

Ecuadorian banana industry and food import companies in Spain: a joint venture. Economic and financial feasibility analysis

Industria bananera ecuatoriana y empresas importadoras de alimentos de España: una alianza comercial. Análisis de factibilidad económica y financiera

IBARRA-VELÁSQUEZ, Alex A.¹
 ORDOÑEZ-ARAQUE, Roberto H.²
 LANDINES-VERA, Edgar F.³

Abstract

Through a financial study it was determined that the appropriate legal framework exists for the implementation of Joint Venture of a banana company between Ecuador and Spain. The results indicated that the amount of investment necessary to form a strategic alliance between a banana industry in Ecuador with a food importing company in Spain is not decisive for decision-making, since once the price of bananas minimally exceeds the profitability threshold (\$14.5) required by the market, the investment is amortized in very fast terms.

key words: Investment, viability, strategic alliance

Resumen

Mediante un estudio financiero se determinó que existe el marco legal apropiado para la implantación de Joint Venture de una empresa bananera entre Ecuador y España. Los resultados indicaron que el monto de la inversión necesaria para formar una alianza estratégica entre una industria de banano de Ecuador y una empresa importadora de alimentos en España no es determinante para la toma de decisión, puesto que una vez que el precio del banano supera mínimamente el umbral de rentabilidad (14,5\$) exigido por el mercado, la inversión es amortizada en plazos muy rápidos.

Palabras clave: Inversión, viabilidad, alianza estratégica

1. Introduction

Banana is the most cultivated fruit worldwide and the fourth largest crop after wheat, rice and corn, in addition, it is an essential part of the economy of small countries such as Costa Rica, Ecuador, the Philippines, Colombia, Guatemala, Honduras and Panama whose income is based on agriculture and exploitation of natural resources (Iriarte, Almeida, & Villalobos, 2014; Coltro & Karaski, 2019). Annually, an average of 78.8 million tons of banana are produced worldwide, of which 16.3 million tons are exported and the rest is dedicated to self-consumption.

¹ Docente-Investigador. Ingeniería Agrícola Mención Agroindustrial. Universidad Agraria del Ecuador. Email: aibarra@uagraria.edu.ec

² Docente-Investigador. Escuela de Nutrición y Dietética. Facultad de Salud y Bienestar. Universidad Iberoamericana del Ecuador (UNIB.E). - Escuela de Gastronomía. Universidad de las Américas, Quito, Ecuador (UDLA). rordonez@unibe.edu.ec / roberto.ordonez@udla.edu.ec

³ Docente-Investigador. Facultad de Ingeniería Química. Universidad de Guayaquil. Email: edgar.landinesv@ug.edu.ec

The main countries selling fruit worldwide are: Ecuador, the Philippines, Costa Rica, Colombia and Guatemala, while the main importers are: United States, Germany, Belgium and Japan (Lutz, Morales, Sepúlveda, & Alviña, 2008; Lockie, Traverro, & Tennent, 2015; Brat, Bugaud, Guillermet, & Salmon, 2020). Additionally, an average of 9.51 kg/person/year is consumed worldwide, and the countries with the highest consumption per capita are Asians.

Ecuador enjoys exceptional climatic conditions, which along with the richness of its soil have allowed the country to become an excellent agricultural producer since the late 1940s, with fruit availability throughout the year (Jedermann, Praeger, Geyer, & Lang, 2014; Ploetz, Kema, & Ma, 2015). In addition, since it is recognized worldwide for its quality, it is the largest banana exporter with 30% of the world's supply; in particular, the chain has great importance, since on average it represents 26% of the country's agricultural gross domestic product and contributes 2% to the total, being one of the traditional products within Ecuadorian exports (Mlachila, Cashin, & Haines, 2013; Dodo, 2014).

These percentages show the importance of the banana industry in the economy of Ecuador. Despite the large amounts of crops that are obtained year by year, mainly in the coastal area of the country because the plant is more productive in tropical climates, there is disagreement regarding the establishment of the sale price perceived by producers towards exporters (Capa, Alana, & Narvaez, 2016). Thus, the state has tried to regulate this market during the last decade by implementing a minimum support price, that is, an official single price for exporters to buy the fruit from producers (Soto, 2011).

Companies known as joint ventures or strategic alliances are the result of the union of two or more companies –one of which may be a public company– for a common business, after making a commercial agreement with a medium or long-term investment (Lin, 2017). They can appear as companies as a whole or separately, regardless of the company name, these will have a shared risk since their creation leads to a new brand or entity, they can be dedicated to the production or provision of different goods or services for the local or international level (Wong, Wei, Yang, & Tjosvold, 2017; Kabiraj & Sengupta, 2018).

In Spain there are 53 companies that sell bananas and other fruits, which are not only responsible for distributing the fruit throughout the Spanish geography, but also some fulfill the function of importing the fruit from various regions of the Latin American block. These marketers are distributed in 24 provinces. The highest concentration of these marketers is in the Canary Islands (10) and Madrid (6) (Luis, 2015).

Since 1982, Madrid has the Mercados Centrales de Abastecimientos de Madrid, S.A. (Mercamadrid), a leading chain in international food distribution, managed by the company Mixta Mercamadrid, S.A. (Mangone, Falconi, & Karol, 2018).

Before 1993, each banana-producing country in Europe had its own banana supply system. In Spain, there was a law that prohibited the entry of bananas to the Spanish market, because the Canary Islands' production supplied 100% of the national market. This system survived until December 2006, after being denounced to the World Trade Organization (WTO) by both Latin American countries and North American multinationals (Villalobos, 2013; Aranda, 2019).

Given the importance of bananas and their value chain for the growth of exports from Ecuador and the consequent generation of currencies for the country, the main objective of this study was the analysis of the feasibility of creating a joint venture between Ecuador (banana sector).

2. Methodology

The methods used in this investigation are the deductive and inductive: The deductive method is used for the analysis of information regarding banana exports and their derivatives years before the implementation of the agreement with the European Union and its projection after signing of the agreement, working from the most general until then finally reaching the most specific. The inductive allows obtaining relevant information on the current situation of the commercial, economic and social activity that exists through the observation of specific data to be able to conclude in a general way.

The exports of bananas and their products were analyzed in the period from 2017 to 2019 and the entries of Ecuadorian bananas to Mercamadrid S.A. between the years 2008-2012.

For the financial analysis, a valuation of the basic initial investment was carried out, which is required to install the ripener, the sensitivity analysis was prepared with the minimum and distribution prices together with the tariffs established for the producer by the Government of Ecuador and finally an analysis of the investment required to install the ripener was performed, a sensitivity analysis with different prices, in addition to obtaining the financial part through the Internal Rate of Return (IRR), in order to obtain different data and information, we have had the help of a multi-generation fruit and vegetable distribution company based in Madrid. Spain, which is also studying the possibility of collaborating with the Ecuadorian public company (National Storage Unit EP) for the distribution of fruits in Morocco.

In the legal part, it was reviewed whether in Spain there is specific evidence on Joint Venture carried out with respect to bananas or other fruits.

3. Results

3.1. Spanish market

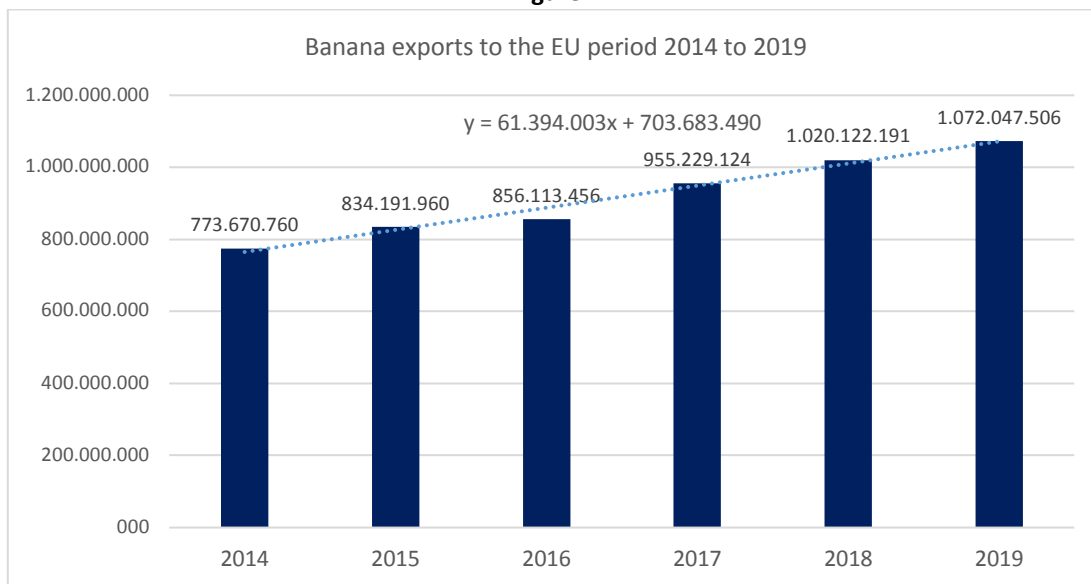
Table 1
Banana Exports and their Processes from 2017 to 2019

| Tariff Items | 2017 | 2018 | 2019 ¹ |
|----------------------------|----------------------|----------------------|----------------------|
| Banana | 2474685780 | 2707703306 | 1641767340 |
| Orito | 248849843 | 96219019 | 52200537 |
| Banana flour | 4577800 | 5338065 | 2286795 |
| Fresh banana others | 3929144 | 7001802 | 2062677 |
| Organic banana | 230106957 | 291852238 | 183411411 |
| Dried banana | 1856484 | 13059424 | 6730670 |
| Mashed bananas | 4809406000 | 48105920 | 31201574 |
| Total | \$ 3012100068 | \$ 3169279774 | \$ 1919661004 |
| Exports to EU | \$ 955229124 | \$ 1020122191 | \$ 564584290 |
| EU export share (%) | 31.71 | 32.19 | 29.41 |

¹ Exports from January to July 2019

Source: Agricultural Public Information System - SIPA (2019)

Figure 1



Source: Agricultural Public Information System – SIPA (2019)

Table and figure 1 show the production of bananas and their processed products exported from Ecuador to the European Union (SIPA, 2019).

Mercamadrid, S.A. is attached to the Government Department of Economy, Finance and Public Administration of the Madrid City Council and is the business center par excellence of food, with national and international projection, which supplies almost 12 million inhabitants and is, in turn, the great physical market of perishable products. It brings together both the Central Fish and Fruit and Vegetable Market of Madrid as well as the Meat Market, multi-purpose companies specialized in the food sector and a wide range of service companies: Industrial cold, conservation, logistics, transport, handling, etc (Mangone et al., 2018). Logically, the main supplier of bananas from Spain and therefore from Madrid are the Canary Islands, due to its proximity, and because it is within the European economic bloc (absence of tariffs), however, Latin American countries such as Colombia, Brazil, the Dominican Republic and Ecuador maintain good commercial relations with this European country, and it is estimated that these will increase because the tariff rates will gradually decrease (Maté & Cáliz, 2014). As mentioned earlier, Spain is an important trading partner of Ecuador, despite having its own production in the ultra-peripheral regions (Canary Islands); and Madrid, being its capital, is an important land port of entry for Ecuadorian bananas. Therefore, we chose Madrid because it is the city of Spain that registers the most imports with Ecuador, we have taken this city as a reference to analyze which and how many are the banana inputs from Ecuador to the main collection center in the region, which is Mercamadrid S.A (table 2).

Table 2

Entrance of Ecuadorian bananas to Mercamadrid S.A., years 2008-2012

| Month | 2008 | | 2009 | | 2010 | | 2011 | | 2012 | |
|----------|-------|---------|------|--------|------|-------|------|-------|------|-------|
| | % | kg | % | kg | % | kg | % | kg | % | kg |
| January | 22.7 | 1644006 | 2.86 | 296659 | - | 0 | - | 0 | - | 0 |
| February | 25.12 | 527509 | 2.96 | 244596 | 0.34 | 20327 | - | 0 | - | 0 |
| March | 9.06 | 717741 | 2.52 | 207523 | 0.68 | 47936 | - | 0 | - | 0 |
| April | 0.89 | 76588 | 3.12 | 281628 | 0.08 | 5755 | 0.40 | 24883 | - | 0 |
| May | 2.66 | 194708 | 1.20 | 101843 | 1.28 | 91389 | - | 0 | - | 0 |
| June | 1.96 | 246339 | 3.99 | 272495 | 0.41 | 28418 | - | 0 | - | 0 |
| July | 0.53 | 38907 | 0.80 | 72682 | - | 0 | 1.58 | 86514 | - | 0 |
| August | 0.82 | 62032 | 1.17 | 92291 | - | 0 | - | 0 | 0.65 | 24710 |

| Month | 2008 | | 2009 | | 2010 | | 2011 | | 2012 | |
|------------------|-------|---------|------|---------|------|--------|------|--------|-------|---------|
| % / kg | % | kg | % | kg | % | kg | % | kg | % | kg |
| September | 5.60 | 525320 | 0.70 | 48056 | 1.51 | 57744 | 1.85 | 104574 | - | 0 |
| October | 1.66 | 181092 | 0.08 | 8207 | 1.87 | 121162 | - | 0 | 10.35 | 424541 |
| November | 11.70 | 1059752 | 0.37 | 98763 | - | 0 | 0.52 | 38598 | 17.81 | 578157 |
| December | 11.71 | 1284086 | 1.01 | 86172 | 0.82 | 40686 | 0.63 | 44501 | 3.33 | 161647 |
| TOTAL | 7.87 | 8558080 | 1.73 | 1810915 | 0.58 | 413417 | 0.42 | 299070 | 2.68 | 1189055 |

Source: (Mercamadrid, 2020)

According to data shown in table 2, the entrance of Ecuadorian bananas in Mercamadrid S.A. during the years 2008 and 2009 was different if we compare it with the years 2010 and 2011. For example, in 2008: 8558080 kilograms of fruit entered Mercamadrid, which represents an annual average of 7.87% of the total banana entrance in this important supply center for Madrid and its surroundings. During the following years, there is a notable decrease in fruit entrance, While 2011 is recorded as the year with the lowest banana entrance from Ecuador (299070 kg). The majority of fruit shops visited confirm that they stock up on the fruit at Mercamadrid S.A. However, supermarket chains are also supplied directly from wholesalers and large retailers, the varieties of fruit sold in retail stores are: Cavendish and Great Cavendish. It is interesting to mention that consumer preferences are inclined to the origins of the fruit, for example, according to store managers, the public of Spanish origin is inclined to the Canary Islands banana, however, almost the entire public of Latin American origin prefers to consume bananas from Central and South America (Fruendt, 2005; Medranda & Soledispa, 2019). The prices vary according to the origin of the fruit; -the banana of the Canary Islands is more expensive than the banana of Latin America because the production costs there are 2 or 3 times higher than in the American continent. Canarian banana prices range between 1.89 and 2.50 euros per kilogram. However, the price of bananas from Central and South America ranges between 1.10 and 1.69 euros per kilogram (Villanueva, Añazco, & Bonisoli, 2020).

3.2. Financial Study

The current moment can be considered delicate in terms of the potential growth of Ecuadorian banana exports to Spain due to a sustained reduction in exports in previous years. Although the global economic crisis has had its importance, without doubt, the main threat to an eventual reactivation of the demand of Ecuadorian bananas, it is the strength of the ACP countries (Africa, the Caribbean and the Pacific) free of tariffs which made it impossible to propose joint venture alliances with Ecuadorian banana companies to Spain. However, with the signing of the Multiparty Commercial Agreement between the European Union and Ecuador, this has been reversed. (Andrade & Meza, 2017).

3.3. Investment Flow

The estimated theoretical basic investment, that is, of an incipient operation, would be €810,000 (table 3)

Table 3
Investment Valuation

| | |
|--------------------------------|---------------|
| Machinery | 450000 |
| Hypothetical facility purchase | 300000 |
| Conditioning | 60000 |
| TOTAL INVESTMENT | 810000 |

3.4. Financial variables / Sensitivity analysis

The minimum prices established for the producer by the Government of Ecuador along with the tariffs and distribution prices, allow evaluate a price range per banana box (each box weighs 46 pounds) around the \$14.67 minimum sale price at distributor, equivalent to \$8 FOB (Free on Board). Then, in the following tables the financial variables are established in a price range between \$13 and \$15 with a reasonable increase in operation between the 3 weekly containers the first year, and 15 containers from the fifth when a speed of cruise:

Table 4
Sensitivity analysis (medium price \$15)

| Evolution of results of \$15 average price box | | | | | |
|--|---------|---------|----------|----------|----------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Weekly containers | 3 | 5 | 10 | 12 | 15 |
| Weekly boxes | 6480 | 10800 | 21600 | 25920 | 32400 |
| Annual billing | 5054400 | 8424000 | 16848000 | 20217600 | 25272000 |
| Direct costs | 2190240 | 3650400 | 7300800 | 8760960 | 10951200 |
| Duties | 741312 | 1179360 | 2302560 | 2695680 | 3302208 |
| Distribution costs | 1718496 | 2864160 | 5728320 | 6873984 | 8592480 |
| Total costs | 4650048 | 7693920 | 15331680 | 18330624 | 22845888 |
| Gross Operating Profit | 404352 | 730080 | 1516320 | 1886976 | 2426112 |

Table 5
Financial variables (medium price \$15)

| Estimated variables with \$15 box | | | | | | |
|---|------------------|-----------------|----------------|------------------|---------------------------|-----------------|
| Year | Gop ¹ | Discount factor | Discount value | Roi ² | Cumulative discount value | Accumulated roi |
| 1 | -810000 | 1.00000 | -810000 | -10000% | -810000 | -100.00% |
| 2 | 404352 | 0.98600 | 398691 | 49.22% | -405648 | -50.78% |
| 3 | 730080 | 0.97220 | 709781 | 87.63% | 304133 | 36.85% |
| 4 | 1516320 | 0.95859 | 1453522 | 179.45% | 1757655 | 216.30% |
| 5 | 1886976 | 0.94517 | 1783504 | 220.19% | 3541159 | 436.48% |
| 6 | 2426112 | 0.93193 | 2260973 | 279.13% | 5802132 | 715.61% |
| 7 | 2474634 | 0.91889 | 2273906 | 280.73% | 8076038 | 996.34% |
| 8 | 2524127 | 0.90602 | 2286913 | 282.33% | 10362951 | 1278.68% |
| 9 | 2574609 | 0.89334 | 2299994 | 283.95% | 12662944 | 1562.63% |
| 10 | 2626102 | 0.88083 | 2313150 | 285.57% | 14976094 | 1848.20% |
| 10 YEARS TIR | | | | | 102.62% | |
| PAY BACK | | | | | 2.43 | |
| YEAR 10^o ROI | | | | | 285.57% | |
| Inflation ratio | | | | | 2% | |
| Discount value (risk premium standard) | | | | | 1.4% | |

¹Gross Operation Profit. ²Return On Investment

Table 6
Sensitivity analysis (medium price \$14.50)

| Evolution of results of \$14.50 average price box | | | | | |
|--|---------|---------|----------|----------|----------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Weekly containers | 3 | 5 | 10 | 12 | 15 |
| Weekly boxes | 6480 | 10800 | 21600 | 25920 | 32400 |
| Annual billing | 4885920 | 8143200 | 16286400 | 19543680 | 24429600 |
| Direct costs | 2190240 | 3650400 | 7300800 | 8760960 | 10951200 |
| Duties | 741312 | 1179360 | 2302560 | 2695680 | 3302208 |
| Distribution costs | 1718496 | 2864160 | 5728320 | 6873984 | 8592480 |
| Total costs | 4650048 | 7693920 | 15331680 | 18330624 | 22845888 |
| Gross Operating Profit | 235872 | 449280 | 954720 | 1213056 | 1583712 |

Table 7
Financial variables (medium price \$14.50)

| Estimated variables with \$14.50 box | | | | | | |
|---|------------------|-----------------|----------------|------------------|---------------------------|-----------------|
| Year | Gop ¹ | Discount factor | Discount value | Roi ² | Cumulative discount value | Accumulated roi |
| 1 | -810000 | 1.00000 | -810000 | -100.00% | -810000 | -100.00% |
| 2 | 235872 | 0.98600 | 232570 | 28.71% | -574128 | -71.29% |
| 3 | 449280 | 0.97220 | 436788 | 53.92% | -137340 | -17.36% |
| 4 | 954720 | 0.95859 | 915181 | 112.99% | 777841 | 95.62% |
| 5 | 1213056 | 0.94517 | 1146538 | 141.55% | 1924379 | 237.17% |
| 6 | 1583712 | 0.93193 | 1475913 | 182.21% | 3400292 | 419.38% |
| 7 | 1615386 | 0.91889 | 1484355 | 183.25% | 4884647 | 602.64% |
| 8 | 1647694 | 0.90602 | 1492846 | 184.30% | 6377493 | 786.94% |
| 9 | 1680648 | 0.89334 | 1501385 | 185.36% | 7878878 | 972.29% |
| 10 | 1714261 | 0.88083 | 1509973 | 186.42% | 9388851 | 1158.71% |
| 10 YEARS TIR | | | | | 74.67% | |
| PAY BACK | | | | | 3.15 | |
| YEAR 10^o ROI | | | | | 186.42% | |
| Inflation ratio | | | | | 2% | |
| Discount value (risk premium standard) | | | | | 1.4% | |

¹Gross Operation Profit. ²Return On Investment

Table 8
Sensitivity analysis (medium price \$14)

| Evolution of results of \$14 average price box | | | | | |
|---|---------|---------|----------|----------|----------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Weekly containers | 3 | 5 | 10 | 12 | 15 |
| Weekly boxes | 6480 | 10800 | 21600 | 25920 | 32400 |
| Annual billing | 4717440 | 7862400 | 15724800 | 18869760 | 23587200 |
| Direct costs | 2190240 | 3650400 | 7300800 | 8760960 | 10951200 |
| Duties | 741312 | 1179360 | 2302560 | 2695680 | 3302208 |
| Distribution costs | 1718496 | 2864160 | 5728320 | 6873984 | 8592480 |
| Total costs | 4650048 | 7693920 | 15331680 | 18330624 | 22845888 |
| Gross Operating Profit | 67392 | 168480 | 393120 | 539136 | 741312 |

Table 9
Financial variables (medium price \$14)

| Estimated variables with \$14 box | | | | | | |
|---|------------------|-----------------|----------------|------------------|---------------------------|-----------------|
| Year | Gop ¹ | Discount factor | Discount value | Roi ² | Cumulative discount value | Accumulated roi |
| 1 | -810000 | 1.00000 | -810000 | -100.00% | -810000 | -100.00% |
| 2 | 67392 | 0.98600 | 66449 | 8.20% | -742608 | -91.80% |
| 3 | 168480 | 0.97220 | 163796 | 20.22% | -578812 | -71.57% |
| 4 | 393120 | 0.95859 | 376839 | 46.52% | -201973 | -25.05% |
| 5 | 539136 | 0.94517 | 509573 | 62.91% | 307599 | 37.86% |
| 6 | 741312 | 0.93193 | 690853 | 85.29% | 998452 | 123.15% |
| 7 | 756138 | 0.91889 | 694805 | 85.78% | 1693257 | 208.93% |
| 8 | 771261 | 0.90602 | 698779 | 86.27% | 2392036 | 295.20% |
| 9 | 786686 | 0.89334 | 702776 | 86.76% | 3094811 | 381.96% |
| 10 | 802420 | 0.88083 | 706796 | 87.26% | 3801607 | 469.22% |
| 10 YEARS TIR | | | | | 40.42% | |
| PAY BACK | | | | | 4.40 | |
| YEAR 10^o ROI | | | | | 87.26% | |
| Inflation ratio | | | | | 2% | |
| Discount value (risk premium standard) | | | | | 1.4% | |

¹Gross Operation Profit. ²Return On Investment

Table 10
Sensitivity analysis (medium price \$13.50)

| Evolution of results of \$13.50 average price box | | | | | |
|---|---------|---------|----------|----------|----------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Weekly containers | 3 | 5 | 10 | 12 | 15 |
| Weekly boxes | 6480 | 10800 | 21600 | 25920 | 32400 |
| Annual billing | 4548960 | 7581600 | 15163200 | 18195840 | 22744800 |
| Direct costs | 2190240 | 3650400 | 7300800 | 8760960 | 10951200 |
| Duties | 741312 | 1179360 | 2302560 | 2695680 | 3302208 |
| Distribution costs | 1718496 | 2864160 | 5728320 | 6873984 | 8592480 |
| Total costs | 4650048 | 7693920 | 15331680 | 18330624 | 22845888 |
| Gross Operating Profit | -101088 | -112320 | -168480 | -134784 | -101088 |

Table 11
Financial variables (medium price \$13.50)

| Estimated variables with \$13.50 box | | | | | | |
|---|------------------|-----------------|----------------|------------------|---------------------------|-----------------|
| Year | Gop ¹ | Discount factor | Discount value | Roi ² | Cumulative discount value | Accumulated roi |
| 1 | -810000 | 1.00000 | -810000 | -100.00% | -810000 | -100.00% |
| 2 | -101088 | 0.98600 | -99673 | -12.31% | -911088 | -112.31% |
| 3 | -112320 | 0.97220 | -109197 | -13.48% | -1020285 | -125.79% |
| 4 | -168480 | 0.95859 | -161502 | -19.94% | -1181787 | -145.72% |
| 5 | -134784 | 0.94517 | -127393 | -15.73% | -1309181 | -161.45% |
| 6 | -101088 | 0.93193 | -94207 | -11.63% | -1403388 | -173.08% |
| 7 | -103110 | 0.91889 | -94746 | -11.70% | -1498134 | -184.78% |
| 8 | -105172 | 0.90602 | -95288 | -11.76% | -1593422 | -196.54% |
| 9 | -107275 | 0.89334 | -95833 | -11.83% | -1689255 | -208.38% |
| 10 | -109421 | 0.88083 | -96381 | -11.90% | -1785636 | -220.27% |
| 10 YEARS TIR | | | | | Negative | |
| PAY BACK | | | | | Does not apply | |
| YEAR 10^o ROI | | | | | -11.90% | |
| Inflation ratio | | | | | 2% | |
| Discount value (risk premium standard) | | | | | 1.4% | |

¹Gross Operation Profit. ²Return On Investment

3.5. Legal feasibility analysis

The Spanish legal system does not expressly regulate the figure of a joint venture, so it is enough in the presence of an atypical contract and where the will of the parties is essential. In the absence of a specific rule that regulates this type of contracts, you must go to the Commercial Code and the Spanish Capital Companies Law. You must also go to the Civil Code in its art 1255, Law 12/1991 of Economic Interest Groups, and Law 18/1982 on Tax Regime for Temporary Groupings and Unions of Companies and Regional Industrial Development Societies. The reason for this is due to the fact that the right attributes to the contracting parties the ability to set mandatory legal standards and it will be the general rules of interpretation of contracts and obligations of private law that

will be applied. It should be taken into account that the laws applicable to the joint venture are usually those of the State whose territory is located there, leaving aside other aspects on which other legal norms, either of the investing country or those derived from international agreements or of the European community regulation in case of being in this geographical area. Within the scope of the European Union, the issue is very similar to what happens in the Spanish legal system.

Following this line, it is in the Community Law of competition where the figure of the joint venture is understood more clearly and in detail, by the relevance to the defense of competition, to the extent that a business collaboration agreement of these characteristics can restrict. It is a fact that agreements that include foreign elements are becoming more frequent; in the face of these international joint venture situations, we must know what the applicable standard will be, which is determined in accordance with the forum's private international law system, that is; from the place where the controversy arises. In the absence of any national or conventional conflict system that contains specific rules for the joint venture, at the time of determining the law of the contract, a court will apply the contractual rules of its legal system (conformed not only by the rules of international law private sector but also by the corresponding international treaties, and where appropriate by supranational law such as that of the European Union). The instrument to determine the applicable law in the community sphere is Regulation (EC) No. 593/2008 of the European Parliament, of June 17, 2008 (Law 335954/2008), on the law applicable to obligations Contractual (Rome I), this Regulation establishes that the law applicable to the contractual relationship will be that which the parties have chosen in the contract, with which we are again in the presence of the principle of autonomy of the will, as an essential element of the contract (a through an express submission clause), taking into account that we are facing an atypical contract. If the parties had not established a specific clause on the applicable law, the same regulation helps us determine if it is in the presence of some of the matters specially provided to resolve the controversy of applicable law. In the event that there is no express agreement, and it is not a matter of special matters, the last criterion for resolving the conflict is the applicable law of the country where the party that must perform the characteristic benefit of the contract has its habitual residence.

4. Conclusions

The legal framework to establish a banana joint venture between Ecuador and Spain is appropriate by current legislation since, there would be no limitation or inconvenience for its formation; all the requirements to be met are viable and the foreign company could meet the Ecuadorian public company (National Storage Unit EP) to get a common benefit and take advantage of Ecuadorian raw material.

After valuing the investment, the financial and sensitivity variables, it can be determined that these types of projects are viable; in the specific case of banana, the profitability is achieved by projecting a sale of the box from \$14, since with that and higher values, the repayment terms of the investment are resolved in short periods of time.

Below that value per box, the investment would not be profitable, so it is recommended to constantly monitor the price of the box to determine the viability of the project when you want to execute it.

Bibliographic references

Andrade, P., & Meza, A. (2017). Acuerdo comercial entre Ecuador y la Unión Europea: El caso del sector bananero ecuatoriano. *Revista Espacios*, 38(58), pp. 10. Retrieved from: <http://www.revistaespacios.com/a20v41n03/20410310.html>

- Aranda, D. (2019). Vinculación de la imagen territorio de Canarias con la identificación geográfica protegida. Caso de estudio. Plátano de Canarias y Las Islas Canarias. Universitat Jaume I. Retrieved from: <http://hdl.handle.net/10234/184840>
- Brat, P., Bugaud, C., Guillermet, C., & Salmon, F. (2020, February 27). Review of banana green life throughout the food chain: From auto-catalytic induction to the optimisation of shipping and storage conditions. *Scientia Horticulturae*, Vol. 262. Retrieved from: <https://doi.org/10.1016/j.scienta.2019.109054>
- Capa, L., Alana, T., & Narvaez, R. (2016). Importancia de la producción de banano orgánico. Caso: provincia El Oro, Ecuador. *Universidad y Sociedad*, 8(3), pp. 64–71. Retrieved from: https://redib.org/Record/oai_articulo1332641
- Luis, C. (2015). Evolución del sector platanero canario ante los cambios institucionales en la comercialización (1993-2014). *Universidad de la Laguna*, pp. 38. Retrieved from: <https://riull.ull.es/xmlui/handle/915/1520>
- Coltro, L., & Karaski, T. (2019). Environmental indicators of banana production in Brazil: Cavendish and Prata varieties. *Journal of Cleaner Production*, 207, pp. 363–378. Retrieved from: <https://doi.org/10.1016/j.jclepro.2018.09.258>
- Dodo, M. (2014). Multinational Companies in Global Banana Trade Policies. *Food Processing & Technology*, 5(8), pp. 1–8. Retrieved from: <http://dx.doi.org/10.4172/2157-7110.1000351>
- Frudt, H. (2005). Toward a hegemonic resolution in the banana trade. *International Political Science Review*, 26(2), pp. 215–237. Retrieved from: <https://doi.org/10.2307/1601615>
- Iriarte, A., Almeida, M., & Villalobos, P. (2014). Carbon footprint of premium quality export bananas: Case study in Ecuador, the world's largest exporter. *Science of the Total Environment*, 472, pp. 1082–1088. Retrieved from: <https://doi.org/10.1016/j.scitotenv.2013.11.072>
- Jedermann, R., Praeger, U., Geyer, M., & Lang, W. (2014). Remote quality monitoring in the banana chain. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 372(2017). Retrieved from: <https://doi.org/10.1098/rsta.2013.0303>
- Kabiraj, T., & Sengupta, S. (2018). A theory of joint venture instability under inter-partner learning. *Research in International Business and Finance*, 46, pp. 363–372. Retrieved from: <https://doi.org/10.1016/j.ribaf.2018.04.008>
- Lin, J. (2017). Knowledge creation through joint venture investments: The contingent role of organizational slack. *Journal of Engineering and Technology Management*, 46, pp. 1–25. Retrieved from: <https://doi.org/10.1016/j.jengtecman.2017.09.001>
- Lockie, S., Traverro, J., & Tennent, R. (2015). Private food standards, regulatory gaps and plantation agriculture: Social and environmental (ir)responsibility in the Philippine export banana industry. *Journal of Cleaner Production*, 107, pp. 122–129. Retrieved from: <https://doi.org/10.1016/j.jclepro.2014.03.039>
- Lutz, M., Morales, D., Sepúlveda, S., & Alviña, M. (2008). Evaluación sensorial de preparaciones elaboradas con nuevos alimentos funcionales destinados al adulto mayor. *Revista Chilena de Nutrición*, 35(2), pp. 131–137. Retrieved from: <https://doi.org/10.4067/s0717-75182008000200007>

- Mangone, A., Falconi, E., & Karol, Z. (2018). Mejora en la Eficiencia entre las Transacciones Proveedor-Comprador en Cadena de Suministro de Mercamadrid. *EAE-Madrid*, pp. 94. Retrieved from: <http://eae.xebook.es/xmlui/handle/123456789/1744>
- Maté, V., & Cáliz, A. (2014). Mercamadrid: el primer puerto pesquero. Madrid Comestible: *Revista Trimestral de Consumo Local*, (3), pp. 43–49. Retrieved from: <https://dialnet.unirioja.es/servlet/articulo?codigo=5286829>
- Medranda, J., & Soledispa, P. (2019). Producción de Harina de Banano Orgánico y Comercialización hacia España. *Universidad Católica de Santiago de Guayaquil*, pp. 128. Retrieved from: <http://repositorio.ucsg.edu.ec/handle/3317/12324>
- Mercamadrid (2020). Estadísticas. Retrieved from <https://www.mercamadrid.es/estadisticas/>
- Mlachila, M., Cashin, P., & Haines, C. (2013). Caribbean bananas: The macroeconomic impact of trade preference erosion. *Journal of International Trade and Economic Development*, 22(2), pp. 253–280. Retrieved from: <https://doi.org/10.1080/09638199.2011.552114>
- Ploetz, R., Kema, G., & Ma, L. (2015). Impact of Diseases on Export and Smallholder Production of Banana. *Annual Review of Phytopathology*, 53(1), pp. 269–288. Retrieved from: <https://doi.org/10.1146/annurev-phyto-080614-120305>
- SIPA (Sistema de Información Pública Agropecuaria). (2019) Retrieved from: <https://www.agricultura.gob.ec/sipa/>
- Soto, M. (2011). Situación y Avances Tecnológicos en la Producción Bananera Mundial. *Revista Brasileira de Fruticultura*, 33(1), pp. 13–28. Retrieved from: <https://doi.org/10.1590/s0100-29452011000500004>
- Villalobos, M. (2013). Conflicto del banano entre los Estados Unidos y la Unión Europea: El papel de la OMC y las negociaciones para dar fin a la disputa. *Universidad Estatal a Distancia Sistema de Estudios de Postgrado*, pp. 96. Retrieved from: <https://repositorio.uned.ac.cr/handle/120809/959>
- Villanueva, V., Añazco, C., & Bonisoli, L. (2020). Introducción de marca de banano orgánico en el mercado ecuatoriano. *INNOVA Research Journal*, 5(1), pp. 180. Retrieved from: <https://doi.org/10.33890/innova.v5.n1.2020.1150>
- Wong, A., Wei, L., Yang, J., & Tjosvold, D. (2017). Productivity and participation values for cooperative goals to limit free riding and promote performance in international joint ventures. *Journal of World Business*, 52(6), pp. 819–830. Retrieved from: <https://doi.org/10.1016/j.jwb.2017.08.002>

Esta obra está bajo una Licencia Creative Commons
Atribución-NoCommercial 4.0 International

