

Social entrepreneurship as an alternative for socio economic growth managed by adapting the PM4R methodology

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Abstract: Social entrepreneurship as a managed alternative for socioeconomic growth through the PM4R (Project Management for Results) methodology is presented as an innovative and effective approach to address the social and economic challenges of a community.

The main objective of this research is to show alternatives using the adaptation of the PM4R methodology for the management of the project in its initial stage, with the purpose of boosting the economy in the community of Dolores Epitacio Huerta, located in the state of Michoacán, Mexico. Through an exhaustive analysis of the economic challenges and opportunities facing this community, it seeks to identify and develop effective strategies that promote local economic growth, foster entrepreneurship, and improve the living conditions of its inhabitants.

By applying the PM4R methodology to social entrepreneurship, several benefits can be achieved. In the first place, the professionalization of social projects is encouraged, which increases their capacity to generate impact and attract financing. In addition, transparency and accountability are promoted, which generates confidence in both investors and project beneficiaries.

Social entrepreneurship through the PM4R methodology is positioned as an effective alternative to boost socioeconomic growth. By combining a passion for social change with professional, results-oriented management, innovative and sustainable solutions can be generated that benefit communities and promote equitable development.

Keywords: PM4R methodology, development project management, social entrepreneurship, socioeconomic growth.

I. INTRODUCTION

Social entrepreneurship involves the creation and management of companies with the main objective of generating a positive impact on society. Through this approach, social entrepreneurs seek to solve social problems, such as poverty, limited access to education or lack of job opportunities, while promoting sustainable economic development.

The PM4R methodology is based on results-oriented project management, where clear objectives are established and strategies are designed to achieve them efficiently. This methodology is especially well suited to social entrepreneurship, as it allows for effective planning, proper allocation of resources, and constant assessment of progress toward desired results.

An analysis was carried out for the design and development of proposals for social entrepreneurship business models, to be applied in the community of Dolores, observing their main needs, as well as their resources, and in this way generate entrepreneurship alternatives that enhance socioeconomic development, benefiting its inhabitants, and in turn generate solutions to the current needs of the community.

During 2020 and 2021, the pandemic caused by the COVID 19 virus was experienced worldwide, leaving economic and social havoc. One of the main problems it caused was accelerated unemployment within the country. The unemployment rate in Mexico stood at 3.7 percent in the fourth quarter of 2021, its lowest level since the first quarter of 2020, before the impact of the pandemic. And by the fourth quarter of 2022 it fell to 3% of the economically active population, reported the National Institute of Statistics and Geography (Inegi). [1](Gutierrez, 2023)

In the state of Michoacán, for the fourth quarter of 2020 the unemployment rate for men and women was 2.7 and 1.6, and for the third quarter of 2021 it was 2.1 and 3.3 percent respectively. Highlighting the

percentage of unemployment among women in this state. [2](RESULTS OF THE NATIONAL SURVEY OF OCCUPATION AND EMPLOYMENT. NEW EDITION (ENOEN), 2022)

Unemployment and the lack of economic development was one of the main problems for the community of Dolores, municipality of Epitacio Huerta, Michoacán, where this research was carried out.

It began by carrying out a study of the community as a diagnosis, as stage number one of the methodology used, through the use of the SWOT tool and PESTEL analysis, this study was carried out through the use of data collection techniques such as the semi-structured interview and traditional surveys, with a sample of 150 people.

From this study we obtained the characteristics of the community in a demographic, geographical and economic way, likewise, it was found that the main needs are: unemployment, lack of internet network, roads, markets and transportation network.

Subsequently, for stage number two, I design a social entrepreneurship alternative, whose main purpose is the production of products derived from strawberry loss (which occurs in the locality), thus reducing food waste by the strawberry greenhouses of the municipality of Epitacio Huerta and promoting the generation of direct and indirect jobs for the inhabitants of the community of Dolores.

With the social entrepreneurship proposal presented under the Social Canvas scheme, an analysis was carried out represented by a comparative table, to evaluate the characteristics of the project in favor of the benefits to the community, in this way the evaluation criteria were : the social impact, ecological impact, approximate investment, approximate development time and operational and financial feasibility.

The third stage shows the development of the methodology for the management of social entrepreneurship projects PM4R "Project management for Results", which was designed by the Inter-American Development Bank (IDB). This methodology consists of 5 stages for the realization of the entrepreneurship project, for purposes of the scope of this work, the PM4R methodology was developed in its initial stage.

Finally, this research work culminates with the development of a social entrepreneurship proposal, represented by a constitutive act that includes the details of it to be able to be implemented in the community of Dolores.

II. BODY OF ARTICLE

In 2020, the Mexican economy was severely affected by the COVID-19 pandemic, which detected a sharp contraction in GDP and a significant increase in unemployment across the country. According to data from the National Institute of Statistics and Geography (INEGI), the unemployment rate in Mexico increased from 3.6% in February 2020 to 5.3% in April 2020, and remained above 4% all year. [3](INFOBAE, 2022)

The rise in unemployment in Mexico in 2020 was particularly pronounced in the services, manufacturing and construction sectors, which were the most affected by the confinement and social distancing measures imposed to combat the pandemic. There was also an increase in unemployment among informal workers and the self-employed.

Despite the decrease in the unemployment rate in the first half of 2021, the recovery of the labor market in Michoacán has been uneven in different sectors and regions of the state. In addition, the unemployment rate remains higher than before the pandemic, indicating that the Michoacán economy still faces significant challenges in terms of employment and economic growth.

The community of Dolores belongs to the municipality of Epitacio Huerta, Michoacán, its main economic activities are: agriculture and commerce. It is located at a distance of 10 km from the municipal seat and has 1,282 inhabitants. [4](INEGI, 2020).

The community of Dolores is a rural area dedicated mainly to agriculture and livestock. The COVID-19 pandemic and other economic factors have had a significant impact on the community in terms of employment and economic and social development.

The pandemic affects employment in the region, especially in sectors such as agriculture and tourism, which are important sources of employment in the area.

In terms of economic activities, agriculture is one of the main activities in the community, with crops such as corn, sorghum, beans, tomato, chili, and avocado. In addition, the community also has a significant production of fruits such as guava, papaya, and strawberry. The production of these crops is intended for both local consumption and export. Livestock is also an important activity in the area.

Regarding economic and social development, the community of Dolores Epitacio Huerta faces challenges in terms of access to basic services such as health and education, as well as infrastructure and access to resources. However, the community also has a rich culture and traditions, which can be a potential for tourism and cultural development.

It is estimated that unemployment and the lack of job opportunities affect approximately 50% of the economically active population of the community, this according to data reported by the authorities of the municipal capital.

The following approach is presented: The lack of opportunities for economic and social development means that businesses do not prosper and that there are no conditions for entrepreneurship and employability for the inhabitants of the community of Dolores.

When a community or population lacks opportunities to improve its socioeconomic conditions, the possibilities for growth of existing businesses and the creation of new ventures are limited. In addition, the lack of employment and job options negatively affects the population, generating a cycle of low economic and social prosperity.

It is necessary to address these limitations that were generated and increased in the community of Dolores, from the context of the effects of the pandemic on unemployment, and thus promote an environment conducive to economic growth, job creation and the emergence of new ventures, which will contribute to the well-being and progress of the community.

Therefore, there is a clear need to seek the economic and social development of the community through the use of its resources, which promotes a better quality of life for the inhabitants, allowing the livelihood of families, and in turn generating innovation in its different areas. Sectors.

With the results obtained from this project, it is expected to contribute to the development and competitiveness of the town of Dolores, and likewise participate in the progress that the country needs to overcome the economic and social ravages of the current health crisis. It is estimated to benefit the economic income of approximately 294 households.

The resources and limitations are detailed to carry out research on the needs and opportunities of the locality that allow us to identify and develop proposals for applicable business models to promote economic and social development within it.

Human Resources:

- Staff trained in community analysis and social entrepreneurship methodologies.
- Professionals with knowledge in business model development and socioeconomic impact analysis.
- Multidisciplinary team for the design and planning of projects using the PM4R methodology

Material Resources

- Computer equipment (laptop) and software for data analysis and reporting. (Office package, Minitab, Canva)
- Office material and supplies to carry out the analysis and evaluation work.

Financial Resources

- Resources for data collection and field studies.
- Funds for the development and implementation of the selected projects.
- Conacyt scholarship assignment for the aforementioned

Access to Information

- Access to sources of relevant information for the analysis and design of projects. (Municipal databases, INEGI, internet)
- Surveys and interviews with stakeholders

Permissions

- Permission to conduct community research, accessing data from the municipal social development office
- Consensus of interviews with municipal and tenure managers
- Request for the presentation of business model proposals to the corresponding authorities of the municipality as well as interested and related inhabitants
- Consensus of interviewees to share information collected

Limitations

- Continuous transfers or permanence within the community to observe changes and behaviors in the socioeconomic field
- Very biased or null economic data

The necessary theoretical and conceptual context is provided to support and substantiate the decisions made in the development of the project proposal. Here the theories are presented, and the methodological tools used, such as Canvas Social and PM4R.

Social canvas

It is a support tool to analyze business ideas on social entrepreneurship projects, it is an adaptation of the canvas model which has 9 modules and helps to visualize a business idea quickly.[5](Pastor, s.f.)

The Social Canvas provides a visual and systematic structure that helps to clearly understand and communicate the social business model, identify areas for improvement and explore new opportunities. It is a valuable tool for entrepreneurs, social organizations and anyone interested in developing business models with a focus on social impact.

The social canvas has 12 modules that are described below:

1. **Purpose of Massive Transformation:** Defines the greatest aspiration of the venture or project with social impact. Answer the question: Why does the social business model exist?
2. **Social Impact Measurement:** Defines the social and environmental impact, as well as the benefits in each aspect. It is important to include the base metrics that will be used to measure the results
3. **Segments:** Clearly define who the clients and beneficiaries are. Is it the same group or different? Who is the person or organization paying for the service or product? Who gets it?
4. **Problem:** what is the main problem that the proposal will solve? What other projects or companies do your segments have as an option? How these problems are currently solved?
5. **Value proposition:** What it offers that eliminates or improves the problems that have been described for clients and beneficiaries/users. What advantages does the customer who pays for your product or service get? What benefits do the beneficiaries get?
6. **Solution and key activities:** Which solution will bring the value proposition to the segments? What activities, products and/or services have to be carried out to implement the value proposition?
7. **Resources, partners and key players:** who needs to be mobilized to make the business model work? What resources are necessary to execute the key activities: permits, financing, tools... What groups, people, companies or organizations need to be involved in the social enterprise?
8. **Channels:** How do you communicate with clients and beneficiaries? How is the social entrepreneurship product/service delivered? How are you going to reach customers and/or beneficiaries in a scalable way?
9. **Differential Advantage:** Why will this social entrepreneurship project be successful? What makes the project something unique that your competition will not be able to copy?
10. **Income:** What are the ways of income? What products and services are going to be offered for which others are going to pay?
11. **Surplus:** What will be done with the benefits of social entrepreneurship? Where and how are they going to invest?
12. **Cost structure:** The most important concepts of spending and investment how do they change according to scales? [5](Pastor, s.f.)

This tool allows to obtain new points of view, from the beneficiaries and on the most viable income options to make the social enterprise sustainable.

The Social Canvas includes the mission and purpose of a sustainable project, that is, the reason for being and the social impact it generates on the planet. This tool allows the business model to be captured on a sheet, which facilitates its analysis and provides a clear vision to take it into account in all actions related to the company.

In summary, the Social Canvas is a tool that helps to concisely visualize and analyze the purpose and social impact of a sustainable project, allowing a global vision of the business model on a single page and guiding the actions of the company. Company towards its mission and social objectives. [6](Triquels, 2020)

The methodology of the social entrepreneurship canvas is one of research, analysis and synthesis of information. The canvas is shown in figure 1

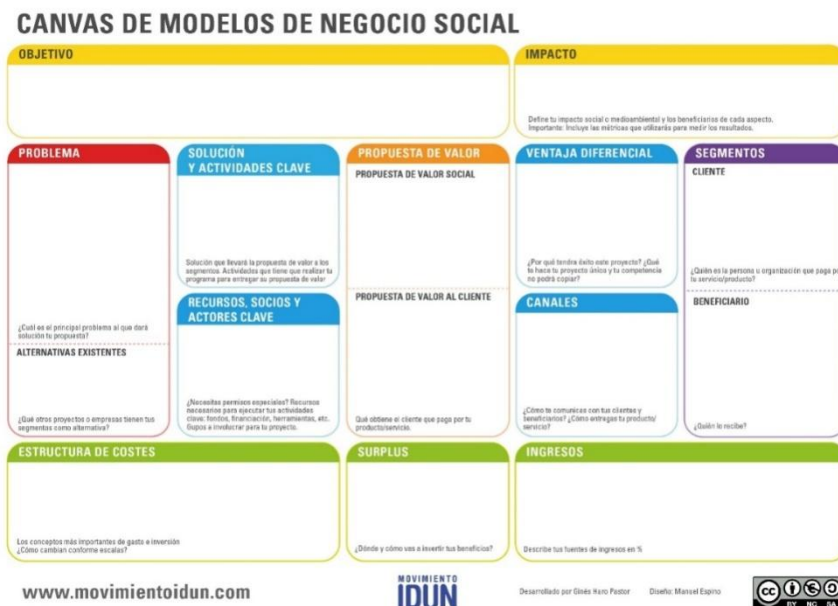


Figure1 Ssocial model Canvas I IDUN

Management of development projects (PM4R Methodology)

Development projects have the objective of obtaining concrete results that allow promoting the socioeconomic development of a country or region.

Development projects include the following characteristics:

- Diversity of stakeholders
- Sustainability
- Social return

Development project management is defined as the use of a combination of tools and techniques derived from good practices and international standards to ensure the achievement of the specific objectives (result, product or service) of the project within the time (schedule), the planned cost (budget) and scope[7] (Mondelo & Siles, 2019)

Every project is subject to a triple constraint that are scope, time and costs, and the success of a project depends on the consideration of these constraints.

The sum of the phases of a project is considered its life cycle. Figure 2



Figure 2 Life cycle of a development project

The PM4R methodology is called this way because of its meaning "Project Management for Results" and is a methodology developed by the Inter-American Development Bank (IDB) and the Inter-American Institute

for Economic and Social Development (INDES) in 201, provides of the essential tools to achieve the success of development projects in their different elements of time, cost and quality. [7](Mondelo & Siles, 2019)

It is the first methodology for the management of development and social impact projects in Latin America. Projects in the field of development have as their final objective the obtaining of concrete results that allow promoting the socioeconomic development of a country or a region.

The PM4R methodology generally consists of 7 steps that are detailed in Table 1.

PM4R “Project management for Results”	
PHASE	TOOL
START	<ul style="list-style-type: none"> • Project constitution act • Results matrix (logical framework) • Stakeholder matrix
PLANNING	<ul style="list-style-type: none"> • Development of the EDT work breakdown structure • Schedule • S curve for cost control • procurement matrix • Risk Matrix • communications matrix • MAR responsibilities matrix (RACI)
IMPLEMENTATION, MONITORING AND CONTROL	<ul style="list-style-type: none"> • planning matrix • PEP Project Implementation Plan • AOP annual operating plan • Value Added Techniques
CLOSING	<ul style="list-style-type: none"> • Once the deliverables are finished, the project is closed.

Table 1 PM4R methodology

By following the steps and principles of PM4R, project teams can ensure they achieve their goals, use resources optimally, and promote long-term sustainability. This methodology combines traditional project management with participatory and adaptive approaches, which means that the people involved have more participation and can adapt to changes and challenges in the environment. In conclusion, PM4R is a valuable tool that promotes the development and success of projects, generating a positive impact on communities and society in general.

III. PROPOSED METHODOLOGY

The methodological process of the project consists of three stages: Diagnosis, design and selection of entrepreneurial alternatives, and, finally, management of the social development project, which is an adaptation of tools such as PESTEL and SWOT analysis, with the integration of the social canvas methodology and the PM4R methodology. See figure 3

The SWOT analysis and PESTEL analysis tools were used for the initial diagnosis as part of the first stage.

In the second stage, the social canvas tool was used to represent the business model of the social development project that represented the greatest economic and social benefit for the Dolores community.

Finally, the management of the selected social development project up to its initial stage was carried out using the PM4R methodology, following the structure of the life cycle of a project, see table 1, which consists of 5 stages (1.start, 2. .planning, 3.implementation, 4.monitoring and control and finally 5.closure).

It was decided for this research to develop the PM4R methodology up to its initial stage due to the period of time that it takes to carry out the first two stages, which are the diagnosis and the design and selection of alternatives, as well as the time that the presentation entails. and approval of the business proposal to the corresponding municipal authorities of the community of Dolores.

Table 1, as indicated above, shows the structure of the PM4R methodology, where the phases are detailed, as well as the tools required for them.

Subsequently, in figure 3 the diagram of the methodology is displayed in a general way, conforming the 3 stages of the methodology in such a way that it allows us to achieve the fulfillment of the project objectives.

The stages that were developed according to the scope described for the present investigation can be seen with a symbol of arrows, and in the same way it is observed with a symbol of circles and with a change from blue to gray color the stages that will not be carried out in this research but which are nonetheless illustrated and proposed for a subsequent consecutive stage of the present research project.

Metodología



Figure 3 General methodology adopted (Own elaboration)

IV. RESULTS

Diagnosis

The town of Los Dolores is located in the Municipality of Epitacio Huerta (in the State of Michoacán de Ocampo). It has 1,282 inhabitants, 644 women and 638 men, 17% are people over 60 years of age while 77% are people over 12 years of age. [4] (INEGI, 2020)

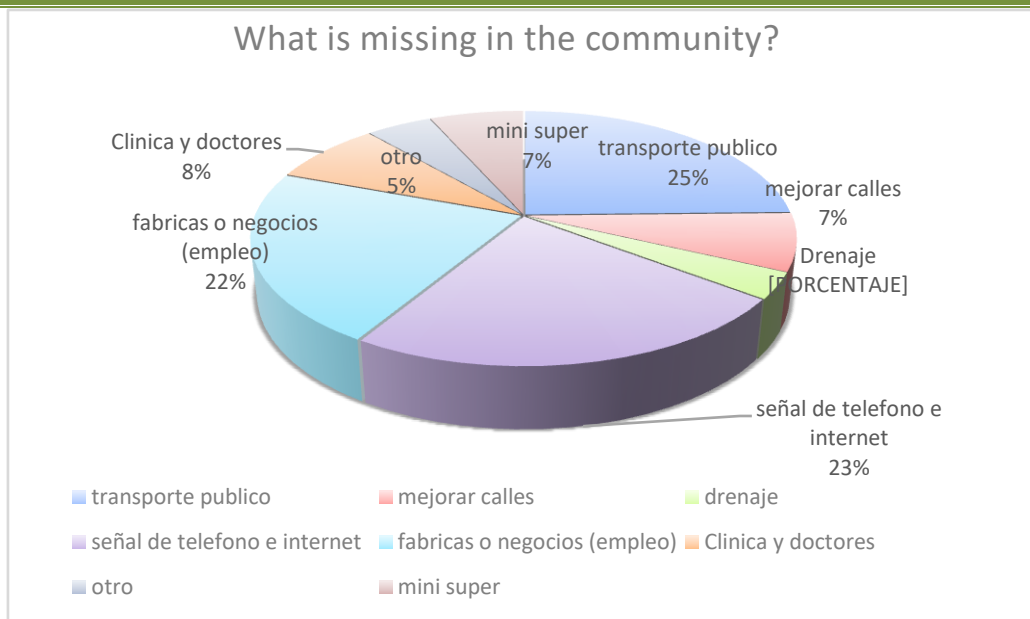
In the list of the most populated towns in the entire municipality, it is number 2 in the Rankin. Las Dolores is located at an altitude of 2,411 meters. [8](Peoples of America, 2020)

The town borders the states of Guanajuato and Querétaro, its main road being a step to access the municipalities of Epitacio Huerta, Amealco, San Juan del Río, Querétaro, Coroneo, and also connects the part of the state of Michoacán with the municipalities of Contepec, Maravatío, Talpujahuá, and towards the State of Mexico connects with the municipality of Atlacomulco.

Some important figures announce that only 45% of the population over 12 years of age is actively working and 28% of this same population is employed. 47% of inhabited private homes have some form of transportation such as a car, truck or motorcycle and only 10% of inhabited private homes have internet service and finally their average degree of studies is 6.6%. [4](INEGI, 2020)

During the study it was possible to observe the presence of some social problems that represent threats in the SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) of the community. These problems include the incidence of criminal actions that affect the safety and tranquility of residents, the migration of the population to other areas in search of better opportunities and living conditions, and the existence of high levels of unemployment that generate economic difficulties.

It was found that the main needs that afflict the community are unemployment, internet signal, public transport, you can see the results of this research in graph 1.



Graph 1 Needs of the Dolores community

These threats, together with the identified needs, represent important challenges for the community and require specific actions and strategies to address them. It is essential that joint efforts be made between local authorities, community organizations and the residents themselves to seek sustainable solutions that promote development and improve the quality of life in the community.

Figure 4 shows the SWOT analysis of the community.



Figure 4 SWOT analysis of the Dolores community

After completing the SWOT analysis, a PESTEL analysis was carried out as an integral part of the diagnostic stage, with the objective of examining the macroeconomic environment surrounding the community of Dolores. This analysis considers political, economic, social, technological, environmental, and legal factors that can influence community development and opportunities.

The results of this PESTEL analysis are presented clearly and concisely in Table 2, where the key findings related to each of the factors considered are summarized. These results provide a panoramic and detailed vision of the external context in which the Dolores community is immersed.

EXTERNAL FACTORS	OPPORTUNITIES	THREATS
POLITICAL AND LEGAL	Change of government Supports and government programs New projects, infrastructure and social assistance	Conflict between competitors Delinquency administration inactivity
ECONOMIC	Local trade (market) Private investment in strawberry greenhouse development Investment in corn cultivation Contribution of 2.5% to the national GDP in 2020 Poverty situation was 33.7% in 2021 in the state of Michoacán	Ravages of covid 19, unemployment Vacancy rate (55%) Inflation: 0.73% upward until December 2021 in the state of Michoacán (INEGI) Minimum wage: 172.87 MXN (2021) within the state of Michoacán
SOCIAL	Mostly young population (77%9) Total population 1282 inhabitants (50.3% F and 49.7% M) integrated community territorial location	Migration (10%) (2015, INEGI) according to the latest recorded data Poverty situation in Michoacán = 5.2% Schooling grade of 6.2 Illiterate population 8%
TECHNOLOGICAL	Internet signal electricity services Public transport services. Infrastructure for the industrial sector science and technology services	Little investment in scientific and technological support null patent registration
ECOLOGICAL	Development of friendly chemical products in agriculture Ecotourism, plains and dam, Protection of natural resources Temperate-cold climate	Use of chemical products in strawberry planting that damage soil fertility. Contamination of the Tepuxtepec Dam

Table 1 PESTEL analysis of the community of Dolores, Mich

Through the PESTEL analysis, it was deduced that the political-legal aspect can mean a positive effect since it is a new administration that came into office in October 2021, therefore, they bring new projects and can be requested support in relation to investment in private projects that promote social welfare, this positive impact could occur in the short term.

In the economic and social aspect, it has a total population of 1282 inhabitants, practically half of whom are men and half women. Of the economically active population, only 45% of the population is working, hence there is 55% unemployment in the economically active population of the town.

Only 12% of the population has completed a post-basic education, and the average level of education is 6.62.

The percentage of the population in a situation of poverty towards the third quarter of 2021 in the state of Michoacán was 33.7% above the income poverty line and the percentage of migration reached 10% until the year 2020.

On the other hand, there is ample opportunity for investment and commercial development in agricultural businesses, in relation to the tertiary sector, such as the cultivation and sale of corn and the cultivation and trade of strawberries.

Within the technological aspect we find a shortage in terms of infrastructure such as roads, as well as public transport services. Another of the latent needs is the condition of the Internet network, which is quite unstable.

In the ecological aspect, there are great advantages such as its favorable temperate climate, as well as the fertility of its soils, another benefit is its wooded and flat territorial extension as an alternative for ecotourism, the negative effect lies in the level of contamination of the dam that flows into the Lerma River, and the contamination of its soils with chemical products for agriculture in greenhouses.

Conclusion of the diagnostic stage:

Within the community under study, it is identified that the main needs of the inhabitants are the lack of internet services, as well as public transport services and to meet the employment needs within it.

The point is made clear that investments in agriculture such as the cultivation of corn and strawberries can be an alternative to improve the economy, however, not leaving behind the need for these activities to be the least harmful to the environment.

One of the main constraints for social and economic development is the crime that is experienced not only in the community but also in the municipality and neighboring municipalities.

Investment is required in technology, and in education, as well as in the field of science and technology.

The inhabitants of Dolores are mostly young people where 55% do not have a permanent job according to INEGI data, 2020. However, it is a united community, with warm people and neighbors who support each other, with deep-rooted traditions of culture. Dolores is located in a privileged territorial location in terms of climate, territorial extension, flora and fauna.

Alternative design

The alternative designed is about the creation and implementation of a strawberry processing workshop, for which the reduction of the greenhouses of the municipality would be used, the impact that it has is to increase employment opportunities in the locality at the same time that can put to use the waste of greenhouse strawberries produced in Dolores and its surroundings, adding a plus with healthy products and environmental care. You can see the detail of the business model of this alternative represented on the social canvas. See figure 5

The alternative proposes as a business idea the implementation of a workshop for the processing of strawberry waste from the greenhouses of the municipality, since these are growing in demand within it, the idea is to take advantage of their waste.

One of the objectives of this workshop is to transform strawberry waste into secondary products with high added value. The production of a variety of food products is contemplated, such as jams, pulps, typical sweets, yogurts, flavorings, and colorings, which could satisfy local demand and potentially be marketed in other markets.

In addition to food products, the possibility of developing non-food products using strawberry waste, such as soaps, shampoos and body creams, is being considered. These products could take advantage of the nutritional and beneficial properties of strawberries for skin and hair, offering natural and healthy alternatives to consumers.

The main objective with this business alternative is to increase employability in the town, benefiting the increase in the female workforce, given that the unemployment rates showed an increase in relation to the last four months of 2020 and 2021 for the state of Michoacán. In addition, it is considered that the favorable participation of women in economic activity is a fundamental piece for the growth of the country's economy.

It also seeks to achieve growth in the commercial tourist area, taking advantage of the popularity of the strawberry greenhouses that are located at the foot of the highway, this road being the only one that connects with the state of Querétaro and Guanajuato.

As a value proposition, we have the use of waste from these greenhouses, so wasted food will be reduced and, on the other hand, the derived products will be made with the aim of being reduced in sugars while preserving a pleasant flavor to the palate, in order to contribute to health. of consumers. In the same way, the processes would be carried out semi-artisanal to collaborate in the reduction of environmental contamination in the town.

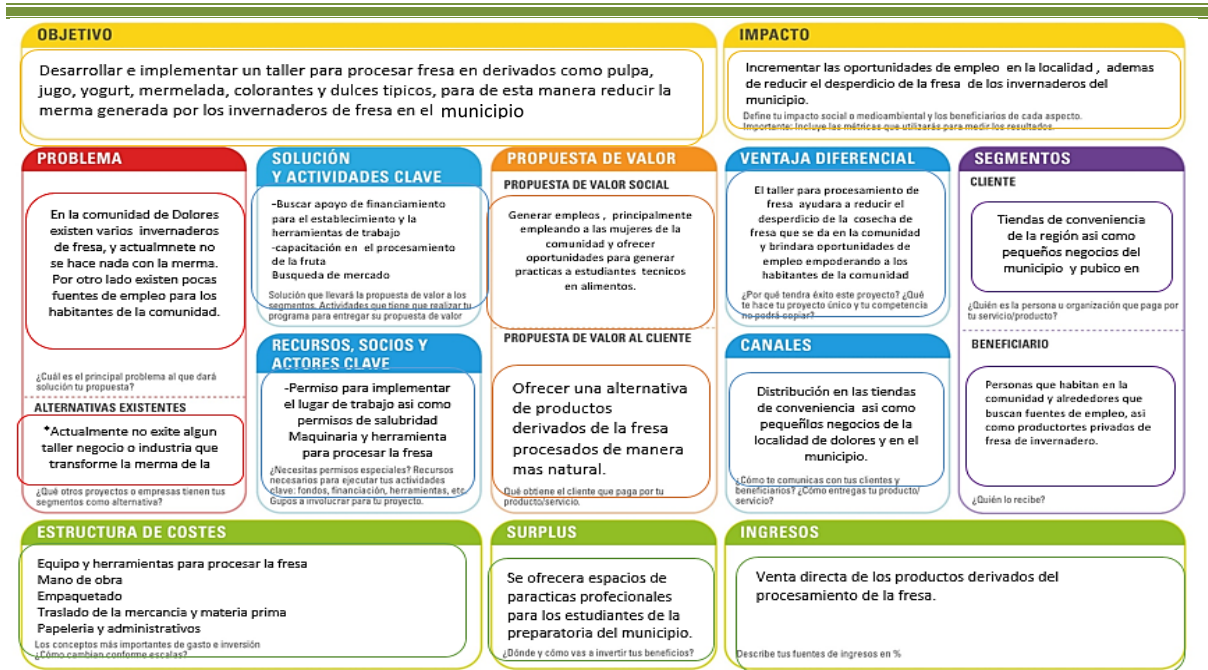


Figure 5 Business model: strawberry processing workshop

It is highlighted that the implementation of the strawberry processing workshop would generate new employment opportunities in the community. This is due to the growing demand for processed strawberry products and the diversity of products that can be produced, which requires additional personnel to carry out the processing, packaging, distribution and sales tasks. Therefore, this alternative has the potential to contribute to the reduction of unemployment in the locality and provide economic opportunities to the inhabitants.

However, it is important to note that there are also challenges and considerations associated with this alternative. For example, the implementation of the workshop will require an initial investment in machinery, equipment and staff training. In addition, it will be necessary to establish an efficient distribution network to reach the different sales channels and maximize the commercialization of the products.

Management of the alternative through the PM4R methodology, in its initial stage

In the first place, the project constitution act is in charge of clearly delimiting the scope of the project, that is, the specific objectives that are intended to be achieved, the activities to be carried out and the expected results. This provides a clear and precise vision of what is expected to be achieved, allowing realistic goals and objectives to be set.

Another relevant aspect of the project constitution act is the identification and analysis of the interested parties. All parties involved in the project, both internal and external, must be considered and their needs, expectations and roles in the development of the project understood. This allows you to establish an effective communication strategy and manage relationships with stakeholders appropriately.

Likewise, the project's constitution document includes the definition of the governance structure, that is, the decision-making system and the assignment of responsibilities within the project. The team responsible for the project is established, defining the roles and responsibilities of each member. This guarantees adequate coordination and collaboration among team members, favoring the success of the project.

Finally, the project charter plays an important role in communicating the purpose of the project to different stakeholders, both internal and external. It serves as a reference document that clarifies the objectives, scope and expected results, allowing all involved to have a common and shared understanding of the project.

Based on the above, as a first step, the description of the governance of the "Strawberry Processing Workshop" project is prepared.

- **Project governance**

Project name: Strawberry processing workshop

Objective: Develop and implement a workshop to process strawberry waste, into derivatives such as pulp, juice, yogurt, jam, dyes and typical sweets, in order to reduce strawberry waste from greenhouses in the municipality of Epitacio Huerta, Michoacán and fungir as an employability option in the locality.

Project Director: Eng. Leticia Tellez Rivera

Mission: To be a social, profitable, innovative and sustainable cooperative dedicated to transforming depleted raw materials into quality and healthy finished products.

Vision: To be a social enterprise that reactivates the economy in the community of Dolores, Epitacio Huerta in the state of Michoacán, making use of surplus strawberries from the community's greenhouses.

Scope: As the first stage of the project, it is intended to begin the production of strawberry jam, in a semi-artisanal processing workshop with at least 15 employees for production, later in a second and third stage it is expected to integrate different types of processes. to elaborate food grade and health and beauty derivatives with strawberries and other seasonal fruits, integrating machinery and industrialized equipment, estimating that the workforce will grow by 60% in approximately 12 months.

Time: For the start phase, an estimated time of one year and six months is planned after this, to carry out the second and third stages, an approximate time of one year and a half more is estimated, so the total time would be 3 years old

Costs: The approximate initial investment costs are estimated at \$581,370.00 MXN, as can be seen in table 3


Conceptos	Taller de procesado de fresa 
ACTIVO FIJO	
Mesa de acero	\$ 8,000.00
Tina de lavado y desinfección	\$ 13,000.00
Molino pulverizador	\$ 26,000.00
Anaquele de producto terminado	\$ 4,000.00
Tamizador industrial	\$ 17,000.00
Tina de almacenaje (materia prima)	\$ 15,000.00
Marmita de cocción	\$ 19,000.00
Mezclador eléctrico	\$ 13,500.00
Pasteurizador	\$ 12,000.00
Tanque de enfriamiento	\$ 16,000.00
Envasadora (llenadora)	\$ 9,200.00
Selladora al vacio	\$ 23,000.00
Brixómetro digital	\$ 670.00
GASTO CORRIENTE	
Renta de fabrica	\$ 25,000.00
Nómina	\$ 90,000.00
Instalación, mantto y reparaciones	\$ 50,000.00
Diseño y validación de producto	\$ 50,000.00
materiales de envase y mp	\$ 100,000.00
GASTO DE CAPITAL	
Mobiliario	30000
Equipo de computo	60000
Total aprox	\$ 581,370.00

Table 3 Approximate investment costs for the alternative: Strawberry processing workshop

- Organization chart:

The sections of the organization chart are described in a general way and can be seen graphically in Illustration 1.

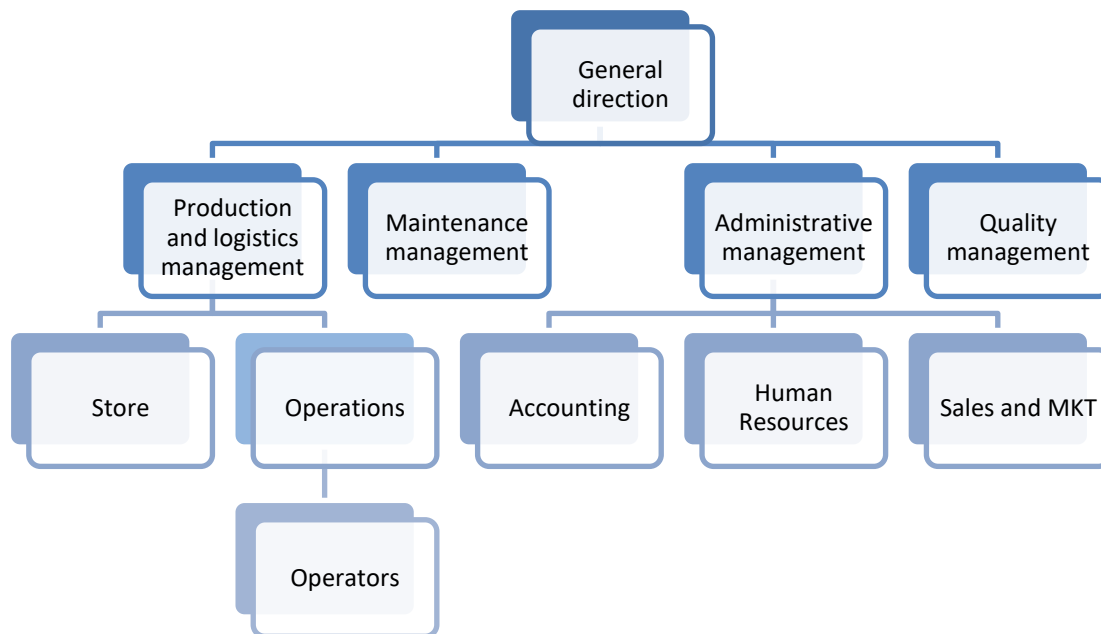


Illustration 1 Organizational chart

• **Legal framework**

The strawberry processing workshop will be established as a cooperative society company, which means that it will be an entity made up of its members who come together to work together in the production of goods or services. This form of organization promotes collaboration, equality, and democratic decision-making among partners.

The cooperative society of the strawberry processing workshop will allow its members to contribute their personal work, whether physical or intellectual, to contribute to the development of production activities. Each partner will have equal rights and responsibilities, regardless of the specific type of production that takes place in the shop.

The cooperative society structure encourages the active participation of members in decision-making related to the workshop. Equality of voice and vote will be promoted, allowing all members the opportunity to express their opinions and contribute to the growth and success of the workshop. The cooperative society is a form of organization made up of individuals, with the objective of solidarity, self-effort and mutual aid.

"Its purpose is to satisfy individual and collective needs by carrying out economic activities of production, distribution and consumption of goods and services."

• **Results matrix**

The results matrix is a tool that allows us to develop the correlation between the project objectives and the results indicators. This can be represented through the Logical Framework Approach methodology, see table 4

SUMMARY	INDICATORS	VF MEANS	ASSUMPTIONS
END: Promote the economy and social development in the community of Dolores, municipality of Epitacio Huerta Michoacán.	*Poverty rate *Human development *Migration rate *Per capita income *Economically active population *Quality of life	Reports and statistics	The development of social entrepreneurship business models is the guideline to boost the economy and social development in the community of Dolores, municipality of Epitacio Huerta Michoacán.
PURPOSE: Create a social business model to generate employment opportunities and develop trade in the community of Dolores Epitacio Huerta	*Employability *Poverty index *Percentage reduction of	Planning work (THESIS)	Negotiation times with suppliers .Government permits

<p>in the state of Michoacán, while reducing the loss of strawberries from the community's greenhouses.</p>	<p>loss in the hectares of greenhouses in the locality.</p>		
<p>COMPONENTS 1. Identify the competitive capacity and innovation opportunities in the town of Dolores. 2. Identify the intellectual, institutional, administrative, and political and infrastructure gaps in the town of Dolores Epitacio Huerta, Michoacán. 3. Develop proposals for social entrepreneurship development projects. 4. Design and develop the social development project proposal.</p>	<p>1.Educational level 2.Intellectual property registrations 3. Technical, economic and commercial feasibility 4. Governance of the project, Results Matrix, Stakeholders Matrix</p>	<p>Report of: 1. SWOT analysis 2. PESTEL analysis. 3. Social Canvas 4. Project constitution act</p>	<p>Private medical services are dispensed with. Therefore, there is a clear need to seek the economic and social development of the community.</p>
<p>ACTIVITIES 1. Carry out research in secondary sources (documentary research) 2. Carry out research in secondary sources, conduct interviews and surveys (Field work) 3. Develop proposals through social canvas, according to the information obtained 4. Develop the proposal using the PM4R methodology, present project planning as a result.</p>	<p>*Estimated project completion time</p>	<p>Project constitution act</p>	<p>Project is delivered in estimated time</p>

Table 2 Matrix of results

The stakeholder matrix is a tool that allows us to identify, analyze and manage all the people, groups or organizations that may be affected or have some kind of interest in the development and results of a project, in this case, the workshop strawberry processing.

The stakeholder matrix is represented in the form of a table, where the different stakeholders are listed in the rows and their characteristics and levels of influence are analyzed in the corresponding columns. Each stakeholder is identified and their roles, interests, needs, expectations and the degree of influence they can have on the project are described. Table 5

Matriz de Stakeholder			
Proyecto:	Taller de procesado de fresa		
Código:	001		
Fecha de Inicio aproximado:	Enero 2024		
Stakeholder:	Habitantes de la comunidad de Dolores en situación de desempleo, Dueños de invernaderos privados de fresa, autoridades municipales.		
Interesados	Niel de interes	Nivel de influencia	Rol en el proyecto
Autoridades municipales de desarrollo social	Medio	Alto	Posible apoyo financiero y logistico
Agricultores locales	Alto	Alto	Participantes activos, proveedores de fresas
Comunidades locales	Medio	Medio	Beneficiarios potenciales secundarios, en empleabilidad y flujo de ingresos
Habitantes de la comunidad	Alto	Alto	Beneficiarios principales en aumento de empleabilidad y flujo de ingresos
Consumidor es de fresa	Medio	Bajo	Posibles clientes

Table 5 Stakeholder matri

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