

MAIN BUSINESS FACTORS AFFECTING THE COMPETITIVENESS OF ECUADOR'S BANANA SECTOR

Nivaldo Vera Valdiviezo, University of Castilla-La Mancha
Pablo Ruíz Palomino, University of Castilla-La Mancha
María Isabel Bonilla Delgado, University of Castilla-La Mancha

ABSTRACT

The objective of this research was to determine the reliability and validity of the business factors that affect competitiveness and to analyse them by applying the technique of weaknesses, threats, strengths and opportunities. The theoretical foundation is based on the theory of resources and capabilities and competitive advantage. The methodology used was based on the field study of banana and exporting companies, complemented by secondary sources. The results showed that the constructs and variables have reliability and validity and, therefore, their hypotheses can be statistically tested. The SWOT analysis shows that the banana sector has improved its strengths, taken advantage of its opportunities, but has not overcome its weaknesses and has been unsatisfactory in confronting its threats.

Keywords: Company, Economic Competition, Producer, Exporter, Agricultural Product

INTRODUCTION

The banana production sector in Ecuador in 2018 had a high concentration of the area planted by large and very large producers; however, they contributed the least to the national banana production according to their hectares. 16.34% and 4.58% respectively.

In the aforementioned year, the largest contributions to total production came from the very small and small banana producers, who together contributed 58.01%, followed by the medium-sized producers with 21.07%. On the other hand, banana production is concentrated in the coastal region, which contributes 93.11% of the national production, and to a lesser extent, the Sierra region produces 5.49%, according to data from the banana cadastre updated to October 2018. (Ministerio de Agricultura Ganadería Acuacultura y Pesca, 2020).

National banana production in thousands of tonnes grew from 2017 to 2019, with moderate average annual growth rates of no more than 4%. By 2020 it drops considerably to -8.51%. (Subgerencia de análisis de productos y servicios CFN, 2022), this year's yield per hectare was higher than in 2019. This decline is estimated to be influenced by the Covid-19 disease crisis.

With regard to the export sector up to June 2020, there were 252 companies dedicated to banana exports, and considering their export volume in boxes and their market share, a Herfindahl-Hirschman concentration index (HHI) of 3.697 was obtained for 2017. This indicator allowed measuring the degree of economic concentration for this type of market (Ruiz et al.,

2017), the sector can therefore be classified as non-competitive or oligopolistic because the HHI is higher than 1.800 (Parkin & Loría, 2010).

Banana exports experienced a considerable increase of 5.59%. In the following period there were significant decreases, especially between 2020-2021 where it stood at -3.22%, more so in 2022 where it reached a figure of -6.36 (Banco Central del Ecuador, 2023). This result is attributable to several factors such as high fertiliser costs, unfavourable weather conditions and the increase in land and sea transportation costs according to the Organización de las Naciones Unidas para la Alimentación y la Agricultura, (2023).

This research is important because it helps to identify the main factors that affect both producers and exporters of bananas; especially because it is a very important item for national production and the economy of Ecuador, complementarily taking into account these factors, a SWOT analysis was carried out to determine its current situation and the strategies that could be used to overcome weaknesses and threats. It must be taken into account that, as the banana sector is linked to the international demand for bananas, it is susceptible to external shocks, economic crises and international war conflicts, etc., which tend to reduce demand and affect the income and competitiveness of this sector.

LITERATURE REVIEW

Studies on internal or business factors and the use of SWOT tools are not so abundant when it comes to the banana producing and exporting sector in Ecuador; hence, this research aims to contribute to increase the theoretical and empirical body of knowledge. In this respect, the following contributions have been identified.

The research developed by Gallegos, (2019) attributes organisational culture, which is a product of intellectual capital, as a factor of competitiveness in smaller companies dedicated to banana exports. The author states that labour performance has an impact on worker productivity. On the same factor, the authors Ashqui & Sevilla, (2022) associate organisational culture with innovation and conclude once they analyse the small banana-producing companies in the province of Los Ríos that there is an impact of the former with respect to the latter variable.

In the same vein Ayón et al., (2021) explains that innovation is an important internal business factor for competitiveness, which can be assumed as a strategy that will allow it to grow competitively and achieve sustainable economic development.

Collaguazo, (2022) analyses the evolution of Ecuadorian exports and tries to determine which variables are related to competitiveness, pointing out that inflation, labour market, infrastructure, innovation, among others, are linked to it. Likewise, Valverde & Yunga, (2022) found that productive capacity, technological and financial resources, and human talent have an impact on competitiveness.

When analysing the factors that tend to affect income from banana exports, Sandoval et al., (2021) conclude that increases in income are generally due to two factors: political to a greater extent and economic to a lesser extent; also, the decrease is attributed to two other factors: environmental and political.

In a study carried out by Chusín, (2023) an examination was made of the factors that affect the competitiveness of banana exports from Ecuador, highlighting natural, human and technological factors, the area planted, producer and export prices, etc., which, according to the author, have a positive relationship with competitiveness.

The contribution of Erreyes, (2021) which examines the preparation of policies and strategies to strengthen the competitiveness of the banana sector, based on the analysis of

weaknesses, threats, strengths and opportunities (SWOT), based on the analysis of internal and external factors to the company studied, has also been appreciated. Puerta & Paniagua, (2021) also carried out a diagnosis and presented a plan for an exporting company aimed at increasing its banana sales levels. In the same context Carvajal, (2022) proposes a management model for the export of the banana sector through the design of a strategy aimed at increasing sales in the foreign market.

Martrus & Flores, (2019) make it a reality in a banana company in Ecuador with the aim of strengthening business administration and the efficient use of all resources, being clear that this will improve the productivity and competitiveness of this economic unit. Part of the management also involves promoting a culture of cost reduction, as proposed by Lalangui & Meleán, (2022) as a measure that contributes to business competitiveness.

It should be noted that SWOT analysis is sometimes referred to as a technique, but in reality it is a very simple and practical analysis tool for decision making (Foschiatti et al., (2012), it is also considered one of the best instruments in situations of adversity (Sánchez et al., 2019) through which strengths are consolidated, weaknesses are minimised, opportunities are taken advantage of and threats are reduced to finally synthesise them in a strategic balance matrix that will contribute to the design of the best strategies for the company.

The study of the internal factors of the company is essential if we want to understand the development of its competitive capacity, for this reason, in the following lines we can see those that, in the researcher's opinion, have the greatest impact on the competitiveness of the companies in the banana sector, highlighting: innovation, technological development, profitability, size and age of the company.

One of these factors is relational capital, which comprises the set of knowledge, procedures and capacities (Delgado et al., 2011) that companies have that are derived from the relationships between them and other institutions (Arañó et al., 2022) which leads to significant improvements in their productive and competitive processes. At the micro-enterprise level, it is argued that cooperation networks as part of relational capital contribute successfully to the social responsibility policies of these organisations (Benito & Esteban, 2012).

Another business factor is technological development, which is key to achieving better levels of productivity for companies, lowering costs and ultimately affecting prices. According to Tafur et al., (2018), the growth of an economic activity and the quality of goods and services are subordinated to technological development. In other words, the options and possibilities for business growth and development are closely linked to the conditions for inventing, producing and transforming (Arias, 2017), which are, in short, the steps through which technological development unfolds.

Likewise, another important business factor is represented by innovation, which is possible thanks to the effective action of intellectual capital through its different compositions such as relational, human and structural. Innovation today is applicable in all areas of daily life and especially in business, we can relate it to the production of goods and services, technological development, the environment, etc., as long as they produce improvements, reforms, development of new processes and products, and even ideas themselves, as Suárez, (2018) says.

Innovation is, in short, an important factor for achieving competitive advantages (Mathison et al., 2022), as any modernising process is associated with changes that will always be aimed at obtaining a better good or service, continuous improvements in quality and reductions in costs and prices that will finally position the company in the market; however, innovation is also of a social nature when it is aimed at solving the most relevant needs and

problems, for which the participation of the private and public sectors and the citizenry, made up of family units, is necessary (The Hope Institute, 2017).

The size and age of the enterprise are magnitudes of economic activity. A company can be large or small, more or less profitable and therefore more or less competitive. A larger company size seen from the perspective of the number of employees does not imply that it is more competitive and viceversa. Several studies, including that of Carrazco et al., (2022), state that larger and older firms have a greater advantage in achieving competitiveness.

The latter can favour competitiveness to the extent that intellectual capital increases its level of knowledge, which, together with financing and investment, will have an impact on competitiveness; however, in the research carried out by the authors Guercio et al., (2020) it was proven that the effect of size is greater than the effect of seniority.

Considering the importance of the banana sector, the theoretical contributions and the variables that are part of the internal or business factors, the following hypotheses are put forward, which will be subject to testing and verification in subsequent research once their level of correlation has been determined, as can be seen later on, these are:

- H1. Relational capital has a positive impact on the technological development of the company.
- H2. The technological development of the company has a positive influence on competitiveness.
- H3. Technological development and competitiveness. The mediating role of innovation
- H3A. Technological development has a positive impact on innovation
- H3B. Innovation has a positive impact on competitiveness.
- H4. Firm size has a positive impact on competitiveness
- H5. The seniority of employees in companies has a positive impact on competitiveness

As a result of the theoretical analysis, the empirical evidence found by various authors and in accordance with the working hypotheses, which arise from the respective support of the different relationships of dependence and independence between the different variables, the following model of analysis is proposed see figure 1.

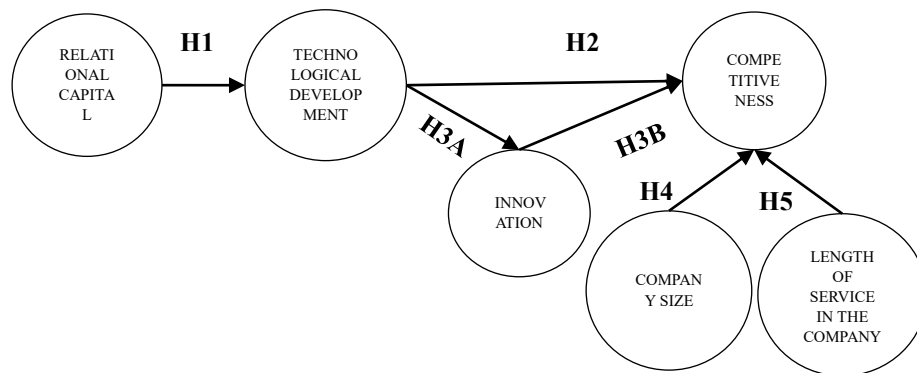


Figure 1
THEORETICAL MODEL OF ANALYSIS AND HYPOTHESES

METHODOLOGICAL PROCEDURE

This study has been developed by adopting a methodological procedure that started by elaborating, defining and systematising a series of techniques and methods to successfully address the process of this research. (Coelho, 2020).

Initially, an exploration of the internal factors directly related to the banana sector was carried out, especially in production and exports. The initial analysis of the literature led to the conclusion that the only way for banana companies to position themselves in the national context and in the rest of the world, where they have a notable leadership, is for them to be competitive.

With theoretical consistency as a basis, the form was sent to those companies whose emails and contact telephone numbers were available, reaching a total of 335. The response rate of the companies was 12.54% for producers and 15.22% for exporters, totalling 27.76%. The analysis of the empirical study was carried out on the basis of data that was cleaned and structured in a file of the SPSS statistical programme.

The procedure for the construction of the database started with sending the form to the banana companies. Google Forms automatically processed all the nested multiple-choice answers, which were displayed in the sheet spreadsheet; they were then reviewed and several of them were found to be blank or unanswered, which were assumed to be missing data and were filled in with -999.

The following is the procedure and path of the research process that will allow the expected results to be achieved, once the working hypotheses are contrasted see figure 2.

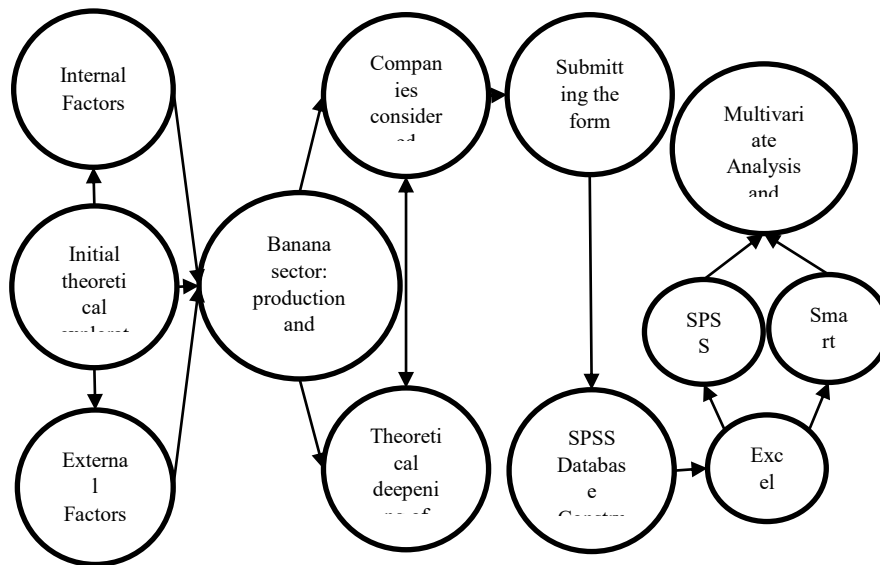


Figure 2
PROCEDURE FOR ACHIEVING THE RESULTS

To complement the study of competitiveness, it was considered essential to compare and assess the performance of banana sector companies through a widely used tool such as the matrix of weaknesses, threats, strengths and opportunities, SWOT, created by Humphrey, (2005).

This matrix shows the state of the most important variables for designing the strategic balance sheet (Ponce, 2007) of the banana sector. This analysis had to be carried out at two points in time. The first one started at the beginning of this research and the second one at the end of the research in a period of approximately five years.

Presentation and Analysis of Results

The main business factors are subjected to a number of validity and consistency criteria, so that the purpose of the analysis of the analysis model outlined above is to identify whether the theoretical inputs are correctly measured by the observed variables and therefore a variety of criteria are adopted for the evaluation of our model.

The measurement model, which is a reflection of the analysis model shown, is tested by means of the following types of reliability: individual item, construct or internal consistency, convergent validity and discriminant validity. These types are detailed in more detail, following the research carried out by Cepeda & Roldán, (2004).

The reliability of the item is assessed by means of its factor loadings, represented by λ , also known as simple correlations that occur between the indicators and their constructs according to Chin, (1998); however, the dilemma is centred on what the recommended standard of these loadings would be, on this aspect authors such as Falk & Miller, (1992) recommend that they can be equal to or greater than 0.55, on the other hand Carmines & Zeller, (1979) point out that the factor loadings linked to each indicator must be greater than 0.707 so that they can be considered adequate and have sufficient power to explain the set of variables, this is the criterion to be adopted in this study. It should also be added that if their loadings were lower than the standard, it would be necessary to consider the possibility of eliminating them (Joe Hair et al., 2011) in order to purify the items.

When assessing the reliability of a construct, the internal consistency of the indicators that comprise it is checked; this means assessing the rigour with which the indicators are measured by their latent variable (García et al., 2016; Roldán, 2000). Two well-known indicators are used to make this assessment: Cronbach's, alfa (1951) and composite reliability (ρ_c) developed by Werts et al., (1974).

Cronbach's alpha is a traditional type of coefficient that measures the internal consistency of a construct, takes as a reference a standard that is generally accepted and serves as a guide to establish its quality. A minimum value of 0.70 is generally considered an acceptable scale (Nunnally & Bernstein, 1994; Thompson et al., 1994).

The composite reliability criterion sets an appropriate scale above 0.70 in the early stages. In more advanced stages of an investigation, values above 0.80 or 0.90 are considered satisfactory (J Henseler et al., 2009). This criterion is preferable to Cronbach's alpha, as not all indicators are weighted equally (Chin, 1998).

Convergent or divergent validity is expressed in the coefficient called average variance extracted or AVE, which is acceptable when its coefficient is greater than 0.50 (Chin, 1998; Fornell & Larcker, 1981), indicating that more than 50% of the variance obtained in the construct is influenced by its indicators. For a construct to have convergent validity, the result through the AVE coefficient must be greater than 0.50, which concludes that more than 50% of the variance is explained by all its indicators.

Discriminant validity as a measure of quality marks the degree to which a construct is in some way different from others in the model. It can be argued that for proper discriminant

validity to exist a construct would have to participate more variance with its own indicators than with other constructs in a specifically stated model (Barclay et al., 1995).

In the SmartPLS programme it is possible to obtain discriminant validity through the *heterotrait-monotrait* indicator known by its acronym HTMT, which has been developed by the authors (Jörg Henseler et al., 2014). Following this criterion there is discriminant validity when the correlations between constructs are less than 0.70. This criterion is suggested when the sample size is small.

Prior to the analysis of reliability and validity, the level of correlation was established to determine whether there is a significant relationship between two variables (Hurtado & Hurtado, 2015), so we can state that the level of correspondence found gives reliability and validity to the model and therefore to the results of this research.

In order to determine the degree of association between the variables, the *Spearman's rho* coefficient is used, which is a non-parametric statistic that considers those variables that are not normally distributed (Martínez et al., 2009). In such circumstances, if the correlation is equal to zero, it is said that there is no correlation and this is null; it will be positive when its values are above 0 to +1 and negative when its result is below zero to -1. In short, the further the correlation coefficient is from zero, the more significant the correlation (Hurtado & Hurtado, 2015; Pardo & Ruíz, 2005). The analysis of correlations is complemented with the identification of those indices close to unity, explicitly from 0.90 (Joseph Hair et al., 2005) in these cases it is said that there is high collinearity.

The results achieved showed that there are no multicollinearity problems in the analysis model proposed, since none of them exceeds the threshold of 0.90. The closest result is 0.755, which is due to the relationship between the variables innovation and relational capital. It was also found that there are few negative correlations between the variables, being able to distinguish: the relationships between technological development and the age of the company with $r = -0.04$; and, size of the company with the age of the company with $r = -0.058$.

Continuing with the analysis of the type of correlation found, it is verified that there is a positive relationship between the great majority of the variables, which expresses that there is a good correlation between them; however, it is in the relationships: competitiveness and relational capital with $r = 0.634$, innovation and relational capital where $r = 0.755$, technological development and competitiveness with $r = 0.657$, innovation and competitiveness where $r = 0.666$ and, finally innovation and technological development with $r = 0.628$ where the Spearman rho coefficient reaches its optimum levels, with values close and near the threshold of 0.70.

The individual item reliability results are detailed below. In the case of the construct technological development, the maximum loading was 0.844 and the minimum 0.718, while the loadings for relational capital were 0.804 and 0.581, innovation 0.936 and 0.918, competitiveness 0.893 and 0.767, and size and length of service in the company, each having only one item, have a loading equal to 1, that is most of their variability is explained by a single factor.

On the basis of these results, it is concluded that, in the vast majority of the constructs, their indicators reach factor loadings above 0.707, showing the individual reliability of each item due to their high correlation.

With respect to the reliability of a construct, Cronbach's Alpha and Composite Reliability (ρ_c) were calculated. The former was proposed by Cronbach, (1951) and the latter by Werts et al., (1974)

To measure internal consistency, the appropriate parameter for Cronbach's Alpha was established; for this purpose, an accepted standard was taken as a reference that served as a guide for the quality of this indicator and which was proposed by the authors Nunnally & Bernstein, (1994); Thompson et al., (1994) for whom an acceptable scale must have a minimum value of 0.70.

In terms of measuring composite reliability, a scale above 0.70 in the early stages and 0.80 in the basic enquiry stages was considered an appropriate standard (Nunnally, 1978). In the more developed stages of an investigation, values above 0.80 or 0.90 are considered satisfactory (J Henseler et al., 2009). This criterion as described above is preferable to Cronbach's Alpha (Chin, 1998; Fornell & Larcker, 1981).

Table 1 clearly shows that the Cronbach's alpha of all constructs exceeds the recommended standard of 0.70; meanwhile the composite reliability is higher than the parameter suggested by the authors J Henseler et al., (2009) in all constructs. Given the evidence of the results found, it can be concluded that the results have sufficient internal consistency and quality to the extent that they are close to 1, thus demonstrating the respectable reliability of the data used.

Construct	Cronbach's alpha	Composite reliability
Technological Development	0.897	0.919
Relational Capital	0.893	0.912
Innovation	0.837	0.925
Competitiveness	0.945	0.954
Company size	1	1
Seniority Company	1	1

Continuing with the analysis of the quality and reliability measures, convergent validity is obtained through the average variance extracted or AVE. In this respect, the standard established is given by the contribution of Fornell & Larcker, (1981) who suggest that the coefficient should be greater than 0.5, which is equivalent to saying that the items used to measure their own constructs explain more than 50% of their variance.

According to the results achieved by the AVE and shown in the following table, all the constructs are above 0.5, of which the closest indicator to the standard is given by the relational capital construct; however, this is not decisive in removing reliability or validity from the construct see table 2.

Construct	Average extracted variance (AVE)
Technological Development	0.619
Relational Capital	0.567
Innovation	0.86
Competitiveness	0.722
Company size	1

The discriminant validity obtained by means of the Heterotrait-Monotrait ratio demonstrates the consistency of its constructs, since, as can be seen in table 3, all its indicators are lower than 0.85.

Table 3 DISCRIMINANT VALIDITY					
Indicador	Seniority Company	Relational Capital	Competitiveness	Technological Development	Innovation
Seniority Company					
Relational Capital	0.071				
Competitiveness	0.065	0.665			
Technological Development	0.092	0.567	0.704		
Innovation	0.068	0.838	0.744	0.718	
Company size	0.058	0.214	0.188	0.165	0.212

As a complement to this research, the analysis of weaknesses, threats, strengths and opportunities, known as SWOT, was carried out in order to compare and evaluate the most important aspects and variables of this economic activity (Jackson et al., 2003; Rizzo & Kim, 2005), as well as to recognise the business and institutional factors that lead to the achievement of the objectives of the companies in the banana sector..

The determination of the incidence that such variables could have, prior to the empirical study, will make it possible to know the strengths and weaknesses, as well as the prevalence of certain factors on the competitiveness of the companies in the banana sector. In this analysis, the comparison and evaluation is carried out with the SWOT tool and technique at two different times, one at the beginning of this research and the other at its culmination in a period of time of approximately five years.

For a proper analysis and assessment of the SWOT, which are summarised in the ex ante and ex post matrices, as well as the respective strategic balance sheets, the following parameters proposed by Ramírez, (2017) should be taken into account:

- To analyse each variable within the internal and external factors in the matrices, the proposed weighting scale is used, where: 1 is the lowest level, 2 is medium level and 3 is the highest or highest level of action..
- It is not an ideal strategic balance condition that the optimisation factor should be 50% and the risk factor 50% respectively, but that the former should always exceed the latter by a certain margin, which is considered reasonable.

After this weighting, the strategic balance sheet is presented in which the optimisation and risk factors that would serve as a key for companies to establish and implement their best strategies and corresponding action plans, as recommended by Huerta, (2020), are shown.

To start the SWOT analysis it is necessary to start from an ex ante analysis.

The application of the SWOT analysis is important in this research because it is a key tool that is used to know the strategic balance and with it the companies could develop their strategic planning (Benzaghta et al., 2021) among which are those of the banana sector.

The factors that served as the basis for developing the SWOT tool come from the variables that form part of our theoretical model, thus avoiding the diversity of criteria that tends to generate biases when comparing variables different from those used in our model.

Having clarified the origin of the variables that intervene in the SWOT matrix, it is essential to initially establish the following strengths as positive business factors: technological development, innovation, relational capital and profitability as the materialisation of competitiveness.

At the same time, positive institutional factors are added, identifying the following opportunities: fiscal incentives, public infrastructure and technology, and the political and regulatory framework, with their respective variables.

It is necessary to explain that an external factor is an institutional factor that is directly or indirectly related to the companies, the most accurate is to note that the decisions of the organisations is little or null (Romero, 2019) with respect to the influence they have on the decision makers of these factors that are generally represented by governments or any other public, financial or non-financial entity.

The external factors that affect competitiveness in the words of Benitez et al., (2020) are those of macroeconomic aspect, fiscal incentives and taxes, trade agreements between one or another country, infrastructure and public technology, such as: telecommunications, environmental protection, transport, energy to which we can add the political and regulatory framework.

In the same way and according to the structure of the SWOT matrix, the following weaknesses have been established as negative business factors: size of the company and seniority in the company. At the same time, at the level of negative institutional factors, public financing has been identified as a threat, as Ecuador does not issue money and the granting of credit is subject to credit risks and corruption.

The internal factors are made up of strengths and weaknesses that are controllable by the company and help us to understand the problems in a specific context (Foschiatti et al., 2012), in this case the banana producing and exporting sector. Continuing with the other factor, we find the external factors composed of opportunities and threats that are not controllable by the organisations and are absolutely related to the environment that surrounds and affects the company.

The following table shows the weighting of the SWOT matrix with all the factors and variables that make it up. The following table shows the weighting of the SWOT matrix with all the factors and variables that make it up; here we can see that the rating of the strengths is 38.1%, which is positive for the banana sector, likewise the opportunities of the sector represent 33.33% of the total weighting, which can be considered high, but at the same time is significant to be able to improve the business objectives.

On the other hand, the threats faced by the banana sector companies are represented by 9.52%, while the weaknesses are 19.05%, these elements in the SWOT analysis as a whole are considered as negative and should be taken into account when establishing their strategic objectives see table 4.

Factors	Positives			Negatives		
	Strengths (S)	Weighting	%	Weaknesses (W)	Weighting	%
Internal, from the company. Corporate	Technological development	2		Company size	2	
	Innovation	2		Seniority in the company	2	
	Relational capital	2				
	Profitability					
	-Competitiveness-					
	Total	8	38.10%		Total	4
External, from the environment. Institutional	Opportunities (O)	Weighting	%	Threats (T)	Weighting	%
	Tax incentives	3		Public funding	2	
	Public infrastructure and technology	2				
	Political and regulatory framework	2				
	Total	7	33.33%		Total	2
Grand Total		21				

The SWOT matrix above shows the weighting of the percentage results of the internal and external factors, from which the total percentages are extracted, which are translated into the following strategic balance carried out in the initial stages of the research.

The table below shows how in general the optimisation factor is higher than the risk factor, a situation that is considered appropriate according to Ramírez (2017). As can be distinguished 71.43% versus 28.57% respectively. These figures show that there is a good performance and functioning of the whole sector where S + W weighted 57.14% of the total and O + T did with a total of 42.86%. Note that the greatest optimisation factor is found in the strengths of the sector, without neglecting the opportunities of the sector. In contrast, the greatest risk factor lies in the internal weaknesses of these organisations. In summary, it can be stated that the entrepreneurial factors predominate in this strategic balance, hence internally the companies can overcome their weaknesses by taking advantage of the high rate of opportunity they have see table 5.

Optimisation factor	%	Risk factor	%	ΣFactor/Total
Strengths (S)	38.10%	Weaknesses (W)	19.05%	57.14%
Opportunities (O)	33.33%	Threats (T)	9.52%	42.86%
Total, S + O	71.43%	Total, W + T	28.57%	100,00%
Strategic balance	42.86%			

After the ex ante diagnosis set out in the preceding matrices and assigning the weighting adopted in the initial SWOT analysis suggested by Ramírez, (2017) we proceed with the ex post evaluation.

For the purposes of ex post comparison and assessment, the behaviour of the business factors over time is taken as a reference, exclusively over a period of approximately five years, at which point the initial SWOT analysis changes, leading to the following diagnosis:

Table 6 shows the result of the evaluation of the strengths that represented a weight of 41.38%, compared to the 38.1% obtained at the beginning of the research, this implies that the banana sector companies have been able to take advantage of them, while their weaknesses rose slightly to 20.69% in relation to the initial 19.05%; this implies that the banana sector has not completely overcome its weaknesses; however, the narrow margin denotes that it is possible to overcome them..

In the same table, the weighting of the external factors related to opportunities reached 27.59%, compared to the original 33.33%, which confirms that the opportunities have been taken advantage of. On the other hand, the threats yielded a figure of 10.34%, which is slightly higher than the initial value of 9.52% and could be considered inappropriate. In summary, and analysing the information of the percentage weighting, it can be seen that the banana sector has not faced the threats in an appropriate manner; in order to overcome them, the strengths had to contribute to this. In contrast, the opportunities in these companies have been adequately exploited, but it is noticeable that they were not used to overcome their internal weaknesses..

Factors	Positives		Negatives			
	Strengths (S)	Weighting	%	Weaknesses (W)	Weighting	%
Internal, from the company. Corporate	Technological development	3		Company size	3	
	Innovation	3		Seniority in the company	3	
	Relational capital	3				
	Profitability	3				
	-Competitiveness-					
	Total	12	41.38%		Total	6
External, from the environment. Institutional	Opportunities (O)	Weighting	%	Threats (T)	Weighting	%
	Tax incentives	2		Public funding	3	
	Public infrastructure and technology	3				
	Political and regulatory framework	3				
	Total	8	27.59%		Total	3
Grand Total		29				

Table 7 shows the strategic balance, concluding that the banana sector has satisfactorily optimised its strengths and opportunities, as it obtained a percentage of 68.97% in relation to the initial SWOT analysis carried out previously, where the optimisation reached 71.43%.

The other strategic component is represented by the risk factor which groups together weaknesses and threats. This factor amounted to 31.07%, compared to 28.57% in the initial analysis, percentages that can be considered unsatisfactory since for the banana sector it implies that its risks have increased.

The inequality between the two factors is a moderate scenario that exposes the need for the banana sector to set strategic objectives to overcome the risk factors and efficiently optimise its strengths and opportunities. These effects confirm that there has been an effective and superior optimisation of strengths by the banana sector where the S + W factors weighted 62.07% compared to 37.93% for the O + T factors.

Optimisation factor	%	Risk factor	%	∑Factor/Total
Strengths (S)	41.38%	Weaknesses (W)	20.69%	62.07%
Opportunities (O)	27.59%	Threats (T)	10.34%	37.93%
Total, S + O	68.97%	Total, W + T	31.03%	100.00%
Strategic balance	37.93%			

With the evidence of these data, it can be seen that the banana sector as a whole has improved its strengths, has taken advantage of and exploited its opportunities, but has not overcome and corrected its weaknesses despite its slight growth, and has not satisfactorily confronted its threats, which have increased slightly in percentage terms. In short, they have not followed the logical evolution of the SWOT analysis, which is how it should happen, according to Román et al. (2020).

CONCLUSION

The conclusions of our research are detailed below:

Internal or business factors have been very influential in the competitiveness of the Ecuadorian banana sector. The figures obtained through the statistical calculations of reliability and validity support all the existing relationships that are reflected in the measurement model; in such a way that we can affirm that, at the level of internal factors, technological development has influenced competitiveness and, in turn, this in turn received the contribution of others, such as: relational capital.

Likewise, innovation as a mediating variable turns out to be a determining variable for competitiveness. This in turn receives the positive influence of the technological development variable. In this same context, relational capital is strategic in and for the company to the extent that it contributes to competitiveness when it is directly related to technological development. Serrano, (2021) has precisely stated this in his thesis where he confirms that relational capital does generate competitive advantage through technological development and especially in those companies dedicated to export activity..

The SWOT analysis was carried out temporally, one at the beginning of this research and the second one at the end of this research with the determination of the level of reliability and validity of the variables. Here it can be seen that the banana sector has been able to take advantage of its strengths and opportunities by reducing its optimisation factor, while the risk factors increased in a not so significant way, since the weaknesses and threats increased slightly. In summary, it can be concluded that the situation of the banana sector is good because it has a favourable strategic balance.

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