASIN, LEONCIO PRADO PROVINCE, HUÁNUCO REGION; 2014 CAMPAIGN*.
- Suarez, N., & Restrepo, J. (2019). *DESIGN PROPOSAL FOREIGN TRADE DEPARTMENT*.
- Taher, G. (2021). E-Commerce: Advantages and Limitations. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 11(1). <https://doi.org/10.6007/ijarafms/v11-i1/8987>


ANNEXES

Informed consent for interview

Hoja de Consentimiento Informado

Nosotros, Alejandro Zúñiga y Mgst. Adrián Alvarado, queremos asegurarnos de que las personas entrevistadas como parte del trabajo de titulación, están completamente informadas acerca de implicaciones de participar. Por favor, marque las casillas a continuación si cree que tiene toda la información relevante. Si no, háganoslo saber.

- He leído y comprendido la hoja de información del proyecto.
- Se me ha dado la oportunidad de hacer preguntas sobre el proyecto.
- Estoy de acuerdo en participar en una entrevista.
- Entiendo que la entrevista tomará aproximadamente 45 minutos, pero podría extenderse o acortarse dependiendo de mi disponibilidad.
- Estoy participando voluntariamente.
- Entiendo que puedo negarme a responder cualquier pregunta, por cualquier motivo.
- Entiendo que puedo retirarme de la entrevista en cualquier momento, por cualquier motivo.
- Acepto que el investigador tome notas durante la entrevista.
- Entiendo que mis palabras pueden ser citadas en documentos académicos, informes de investigación y otros resultados de investigación.
- Entiendo que la información proporcionada será utilizada exclusivamente para fines académicos.
- Entiendo que puedo solicitar retirarme del proyecto dentro de 15 días hábiles a partir de esta fecha, comunicándome con el equipo de investigación cuyos datos de contacto están en la hoja informativa. En tal caso mi información será retirada y destruida.

Nombre del participante	Firma
Ing. Juan Peña Gerente general CafExporto	

Fecha: 18 de abril del 2023

CAFEXPORTO
The Growth Cycle of Quality

INDUCAFEXPORTO SAS

RUC.: 0190498670001

Interview Transcript

Buenas tardes estimado Juan, a continuación procederé a realizarle una entrevista basada en una serie de preguntas que libremente podrá responder, con el unico fin educativo que supone esta actividad para el desarrollo de mi trabajo de titulación que por título lleva Análisis de las determinantes de exportación de la empresa CafExporto y elaboración de un plan de mejora para la exportación a USA.

1. Juan, cuénteme por favor sobre el proceso de producción y el manejo de los caficultores aledaños.

Mira Alejandro, el proceso de cosecha se realiza una vez al año, generalmente desde el mes de octubre. El proceso de producción del café empieza desde que seleccionamos las semillas de la variedad de café con la que vamos a trabajar, luego procedemos con el cultivo y procesos de fermentación de la cereza del café de los cuales tengo una guía que ya te voy a pasar. Por otro lado, el trabajar con los caficultores últimamente se ha convertido en un dolor de cabeza, la producción el año pasado fue malísima casi más de la mitad de las libras cereza que recolectaron se echaron a perder por temas de calidad, según ellos por el clima, pero estoy seguro que pasaron por alto todas o algunas de las indicaciones que se les da para el cultivo y manejo de las plantaciones del café.

2. ¿Juan su café cuenta con algún tipo de certificación internacional?

No, al momento el café no tiene ningún tipo de certificación internacional, solamente cumplimos con los requisitos necesarios aquí en el Ecuador y por ende en USA, con todos los requisitos que exige la FDA.

3. ¿Dentro de la producción del café, a los caficultores se les dice cuál es el número específico de libras de café a cosechar?

No, se les establece únicamente aproximado basándose en lo producido el año anterior.

4. De lo total exportado año tras año, ¿cuánta cantidad de café depende de los caficultores aledaños?

La dependencia en ellos es realmente alta, no te podría decir en este momento un porcentaje o número exacto, con los datos en excel que te voy a enviar, tu mismo puedes calcular y tener la respuesta a esta pregunta, pero te adelanto que es bastante y el problema es que en la zona en donde cultivamos el café, no tenemos a donde más expandirnos entonces dependemos si o si de los caficultores.

5. Sobre el proceso de exportación, ¿Quién está a cargo? ¿Cómo lo realiza?

Del proceso de exportación se encarga el departamento administrativo, es decir de todos los trámites necesarios, el departamento está a cargo de Cristina Yerovi, este

departamento abarca distintas funciones dentro de la empresa la verdad. Aquí es importante comentarte que para las exportaciones a USA nosotros exportamos en DDP, nosotros enviamos nuestro café a una bodega en California en donde almacenamos el producto y distribuimos al consumidor final en la zona Este del país. La bodega la arrendamos, nos cuesta 14 mil dólares mensuales aproximadamente, además tuvimos que constituir una empresa allá igual con el nombre de CafExporto. El tema de la bodega fue para dar solución al tema de que los compradores de café en USA necesitan un import ID y no todos tienen.

6. Juan, ¿cómo se adquiere su café? ¿Podría comprarlo mediante la página web de su empresa?

El café se adquiere directamente con Phillip Smith, quien está encargado del área de ventas. Actualmente no es posible comprar nuestro café mediante la página web. Phillip se encarga de esta área personalmente, la negociación y cierre de las ventas las realiza él mismo y en caso de existir problemas con el consumidor final él es quien da seguimiento.

7. ¿Quién está encargado de las ventas y desarrollo de mercados dentro de su empresa? ¿Qué estrategias de venta utiliza esta persona?

Phillip Smith como te comentaba, él es también accionista de la empresa y quien se encarga de todo el marketing y ventas de la empresa. Para este año en ventas estamos utilizando un método realmente gringo de vender anticipadamente la producción. Estamos recién en Abril y Philip ha vendido ya cerca de la mitad de lo que se espera producir en las fincas de CafExporto este año.

8. Aparte de sus fincas en la región de La Papaya, ¿dispone de otras en alguna zona del Ecuador?

No, los factores como el clima o la altura de la región en Loja son realmente privilegiados, actualmente nuestro principal desafío es el expandirnos para producir más café de especialidad y poder suplir la demanda del mercado que cada vez va en aumento.

9. Para el siguiente año, ¿cuál es el principal objetivo de la empresa?

Para el año que viene, nuestro horizonte es expandir las ventas a todo USA, ya no solo al mercado Este. Pero para lograr esto necesitamos mejorar una serie de procesos dentro de toda la cadena de suministro de la empresa, por eso es importante contar con tu tema de tesis, sobre todo porque se basa en temas reales. El año anterior un estudiante de agronomía de la estatal hizo la tesis con nosotros, y en base a eso se tomó la decisión de adquirir una nueva planta procesadora para incrementar la producción en seco del café de especialidad.