



RESEARCH ARTICLE

MATRIX OF INTERNAL AND EXTERNAL FACTORS IN THE STRATEGIC PLANNING OF A HEALTH COOPERATIVE

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Abstract

Strategic planning represents the mechanism through which companies manage to guarantee an adequate process of efficient establishment of actions and allocation of resources to respond in a timely manner to the needs of the environment. It is then proposed from a descriptive case study, the way in which health cooperatives achieve the implementation of environmental analysis matrices, in this case the MEFE and MEFI matrices respectively, which allow them to analyze both internal and external factors.

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Introduction:-

Strategic planning is the science and art of formulation, implementation and evaluation for the design and making of multifunctional decisions that allow an organization to achieve its objectives.

This art and science have become an elemental tool for the most successful companies in the world and the key to achieving a sustainable competitive advantage. Each of the planning steps is crucial to unify and direct the efforts of the different departments and workers towards achieving business objectives and fulfilling its mission.

However, it is essential that the greatest number of people responsible or who are crucial in the performance of the organization participate in its preparation, to obtain the commitment and effort of all collaborators.

This document seeks to prepare a proposed Strategic Plan (SP) for a health cooperative, which is an organization dedicated to first-level health care, as well as promoting healthy lifestyle habits in the community.

This allows the analysis of the environment, as well as the formulation of the company plan, which will contain the strategies required for the organization to achieve its long-term objectives, and thereby continue to be competitive in the market in which it operates.

For many decades, company managers fully trusted that, thanks to planning, they could foresee the future growth of their constituents. The context in which the organization operates and interacts is increasing, especially in an environment where political-economic forces change rapidly.

This is how the concept of planning has been modified, until it is what we know today as strategic planning. This concept is defined as a process much more connected to the changing reality of business, and less related to a bureaucratic practice of organizations.

Strategic Planning is immersed in the scientific method, however, it has a portion of intuition; This is why Strategic Planning frames a point of balance between the analytical process, based on reasoning, and the intuitive process, when considering judgments or own experience.

To do this, scenarios are developed, on which simulations must be carried out between different assumptions, with respect to the most sensitive internal and external variables in relation to the organization. In other words, Strategic Planning involves the factors that represent opportunities and threats, as well as strengths and weaknesses, in addition to the analysis of the competitive environment and technological changes.

The objective of this research is to implement the matrix of internal and external factors in the strategic planning of a health cooperative, so that it serves as a tool in the planning of the company's actions.

Method:-

Through the case study, the aim is to describe the implementation of the matrices of internal and external factors for the design of a strategic plan for a health cooperative, a company that is dedicated to providing first-level health services, which implies the promotion of health and disease prevention in communities.

The execution consists of taking the core aspects of the company and analyzing, through the matrices, the main elements of the environment (internal and external) that could generate an impact on the achievement of the company's objectives.

For this case, a health cooperative was taken to which the following steps were applied according to the matrices:

Internal Factors Matrix

Step 1: The company's internal Critical Success Factors (CSF) are identified and classified.

Step 2: We proceed to detail whether these factors are strengths or weaknesses according to the characteristics that occur in the organization.

Step 3: The internal factors matrix (MEFI) is then completed, in which the internal factors are noted, and they are assigned a weight between 0.00 and 1.00 based on expert criteria. This is considering that 0.00 means "unimportant" and 1.00 "very important".

Step 4: A value is assigned according to the impact that the strengths or weaknesses have on the achievement of the company's objectives. In this case it is done as follows:

1 = major weakness or with a lot of influence

2 = minor weakness or little influence

3 = minor strength or little influence

4 = greater strength or with a lot of influence

Step 5: The weighting is obtained, which is the result of multiplying the weight by the value assigned to each of the critical success factors.

Step 6: The weights obtained are added and if the result is greater than 2.5, it means that the company's strengths are being used appropriately. Otherwise, if the score is less than 2.5 it means that the strengths are not being taken full advantage of and therefore the company is considered weak.

Matrix of External Factors

Step 1: The company's external Critical Success Factors (CSF) are identified and classified.

Step 2: We proceed to detail whether these factors are opportunities or threats according to the characteristics that occur in the organization.

Step 3: The external factors matrix (MEFE) is then completed, in which the internal factors are noted, and they are assigned a weight between 0.00 and 1.00 based on expert criteria. This is considering that 0.00 means "unimportant" and 1.00 "very important".

Step 4: A value is assigned according to the impact that the opportunities or threats have on the achievement of the company's objectives. In this case it is done as follows:

1 = major threat or with a lot of influence

2 = minor threat or little influence

3 = minor opportunity or little influence

4 = greater opportunity or with a lot of influence

Step 5: The weighting is obtained, which is the result of multiplying the weight by the value assigned to each of the critical success factors.

Step 6: The weights obtained are added and if the result is greater than 2.5, it means that the company's opportunities are being used appropriately. Otherwise, if the score is less than 2.5 it means that they are not taking full advantage of the opportunities and therefore the company could be threatened.

Results:-

For the analysis of this case, in the first stage, and in a descriptive manner, the following variables are identified as Critical Success Factors (CSF) internal to the cooperative, which represent strengths:

1. **Leadership styles:** since the cooperative exercises transactional and transformative leadership by the bosses, who seek to motivate and encourage enthusiasm and dedication in their work in the workers, to obtain the best results from it, which becomes a strength, because thanks to this way of leading, employees are willing to give their best.
2. **Quality and quantity of product lines:** the health cooperative generally offers services in Family Medicine, Pediatrics, Nutrition, Psychology, Gynecology and Dentistry, which represents a strength by having such a variety in the product line offered in comparison with other health companies in the market, in addition to the quality implicit in each of these services.
3. **Equipment efficiency:** It is reported that the efficiency in the use of the cooperative's equipment is 80% in the last two years, which brings with it a series of benefits and positively impacts its finances.
4. **Production capacity:** The equipment that the organization has works efficiently, since it attempts to reduce waste as much as possible and avoids its underutilization; This is why equipment efficiency along with production capacity represents a strength for the cooperative.
5. **Information for management decision making:** The information necessary for decision making at the management level is always available in a timely manner, which becomes a strength as it avoids delays or inconveniences in the execution of policies and projects for the improving health in the community.
6. **Internal and external communication systems:** There are both internal and external communication systems, among which we can mention email, social networks and applications of the national health system, which allow the cooperative fluidity in the exchange of information with stakeholders. This communication system becomes a strength for the cooperative because it strengthens the information chains and allows for a better degree of feedback.

Next, in a second stage, they classify the following variables as internal Critical Success Factors of the cooperative, which represent weaknesses:

1. **Strategic planning systems:** Despite having a plan, it does not bring together the aspects of the environment with the greatest impact or the greatest relationship with the proper functioning of the cooperative, which makes it distance itself from the reality of the community.
2. **Product planning:** Despite the importance of implementing an adequate strategic planning system, the organization still uses very empirical planning, without taking into account important aspects of the environment, the same thing that occurs with product planning. However, work is already being done on this issue at the organizational level, but it is still a weakness currently for the cooperative.
3. **Cost structure:** The organization's cost structure constantly requires a reclassification of some of the accounting accounts, which delays the financial reporting and decision-making processes.
4. **Budget systems:** The budget process is made up of four stages: formulation, discussion and approval, execution and accounting, and control and evaluation. These stages are interdependent and interrelated with each other, and the product of the first stage is the input for the next and so on, in such a way that problems have arisen in the formulation stage and corrective measures were not taken in a timely manner. . The fact of not having an adequate cost structure creates major problems when classifying the costs incurred by the organization, which in turn affects budget management, since, by not having a good classification of these expenses, many times there are discrepancies when selecting them. The budget is currently in process to be linked to the General Ledger, Accounts Payable, Accounts Receivable, Banking Control, Fixed Assets, Billing, Purchasing, Inventory, Sales Statistics, Human Resources, Vacation and Payroll Control accounts, so that allows the integration into the same system of budget projections, as well as controls and evaluations of the movements of inflows and outflows of money from the organization.
5. **Professional skills and qualifications:** The skills or abilities of the staff who work in the cooperative sometimes do not meet the requirements of the position, which is when complaints from users appear due to

poor treatment or “ineffectiveness” of the staff. of the cooperative, which is due to the fact that, in many cases, the person does not meet the conditions to perform in the position they occupy.

6. **Selection, training, and development of personnel:** This process of selection, training and development of personnel represents a weakness in the organization, since there is no continuous process that allows employees to constantly improve through continuous education processes within from the same organization.
7. **Technological capabilities of the staff:** Regarding human talent, the cooperative is equipped with people with great learning capabilities, however, these capabilities are not exploited as they should, in part because there is no constant training and updating system to create and develop new skills and capabilities in the organization's human resources.
8. **Capacity to adopt new technologies:** The adoption of new technologies, hand in hand with the previous critical factors, represents a weakness for the organization since, many times, new technologies have not been implemented due to the lack of training of personnel for the use of them. these, which puts the cooperative at a disadvantage.

Matrix of Internal Factors of the Health Cooperative

MEFI			
Determinantsofsuccess	Weight	Value	Weighting
Strengths			
Leadershipstylesused	0,1	3	0,3
Quality and quantity of product lines	0,08	3	0,24
Equipmentefficiency	0,05	3	0,15
Productioncapacity	0,07	3	0,21
Information for management decision making	0,09	3	0,27
Internal and external communication systems	0,05	3	0,15
Subtotal	0,44		1,32
Weaknesses			
Strategicplanningsystems	0,1	2	0,2
Productplanning	0,06	1	0,06
Coststructure	0,05	2	0,1
Efficiency and effectiveness of budget systems	0,07	2	0,14
Professional skills and qualifications	0,08	2	0,16
Selection, training, and development of personnel	0,08	2	0,16
Ability to adopt new technologies	0,06	1	0,06
Technologicalcapabilitiesof staff	0,06	1	0,06
Subtotal	0,56		0,94
Total	1		2,26

Own elaboration

According to the analysis of the matrix, the weighting of the result gives a total of 2.26 (lower than 2.5, which is the parameter to consider the result positive), which means that the use of the Critical Success Factors (CSF), until now have not been used appropriately, and therefore do not meet the needs of the organization to perform well, and therefore, they must propose some improvements to reduce the weaknesses, have a better use of the strengths and resources to achieve a best result.

Next, and in a descriptive way, we proceed with the identification and classification of the external Critical Success Factors (CSF) of the cooperative, which represent opportunities for the following variables:

1. **Legal Framework:** In Costa Rica, there is a fight by some entities in favor of improvement in the areas of health, in addition, health begins to play an important role in the life and development of human beings and society. society, when this is considered a fundamental right. Which, as described by the World Health Organization, is the right that every human being has to achieve their highest level of physical and mental health. According to the provisions of the Costa Rican Health Code of 1948, it was decided to form a National Health System, which is made up of: the Ministry of Health, the Costa Rican Social Security Fund, the Costa Rican Insurance Institute, the Costa Rican Institute of Aqueducts and Sewers, public universities, private, cooperative, and self-management medical services, municipalities and communities. In this scenario, there is a

strong legal framework that supports the development and execution of health policies and projects that promote disease prevention and health promotion.

2. **Population growth rate:** In this case, demographic aspects linked to the growth rate and health characteristics of the population of the community in which the service is offered were assessed. To do this, it is necessary to analyze censuses, health statistics and the epidemiological profile of society, which allows the company to focus its services on a specific target population, attending to the needs of the population in a timely manner, through adequate planning. that positively impacts people's quality of life. In this case, significant population growth is maintained, but above all, the growth in the number of adults and older adults in society stands out.
3. **Lifestyles of the population:** The trend is towards health promotion, and it is up to first-level health care companies to offer it, in this case, to health cooperatives, which can promote lifestyles. of healthy living, thereby improving the quality of life of the population, the trend is to resume health promotion again and avoid disease above all.
4. **Use of information technology:** the business sector makes important investments in the use of information and communication technologies, which allows organizations, in addition to having access to information in a timely and immediate manner, greater security in regarding data processing, which makes decision making more reliable.
5. **Preservation of natural resources:** Costa Rica has approximately 5% of the biodiversity known in the world, which makes it a megadiverse country. Furthermore, due to its geographical location, as well as its tropical climate, this makes it in a region with an important natural variety, which in turn enhances it as a preferred tourist destination.
6. **Process quality:** In the 21st century, quality is highlighted as suitability for use, compliance with requirements, satisfaction of customer expectations, customer satisfaction or minimum loss to society. With the adoption and implementation of quality systems such as Lean, Six Sigma, Total Quality Management (TQM), Kanban, Key Performance Indicator, International Standardization Standards, among others, the cooperative can continually improve the processes it carries out. in order to meet the demands of its clients.
7. **Development of communications:** Organizations as open systems are in constant interaction with the environment, from which they obtain inputs, to transform them and obtain outputs, which will become the final product or part of it. Given this, the importance of developing fluid communication mechanisms with the environment in which they operate.

Next, in a second stage, the following variables are classified as Critical Success Factors internal to the cooperative, which represent threats:

1. **Inflation:** Inflation represents a variation in prices, while if prices do not change, it does not mean that they have not changed, but rather that the growth rate remains unchanged. High inflation threatens the economic development of the country, as it applies a chain effect: the higher the inflation, the higher the cost of resources for production, so many companies will be forced to close due to the increase in production costs. As companies close, there is greater unemployment and with unemployment there will be a slowdown in the economy, which could reduce the supply and demand of health services offered to the community.
2. **Political Stability:** Political stability represents a significant impact, since government plans depend on it, as well as local and national development plans, as well as policies and distribution of public resources.
3. **Fiscal deficit:** Corresponds to the difference in the sum between income and expenses, which results in a negative product.
4. **Threats from natural disasters:** One of the main threats from natural disasters in Costa Rica are tropical storms, which in turn generate floods and landslides, which have consequences for the economic and social development of communities, generating human losses, infrastructure, and materials.

Matrix of External Factors of the Health Cooperative

MEFE			
Determinantsofsuccess	Weight	Value	Weighting
Opportunities			
Legal framework	0.12	3	0.36
Populationgrowthrate	0.11	4	0.44
Lifestylesofthepopulation	0.1	4	0.4
Use ofinformationtechnology	0.08	3	0.24
Preservationof natural resources	0.08	3	0.24

Processquality	0.07	3	0.21
Communicationsdevelopment	0.06	1	0.06
Subtotal	0.62		1.95
Threats			
Politicalstability	0.09	1	0.09
Inflation	0.12	1	0.12
Fiscal deficit	0.1	1	0.1
Threatsfrom natural disasters	0.07	2	0.14
Subtotal	0.38		0.45
Total	1		2.4

Own elaboration

The result of this MEFE matrix represents the external factors that impact the organization; Such a matrix results in 2.4, which reflects an unfavorable environment, since it is less than 2.50. It is noted that there are opportunities for the organization that it can take advantage of and exploit, from which it would obtain competitive advantages. In turn, the result reflects the sensitivity to threats, in response to which it must work to minimize them as much as possible so that the organization manages to have a better and greater impact on its environment.

Discussion:-

The Costa Rican health services system is made up of the Costa Rican Social Security Fund (CCSS), an institution that is in charge of public health insurance, which includes comprehensive medical care for people, cash benefits and social benefits; the National Insurance Institute (INS), which covers occupational and traffic risks and accidents; the Costa Rican Institute of Aqueducts and Sewers (AyA), which is responsible for providing and regulating the provision of water for human consumption and the disposal of wastewater and the Ministry of Health (MS), which monitors the performance of the essential functions of the public health and carries out sectoral stewardship. A 1989 Executive Decree incorporated the University of Costa Rica and municipal governments into the health system. The MS is part of the executive branch, while the CCSS, the INS and the AyA are decentralized and semi-autonomous public organizations, with their own law and assets, each of them directed by a board of directors and the executive president (National Health Library and Social Security, Costa Rican Social Security Fund, 2013).

For its part, the modalities of care in the health sector are:

- **Public Sector:** these are those offered by the Costa Rican Social Security Fund and the National Insurance Institute.
- **Private Sector:** for-profit: offers outpatient and hospital services, in exchange for direct payment from users. And non-profit: services provided by non-governmental organizations, such as the Costa Rican Red Cross.
- **Mixed Sector:** it is made up of both the public and private sectors. It consists of an initiative where the CCSS provides the infrastructure to be administered by an entity outside the government, or, when it is provided to doctors who practice the profession independently or privately and provides patients and medicines with the CCSS. Within the mixed sector modality there are:
 - Company medical system
 - Mixed medicine system
 - Cooperative system
 - Free medical choice system
 - Purchase of services from third parties

For its part, the Health Cooperative System in Costa Rica is They sign agreements with the CCSS that are renewed periodically. The CCSS assigns the cooperative an annual budget and the cooperative manages and provides health services in accordance with the official health care model. Both the infrastructure and the equipment are property of the CCSS; However, cooperatives can acquire some goods and equipment that remain under their assets (Center for Strategic Development and Information in Health and Social Security. 2014)

For its part, administration corresponds to the process through which companies plan, organize, direct and control their resources and activities; however, for this process to be efficient, strategic administration is required, which consists of formulating, evaluating and implementing actions to achieve the company's objectives (Mero, 2018, Beltrán, 2018, Pineda et al 2014, David, 2013).

To carry out a timely strategic planning process, a comprehensive analysis of the internal and external factors of the company is required (Limas, 2020, Osuna and Vargas 2019, Oña and Vega, 2018). It is very common for this type of analysis to implement the Strengths, Weaknesses, Opportunities and Threats (SWOT) Matrix.

The importance of the SWOT matrix lies in the fact that it allows us to identify the internal aspects of the company such as human resources, finances, costs, processes, purchasing, marketing, information technologies and others internally. of the company. With respect to external aspects, these are made up of political, economic, social, technological, ecological, legal and global elements that could have a direct impact on the company's work (Huertas et al., 2023, Huilcapi and Gallegos 2020, Castillo and Banguera, 2018).

However, complementing the SWOT analysis with the evaluation matrix of internal and external factors allows companies to identify and exhaustively review the factors that could affect the scope of the business objectives (Luque Del Carpio, 2022, Pibaque et al., 2020, Peñafiel, 2020, Paredes and Nacarro, 2019, David, 2013).

For this reason, it is necessary to identify the Critical Success Factors (CSF). They are “variables that must be taken into account before and during the implementation of a project, since they provide valuable information to achieve the company's goals and objectives.” (Autonomous University of Ciudad Juárez, 2013).

Once the matrices have been developed, the company can proceed to establish the strategy, that is, “possible courses of action that require decisions by senior managers and large amounts of the company's resources. Furthermore, strategies affect the long-term business prosperity of the organization, typically a minimum of five years, so they are future-oriented.” (David, 2013)

Organizational strategies are at the corporate, business (competitive) and functional level, for which the University of Jaén (2014) defines that “based on the external and internal analysis of the company, the so-called generic strategies are proposed, being the competitive strategy offensive or defensive actions to create a defensible position in an industrial sector, to successfully confront the five competitive forces (Customers, suppliers, competitors, potential competitors, substitutes) and thus obtain a superior return on investment for the company.

Therefore, for the purposes of this case, the work of the health cooperative must be adapted to the needs and environment in which the health center operates, for this reason it is recommended to incorporate the analysis of the MEFE and MEFI to the formulation of the strategic plan for the organization.

This proposal aims to be in line with the institutional reality, so that strategies can be drawn up that allow the organization to remain at the forefront in the range of health services it offers.

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