Economic valuation of a strategy for the animal food distribution business in Costa Rica

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ABSTRACT

The purpose of this study was to develop a strategic plan for Alimentos El Jicote, a Costa Rican company that supplies animal feed for large and small species, with the objective of optimizing decision-making and ensuring its success. The methodology included internal and external diagnostic tools, SWOT analysis, master strategy design, qualitative financial evaluation, and the implementation of the Balanced Scorecard (BSC). The results showed a positive economic performance, with an Internal Rate of Return (IRR) of 10.35%, higher than the cost of capital, and a positive Net Present Value (NPV) over a 10-year horizon. The strategy proposed was to diversify the supply of animal feed products with the best quality and at the best possible price, based on negotiations with more efficient suppliers by increasing storage capacity and the distribution network of the trade. In conclusion, although its financial situation is stable, areas for improvement in the company's profitability, liquidity, and market were identified; thus, the practical implication of the study was based on strategic planning for adaptation to the market, facilitating decisions, maintaining competitiveness, and ensuring long-term sustainability.

Keywords: *Animal feeding, Business management, Economic analysis, Planning.*
JEL Classification: *D81; L21; M10.*

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Highlights of this paper:

- The use of comprehensive strategic tools allowed for the optimization of decisions at Alimentos El Jicote.
- Positive results were achieved in the financial evaluation due to a product diversification strategy focused on quality, competitive prices, and operational improvements.
- Strategic planning strengthens the company's sustainability and competitiveness.

1. INTRODUCTION

Animal feed is essential for the productivity and profitability of production systems. The optimal use of raw materials in these products not only helps to reduce competition with food intended for human consumption but also promotes sustainable and efficient systems. However, the importance of proper feeding lies in ensuring the growth, reproduction, and correct physiological and biochemical functioning of the animal according to its specific characteristics. To achieve adequate nutrition, it is essential to know the chemical composition of the food and the proportion of predominant nutrients, adjusting the animal's diet according to its needs based on a classification that takes into account the content and density of nutrients (Maruelli, 2017).

In Costa Rica, the use of balanced animal feed has increased in recent years, driven mainly by the need to enhance the productivity of livestock farms in response to the growing demand for quality food and the transition from extensive to intensive production systems to maximize the productive potential of animals. However, competition between human food and animal feed has placed greater pressure on agricultural products, resulting in an increase in prices. This is essential in the field of animal nutrition, as it is primarily based on crops such as corn and soybeans, whose prices fluctuate based on global demand. These changes in feeding patterns pose a challenge for the sustainability and profitability of organizations dedicated to animal production in the country (Campos-Granados & Arce-Vega, 2016).

Strategy is a key tool for achieving the goals and objectives previously established in an organization. Planning, on the other hand, is responsible for executing and applying that strategy, adjusting the actions according to what is defined in the strategic plan. Regardless of the type of organization, strategic planning is essential for the growth and sustainability of the company in the market, especially in the face of factors such as competition or fluctuations in raw materials. Thus, strategic planning not only facilitates the execution of the necessary actions but also allows for control and adaptation to these factors to achieve the proposed objectives. In addition, it provides continuous monitoring of the fulfillment of these objectives, creating a competitive advantage by ensuring that the strategic plan is being carried out effectively (Peñafiel, Pibaque, & Pin, 2019).

A company's strategic plan enables it to define its course of action through its vision, mission, and objectives, identifying the current and future situation of the organization while enhancing its competitiveness to meet customer needs. Consequently, positioning at a strategic, economic, and organizational level is deemed essential (Quiroz, López, & Yactayo, 2020). In this way, the plan responds to the ongoing search for the development and growth of the organization in the long term, primarily including its vision, mission, corporate values, objectives, and corporate strategies (Tito, 2003).

The small and medium-sized company Alimentos El Jicote is currently dedicated to supplying balanced feed for both small and large species, serving clients such as poultry farms, dairies, pig farms, egg producers, and some farms with small ruminants, such as goats and sheep. Given this context, it is essential to define the mission, vision, values, objectives, and strategies, considering both its internal and external situations. Therefore, the company must formulate a strategic plan for the period 2022-2026 to define its direction based on its situation, ensure its growth and permanence in the market, and respond effectively to the challenges and opportunities it faces.

The objective of this article was to formulate a strategic plan for Alimentos El Jicote, located in the canton of Río Cuarto de Alajuela, Costa Rica, which allows the administration to successfully establish its future actions to be executed in the period between 2022 and 2026.

2. LITERATURE REVIEW

Animal feeding is based on physiological and nutritional principles that apply regardless of the production system. However, feeding must be adapted to the differences in digestive dynamics depending on the type of feed used, generating variations in nutritional contributions and in the products resulting from animal digestion. From an economic perspective, in intensive production systems, feeding represents a substantial part of the costs, where even in productions based on pastures, it is necessary to consider the incorporation of other types of feed to optimize production and productivity (Santini, 2014).

From a livestock perspective, food consists of the substances that animals consume to maintain their vital functions, promote their physical development according to their species, and generate products useful for humans. These foods are primarily composed of carbon, hydrogen, oxygen, and nitrogen, and are categorized based on their mineral and organic compounds. Similarly, concentrated foods such as cereal grains, flours, legumes, oilseeds, and compound feed contain high concentrations of nutrients relative to their weight (Caravaca Rodríguez et al., 2023).

Several studies have explored the ingredients used in animal feed and their implications for human health. Sapkota, Lefferts, McKenzie, and Walker (2007). These foods are derived from a wide variety of raw materials of plant, animal, pharmaceutical, and industrial origins, and their composition varies according to the animal species.

For their part, Ajila et al. (2012) investigate the use of food by-products, agro-industrial by-products, and agricultural waste as sources of animal feed, classifying them into categories of plant and fermentative industrial origin.

Resource availability is aligned with organizational goals and objectives through strategic planning, using a diagnosis that includes the mission, vision, and values developed at three levels: corporate, business, and functional. Each level plays a specific role, from a global vision to the implementation of improvements based on internal analysis (Bermeo, Palma, & Morales, 2023). In addition, strategies are established through long-term objectives, courses of action, and resource allocation, considering the organization's strengths, weaknesses, threats, and opportunities. This integrated approach allows companies to understand their internal and external situations, facilitating the design of actions that provide them with a competitive advantage in the market (Fuentes Barros, 2019).

In formulating an organizational strategy, it is essential to understand the organization's mission, vision, and values. The mission defines the purpose or reason for the organization's existence, providing a clear direction and lines of work. The vision establishes the course that the organization will follow both in the present and in the future. The values are the beliefs, principles, and norms that guide the coherent execution of the mission and vision in business management (Toniut et al., 2017).

According to the above, authors such as O'Regan and Ghobadian (2002) analyzed the strategic planning processes in small and medium-sized companies, comparing the implementation between formal and non-formal businesses using statistical methods, such as the non-parametric Wilcoxon test. They emphasize that formal strategic planning is essential to align activities with the internal and external environment, minimizing threats, maximizing opportunities, and optimizing resources. This efficient approach not only improves the execution of strategies but also becomes a key competitive advantage for companies.

On the other hand, Kraus, Harms, and Schwarz (2008) investigated strategic planning in small businesses using a cross-sectional design and binary hierarchical logistic regression analysis, including the quantification of the use of tools such as SWOT analysis and competitor analysis, in addition to the time horizon of strategic plans, monitoring, and control. In this way, it was determined that structured planning processes can improve business results and offer valuable information for the owners of the organizations.

The strengths of an organization are the competencies it has compared to others, such as the skills and resources it possesses. Opportunities are positive factors present in the business environment that can become a competitive advantage. Weaknesses are factors that create a disadvantage for the organization concerning the competition, rooted in its own resources, skills, and characteristics. Finally, threats are external or environmental situations that can generate negative implications for the sustainability of the company (Delgado, Pilaloa, Holguin, & Cali, 2023).

An organization's strengths and weaknesses can be assessed using the Internal Factor Evaluation Matrix (IFE), while threats and opportunities are analyzed using the External Factor Evaluation Matrix (EFE). The IFE provides a clear view of the factors that affect internal functional areas, and the EFE allows for the assessment of critical elements in the external context of the company (Beltrón, 2022). On the other hand, the SWOT analysis, a key tool in strategic planning, integrates political, social, economic, and cultural factors to design strategies that respond to the organization's environment (Calapiña, Chuquilla, & Toapanta, 2019). These strategies include conservative strategies (WO), which transform internal weaknesses into external opportunities; competitive strategies (ST), which minimize external threats by taking advantage of internal strengths; aggressive strategies (SO), which maximize external opportunities by using the company's strengths; and defensive strategies (WT), which address how to minimize internal weaknesses and external threats simultaneously (Nuñez Manzano, 2022).

Joesyiana, Prihastuti, and Susanti (2022) highlighted the use of tools such as the EFE and IFE matrices and the SWOT analysis in coffee shops, emphasizing their importance in identifying opportunities, challenges, and areas for improvement in a dynamic environment. These tools guide key strategic decisions, strengthen competitiveness, and promote effective responses. Other authors, such as Holguín, Granizo, Quiroz, and Anormaliza (2022) applied the Chi-square model along with the EFE and IFE matrices in the cocoa agroindustry, providing strategies that improved its competitiveness. Additionally, the SWOT analysis underscored the need to strategically address external weaknesses and threats to ensure sustainable development.

As a company grows, the financial function diversifies, integrating areas such as budgets, taxes, projects, and financial analysis, the latter being essential for developing strategies based on liquidity, indebtedness, and profitability. In this way, financial analysis employs techniques such as solvency studies, operational efficiency, accounting ratios, collection management, sales, and financing needs, aligning with organizational objectives (Párraga Franco, Pinargote Vázquez, García Álava, & Zamora Sornoza, 2021). In this context, cash flow, according to Cardona García (2018), compares collections and payments over a period, evaluating the liquidity and capacity of the organization to cover debts and remunerate shareholders, excluding operations without cash movement, such as credit sales. In addition, Lizarzaburu, Gómez, and López (2016) underline the importance of financial ratios to analyze performance, solvency, and efficiency, identifying the most significant factors that affect the financial performance of the company.

Flores Novelo, Ojeda Villagómez, Lee Kim, and Ramírez Cedillo (2016) analyzed the relationship between entrepreneurial orientation and the performance of software companies using a mixed approach, highlighting how reactions to sharing financial information allowed for exploring perceptions about business growth and profitability. The study emphasized key aspects of qualitative financial assessment, such as the impact of innovative practices on economic success and risk behaviors on financial stability. For their part, González-Díaz and Cruz-Ayala (2020) identified that qualitative financial assessment in public procurement processes improves decision-making, increases transparency, and reduces risks, consolidating its usefulness in providing a comprehensive view of an organization's financial situation.

On the other hand, the Balanced Scorecard (BSC) is a strategic management tool that measures an organization's performance through indicators that reflect the vision, business strategies, and actions necessary to meet strategic objectives in a defined time. This approach is based on four perspectives: the financial perspective assesses the economic value of the company, including revenue, productivity, return on capital, and cash flow; the customer perspective measures customer satisfaction, retention, and acquisition through pricing, promotion, product, and service strategies; the internal processes perspective identifies key processes according to quality, productivity, and cycle times; and the learning and growth perspective analyzes human capital, systems, and procedures through training, technology, motivation, and process improvement indicators (Argüello-Solano & Quesada-López, 2015).

Quinto, Llanos, Chuto, and Lozano (2024) evaluated, using quantitative methods, the impact of integrating the Balanced Scorecard (BSC) in decision-making in banana agro-industrial companies, highlighting its effectiveness in aligning operational activities with strategic objectives and promoting continuous improvement. For his part, Cabrera (2015) applied the BSC in an agricultural and livestock farm, managing to transform objectives into measurable goals and facilitating informed decisions in operational and administrative areas, contributing to the success and sustainability of the organization.

3. METHODOLOGY

The research study was developed in conjunction with the owners of the company to formulate the mission, vision, values, SWOT analysis, IFE Matrix, EFE Matrix, development of the master strategy, the Balanced Scorecard (BSC), and the development of the cash flow through the financial information obtained.

Firstly, to develop the organizational mission, questions were established in relation to the purpose, goal, or reason for being, the intention of fulfillment in the environment, and for whom it is carried out. In the case of the vision, it is defined through questions regarding the course or direction in which the organization is headed in the long term, considering the impact of new technologies, changing needs and expectations of customers, as well as new market conditions.

Values must be definable, significant, participatory between the management and operational areas, adequately communicated, coherent, evaluated, measurable, and periodically questioned and reformulated. This is achieved through feedback and participation techniques between the management team and the next hierarchical level, reflected in a document of lived values concretized in actions and behaviors by the organization.

To identify the internal and external factors, three meetings were held at the organization's facilities with the owners, and these factors were identified as strengths, weaknesses, opportunities, or threats. Strengths were identified based on actions carried out correctly, as well as the resources and capacities available. Weaknesses were defined according to factors that generate vulnerability or activities that are carried out incorrectly. Opportunities included environmental forces not controlled by the company that represent potential growth. Threats were identified as uncontrolled negative or potentially negative environmental forces.

Once the internal and external factors were identified, it was determined which ones influence the organization's performance to prepare the IFE matrix. To do this, a list of strengths and weaknesses was created, and the factors were ranked by assigning them a numerical value. The most important factor received the lowest value, while the less relevant factors were assigned higher numbers, so that the higher the value, the lower the hierarchy. For the rating column, a number between 1 and 4 was assigned to each factor, where 1 is irrelevant and 4 is very important.

Next, a weight between 0.0 for a non-important factor and 1.0 for a very important factor was assigned to each listed factor, so that each weight represents its relative importance, and the total of all the weights should not be greater than 1.0. Then, a weighted rating for each factor was obtained by multiplying the rating by the weight. These ratings were then added together to determine the weighted total. Finally, the weighted strengths and weaknesses were compared.

For the EFE matrix, a list of the organization's opportunities and threats was determined, where each of the factors was assigned a relative weight in a range of 0.0 (irrelevant) to 1.0 (very important) according to the relative importance of each factor. Now, the sum of all the weights of the threats and opportunities must equal 1.0. Next, a rating from 1 to 4 was given to each of the factors to evaluate their current strategies, where 1 represents a poor response, 2 an average response, 3 is above average, and 4 is a response considered superior. Subsequently, by multiplying the weight of each factor by its respective rating, a weighted rating is obtained to determine the total of the weighted ratings.

The master strategy was obtained to achieve the organization's objectives through a process consisting of four stages in total. The first stage involved the development of a strategic vision, as well as the definition of the mission and corporate values. The second stage focused on the establishment of objectives, indicators, and deadlines. In the third stage, diagnostic tools were implemented to analyze the company's situation and establish strategies. Finally, the fourth stage consisted of developing a Balanced Scorecard (BSC) with its respective master strategy.

Before evaluating the impact of the master strategy, a qualitative diagnosis of the company's financial situation was conducted. This diagnosis included the assessment of key areas: liquidity, leverage, activity, profitability, and market, along with their corresponding organizational dimensions. Each area was classified according to its performance in the categories of poor, fair, good, very good, and excellent, generating an index per area and a total index that reflected the company's financial situation before the implementation of the strategy. Based on the overall index, the financial situation is categorized into the following ranges: from 0% to 60% very weak, from 60% to 70% compromised, from 70% to 80% stable, from 80% to 90% strong, and from 90% to 100% solid.

To evaluate the implementation of the master strategy, the strategic objectives were classified into four categories: financial, learning and innovation, customer perspective, and internal processes, following the BSC approach. During its development, specific objectives were defined with their corresponding indicators, each accompanied by a goal projected for a period of five years. This structure includes the perspective of evaluations and initiatives, the critical success factors, and the established deadlines. Finally, the implementation of the master strategy was evaluated by analyzing the company's financial information, using financial ratios, and constructing a projected cash flow, directly aligned with the proposed strategy.

4. RESULTS AND DISCUSSION

4.1. Formulation of vision, mission, and values.

Based on the partners' opinions on the short-term and long-term direction, as well as on the organization's products, markets, and customers, the following organizational vision was defined: "To become marketers of animal feed products, focused on providing our customers with the best service and the highest quality available in the market, maximizing shareholder returns." Once the vision was defined, the mission was written as follows: "Our mission is to provide our customers with a portfolio of high-quality animal care products that meet their needs promptly and at the best possible price."

Considering the mission and vision, behavioral standards were defined through organizational values. The first value is service, always placing the customer as the main focus of the company's work. The second is integrity, conducting business honestly and reliably. The third is loyalty, which is essential for providing solutions to customers' problems. The fourth is respect for both employees and any other person who feels appreciated, important, and receives respectful, ethical, and moral treatment, regardless of their gender, education, age, ethnicity, religion, or sexual orientation. Finally, the mentality of continuous improvement through planning, execution, control, and taking actions that allow for daily enhancements in quality, products, services, and offerings is essential for the company.

4.2. Internal Factor Evaluation Matrix (IFE)

The results of the organization's IFE matrix are presented below in Table 1, where a score between 1 and 4 was assigned, with 1 being irrelevant and 4 being very important.

Table 1. Internal Factor Evaluation Matrix (IFE) for Alimentos El Jicote 2022-2026.

Strengths						
No.	**Internal factors**	**Ranking**	**Qualification**	**Score**	**Weight**	**Note**
F1	Low operating costs.	2	4	3	0.08	0.32
F2	Strategic location in the region.	1	4	4	0.11	0.42
F3	Direct negotiations with formulators and importers.	1	4	4	0.11	0.42
F4	Rapid response capability to address customer needs.	2	3	3	0.08	0.24
F5	Personnel trained in the sector.	4	2	1	0.03	0.05
F6	Healthy management of accounts payable and receivable.	2	2	3	0.08	0.16
F7	Farm delivery service	3	3	2	0.05	0,16
F8	Integration of information systems in business.	3	3	2	0.05	0.16
Weaknesses						
No.	Internal factors	Ranking	Qualification	Score	Weight	Note
D1	Centralization of the purchasing process.	2	3	3	0.08	0.24
D2	Poor positioning as a new brand.	1	3	4	0.11	0.32
D3	Legal status in the name of a third party.	3	2	2	0.05	0,11
D4	Limited trading capacity due to storage space.	2	3	3	0.08	0.24
D5	There is a need to increase the number of suppliers and purchase volumes.	1	2	4	0.11	0.21
			Total	38	1.00	3.03
				Over 100%		75.60%

According to the results obtained above, the main strength of the organization is its strategic location and the ability to negotiate directly with importers and formulators, in addition to forming commercial alliances. Regarding the financial area, a healthy balance sheet is maintained with suppliers through cash payments and special payment conditions in some outstanding business opportunities.

Additionally, the organization has the ability to respond quickly to customer needs through the integration of information technologies and the experience of the owners.

Regarding the main weaknesses of the organization, the primary factor is the lack of positioning in relation to the competition, as there are three large formulators in the area. The second important weakness is the centralization of the company's processes, as the administration, marketing, and finances are focused on a single person in charge.

Finally, the premises have a limited storage capacity, making it difficult to negotiate lower prices for a higher purchase volume.

4.3. External Factor Evaluation Matrix (EFE)

For the organization's external evaluation matrix, a score between 1 and 4 was assigned, with 1 being a poor response and 4 being a response considered superior.

The results are presented below in Table 2.

Table 2. External Factor Evaluation Matrix (EFE) for Alimentos El Jicote 2022-2026.

Opportunities						
No.	**External factors**	**Ranking**	**Qualification**	**Score**	**Weight**	**Note**
O1	Growing demand for pet food products.	1	2	2	0.22	0.44
O2	The surrounding areas lack distributors that operate from farm to farm.	2	2	1	0.11	0.22
O3	Unsatisfied demand for complementary products in the area.	2	2	1	0.11	0.22
Threats						
No.	External factors	Ranking	Qualification	Score	Weight	Note
A1	The area has three balanced feed manufacturers.	1	4	2	0.22	0.89
A2	Constant emergence of distributors in the area.	2	3	1	0.11	0.33
A3	The influence of international prices on business profitability.	1	4	2	0.22	0.89
			Total	9	1.00	3.00
						75.00%

The results showed that the main opportunity is the increase in demand for balanced pet food and supplements, offering profitability and a variety of alternatives in this market.

Another opportunity presented by the organization is the establishment of distribution routes to places that have not yet been accessed, as well as the offering of complementary products such as supplements or health items.

One of the main threats is the presence of three balanced feed factories for large and small species, which have a long history and significant production volumes, along with the regular emergence of other small distributors. Another threat is the high sensitivity of the grain industry for animal consumption to variations in prices, freight, and shortages of raw materials from imports.

Consequently, the main threat has been determined to be the shortage of the product or high costs due to fluctuations similar to those previously experienced by the organization during the COVID-19 pandemic, as well as the war between Russia and Ukraine in 2022.

4.4. Strengths, Weaknesses, Opportunities, and Threats Matrix (SWOT)

Based on the results in the EFE matrix and the IFE matrix, defensive strategies (WT), conservative strategies (WO), competitive strategies (ST), and aggressive strategies (SO) were formulated. Table 3 presents the SWOT analysis matrix and the interactions and impact of the proposed strategies.

Table 3. Strengths, weaknesses, opportunities, and threats matrix (SWOT) in Alimentos El Jicote 2022-2026.

Strategies SO (Aggressive)			
No.	**Strategy**	**Interactions**	**Impact**
SO1	Venture into supplying products for the pet market.	F1, F2, F3, F9, O1 and O3	0.62
SO2	Establish distribution routes for rural areas based on potential demand.	F8, F9, F6, F5, O2 and O2	0.38
SO3	Introducing complementary products for animal feed.	F2, F3, F4, F5, O3 and O2	0.54
Strategies WO (Conservative)			
No.	Strategy	Interactions	Impact
WO1	Diversifying the product offering can enhance the warehouse's position in the area.	D2, D4, D5, O1, O2 and O3	0.73
Strategies ST (Competitive)			
No.	Strategy	Interactions	Impact
ST1	Conduct purchase negotiations at the best possible prices.	F1, F4, F7, F9, A1, A2 and A3	0.77
Strategies WT (Defensive)			
No.	Strategy	Interactions	Impact
WT1	Improve positioning in the area to confront direct competition.	D2, A1, A2 and A3	0.66

4.5. Evaluation and Selection of Strategies for Alimentos El Jicote.

Using the total impact obtained from the interactions of the SWOT analysis strategies, Table 4 is presented below with the relative impacts and cumulative relative impacts for each of the proposed strategies.

Table 4. Total, relative, and cumulative relative impact of SWOT strategies in Alimentos El Jicote from 2022 to 2026.

Type	Specific strategy	Total impact	Relative impact	Cumulative relative impact
ST1	Conduct purchase negotiations at the best possible prices.	77%	21%	21%
WO1	Diversifying the product offering can enhance the warehouse's position in the area.	73%	20%	41%
WT1	Improve positioning in the area to confront direct competition.	66%	18%	58%
SO1	Venture into supplying products for the pet market.	62%	17%	75%
SO3	Introducing complementary products for animal feed.	54%	15%	90%
SO2	Establish distribution routes for rural areas based on potential demand.	38%	10%	100%

According to the values obtained in the table above, the strategy classified as competitive (ST), responsible for 21% of the total impact, can effectively take advantage of strengths in relation to opportunities. This is achieved through purchase negotiations due to its financial facilities, allowing them to improve the final price for the consumer and increase market penetration. The second strategy is the conservative strategy (WO) with a relative impact of 20%, where opportunities are taken advantage of, and weaknesses are minimized through diversification of the product offering and customer positioning. The third conservative strategy (WO), with a relative impact of 18%, consists of improving the company's positioning against its competition. Finally, for aggressive strategies (SO), it was proposed to diversify the offer of complementary products and the pet segment, in addition to offering in nearby regions with high demand potential.

Based on the previous strategies and their comprehensive participation, the master strategy for the allocation of resources was determined, oriented towards a strategic plan. In this way, the master strategy was defined as "diversifying the supply of animal feed products with the best quality and at the best possible price, resulting in negotiations with more efficient suppliers by increasing the storage capacity and distribution network of the trade."

Among the results presented by Karumbi (2018), the competitive strategies adopted by animal feed manufacturing companies and their impact on improving operational performance were identified, using statistical analysis through multiple regression models. The study determined that three marketing strategies have a statistically significant effect on operational performance. In particular, the change in strategic unity resulted in an increase in operational performance of 67.3% with the market niche strategy, 61.9% with the cost leadership strategy, and 54.4% with the differentiation strategy. The last two have similarities with this study, as they consider prices and product diversification as key factors.

4.6. Qualitative Financial Evaluation

Table 5 below presents the results of the qualitative organizational financial analysis for liquidity, leverage, activity, profitability, and market, along with their respective percentages obtained.

Table 5. Qualitative financial evaluation at Alimentos El Jicote.

Liquidity						
ID	**Dimension**	**Poor performance**	**Regular performance**	**Good performance**	**Very good performance**	**Excellent performance**
LQ1	Current ratio (Current assets / Current liabilities)				X	
LQ2	Acid ratio (Current assets - inventory) / Current liabilities			X		
LQ3	Working capital (Current assets - current liabilities)				X	
LQ4	Operating cash flow			X		
LQ5	Free cash flow of the company			X		
						68.00%
Leverage						
ID	Dimension	Poor performance	Regular performance	Good performance	Very good performance	Excellent performance
LE1	Leverage (Total liabilities / Total assets)			X		
LE2	Debt (Total liabilities/equity)				X	
LE3	Financial burden (Interest expense / Operating profit)					X
						80.00%
Activity						
ID	Dimension	Poor performance	Regular performance	Good performance	Very good performance	Excellent performance
AC1	Accounts receivable turnover (Sales/Accounts receivable)				X	
AC2	Inventory turnover (Sales/Inventory)				X	
AC3	Accounts payable turnover (Cost of sales / Accounts payable)				X	
AC4	Average collection period (Accounts receivable x 360) / Sales)					X
AC5	Average payment period (Accounts payable x 360 / Cost of sales)					X
						88,00%
Profitability						
ID	Dimension	Poor performance	Regular performance	Good performance	Very good performance	Excellent performance

PR1	Gross profit margin (Gross profit / Sales)			X		
PR2	Operating profit margin (Operating profit/Sales)			X		
PR3	Net profit margin (Net profit / Sales)			X		
PR4	Return on assets (Net income / Total assets)				X	
PR5	Return on equity (Net income/Equity)				X	
						68.00%
Market						
ID	Dimension	Poor performance	Regular performance	Good performance	Very good performance	Excellent performance
ME1	Economic growth rate		X			
ME2	Market growth rate					
ME3	Sales growth rate				X	
ME4	Dividend payout ratio (Dividends/Net income)			X		
						60.00%

With the data obtained above, an index of 72.73% was calculated, indicating that at the time of analysis, the organization was in a stable financial situation. However, this index is close to the category of a compromised financial situation. Thus, Figure 1 shows the respective comparison, where good performance is presented in financial development and leverage, but with regular performance in profitability, liquidity, and market.

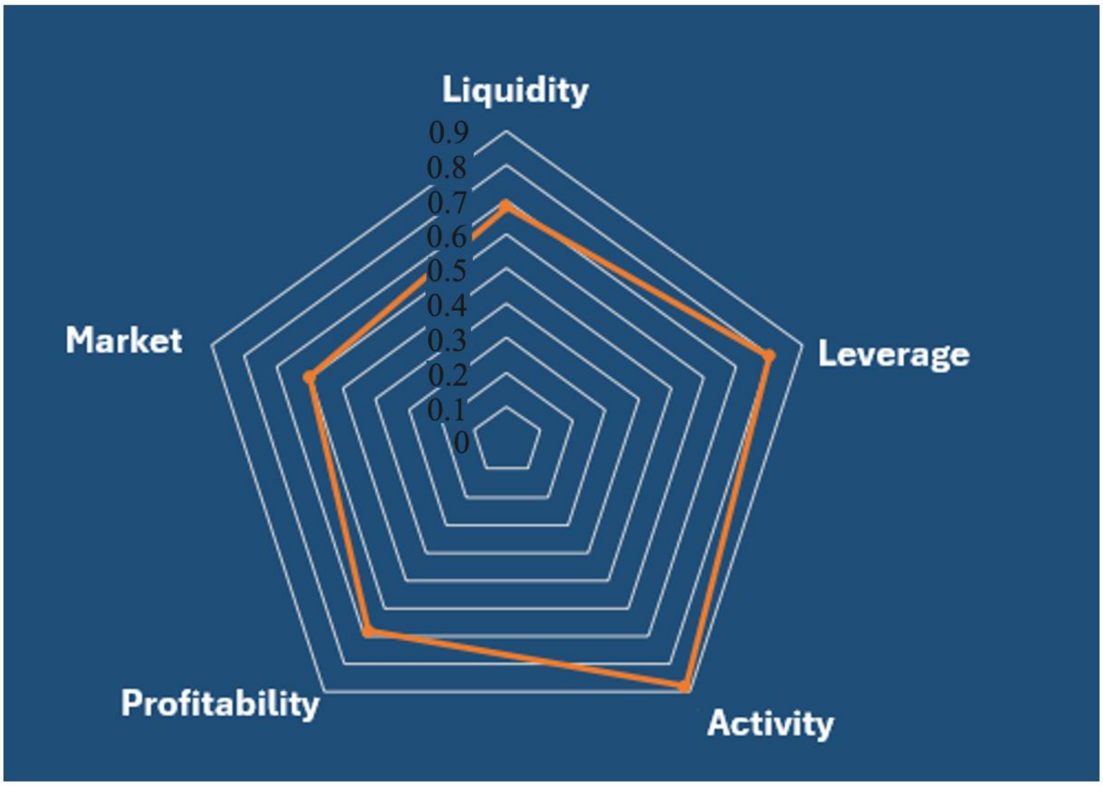

Figure 1. Results of the evaluation of the organizational financial situation at Alimentos El Jicote.

4.7. Impact of the Strategy

Given the short time the company has been operating and the unusual start in 2020, the projections are considered a broad guide. In this way, through the registration based on parameters for a period of one year, the projected financial analysis was carried out, listing the parameters considered to determine the company's performance over a period of 10 years. Considering the participation of the partners and the economic activity, a profit margin of at least 32% and annual growth rates of 12% and 10% were established.

It was identified that its sales expenses are in proportion to its sales, ranging between 15%, while its administrative expenses are 13%. In addition, there is a tax established by the Ministry of Finance in Costa Rica for individuals with profit-making activities in 2023. On the other hand, there is an estimated investment amount of 50 million colones, of which 20 million colones correspond to depreciable assets. Through a discount rate of 8% and a perpetual growth rate of 5%, the projected salvage value, the NPV, and the profitability of the business were estimated.

In this way, the IRR obtained was 10.73% higher than the established capital cost rate, indicating that the business projection will be profitable. The net present value obtained is ₡13,087,144.70, resulting in a positive return higher than the opportunity cost.

On the other hand, Table 6 shows the organization's Balanced Scorecard (BSC), where the perspectives, strategic objectives, indicators, percentages of goals per year, strategic initiatives, and action plans, as well as their respective critical success factors, are considered.

Table 6. Balanced Scorecard in Alimentos El Jicote 2022-2026.

Financial perspective									
Perspective	**Strategic objective**	**Indicators**	**Goals per year**					**Strategic initiatives and action plans.**	**Critical success factors**
			1	**2**	**3**	**4**	**5**		
To achieve financial success, how should the organization's owners evaluate us?	Maintain competitive business profitability.	Gross profit	32 %	32 %	30 %	30 %	30 %	Strategic plan in action.	Market competitivenes s
	Increase business market penetration.	Net income on total assets	8%	8%	8%	8%	8%	Integrated into a cash flow.	Achieving the highest possible profitability at the lowest cost.
		Sales growth rate	8%	10 %	10 %	10 %	10 %	Integrated into a cash flow.	Increase in competitor sales points.
Customer perspective									
Perspective	Strategic objective	Indicators	Goals per year					Strategic initiatives and action plans.	Critical success factors
			1	2	3	4	5		
To achieve our vision, how should customers perceive us?	Becoming the leading company in the region for marketing animal feed.	Sales growth rate	12 %	12 %	11 %	10 %	10 %	Development of strategies for the SWOT matrix.	Provide the best possible service, superior to that of the competition.
		Customer retention	80 %	80 %	80 %	80 %	80 %	Development of strategies for the SWOT matrix.	Have a comprehensive and appealing product offering.
Internal processes perspective									
Perspective	Strategic objective	Indicators	Goals per year					Strategic initiatives and action plans.	Critical success factors
			1	2	3	4	5		

To satisfy our customers and organizational owners, how should we manage operational processes?	Decrease in sales expenses.	% expenses / Sale	15 %	15 %	14 %	12 %	13 %	Increase sales with the currently contracted capacity.	Achieving greater market share.
	Decrease in administrative costs.	% expenses / Sale	13 %	13 %	12 %	12 %	10 %	Optimize administrative processes to enhance efficiency.	Achieving greater market share.
Learning and innovation perspective									
Perspective	Strategic objective	Indicators	Goals per year					Strategic initiatives and action plans.	Critical success factors
			1	2	3	4	5		
To achieve our vision, how must we maintain our ability to change and improve?	Keeping the team motivated.	Analysis of the work environment.	2	2	2	2	2	Internal employee evaluation of company performance (Good, average, bad)	Improving the organization's human resources.
	Train yourself on new products in the market.	Applied talks	3	3	3	3	3	Look for discussions about new alternatives that integrate the offerings of products with potential.	Increase product quality and price competitiveness.
	Training in new technological tools.	Applied talks	2	2	2	2	2	Hire talks on updated information technologies that make us more efficient and better decision makers.	Improving the organization's management skills.

Through obtaining a BSC, the organization can measure the evolution and course of the implementation of strategic objectives through the indicators, as well as its strategic initiatives and action plans.

In comparison with the applied indicators, authors such as Amat Salas, BANCHIERI, and Campa-Planas (2016) propose the use of a Balanced Scorecard (BSC) to monitor the strategy implemented in a cooperative in the agri-food sector dedicated, among other activities, to the sale of animal feed. This approach includes policies to stabilize its position in the market and guarantee a constant supply, even in the face of price volatility, which coincides with the situation of the company in this study. In similarity to the indicators evaluated, the financial perspective covered profitability and sales; the customer perspective included the average number of units sold and customer satisfaction; the internal processes included inputs and operations; and the learning and growth perspective included information systems and staff satisfaction.

5. CONCLUSIONS

Based on the internal and external analysis of the organization, Alimentos El Jicote must exploit its strengths, minimize its weaknesses, and avoid its threats; that is, it must not take big risks. Along the same lines, it is concluded that the master strategy the organization must implement is the diversification of the offer of animal feed products with the best quality and at the best possible price. Consequently, negotiations with more efficient suppliers should be pursued by increasing the storage capacity and distribution network of the trade.

On the other hand, regarding the financial analysis, the organization was in a stable financial situation; however, there are aspects to improve in terms of its performance in profitability, liquidity, and market. Based on the evaluation of the economic performance of the project concerning the capital of the partners, the feasibility of this is concluded by obtaining an IRR value of 10.73%, which is higher than the capital cost rate of 8% proposed by the partners. Thus, the net value in the 10-year projection is positive, which confirms the profitability of the project.

In conclusion, strategic planning in feed companies such as Alimentos El Jicote is essential to adapt to fluctuations in the market, facilitate administrative decision-making, maintain competitiveness, and ensure long-term sustainability while responding to the challenges that arise. In this way, it provides action plans that guide the company in its growth and permanence in the market.

Finally, by identifying the mission, vision, values, and organizational objectives, Alimentos El Jicote can consolidate its position in the sector, optimize its productivity, and increase its potential. In this way, strategic planning becomes an indispensable tool for the organization, promoting its operational efficiency and organizational success in a competitive and changing environment.

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