

Volume 7, Issue 13 — July — December — 2023

**Journal-Macroeconomics
and Monetary economy**

ISSN-On line: 2524-2040

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Journal-Macroeconomics and Monetary Economy

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Presentation of Content

In a first article we present, *Sustainable practices of safe production in the production of Hass avocado*, by GUERRA-SIORDIA, Daniel, ZEPEDA-MARTÍNEZ, Gabriel, ENCISO-ARÁMBULA, Rosalva and RAMÍREZ-JIMÉNEZ, Armando, with adscription at Universidad Autónoma de Nayarit, in the next article we present, *The relationship between endogenous development and rural tourism for sustainable economic growth in the territory*, by ALVARADO-RODRÍGUEZ, Edna Dolores, RIVERA-FLORES, Karla Yanin, ENCISO-ARÁMBULA, Rosalva and ZEPEDA-MARTÍNEZ, Gabriel, with adscription at Universidad Autónoma de Nayarit, in the next article we present Factors that affect the opening and growth of cooperative societies in the South of Tamaulipas, Mexico, by BETANZOS-TLAPA, Brenda Aracely & SOTO-HERNÁNDEZ, Ana María, with adscription at Tecnológico Nacional de México. Instituto Tecnológico de Ciudad Madero, in the last article we present, *Analysis of the Corporate Social Responsibility (CSR) of Mipymes before the implementation of the Mayan train. A studio in the northern area of Campeche*, by AVILA-ORTEGA Jorge Iván, HERNANDEZ-RAMIREZ, Julieta, BACAB-SANCHEZ, José Rubén and DOLORES-ATLAHUA, Adriana, with adscription at Tecnológico Nacional de México - Instituto Tecnológico Superior de Calkiní and Tecnológico Nacional de México - Instituto Tecnológico de Escárcega.

Content

Article	Page
Sustainable practices of safe production in the production of Hass avocado GUERRA-SIORDIA, Daniel, ZEPEDA-MARTÍNEZ, Gabriel, ENCISO-ARÁMBULA, Rosalva and RAMÍREZ-JIMÉNEZ, Armando <i>Universidad Autónoma de Nayarit</i>	1-12
The relationship between endogenous development and rural tourism for sustainable economic growth in the territory ALVARADO-RODRÍGUEZ, Edna Dolores, RIVERA-FLORES, Karla Yanin, ENCISO-ARÁMBULA, Rosalva and ZEPEDA-MARTÍNEZ, Gabriel <i>Universidad Autónoma de Nayarit</i>	13-23
Factors that affect the opening and growth of cooperative societies in the South of Tamaulipas, Mexico BETANZOS-TLAPA, Brenda Aracely & SOTO-HERNÁNDEZ, Ana María <i>Tecnológico Nacional de México. Instituto Tecnológico de Ciudad Madero</i>	24-35
Analysis of the Corporate Social Responsibility (CSR) of Mipymes before the implementation of the Mayan train. A studio in the northern area of Campeche AVILA-ORTEGA Jorge Iván, HERNANDEZ-RAMIREZ, Julieta, BACAB-SANCHEZ, José Rubén and DOLORES-ATLAHUA, Adriana <i>Tecnológico Nacional de México - Instituto Tecnológico Superior de Calkiní</i> <i>Tecnológico Nacional de México - Instituto Tecnológico de Escárcega</i>	36-49

Sustainable practices of safe production in the production of Hass avocado**Prácticas sustentables de producción inocua en la producción de Aguacate Hass**

GUERRA-SIORDIA, Daniel†*, ZEPEDA-MARTÍNEZ, Gabriel, ENCISO-ARÁMBULA, Rosalva and RAMÍREZ-JIMÉNEZ, Armando

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DOI: 10.35429/JMME.2023.13.7.1.12

Received July 10, 2023; Accepted December 30, 2023

Abstract

The region of Xalisco, Nayarit in recent years has become a Hass avocado producer, however, it has not taken care of the environment or practices for the care and preservation of farmland. This research investigates the cultivation practices that prevail in the region and makes a proposal framed in the local economic development for producers to acquire good safety practices. The methodology and research approach are qualitative participatory research, through interviews and questionnaires, as well as active participation in the organization and training of producers for the adoption of good safety practices. However, the task is not an easy one, due to the producers' resistance to change.

Preservations, Economic Development, Cultivation Practices

Resumen

La región de Xalisco, Nayarit en los últimos años se ha convertido en productora de Aguacate Hass, sin embargo, no se ha tenido el cuidado del medio ambiente ni de realizar prácticas para el cuidado y preservación de las tierras de cultivo. En la presente investigación se indagan las prácticas de cultivo que prevalecen en la región y se realiza una propuesta enmarcada en el desarrollo económico local para que los productores adquieran buenas prácticas de inocuidad. La metodología y enfoque de investigación son la Investigación participativa de corte cualitativa, mediante entrevistas y cuestionarios, así como participar activamente en la organización y capacitación de los productores para la adopción de las buenas prácticas de inocuidad. Sin embargo, la tarea no es sencilla, debido a la resistencia de los productores al cambio.

Preservación, Desarrollo Económico, Prácticas de Cultivo

Citation: GUERRA-SIORDIA, Daniel, ZEPEDA-MARTÍNEZ, Gabriel, ENCISO-ARÁMBULA, Rosalva and RAMÍREZ-JIMÉNEZ, Armando. Sustainable practices of safe production in the production of Hass avocado. Journal-Macroeconomics and monetary economy. 2023. 7-13:1-12.

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Introduction

Hass avocado is an economic activity of the primary sector, which has gained popularity among the different products harvested in the state of Nayarit and particularly in the town of Xalisco. This product has displaced other crops, such as sugar cane, coffee, among others, due to its profitability and the climatic conditions that allow its production.

In this sense, the government through the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), has data and information about the different products of the primary sector, with which it designs master plans that show the situation of the hass avocado and other products of the field. This is how the interest arose to contrast the situation that the government points out with the reality experienced by the producers in the town of Xalisco.

The information obtained from official sources is contrasted with the position of local economic development, which according to Alburquerque (2020) and the needs of the research itself, should be viewed from four dimensions, the first from the social and human development that implies improving the forms of social and solidarity economy, secondly, environmental development that considers valuing the natural heritage as an asset for development, promoting ecological and eco-efficient agriculture as well as responsible consumption. Thirdly, institutional, political and cultural development through cooperation between different actors and the mobilisation and participation of citizens. Finally, the fourth dimension involves economic, technological and financial development through support services and the improvement of infrastructure.

The present research was carried out within the methodological framework of participatory research, where reference maps are generated using ArcMap 10.8. It is important to point out that as part of the project, training courses were organised through GLOBAL G.A.P. and SENASICA, to certify the Productive Units that are willing to work in a participatory way for the economic development of the town of Xalisco.

Problem statement

The problems detected in avocado production in the state are discussed below, based on the latest official study, the Plan Rector del Sistema Producto Aguacate (2012). These problems are contrasted and interviews are conducted with local actors in Xalisco, in order to make a comparison between the official problems and the problems faced by producers in the region.

According to the Plan Rector (2012) of the Comité Nacional del Sistema Producto Aguacate A.C., in the state of Nayarit there are 2,629.05 census hectares (see figure 1 and figure 2), which are mostly of traditional production, where technological packages are implemented with extensive use of agrochemicals for pest control, weed control and fertilisation. In the municipality of Xalisco, the total number of Hass avocado producers is 2,353 (SAGARPA, 2018).

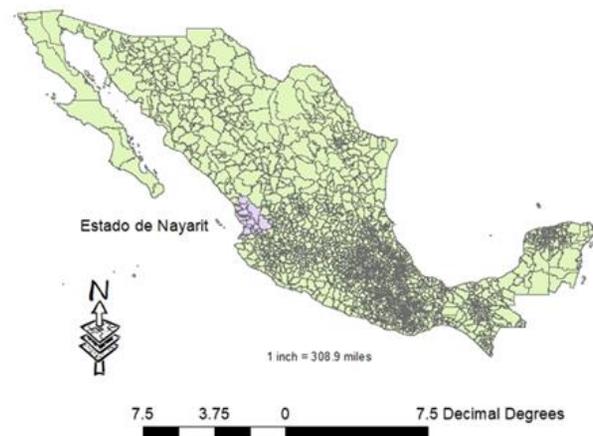


Figure 1 Macro location of the study site
Source: ArcMap 10.8

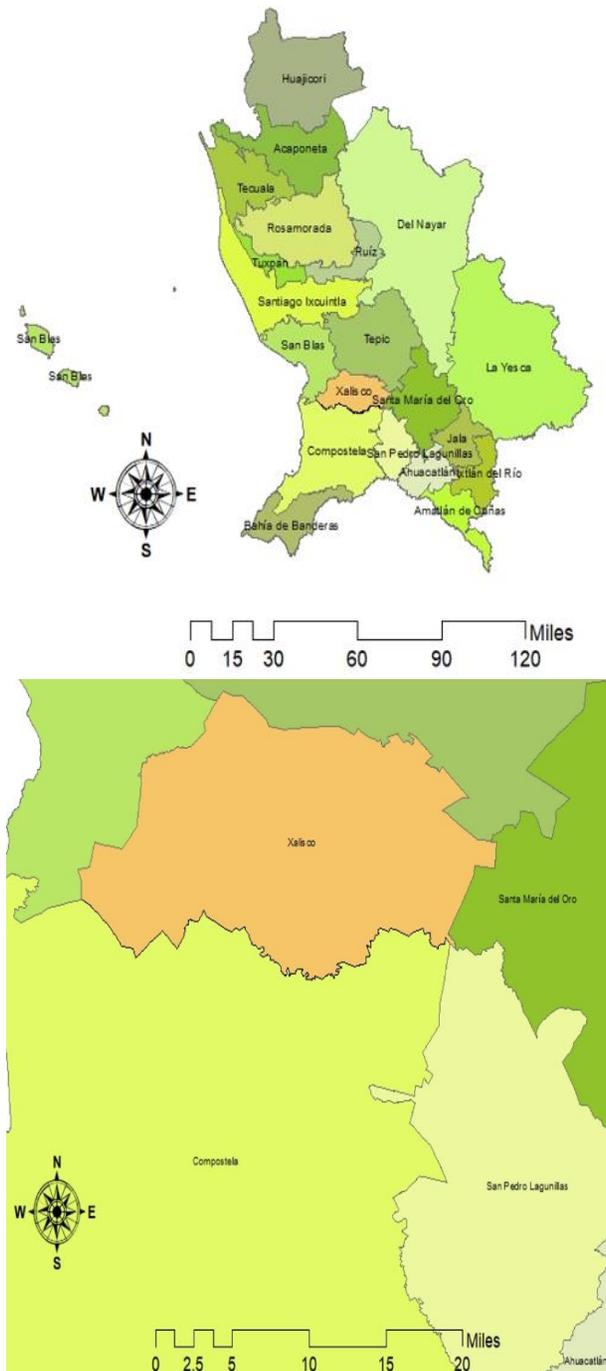


Figure 2 State of Nayarit and the town of Xalisco
Source: ArcMap 10.8

In the diagnostic part of the Plan (2012), there are inconsistencies in Hass avocado production in the town of Xalisco. These range from production, organisation, infrastructure, financing and the value chain.

Production area. Low field profitability with an average of 6 to 8 tons per ha, low fruit sizes, 80% second quality fruit, fruit damaged by diseases such as thrips, anthracnose and scab, marketing limitations, high production costs, poor orchard management, and quarantine pests, the main impediment to export.

Organisational area. Less than 50% of the producers belong to one of the existing associations, the existing organisations lack business plans, lack of credibility in the social sector organisations, the producers do not have a business culture, there is no reference of a successful producer.

Area of Financing

In the absence of formal and institutional financing for cultivation in the territory, there is a high dependence of producers on other subjects (loan sharks, relatives, friends, among others). There are institutions that offer financing to producers, but these are limited, since most of them are for consumption and not for production.

Value chain

The local collector. These are facilities that deal directly with the producers and generally seek to establish themselves with the producers. This corresponds to all those collection centres that are distributed in the different zones of the municipality of Xalisco, these centres are characterised by being packers, premises, or buying houses.

Intermediaries. They are those actors who take the middle part of the process, they are external to the collection centres, they are also known as "coyotes", they have the economic capacity to buy large volumes.

Wholesalers in supply centres. The wholesaler is an actor that buys on a large scale from intermediaries and collection centres, they are established in the central supply centres.

Retailer. This is an actor that sells to the final consumer. An example of a retailer are those shops that are established in every city, town, village, colony, rural area, etc.

On the other hand, the value chain involves different actors that operate simultaneously during production, thus giving rise to different problems, ranging from production, organisation, purchase prices, sales prices and access to different types of financing. However, it should be noted that the analysis of the Master Plan (2012) does not consider sustainability among the issues addressed.

When we talk about local development, sustainability means looking at, talking about and discussing the quality of life not only for present generations but also for future generations. Currently in the field of hass avocado production in the municipality of Xalisco, although the situations reviewed above are present, no studies have been found on the traditional forms of production that result in a direct aggression to the environment, as well as in health risks for day labourers and final consumers, due to the intensive and extensive use of agrochemicals.

Traditional versus sustainable production

Chemical-based forms of production are used by the majority of producers. For example, 50% of food production worldwide depends on fertilisers, especially nitrogen fertilisers, Singh (1995) and Ladha (2005). According to (SEMARNAT, 2005), in Mexico from 1992 to 2002 there is an increase in the consumption of pesticides per hectare, whose maximum record is 1.8 tons per thousand hectares between 1999 and 2002, while during 1992 and 1995 it was 1.3 tons per thousand hectares.

According to (Isiordia, M, personal communication, 19 September 2020), "in traditional production, farmers have no restrictions in the treatment of orchards". In contrast, sustainable production requires certain regulations, processes and guidelines that are not carried out within the traditional framework.

Current forms of production contain a number of problems as discussed throughout the study. In addition to what sustainability entails, there is disorganisation among the avocado producers themselves, lack of productive financing for the maintenance and equipment of the orchards, as well as a lack of infrastructure that would allow the products of the field to be used to their full potential.

Therefore, organic agriculture is a production system that maintains and improves the health of soils, ecosystems and people. It is fundamentally based on ecological processes, biodiversity and cycles adapted to local conditions, without using inputs that have adverse effects. Organic agriculture combines tradition, innovation and science to benefit our shared environment and promote fair relationships and a good quality of life for all those involved (IFOAM, 2008, p.594).

In this sense, Gómez Cruz et al. (2010), points out that:

Organic agriculture is an economic activity with the potential to generate employment and foreign exchange. Its adoption requires 30% more labour per hectare compared to traditional production, thus contributing to job creation. (Gómez Cruz et al., 2010, p.598).

Therefore, traditional avocado farming in comparison to innocuous production has different qualities that are reflected in the practices, relationships and behaviours of local actors, which condition the possibilities for local development. It is here where the interest of the research focuses on making the actors reflect on traditional production, as well as on the characteristics and practices that could help them in terms of safe production, with the aim of knowing the possibilities and limitations of building alternatives that favour local development.

Research questions, objective and specific objectives

Main question. How to promote safe practices with the producers of hass avocado in the town of Xalisco, from the perspective of local economic development?

Secondary questions: What type of strategies and actions are most relevant for the incorporation of safe practices with avocado producers in the town of Xalisco and how to implement them, how does the learning process take place among producers for the incorporation of the practices?

General objective. To facilitate the incorporation of safety practices with avocado hass producers in the town of Xalisco, from the perspective of local economic development.

Specific objectives. To define the strategies and actions that are most relevant for the incorporation of safe practices with avocado producers in the town of Xalisco and how to implement them. To understand the learning process of producers in the incorporation of sustainable practices. 1.2 Nayarit, physiography and agricultural production.

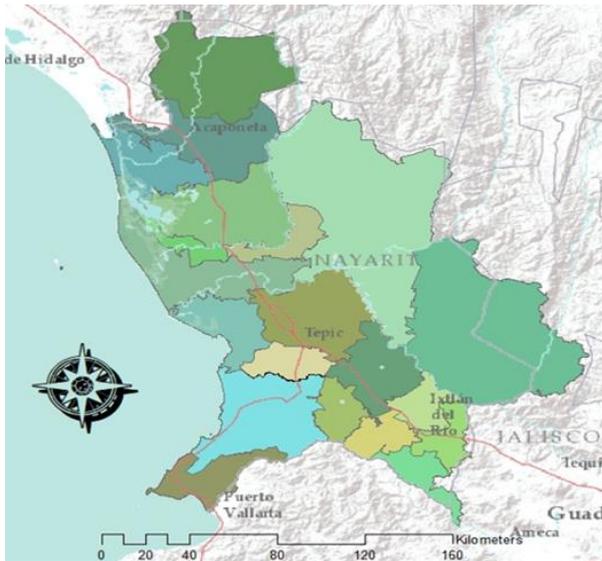


Figure 3 Physiography of the state of Nayarit
Source: ArcMap 10.8

Physiography of the state

The success of Hass avocado production is due to the natural wealth of the state; Nayarit is composed of four physiographic regions: i) the Pacific coastal plain, ii) the Neovolcanic axis, iii) the Sierra Madre Sur and iv) the Sierra Madre Occidental. The state has a territory of 2,335 square kilometres, and an altitude of up to 2,400 metres above sea level; it has a temperate temperature northwest of the capital and a tropical climate along the Pacific coast; four types of microclimates are found: 91.5% warm and sub-humid, 2% dry and semi-dry, 6% temperate and sub-humid, and 0.5% warm-humid. It should be noted that the high mountainous areas are inhabited by 4 indigenous peoples: Huichol, Cora, Mexicaneros and Tepehuanos.

Nayarit and its agricultural production

Worldwide, the main avocado producers are: Mexico, United States, Indonesia, Colombia, Brazil and Chile. Mexico occupies the first place in production and exportation; it is worth mentioning that Michoacán is positioned as the state with the highest production in the Mexican Republic, and in second place is the state of Nayarit, where the municipalities with the highest number of avocado hectares are: Tepic, Xalisco and San Blas.

Nayarit is a state with a great agricultural potential, it is said among the population that everything that is sown is harvested, based on the production of different varieties of crops, such as: Hass avocado, sugar cane, mango, beans, sorghum, corn, watermelon, jicama, rice, red tomato, among other agricultural products. Based on its natural wealth, Nayarit generates multiple agricultural production options that meet the conditions and standards of production and consumption both nationally and internationally, however, the current conditions of traditional production require aiming towards sustainability in terms of local economic development.

In the municipality of Xalisco, Hass avocado has been seen as an economic opportunity since approximately 50 years ago; since then, avocado farmers started to leave traditional crops such as sugar cane, coffee and others; it is important to highlight that it was not only in Xalisco but in the different zones and regions of the state of Nayarit.

According to (M. I, personal communication, September 19, 2020), "when Hass avocado was seen as an opportunity, some producers stopped growing sugar cane, coffee and other fruits, and started with hass avocado"; however, this required the use of technologies and technological packages that they did not have at the beginning, and they were also confronted with the natural character of high productivity, which entails the use of chemicals and pesticides.

Theoretical framework

In this chapter, different theoretical approaches to the concept of development are analysed in order to identify theoretical and methodological tools that contribute to the achievement of the research objectives and understanding in terms of sustainability that will allow for the transformation of traditional Hass avocado agriculture in the municipality of Xalisco, Nayarit. Therefore, in the chapter, a journey is made through the different concepts of development, in order to show a trajectory in relation to the theorists, starting from an approach towards sustainable development.

Theories of sustainable development

According to Aguilar (2002), the 1990s saw the emergence of environmentalist social movements that sought to face the challenges of development, which, as previously mentioned, stood out for their criticism of the models of accumulation, which enriched certain fragments of the world population (developed countries), the idea that the use of the world and its resources was unlimited, which led to the birth of sustainable development. Such movements by civil society and academia make a strong critique of industrialisation models and their effects on the environment.

Centralism as part of the first world has created a vicious circle of overexploitation and depletion of natural resources for its own supply and accumulation of capital. In 1987, the Brundtland report was published by the United Nations World Commission on Environment and Development, which is concerned with social criticism that seeks to promote sustainable development, taking into account the environment, the population explosion, poverty, equity, culture and biodiversity. According to González (1997), Godard (2002), Vivien (2005), Saldívar (1998), Smouts (2005), sustainable development must have three dimensions: economic, ecological and social.

Given the above, Albuquerque (2020) agrees to a large extent with the aforementioned authors who focus on the dimensions of sustainable development, considering the following dimensions: social and human development, environmental development, political and cultural institutional development, economic, technological and financial development. In this sense, sustainability will be part of environmental development, where the following parts are broken down; valorisation of the natural heritage as a development asset, promotion of ecological and eco-efficient production and promotion of local production and responsible forms of consumption.

Forms of production and environmental impact

Sustainability has a classic current that is directed towards sustainability according to the Brundtland report (1987), which is defined in a context of economic growth through the use of natural resources, so that sustainability is a concept that goes beyond just the economic. (Gómez Cruz et al., 2010) point out that "organic agriculture has acquired importance within the agri-food system in more than 154 countries; there are around 67 million hectares certified organic.

The problem lies in the environment where the Hass avocado is produced, initially in the forms of production that are based on fertilisers and pesticides, which are used by most producers and this leads to a deterioration for the land, for the fauna and for the consumers of chemical-based products. In this sense, according to Ongley, (1997) pesticides and industrial chemicals are currently used, it is found that 50% of the world's population depends on fertilisers, especially nitrogenous fertilisers, for food production (Singh et al., 1995; Ladha et al., 2005). According to (SEMARNAT, 2005), in Mexico from 1992 to 2002 there was an increase in pesticide consumption per hectare, with a maximum of 1.8 tons per thousand hectares between 1999 and 2002, while the minimum was 1.3 tons per thousand hectares during 1992 and 1995.

Traditional Hass Avocado Production

Talking about traditional production, about 80% is extracted in the national territory, therefore, it represents a health risk for producers, consumers and animals, derived from poor orchard practices and the extensive use of chemicals to the detriment of future generations demand at the expense of satisfying current demand. According to (Armoní et al., 2021), environmental impacts are environmental, economic and social impacts due to overuse of land using pesticides, destroying soil and water resources.

Harmless production (good practices) in Hass avocados

Safe production refers to good agricultural practices involving the use of Hass avocado knowledge packages that consider and protect the environment. According to (Tafur Garzón, 2009), good agricultural practices are a means of integrated pest and crop management, beneficial for animal health, consumers and environmental protection, within a commercial framework that achieves sustainability of production and safety of the consumer product.

It is worth mentioning that in food safety there are certifications by political and private bodies both at political and federal level, SAGARPA accredits the orchards through SENASICA, on the other hand, the private body that provides the same service is GLOBAL G.A.P., both consider the same infrastructure conditions, except that the SENASICA certification process is free, although at the cost of a bureaucratic process that is difficult for producers.

Organic production in Hass avocado

According to (CIAO - Comisión Interamericana de Agricultura Orgánica, n. d.), there is the Participatory Organic Certification (SCOP) through the public organism SENASICA, intended for organised producers who give final presentations to their products, and who seek to be recognised by markets in other countries, which is assimilated to safe certification, carrying guidelines and evaluations for certification. The SCOP certification processes by SENASICA are free of charge according to the same institution.

(Vargas et al., n.d.) states that organic nutrition is an alternative for soil nutrition, yield and fruit growth, with greater nutritional efficiency and less harmful to the environment. However, in the social aspects, he points out that avocado producers are reluctant to organic production, due to the idea that it has less nutrition, lower yields and smaller size of the avocado, which is the same situation as in the central region of Nayarit.

Methods and tools

According to (Dieñas-Salmán & García-López, 2012), participatory methodologies allow us to observe important moments of any organisation, whatever its nature, such as the origin and trajectory of the organisation, the values, both individual and collective (organisational), that have sustained and oriented the process of change towards its growth; identification of problems encountered during the process and how they were overcome or can be overcome; shortcomings observed in the organisation when trying to define its objectives; the key points of the process and the decisions that had to be taken; and building or rebuilding strategies for the organisation through the definition of projects.

Given the above, within the participatory process of food safety certification with producers from the town of Xalisco, Nayarit and the public and private organisations SENASICA and GLOBAL GAP, the participatory observation technique was carried out through the application of logs during the training stage given by the certification organisations, and within the ejidal commissariat of the municipality, mainly with the aim of carrying out the certification and also to learn about the organisation, values, concerns, problems, shortcomings, strategies, among other aspects that were recorded throughout the process. The techniques used in the participatory research are participatory observation, surveys, in-depth interviews with key actors, and participatory diagnostic workshops.

Within the methodological stage, techniques were used to obtain data, using participatory observation, in-depth interviews with key actors, surveys to define the production unit and participatory diagnostic workshops. These were approached on the basis of participants and key informants. In this sense, the techniques selected and the instruments elaborated are related to the research question: How to promote safety practices with the producers of avocado hass in the town of Xalisco, from the perspective of local economic development? The characteristics that could be useful to people in terms of development and safe production were determined, through certification with the GLOBAL GAP and SENASICA bodies.

Selection of key informants and participants

In order to characterise the production unit, a sample was selected under the criterion of diversity, applying 15 questionnaires to different types of producers, including women and men, young people, adults, older people, with heterogeneously different traits and above all from outside the town of Xalisco. In this sense, the application of questionnaires was determinant to know the production unit and also to contrast it with the theorists themselves.

Through the qualitative research approach and its techniques, different participation mechanisms were applied, among them: observation logs that allowed us to know the interest of the producers during the safety certification stage with the public and private organisations Global GAP and SENASICA, as well as social, economic and political aspects that arise in the course of the process. The categories of analysis are based on the theorists in the field of Economic Development, supported by Chayanov and Barta, and which are still in force today, they speak to us about the importance of the productive unit, which contains; the forms of production, the family proportion, self-consumption, types of crops, organisation, among other categories.

Proposal

During the participatory process of food safety certification with the producers of the town of Xalisco and the trainers of the public and private organisations GLOBAL GAP and SENASICA, the logbook was an instrument that was applied from 15 March 2022 to the present day in the Ejidal Commissariat of the Municipality of Xalisco, information was collected on the requirements for certification, the interest of the producers, attendance, physical and verbal expressions, difficulties, qualities, knowledge, economic situation, infrastructure and access to policy and financing.

Within the participatory certification and the logbooks, the requirements and guidelines of the certifying bodies GLOBAL GAP and SENASICA must be complied with, where a payment of 1400 USD per certification of 200 hectares must be made; to be legally registered as a group of producers, to have the infrastructure required by the certifying bodies (bathroom, eating area, table, chairs, sink, warehouse, mixing area and signs throughout the orchard, specialised equipment to apply fumigations), to comply with chemical, physical and biological requirements through laboratory tests, to comply with the proper use and handling of pesticides, to comply with hygiene in the orchards, water use, pH recognition, water chlorination and the preparation of disinfectant solutions; Certification is issued once the producers are ready with the infrastructure aspects, after which the audit is carried out and the certificate is tentatively issued in September-October.

Given the above, the producers, who initially numbered 15, agreed to comply with all the requirements of the schemes, so that the payment is divided according to the number of hectares that each producer has considered for certification. As for the legal figure, a member of the same group was unanimously selected, who will be responsible for granting the certificate when the other producers require it. Throughout the courses and on repeated occasions, the producers receive training in the proper use and handling of pesticides, pH, water chlorination, preparation of disinfectant solutions, among other topics that have been and will be discussed.

With regard to the categories that were collected with the logs, the producers' interest, attendance, physical and verbal expressions, difficulties, qualities, knowledge, economic situation, infrastructure and access to policy and financing. In this sense, it is worth mentioning that at the beginning there was an attendance of 15 producers with the interest to be certified, this was segregated over time and currently there are 9 producers, sometimes attendance and especially punctuality is a worrying factor at the time of confirming the meetings and training, sometimes only 50% of them attend and the other part does not bother to notify. It is found that there is a high degree of unpunctuality, with some producers arriving up to an hour after the scheduled appointment time.

One of the reasons why the group continues to prevail is due to the possibilities of new national and international markets once they have certification, which offer a better payment for the purchase of the fruit, which is representative for the producers themselves. The training has also helped producers to become aware of the importance of sustainability and safety in the production of Hass avocado, realising that traditional forms of production contain a series of risks due to the products used, forms of implementation, consumption, environmental and market risks. The plots of land that are prospective for certification are presented below (see figure 4).



Figure 4 Prospective production unit
Source: ArcMap 10.8

Results

It could be observed within the systematisation, that within the aspects of family proportion, the young and middle-aged producers, ranging from 25 to 45 years old, live with their children in the same household, and even in a couple of cases it was found that the children themselves already have a family within the household. This contrasts with the example of older adults, where all of them live only with their wives.

Within the domestic units, education is not an important factor for the heads of households, where women and children have a higher level of education than the head of the household, the children of young families are studying, occasionally working in the fields or in commerce. Given the above, the work force comes from the head of the household and during the productive cycle 50% of the direct family is involved, the other 50% hire local day labourers, for both cases the producers answered that the work day is paid at \$300 pesos to day labourers and the same family, during the questionnaire only one elderly producer answered that the work force comes from the same family and that they are not paid any pesos. Within the domestic units, agriculture was found to be the main activity, and it is worth mentioning that in all cases it is accompanied by commerce and various trades, such as: grocery shops, lunch shops, hamburger and carnitas shops, economic kitchens and various trades. Given the above, according to the producers, the domestic unit is sustained by the same activities of the family cell. In the types of crops, it was found that Hass avocado producers in Xalisco have good quality ejido land, which is characterised by specialisation - monoculture, i.e. they only focus on producing avocado, sugar cane or soursop, so there is no diversity of crops in the orchards, in this sense, self-consumption does not play an important role in the households.

Regarding the production methods, it can be seen that all producers operate in the same way, i.e. in the application of inputs, fertilisers, insecticides and herbicides, so that sustainability, environmental and land use aspects are not considered by the producers, and even in one questionnaire they answered that they do not use organic products because "the fruit does not grow". The investment to sustain the production cycle "inputs and production costs" comes from the activity itself, only 10% of the cases mentioned that they turn to banks and solidarity funds.

It was found that the location is a determining factor in the productive cycle, in such a way that the producers that have their properties in high zones harvest in the monthly period of October-January, for them there is a better purchase price due to the fact that in this period the Hass avocado starts to be scarce.

Producers located in the lower and middle zones harvest between July-September, and those who cut from July (early harvesters) sell at a good price.

Producers sell their harvest to local packers who offer the best price (variable), and the packers are also responsible for collecting the harvest, cutting it at the foot of the orchard and transporting it. It was also found that the producers do not receive any government support, except for one family that received support from the FERTILISERS FOR WELL-BEING programme (4 packages of sulphate, 2 packages of diammonium phosphate, 1 dose of biofertiliser), this support ranges between \$12,000 pesos. With respect to the risks that exist within the agricultural activity, the main factor was found to be pests, secondly, fires, and thirdly, drought and water shortages. In this sense, 80% of the producers have catchment pans, the other 15% do not have an irrigation system, and the remaining 15% have gravity irrigation.

There is no organisation on the part of the producers, and in this sense it seems that most of the older producers have lost interest, who comment that when they organised themselves they went through fraud among producers themselves and actors in the political sector. When they were asked whether it was important or not, it could be observed that they were aware of the results that a good organisation could generate for them, however, mistrust, insecurity and partly ignorance prevent these possibilities.

Conclusions

Taking up the elements considered by Chayanov (1985) and Bartra (1982), these are: Self-consumption, types of cultivation, proportion of family and labour force, location, organisation and forms of production. These are essential categories in the system of the domestic unit, in the application of the different instruments it was possible to determine the modus operandi and thus obtain criteria for the production unit in the locality of Xalisco.

In relation to self-consumption, the information obtained from the questionnaires applied shows that 90% of the producers do not consume what they harvest.

Regarding the types of crops, it was found that the producers cultivate only one product, as they state that this generates more profit for them. On the other hand, the participation of the family as a work force has been reduced in the last few years, and the producers have had to pay their children as if they were day labourers, which means a decrease in interest on the part of the family members in the crop.

In relation to location, it was found that producers with orchards in elevated areas obtain higher profits. Regarding organisation, there is uncertainty and distrust on the part of the producers to make changes. Of the 15 producers who participated in the project, only one has made changes and has been able to create a marketing and collection centre, from where it exports and markets to different countries, taking very seriously the aspects of safety, sustainability and certifications.

The production units in the town of Xalisco do not consider environmental care, and use inputs that deteriorate the soil, eliminate flora and fauna, and therefore generate risks in the work of producers and workers, which increases the probability of contracting carcinogenic diseases. The insertion of good safety practices through certification bodies is a good proposal for production units, which allows them to position their products in better markets, as well as promoting organisation, avoiding chemical and biological risks, as well as promoting sustainability and improving consumption habits. Empirically, it was found that traditionally production units do not carry out practices that are responsible with the environment, the economy and consumption habits.

Finally, it is important to point out that in comparison with traditional practices, the insertion of good safety practices, through the participatory method with producers and through certification bodies, is proposed on the basis of development for the production units, which values the natural environment, allows the insertion of products into better markets, strengthens the local productive fabric, incorporating environmental and organisational innovations.

The challenge is undoubtedly great, due to the resistance of producers to training and accreditation of crops in order to adopt safety practices and increase production and profits, but also, most importantly, to protect the environment and ensure that the land continues to have the necessary quality to continue growing avocado hass in the region of Xalisco, Nayarit.

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The relationship between endogenous development and rural tourism for sustainable economic growth in the territory

La relación entre el desarrollo endógeno y el turismo rural para un crecimiento económico sostenible en el territorio

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DOI: 10.35429/JMME.2023.13.7.13.23

Received July 10, 2023; Accepted December 30, 2023

Abstract

The objective of this research is to analyze the theoretical proposals of endogenous development and rural tourism as perspectives to approach the territory of Aticama, a locality of San Blas, Nayarit. These approaches allow considering the effects of conventional development, which generates gentrification, significantly affects the environment and has strong effects on social inequality in the territories.

From the basis of the recognition of the territory, endogenous development and rural tourism are proposed as interpretations that are associated, to achieve to account for other views and strategies using the own resources focused on the locality. The analysis built from this was carried out in the field through a qualitative approach, with non-probabilistic sampling by convenience. The theoretical evidences found propose perspectives, ways to transit the development process, however, it is the social actors who, from their resources, can make these development dynamics possible, as well as economic balance and sustainability in the territory.

Endogenous development, Rural tourism, Territory

Resumen

El objetivo de la presente investigación es analizar las propuestas teóricas del desarrollo endógeno y el turismo rural como perspectivas para abordar el territorio de Aticama, localidad de San Blas, Nayarit. Estos enfoques permiten considerar los efectos del desarrollo convencional, el cual genera gentrificación, afecta de forma relevante el medio ambiente y tiene fuertes efectos en la desigualdad social de los territorios. Desde la base del reconocimiento del territorio, el desarrollo endógeno y el turismo rural se proponen cómo interpretaciones que se asocian, para lograr dar cuenta de otras miradas y estrategias utilizando los recursos propios enfocados en la localidad. El análisis construido a partir de esto se realizó en campo a través de un enfoque cualitativo, con muestreo no probabilístico por conveniencia. Las evidencias teóricas encontradas proponen perspectivas, formas para transitar el proceso del desarrollo, sin embargo, son los actores sociales quienes, a partir de sus recursos, pueden hacer posible esas dinámicas de desarrollo, así como de equilibrio económico y sostenibilidad en el territorio.

Desarrollo endógeno, Turismo rural, Territorio

Citation: ALVARADO-RODRÍGUEZ, Edna Dolores, RIVERA-FLORES, Karla Yanin, ENCISO-ARÁMBULA, Rosalva and ZEPEDA-MARTÍNEZ, Gabriel. The relationship between endogenous development and rural tourism for sustainable economic growth in the territory. Journal-Macroeconomics and monetary economy. 2023. 7-13:13-23.

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Introduction

Development theories allow understanding processes and initiatives that intervene in the transformation of countries, whether in the economic, cultural and social area, for decades governments have focused on the growth of the economy focusing on increasing income and gross domestic product to improve development indices, without taking into account other factors such as the deterioration of natural resources, pollution, gentrification, in this sense, as societies are transformed, the term development has also acquired new mechanisms and contributions, which has allowed it to act according to the requirements of these societies (Vázquez, 2018).

On the other hand, Tourism also follows different initiatives and processes, it adapts and interpellates to the models of tourism, economic, social and cultural development, making it the economic engine of countries (Zepeda, 2020), in this sense, tourism activity takes on special connotations and characteristics depending on the space where it is developed (Gordziejczuk and Mikkelsen, 2023).

In Mexico, conventional tourism development models have caused deterioration in natural resources, gentrification and have generated poles of inequality, the latter is reflected in the GINI index, currently the country has an index of .445 and is among the 25 countries in the world with the highest level of inequality in its population (Bank of Mexico, 2020), Nayarit has an index of .324 and San Blas has an index of .324 and San Blas .32 (CONEVAL, 2020), which highlights the policies, plans and programmes that the country uses to manage resources according to the results, which alerts us to the levels of well-being that localities and territories are reaching.

According to the international agenda 2030, in its Sustainable Development Goals (SDGs), global goals that were established by the United Nations in 2015, as a tool to put an end to various problems of social inequality such as poverty, protect the planet's natural resources, as well as to safeguard by 2030, natural resources so that all inhabitants enjoy prosperity and equality (UN, 2015), however, a few years after the date set, the GINI percentages of the country and the state show that it is necessary to seek new routes to reduce inequality indices and address existing problems.

ISSN-On line: 2524-2040
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The International Monetary Fund (IMF), the World Bank Group, the Economic Commission for Latin America and the Caribbean (ECLAC), among other institutions, have sought to integrate actions through development plans and programmes or other instruments, so that economic dynamics are turned around through cooperation, however, despite the actions, no great results have been achieved, in this sense the challenges and inequalities of the peoples are marking time, as well as a continuity in the economic and social gaps.

The systematisation of conventional development models makes options and ways of life precarious, in addition to limiting, but above all weakening the environment, both in natural, cultural and social resources (Escolano, 2019), it follows that through new reorientations in economic practices, as well as tourism, congruencies in development are made possible and agreed upon.

In this thematic sense, for the present work, based on the critical elements that the two perspectives reviewed contribute, information was gathered through empirical research, as well as field visits with non-participant observation, which allowed us to consider categories and units of analysis in order to complexify the approach to the reality of interest, the town of Aticama in the municipality of San Blas, Nayarit. It can be proposed that by working in the territory, new lines of action could be generated based on the interests that the local actors decide to promote.

Some methodological notes

The present research is constructed through empirical research, with a qualitative approach, using techniques such as non-participant observation and instruments such as semi-structured interviews to collect data on economic activities carried out in the community. Evidence found in these interviews motivates us to emphasise endogenous development and rural tourism as concepts that complement each other and identify units of analysis in the territory that propose opportunities aimed at generating growth and raising levels of well-being in the territory of Aticama.

Likewise, during field visits, it was observed that an important part of the local actors and actresses, apart from the two main activities that the resources of the territory allow, fishing and agriculture, are involved in trade, participating in the area known as the *cabañitas* (small restaurants, which were established through projects managed by the organisation of oyster farmers and fishermen), cooking or serving, but also working in livestock farming as an activity that is not as central as the previous ones mentioned. Likewise, some of the dynamics that take place in Aticama at a local level, are also carried out in the interior, thus strengthening their identity as a coastal town, which is building their territory.

Consequently, this article is based on preliminary studies and research that refer to elements related to endogenous development and rural tourism, and builds information from an articulation between these two terms that allows us to emphasise important categories to think about a reorientation of development towards achieving a resilient economy, as well as elements that provide an integral basis for other visions to prevent possible damage to the territory, damage that is undoubtedly caused by conventional tourism.

Theoretical perspectives to be considered

Endogenous development appears as a way of rethinking and reflecting on the actions in the territory, (Sánchez and Ruíz, 2019), in this sense, it values the local, the rural, precedes a recognition of the local without losing sight of the global, articulating the development of the territory in all its dimensions (Arocena, 2017) and (Vázquez, 2018).

Consequently, in the process of endogenous development there are various processes that emerge to revalue productive activities and contribute to strategies to counteract the instability of markets, above all they seek the balance of the communities, among others we can find as dynamics of action: popular economies, agroecology, as pointed out by Macías and Sevilla, with these economies "it seeks to build relations of production, distribution, consumption and financing based on values of reciprocity, cooperation, justice and mutual aid" (Macías and Sevilla, 2018). (2023 p,107).

For its part, rural tourism responds to new interpretations of development to reclaim not only territories and the market, but also to conserve natural, social and economic resources (Condeso, 2011), and Condeso also points out that rural tourism considers economic alternatives that promote the conservation of culture. In this line, processes such as the creation of networks, strategies and joint actions that benefit communities in a sustainable manner are highlighted.

Therefore, this research analyses endogenous development as a process that makes visible and proposes strengthening dynamics in the territories in congruence with local agents, and also converges with activities carried out in such territories, such as tourism as a way of generating new views on development, reconfiguring realities to enhance the endogenous, recategorising knowledge, economic and social forms, in this particular case, rural tourism.

Characteristics of endogenous development

Endogenous development is a process that focuses on the local scale, its characteristic is that it builds from within dynamics and activities that create stability in the territories (Gatica F., 2020), in this sense, it generates balance, builds its actions and economic projects that focus primarily on raising the levels of welfare in the population (Vázquez Barquero, 2007), since through the endogenous, socio-economic systems are known and social systems are recognised.

For their part, Rueda and Rodríguez (2021) point out that through endogenous development it is possible to understand the problems of the social system, since these development processes work on their own, the internal aspects of the territories, and also affirm that it articulates the planning of knowledge and values that strengthens entrepreneurship, manages productive and sustainable activities that strengthen the identity of the communities.

In this sense, Sánchez and Ruiz (2019), affirm that endogenous development serves to increase "the quality of life of the inhabitants of the environment" (p.1), as it rethinks aspects of the locality, of nature and builds the territory in a sustainable way. As it has been established, by focusing on the territory's own resources, it integrates the diverse actors and actresses that interact in society, it seeks to result in a better quality of life, it aims not only to improve economic development, but also human development, thus, these actors and actresses produce, they organise themselves autonomously generating in this process diverse dynamics within their territory, Carrizo (2001) names it as "the sovereignty of the local communities design their destiny" (p. 18). In this way, this perspective strengthens and consolidates from within, their economy, their territory, highlighting the local-global. (Vázquez Barquero, 2009).

In this same analysis, starting from dynamics that emerge from the territory, as a transforming agent, he identifies the essence of identity and conservation of traditions to activate endogenous development, giving coherence and cohesion to economic dynamics through the conservation of natural, social, cultural, institutional resources, etc. According to Vázquez Baquero (2009, p.5), "the United Nations human development programmes show that the valorisation of local capacities and the formation of territorial networks (of companies, institutions, and service entities) make it possible to improve the productivity and competitiveness of companies and territories".

In summary, endogenous development interprets and proposes new investment options as an alternative for solutions to crises and problems that affect peoples and nations, the intervention of activities and social structures that are established in the territories themselves, which is why it seeks to reduce poverty, generating jobs and encouraging economic, social and sustainable progress, in the words of Vázquez Barquero (2009) with the premise of the territory as the basis, since the essence of this theory is woven around it.

Rural tourism, an economic dynamic for territorial development

Rural tourism seeks to offer new, unique and sustainable tourism experiences and activities, integrating the management of rural resources and the preservation of the environment. Therefore, rural tourism is born in contrast to conventional tourism, as it promotes natural environments and experiences based on the rural (Condeso, 2010) in this sense, it manages tourism activities in the communities, encourages the participation of the social actors of a territory, for Sánchez and Ruíz (2019), it is in this context that traditional sectors are recovered and the local economy is diversified, promoting rural and local resources.

Therefore, rural tourism fosters new approaches to achieve transversal economic growth, it has gained relevance, as it makes other proposals visible to generate a boost in the communities, for Sosa (2023), these proposals generate not only an economic boost, but also promote planning based on the needs and requirements of the social actors. In this context, Astrata, Acuña and De los Ríos (2018) state that this approach develops the socio-economic and productive capacities of those who inhabit the territory.

As noted in previous paragraphs, both concepts, endogenous development and rural tourism, promote the use of the territory's own resources, thereby promoting the work and cooperation of social actors in the locality to achieve sustainable tourism activities. For Stratta, Acuña and De los Ríos (2018), this is how localities are revitalised, as they affirm that there is a multifunctionality in rural tourism as in endogenous development, which leads to new initiatives that promote learning and the sharing of knowledge. For his part, Bengoa (2006, p.5) stipulates that it is in the territory where the "virtuous processes" take place, in this sense, the territory is a place of interaction, understanding and action of society, it is the space where the social actor builds social dynamics that allow for the growth of development. (Llanos, L. 2000).

The literature on rural tourism not only focuses on analysing tourism activities as a trigger for the economy of the territory, but also analyses the consequences and variables that have an impact on localities and the natural resources that make up the environment, endogenous development, by re-evaluating the growth process, seeks to integrate strategies from below that generate dynamics to conserve resources and thus solve the challenges that arise; therefore, rural tourism and endogenous development promote the conservation of the territory, rural resources and culture, Vázquez Barquero (1988) and Condeso (2011).

In this context, the World Tourism Organisation (UNWTO, 2023) provides guidelines and lines of action to generate sustainable tourism practices and economic dynamics aimed at self-development. In this scenario, with respect to the G20 economies, "a roadmap has been developed to make tourism a central pillar of the 2030 Agenda for Sustainable Development" (UNWTO, 2023).

Therefore, by focusing on the sustainability of resources, these organisations seek a balance that sustains and preserves principles that contribute to achieving the goals set out in the programmed agendas. With only seven years left to reach these goals, the gaps and problems are still unresolved. Therefore, taking strategic steps that lead to the mainstreaming of economic dynamics, with the participation of the local actors of the territory, will make new routes or alternative solutions to the aforementioned problems visible.

In this context, empirical studies are taken up that show how endogenous development and rural tourism highlight what is unique to a territory: natural resources, gastronomy, cooking recipes, (subjectively) imprint knowledge journeys, nourish walking routes, feed trails, composting and, on the other side of the road, sow fields of experiences and learning, among tortilla tacos, one learns about herbal teas, mole and seeds (Estrada, 2023).

Similarly, taking into account the wear and tear on nature, climatic changes, divergent times, and political instability, the interpretation of development and tourism can be analysed and viewed from other perspectives, and therefore the question is: how can Aticama manage development through rural tourism, and how can the endogenous resources of the territory be used to promote tourism? The articulation of the previous elements proposes joint dynamics, where the development of the locality and the tourist activity, foresees ecological impacts, or is not so severe in the territory, consequently, dynamics of action are generated "in order to generate strategies that allow to revert processes of degradation and to foment beneficial practices of life for the communities" Macías and Sevilla. (2022, p. 12).

In order to sustainably diversify the territory's own resources, rural tourism proposes that the social actors are the main beneficiaries, since using rural resources stimulates the local economy, preserves its culture and reduces ecological impacts (Scutariu and Scutariu, 2023), thus achieving harmonious congruence with nature, i.e. generating a relationship of community participation to achieve the endogenous development of a locality, preserving a relationship and balance between natural, cultural, social resources and economic income.

In this way, rural tourism seeks solutions and dynamics to give endogenous development new perspectives, especially taking into account the community, using participatory methodologies where the social actors are the ones who manage these activities to avoid the depletion of nature and resources, as well as promoting the conservation of traditions, It also promotes the conservation of traditions, the continuity of knowledge, raises awareness of the actors and agents involved in these dynamics of action, so that through rural tourism, agro-tourism, eco-museums (Méndez, 2021), agro-ecology and popular economies (Macías and Sevilla, 2023), processes of sustainable endogenous development can be built in the territories.

Aticama, a gateway to the sea, an endogenous development and rural tourism perspective

Aticama is a town located in the municipality of San Blas Nayarit, Mexico. It stands out for its natural resources, as a coastal town, it is renowned for its fishing products, which allows the bay to attract tourism, its seafood-based gastronomy is an attractive source of income that receives and promotes tourist activity. Likewise, between the production of banana bread and other coconut-based sweets, it contributes to the development of this locality in the tourist area and positions it as a place of tourist gastronomy among the tourist localities of the state.



Figure 1 Geographical location of Aticama. Source: INEGI (2020)

This gastronomy is based on seafood, specifically fish and shellfish, especially oysters, which are an endemic feature of the locality. This community resorts to tourism activities to make the local attractions known, through gastronomic dynamics it seeks to attract tourists, for this reason, currently the hotel offer is not very wide, but local agents rent their houses, which diversifies the accommodation options. There are also other activities related to tourism, mainly commerce. But agriculture is a fundamental axis of community life. Aticama is an ejido, so many of the forms of participation and decision-making are based on this.

Given the characteristics and aptitudes of the territory, the theoretical foundations that have been reviewed propose economic deployments in a cross-cutting manner, on the one hand, "rural tourism can be an alternative for its positive effects in capitalising on the growing preference for rural tourism and creating strategies for tourism development" (Scutariu and Scutariu, 2023, p.13).

On the other hand, these activities cover different dimensions of development such as: human development, sustainable development or development from below (Vázquez Barquero, 2007). In order to establish this transversality, the main elements provided by both proposals, grounded in the dynamics found in the locality through the fieldwork, are as follows.

<p>1. Interprets economic processes from the local level, proposes new perspectives for economic activities.</p>	<p>Local actors within the locality generate activities based on the characteristics of their territory.</p>
<p>2. Uses local resources, this generates a spiral in development, by using its own resources it generates synergies.</p>	
<p>3. Strengthens the economy in the locality, it is strengthened in all senses, generating a transversal economy.</p>	<p>Most of what is produced is directly related to the resources of the territory, be it sea products or agricultural products. However, commercial activity imports foodstuffs and goods for other needs, which is why they are incorporated into the economic dynamics and services offered in the territory.</p>
<p>4. Improve the productive sectors of the locality.</p>	
<p>5. Promotes entrepreneurship, generates empowerment in the social actors.</p>	<p>What is generated in both fishing and agriculture is largely transformed into houses and small tourist gastronomy businesses, much more accentuated in fishing.</p>
<p>6. Promotes the conservation of natural, cultural and social resources.</p>	<p>The projects that have been promoted by the fishing organisations (oyster and shrimp farmers) and the trade organisation, for the former, have enabled them to obtain support to establish a beachfront restaurant corridor. The traders have improved aspects of their service.</p>

Table 1 Benefits proposed by endogenous development and its congruence in the territory studied Source: own elaboration based on fieldwork

If endogenous development seeks to interpret the processes of the territory in a planned manner, considering the local as the approach to achieve the identity of the localities, promoting the resolution of different problems that occur in the communities, generating a system of action on "a limited territory, capable of producing common values and locally managed goods" (Arocena, 1995, p. 20). (Arocena, 1995, p. 20), in Aticama there are already processes in this sense. Economic activities in line with a sea territory have allowed for a tourist construction almost since its foundation, but one not anchored to conventional tourism due to its rocky conditions, hence the oyster market, but to the possibilities of offering particular flavours. Associated with that, in Aticama, are the agricultural processes, which have been another line of work for the people. Both processes have their own trajectories of intervention in the territory, of building networks for commercialisation chains, which in the case of tourism are short, of social and productive organisation for this purpose, and therefore of diversified knowledge.

1. It generates a diversity of tourist activities in the territory, rural tourism proposes to show the essence of the villages.	Tourist activity is basically gastronomic.
2. It allows a transversality in the economy, economic activities are not centred on a single person or institution..	Transversality has been established by taking advantage of primary production in the territory and transforming it into value-added products as a strategy for family production units. This has made it possible to permeate other indirect activities.
3. It promotes the authenticity of cultures, as well as gastronomy, herbalism, sowing cycles and the way the land is produced.	
4. Through activities with essence; as well as a catalogue of natural and cultural resources, it allows the exchange of knowledge between communities and tourists.	The women prepare dishes using family recipes. The production cycles are well established and the production units are organised around them.

5. Preserves and protects to a greater degree the regeneration of natural resources caused by tourist activities in the localities.	The gastronomic activity allows for contemplative and exchange times. There is also a local tianguis, of organic products, promoted by foreign residents.
6. Decreases the ecological impact of rural areas.	

Table 2 Benefits proposed by rural tourism and their congruence in the territory studied
Source: own elaboration based on fieldwork

There is a kind of paradoxical situation that is not strange, since development issues are never linear, on the contrary, they are built on contradictions and conflicts that the actors and actresses are capable of resolving. The possibility of the type of tourism that the territory confers to the local actors and actresses allows them a tourism where cultural exchange is a fundamental part, since it is not about sea and beach, but about culinary and landscape tasting, however, it has not been possible to transcend to a diversified tourism that does not aspire to massification per se, but that involves the visitors in the daily community activities, respecting the principle of rural tourism on the scale. Where people's ways of life can be shared. The cross-cutting nature of the activities, especially in terms of the income derived from them, means that fishing is expanding in the area of the cabins and restaurants, as well as some agricultural products. Those who are not fishermen, oystermen or farmers can provide other services, such as house owners who rent rooms for lodging. There are family production units that are in more than one or all of these areas. But it can be better planned as a community on the principles of the approaches discussed, especially in order not to fall into monoactivity, but on the contrary to promote the diversification of local economies.

It should be noted that no community processes for the conservation of the environment and its resources have been detected. There are some efforts that are driven on a very small scale by foreigners or weekenders, whose permanent residence is in urban areas. But it is not something that is, at least not yet in the public conversation, part of their priorities. Another important risk is that despite not having a territory for sea and beach tourism, its proximity to other territories that do have these characteristics is propitiating the presence and acceleration of gentrification processes.

Final considerations

In this context, analysing the endogenous and rural relationship to achieve the development of localities, empowers social actors, builds from the local-global to maximise resources and diversify the economy (Guzmán, 2017), in the same way, rural tourism not only promotes the economic, it gives way to a subjective analysis of this type of tourist, social and productive activity, promotes culture from the actors, integrates knowledge, synchronises spaces, making effective the relationships between nature, culture and economy within the territories themselves, which allows us to observe other perspectives and generate new visions of social dynamics to generate sustainable economies, giving rise to the spiral of development, in this case endogenous development and rural tourism.

The relationship that exists between both approaches provides an overview of the economic dynamics that Aticama is going through to achieve the development of its locality, which allows mapping how the theoretical interpretations are intertwined in the territory to boost the economy in a sustainable and transversal way, but also gives rise to other proposals aimed at the growth and welfare of the locality such as:

- (a) Expanding the economy and diversifying opportunities: i.e. not only activities should be generated for the locality. Nowadays, external agents intervene and are beneficiaries, such as street traders, or food suppliers, making reference to the local-global. However, this diversification should be taken into account, pointing out precisely that there are different strategies of social reproduction. Where the permanent construction of local identity continues to be based on its own strategies and capacities for cultural, social, economic and political exchange, for the construction of networks and processes of territorial management.
- (b) It preserves the territory's endogenous natural resources; the conservation of natural, cultural and social resources is important in the economic dynamics, and rural tourism helps to strengthen the economy and the environment. customs and traditions. This is a pending task as a community project, which can be worked on through participatory processes.
- (c) Integration of the social actors; the participation of the actors in tourism activities to generate development of their environment, generates synergies, at the same time, preserves customs and traditions strengthening their identity and gives them a sense of belonging. The possibilities of achieving the proposals depend on these processes. The community already has its own forms, but the forms of participation and decision-making at the local level do not allow for the same opportunities. To the extent that local actors are able to open up spaces and find ways to build common agreements, the integration achieved will be reflected in territorial dynamics, including identity dynamics.

- (d) Creation of new sources of employment, generating diverse jobs either internally or externally is fundamental to engage in activities from the local to the global, for development these dynamics generate levels of well-being. Closely linked to point 1), it is necessary to broaden the view of conventional employment. It is important to understand that most of the local actors are owners of their means of production, which places them in another category, but that within the forms of organisation of the production unit, generating internal and external employment is necessary for local economies.
- (e) Resilient development. It is through sustainable dynamics that we can speak of endogenous development and rural tourism, both of which are incorporated to give way to integral growth. These dynamics should be built in a participatory manner based on priorities derived from problems identified and reflected upon by the actors involved, and on the strategies they consider appropriate to solve, always in relation to their networks and management potential.

The above, distinguishes a series of proposals that allow rethinking and directing the processes carried out in Aticama through endogenous development actions and rural tourism, by way of planning. They are based on the integration and revaluation of available resources, which provides a series of elements that strengthen and contribute to the development of Aticama, without neglecting resources such as identity, natural resources, tourism, gastronomy, etc. (Sosa, 2023). In this sense, Arocena (1995) and Carrizo (2001) point out that in order to achieve the development of localities, it is necessary to take up the daily life and the immediate social environment.

Although it is true that the new modalities of development and tourism arise mainly to respond to economic problems, to counteract damages caused to nature, to promote transversal economies, it is not guaranteed that the results are the most satisfactory, due to the lack of commitment on the part of some social actors, or external agents that get involved in the practices of development, the aforementioned, unfavourable results.

However, preliminary studies consider that involving local actors in the processes leads to more favourable results, as participation focused on their needs conditions the objectives, so that respect for the social actors is paramount. In this sense, Stratta, Acuña and de los Ríos (2018) underline the importance of respect for the population, as it is a value and principle that conditions the development of resources and territories, generating the integration of diverse economic, social and cultural areas, which are important factors for promoting endogenous development and rural tourism, in order to strengthen transversal, dynamic and holistic growth. It should be emphasised that the key condition is that these are participatory processes, both for the principle of the perspectives reviewed and for the very logic of the transformations sought, as has been argued throughout this paper.

In this sense, these approaches allow the displacement of sustainable activities, which preserve natural, cultural and gastronomic resources for future generations, as well as fostering culture, cooperation, organisation and community work, creating a participatory, active and congruent awareness, which gives a sense of resilient environments, with significant benefits, as these economic dynamics integrate all areas together, so that the relationship between endogenous development and rural tourism offers an opportunity to promote sustainable growth of communities.

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Factors that affect the opening and growth of cooperative societies in the South of Tamaulipas, Mexico**Factores que afectan la apertura y crecimiento de las sociedades cooperativas en el sur de Tamaulipas, México**

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Received September 27, 2023; Accepted December 30, 2023

Abstract

The objective of this article is to identify the existing cooperative societies in the southern area of Tamaulipas, Mexico, and to know the challenges and strategies they have used to remain in force. The methodology includes a systematic search on government websites of the three levels of government, as well as their geolocation. A refined list of cooperative societies was integrated to request semi-structured interviews. The majority refused the interview. Likewise, interviews conducted with the media on the subject were located in the last five years. Subsequently, the speech of the interviewees was analyzed. The findings show that there are some cooperatives that are decades old, while many have disappeared. The causes are mainly associated with the lack of training and advice, although there have also been dramatic events such as the pandemic and climate change.

Resumen

El objetivo de este artículo es la identificación de las sociedades cooperativas existentes en la zona sur de Tamaulipas, México, y reconocer los retos y las estrategias que han utilizado para permanecer vigentes. La metodología incluye una búsqueda sistemática en sitios web gubernamentales de los tres niveles de gobierno, así como su geocalización. Se integró una relación depurada de las sociedades cooperativas para solicitar entrevistas semiestructuradas. La mayoría denegó la entrevista. Así también, se localizaron entrevistas realizadas a los medios de comunicación sobre la temática en los últimos cinco años. Posteriormente se analizó el discurso de los cooperativistas. Los hallazgos muestran que existen algunas cooperativas que tienen decenas de años, mientras que muchas han desaparecido. Las causas están asociadas a la falta de capacitación y asesoría, principalmente, aunque también ha habido sucesos dramáticos como la pandemia y el cambio climático. Se sugiere una profesionalización en ese ámbito para ser más eficientes.

Cooperative, Social Economy, Coast of Gulf of Mexico**Cooperativa, Economía Social, Costa del Golfo de México**

Citation: BETANZOS-TLAPA, Brenda Aracely & SOTO-HERNÁNDEZ, Ana María. Factors that affect the opening and growth of cooperative societies in the South of Tamaulipas, Mexico. *Journal-Macroeconomics and monetary economy*. 2023. 7-13:24-35.

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Introduction

At least during the last decade, a phenomenon that has been occurring in the southern part of Tamaulipas is the gradual decrease of cooperative societies. This can be inferred from observation and monitoring of the regional economy, where most of the societies are of the anonymous and variable capital type.

The southern conurbation of Tamaulipas is composed of three cities: Altamira, Tampico and Ciudad Madero. This area has a large territorial extension, mainly by the municipality of Altamira, it is located in a privileged geographical position being very close to the border with the United States of America, besides having a great natural wealth, it has a long coastline on the Gulf of Mexico, and has two of the most important ports in Mexico, the deep sea port in Altamira and the river port in Tampico. This allows for large movements of various goods, including petrochemical fluids, to and from the east coast of the American continent, Europe and the Middle East, mainly (Government of Tamaulipas, n.d.).

For decades, the southern zone of Tamaulipas was characterised as a national example of the cooperative movement, as it was home to one of the most representative and long-lived internationally recognised societies known as Alijadores or GUA -Gremio Unido de Alijadores- a Limited Liability Cooperative Society.

The GUA integrated the workers who served in the port of Tampico for the loading and unloading of ships and everything concerning the movement of import and export goods. The shippers formed the cooperative that "allowed the development of an independent pole of the cooperative movement, giving rise to the constitution in 1925 of the Confederation of Socialist Cooperative Societies of the Republic and two years later to the National Cooperative Confederation" (Bautista Páez, 2022, p. 10).

The GUA served as inspiration for multiple associations that began to emerge under this same figure, as it fostered an ideology of solidarity, concern for others and social responsibility. This ideology was inherited and replicated by the members of these new associations who began to develop a social and solidarity economy -ESS- in the area.

According to the National Institute of Social Economy, the SSE is a set of socio-economic and cultural initiatives focused on a paradigm shift based on the collaborative work of people and the collective ownership of goods (INAES, 2021). It is well known that cooperatives are the basis of the SSE as they are the perfect materialization of collaborative work.

In Mexico, according to the Tax Administration Service (SAT, n.d.), a cooperative is a form of social organisation made up of individuals based on common interests and on the principles of solidarity, self-effort and mutual aid, with the purpose of satisfying individual and collective needs.

According to the General Law on Cooperative Societies in Mexico (Chamber of Deputies, 2018) there are three different kinds of cooperative societies: 1) of consumption, when their members associate with the purpose of obtaining in common articles, goods or services for themselves, their households or their production activities; 2) of production, those whose members associate to work in common in the production of goods or services, contributing their personal labour, either physical or intellectual or both, regardless of the type of production they carry out; 3) savings and loan companies are companies whose purpose is to carry out savings and loan operations with their members, regardless of the commercial name, corporate name or denomination they adopt, and are part of the Mexican financial system as members of the social sector without speculative intent.

In Mexico there are 18,038 cooperative societies with 8, 875, 186 members, of which 12,076 are engaged in consumption, 5,200 in production and 762 in savings and loans (Rojas Herrera, 2020). This number has increased substantially compared to the information provided by INEGI -Instituto Nacional de Estadística y Geografía- in the 1980 industrial census, when 580 cooperative societies were identified (Rojas Herrera, 2020).

However, this increase was not reflected in the same proportion for the state of Tamaulipas, as 29 cooperative societies were detected in the 1980 census compared to 37 in 2020. This information shows a decline in the growth of the number of cooperative societies, despite being one of the emblematic forms of economic units in southern Tamaulipas.

While it is known that cooperatives are a society that has fallen into disuse due to the influence of a global mercantilist economy, motivated in southern Tamaulipas by large foreign capital, transnational companies and the close proximity to the North American border, it is also true that there are internal factors, such as lack of training, inadequate finances and fraud among members, among others.

The objective of this paper is to identify the factors that have affected the growth and development of cooperative societies in the southern zone of Tamaulipas, in order to understand the socio-economic and political environment of the region and to contribute proposals that motivate the creation of some appropriate ones for certain economic sectors.

In this sense, the development of socially responsible enterprises from the area will contribute to changing the vision so that not only economic benefit is sought, but also concern for sustainable regional development.

1. Background

The Social Economy has its origins in 19th century workers' associations, when workers organised themselves and the first cooperatives and mutual societies of the modern era emerged, in the face of the degradation of living conditions and unemployment caused by the industrial revolution. Cooperativism is one of the main forms of organisation of the social economy (INAE, 2021).

Article 2 of the General Law of Cooperative Societies (2009) establishes that the "Cooperative Society is a form of social organisation made up of individuals based on common interests and on the principles of solidarity, self-effort and mutual aid with the purpose of satisfying individual and collective needs through the performance of economic activities".

The above becomes relevant when studying the current situation in the south of Tamaulipas, since not only cooperative societies have suffered changes, but also commercial enterprises have been affected by the establishment and opening of transnational companies. This area of Tamaulipas, with its three cities, forms a very important economic ecosystem for the state.

The economic activities provided by Altamira include port activities, which is the most representative within the development of the cities, as it has a deep-draught artificial harbour that allows for deep-sea trade, i.e. international movements. The physical infrastructure of this important port not only ensures expeditious access for maritime and land means of transport, but also facilitates the reception, dispatch and handling of cargo at reasonable costs (Municipality of Altamira, 2018).

Around the port of Altamira is located the industrial corridor, mostly made up of companies in the petrochemical sector, which is why the port of Altamira itself ranks first nationally in the handling of petrochemical fluids.

After the opening of the port of Altamira in 1985, agriculture took a back seat, scattered over most of the municipal territory with an approximate surface of 48,000 hectares. Of this, 80% is dedicated to rainfed agriculture, with soybean and sorghum crops dominating (Idem).

Altamira also has the only salt mine in the area, in Loma Real, organised through a cooperative production society, which competes in the state only with the one located in Matamoros (Sal Roche, 2018). They are not in competition with those located in Yucatán, which is also sea-based, on the east coast of Mexico. But neither are they in competition with the salt mines in the states of Veracruz, Nuevo León, Coahuila and San Luis Potosí. Not to mention those along the Pacific coast.

Tampico is one of the main deep-sea ports on the east coast of Mexico, serving as an entry and exit point for products from the industrial, agricultural, fishing and mining sectors. Tampico is basically a commercial city, since, due to its geographical position, port and economic activity, there are large supply and commercial centres, so the most important productive sector is services, commerce and tourism (Hernández Rejón, et al, 2008).

Tampico is not only a pioneer in cooperative societies, including fisheries, but also for the first commercial flight of Mexicana de Aviación between Tampico and the capital of the country in the 1920s.

This milestone was firstly due to the great movement of businessmen who needed to travel to the Federal District, and later to cities in the neighbouring state of Texas in the United States of America. With the extensive tourist development of the area, and after the pandemic period, during 2022, the Tampico airport received 2, 714, 115 passengers on domestic and international flights, according to data published by Grupo Aeroportuario Centro Norte (OMA, 2023).

The municipality of Ciudad Madero emerged as such from oil activity, as it was previously part of Tampico (Gobierno del Estado de Tamaulipas, n.d.). The axis of its economy is centred on the movement generated by the Francisco I. Madero refinery, nationalised in 1938 by the Mexican government and created in 1914 as Compañía Mexicana El Águila - Mexican Eagle Petroleum Company- with English capital, in the locality called Doña Cecilia (Rivera Castro, 1988), located on the left bank of the Pánuco river, which separates the states of Tamaulipas and Veracruz.

At the height of the black gold rush, El Águila was part of a group of refineries owned by foreign capital such as the American Pierce Oil Company and Huasteca Petroleum Company, the Dutch Royal Dutch Shell, among others, in the exploration and refining of oil in the south of Tamaulipas, east of San Luis Potosí and Veracruz, and which in 1935 had labour problems (Idem). At its peak, the Madero refinery provided a significant economic benefit in 1940, in the midst of the Second World War, with a high demand for the precious fuel from the neighbouring North American nation.

Today, in addition to the oil industry, Ciudad Madero's economic activity includes commerce and services, mainly in the tourism industry. In recent years, Miramar beach is the main sun tourism destination in Tamaulipas and the only one with the Blue Flag certification as an inclusive beach in the Gulf of Mexico (Tamaulipas, 2023).

2. Methodology

The methodology used in the research work presented here is non-experimental, qualitative and cross-sectional. It is an exploratory study with a documentary phase and a field phase.

The documentary phase included the collection of information from: (a) the Ministry of Economy at the national level, which has categorised enterprises according to their size, number of people employed and amount of annual sales, but also by their economic activity (Dini & Stumpo, 2020); (b) municipal government reports as an official source of specific data to obtain very local data; (c) telephone directories with ordered data to locate the identified cooperative societies; d) geolocation systems to locate a specific point and provide scrollable map images, as well as satellite photographs and routes of any place; e) interviews disseminated by the press, as a valuable historical source of information, recovering the discourse and perception of the reality lived at the time and place of the events, as it provides a perspective of the background.

Interaction with existing cooperative societies was also included in the methodology in order to listen directly to the internal and external factors that have affected their growth and openness. Therefore, as a second phase of this work, field research was carried out through semi-structured interviews with cooperative members.

As this was a primary data collection with a flexible and dynamic technique, the experience of cooperative members was recovered, as well as their opinions and recommendations for social entrepreneurship in the southern area of Tamaulipas. In this way, they were also used as examples of successful cases to encourage the opening and development of cooperatives.

In this sense, this document provides findings in two areas: a) the identification of the factors for the opening and permanence of cooperative societies; b) the recommendations made by the members of successful cooperative societies themselves to motivate their development and permanence.

Finally, in the third stage, the information was organised for analysis of both quantitative and qualitative data. The quantitative data were triangulated with other sources to validate them, and classified for a frequency graph. The five interviews were analysed manually, as they were not long.

3. Results

The information obtained is presented according to the order of the findings, therefore, starting with the statistics. Figure 1 shows the comparative of cooperative societies that emerged in Mexico in 1980 and in 2022.

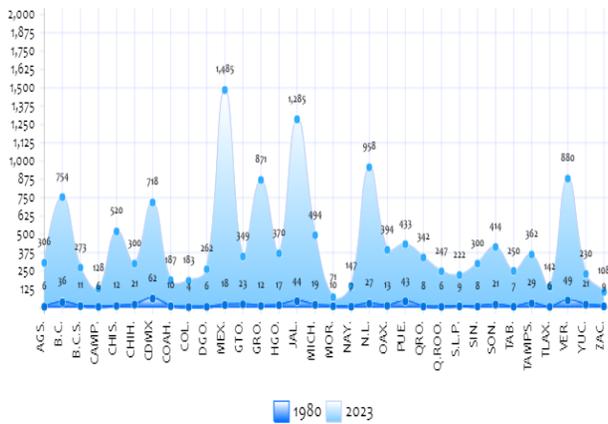


Figure 1 Emergence of co-operative societies in Mexico in 1980 and in 2023
Source: Own Elaboration with data from INEGI (1981, 2023)

According to the XI Industrial Census of 1980, there were 580 cooperative societies in Mexico and 29 in Tamaulipas, with a total gross income of \$1, 443,348 MDP, while their fixed investment was \$8, 679, 954 MDP (INEGI, 1981).

For the sake of comparison, the same data were used, but now corresponding to 332 corporations also existing in Tamaulipas. Their total gross income was \$3, 213,134 MDP and their fixed investment was \$1, 426, 823 MDP (Idem). An initial financial analysis identifies that the sociedades anónimas generated less income than the cooperatives, as the latter had an average of \$49,770 MDP and the former \$9,678 MDP. In comparison, the total fixed investment of the cooperative companies was six times that of the joint stock companies. This shows the great power and capacity for manoeuvre, including political manoeuvre.

For the 2023 data, the National Statistical Directory of Economic Units -DENUE- of the same INEGI (National Institute of Statistics and Geography) was used to obtain the number of cooperative societies in the study area. The result was 362 for Tamaulipas, of which there are 46 cooperatives in the southern zone of Tamaulipas.

However, upon initial review, it was detected that the census included school cooperatives, so they were excluded from the study due to their irregular legal status. Other data excluded were the branches of cooperative societies, which reduced the total to 11 cooperative societies in 2023, as shown in Table 1.

Cooperative societies according to INEGI
La cafetería de Félix, SC de RL de CV
Cojumatlán SCL de CV
Pescadores del sur de Tamaulipas y de Veracruz de RL de CV
Producción pesquera Paso de los Caballos SC de RL
Producción pesquera Pescadores de Tampico SC de RL
Producción Salinera del Municipio de Altamira Tamaulipas SCL
Cues Orteños SC de RL de CV
Trabajadores del Mejor Pan SCL SC de RL
La Flor de México SCL SC de RL
Tamesí Tancol SC de RL de CV
Salineros del Golfo SC de RL de CV

SC de RL de CV = Sociedad Cooperativa de Responsabilidad Limitada de Capital Variable (Variable Capital Limited Liability Cooperative Society)
SCL = Sociedad de Capital Limitado
S de RL MI = Micro-Industrial Limited Liability Company

Table 1 Co-operative societies in southern Tamaulipas according to INEGI 2023
Source: Own Elaboration with data from INEGI (2023)

In order to triangulate the above information, from which exclusions had already been made, but some missing information was noted, information from municipal governments was sought.

Although their information is up to date until 2019, it was observed that 20 cooperative societies are declared as existing in the area. However, when comparing with the INEGI information, nine were detected that are not included, and are identified in bold letters in Table 2.

Cooperative societies according to Government Tamaulipas
Cojumatlán SCL de CV
Cues Orteños SC de RL de CV
Estero del Robalo, SC de RL de CV
Gremio Unido de Alijadores, SC de RL
La cafetería de Félix, SC de RL de CV
La Flor de México SCL SC de RL
Laguna de la Puente, SC de RL de CV
Lagunas y ríos del sur de Tamaulipas, SC de RL de CV
Pescadores de Altamira, SC de RL de CV
Pescadores de Martín A. Martínez, SC de P de RL
Pescadores del sur de Tamaulipas y de Veracruz de RL
Pescadores Unidos del Repecho S de RL MI
Producción pesquera Paso de los Caballos SC de RL
Producción pesquera Pescadores de Tampico SC de RL
Producción Salinera del Municipio de Altamira Tamaulipas SCL
Salineros del Golfo SC de RL de CV
Tamesí Tancol SC de RL de CV
Trabajadores del Mejor Pan SCL SC de RL
Unidos en las 200 Millas, SC de RL de CV
Unión de Pescadores de Esteros de Altamira, SC de RL

SC de RL de CV = Sociedad Cooperativa de Responsabilidad Limitada de Capital Variable (Variable Capital Limited Liability Cooperative Society)

SC de P de RL = Sociedad Cooperativa de Producción de Responsabilidad Limitada (Limited Liability Production Cooperative Society)

SCL = Sociedad de Capital Limitado

S de RL MI = Sociedad de Responsabilidad Limitada Microindustrial (Microindustrial Limited Liability Company)

NOTE: In bold the co-operative societies not present in the INEGI data (2023).

Table 2 Cooperative societies in southern Tamaulipas according to the Government of Tamaulipas 2019

Source: Own Elaboration with information from Gobierno de Tamaulipas (2020), Altamira (2018).

Due to this situation, it became necessary to verify the physical existence of cooperative societies, since, although there is statistical data obtained from INEGI, there are some that, due to their almost inaccessible geographical location, are left out of these censuses.

As physical telephone directories have fallen into disuse, the information they contain is not up to date, but they provided certainty for the list of societies, as records were found for most of them, so the next tool used was geolocation.

This made it possible to verify the physical existence of the cooperative societies by means of a satellite image of their location. This has been of great help, as it had not been possible to contact both the salt and fish production companies by telephone.

Two more companies were identified: Autotransportes Liga de Choferes, SCL and Participación Estatal República de Cuba, SCL de CV, both dedicated to public transport services.

In this way, a directory was compiled with general data that helps to identify their current situation, both physically and commercially. This list of cooperative societies would serve as a basis for gathering more information through interviews in the next stage. Table 3 presents the 22 cooperative societies that were finally confirmed.

#	Southern Tamaulipas Cooperative Societies
1	Autotransportes Liga de Choferes
2	Cojumatlán
3	Cues Orteños
4	Estero del Robalo
5	Gremio Unido de Alijadores
6	La cafetería de Félix
7	La Flor de México
8	Laguna de la Puente
9	Lagunas y ríos del sur de Tamaulipas
10	Participación Estatal República de Cuba
11	Pescadores de Altamira
12	Pescadores de Martín A. Martínez
13	Pescadores del sur de Tamaulipas y de Veracruz
14	Pescadores Unidos del Repecho
15	Producción pesquera Paso de los Caballos
16	Producción pesquera Pescadores de Tampico
17	Producción Salinera del Municipio de Altamira Tamaulipas
18	Salineros del Golfo
19	Tamesí Tancol
20	Trabajadores del Mejor Pan
21	Unidos en las 200 Millas
22	Unión de Pescadores de Esteros de Altamira

Table 3 Co-operative societies in southern Tamaulipas

Source: Own Elaboration

It should be noted that the co-operative societies in southern Tamaulipas listed in Table 3 refer to all those that are active in some way - providing service, receiving government support, or with activities on their websites or social networks, and telephone or email service. They do not include branches of some based in another geographical location, and they are not school co-operatives serving various needs of students in basic education schools.

The activities of the existing co-operative societies in southern Tamaulipas are shown in Figure 2.

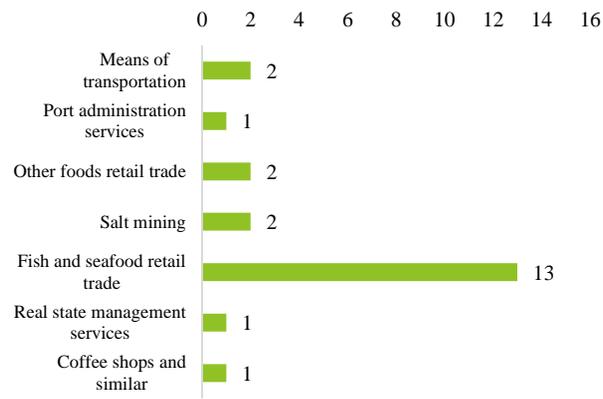


Figure 2 Activities of co-operative societies in southern Tamaulipas

Source: Own Elaboration

Interviews published in local media

Information from interviews published in the press was obtained from local newspapers: Milenio and El Sol de Tampico. Interviews were collected from members of various cooperative societies over a period of five years.

One of the successful cases of cooperative societies of yesteryear is the Trabajadores del Mejor Pan. They have expanded with more branches in the year 2023, after the pandemic, and after suffering a rise in the most important raw material, flour.

The war conflict in Ukraine has complicated production costs, but they have been very resilient and assertive in trying to keep their prices competitive, said their legal advisor (Durán, 2023). He also emphasised what is described in Figure 3, during the inauguration of a new branch in the city centre of Tampico.

"We are at a political and economic point where it is easy to invest. Let us remember that in the eighties they tried to disappear all the cooperative societies in Tampico, and many did not survive; a well-known case is the United Guild of Alijadores. We made a huge effort not only to maintain ourselves, we invested and proof is this location," he explained.

Figure 3 Statement by the legal advisor of the Best Bread Workers' Company

Source: Durán (2023)

For the Salinera de Altamira, the pandemic caused a lot of uncertainty as sales plummeted, in addition to all the health problems and loss of life among its members, as can be read in Figure 4, part of the interview with Luis Enrique Yáñez Obregón, president of the cooperative society (Sosa, 2022). Pedro Ramírez Castillo, a cooperative member, also reiterated that they were only supplying businesses and ranchers in San Luis Potosí, along with the ranchers in this southern area of Tamaulipas and the purification plants, which allowed them to survive.

"COVID-19 left serious effects, it hurt us a lot in sales, we had many people who got sick and there were those who got ahead of us on the way; We have not recovered, we have sales that fell by more than 50%, main clients from the state of San Luis Potosí and the livestock sector stopped buying from us due to this pandemic situation," he said.

Figure 4 Statement by the president of the cooperative Salinera de Altamira

Source: Sosa (2022)

During the covid-19 pandemic, a reporter from southern Tamaulipas, Monsiváis (2021), interviewed the representative of the members of the then Sociedad Cooperativa de los Autobuses Azules de Tampico. This was the result of a dispute that had been going on for 10 years over the sale of important real estate belonging to the cooperative itself. The perception of that representative of the members is shown in Figure 5, and the social networks of the company and its leaders were cancelled.

He recalled that it was a decade ago that the cooperative was terminated, "supposedly, because some debts could not be paid, but there were buses and land, however, the Board of Directors declared bankruptcy, and they were never given their severance payments to the 400 workers who work there."

Figure 5 Statement of the representative of the Blue Buses Cooperative Company

Source: Monsiváis (2021)

Regarding the same cooperative society, Durán (2021) of Milenio reported the definitive ruling for the sale of the property in front of the Tampico International Airport, in favour of a hotel investor, as can be read in Figure 6.

The infrastructure formerly belonging to the Cooperativa de Autobuses Azules in Tampico, one of the most emblematic public transportation lines of the last century in the southern area of Tamaulipas, began to be demolished and cleaned to be occupied by a new investment after the end of a dispute.

Figure 6 Newspaper report on the sale of the property of the Sociedad Cooperativa de los Autobuses Azules (Blue Buses Cooperative Society)
Source: Durán (2021)

In the same year, Campos (2021) gives an account of the situation of the members of the Gremio Unido de Alijadores, once the most powerful cooperative society in Tamaulipas and a national leader for many others, officialised in 1922 as SC de RL. The workers in the port of Tampico, and then also in the port of Altamira in 1985, were left without a contract in 2010 due to non-compliance with various labour laws in force and non-payment of debts, and were therefore no longer able to work. See Figure 7.

An ordeal began for the alijadores, who to this day demand their severance after denouncing the then president of the GUA Board of Directors, Jesús Ramón Martínez del Ángel, who committed a million-dollar fraud against the union, a case that remains open until now. On October 2, 2012, Martínez del Ángel was arrested and released in less than 24 hours paying bail of 81,177 pesos.

Figure 7 Newspaper report on the denunciation of GUA leaders
Source: Campos (2021)

Quintín González Lima, president of the Board of Directors of the Sociedad Cooperativa La Flor de México, in an interview with the newspaper Milenio, said: "Over the years we have had very difficult situations, since the floods in Tampico in 1955. It should be noted that the bakery was founded in 1936 and is about to celebrate 90 uninterrupted years. In recent years, he pointed out that covid-19 is now the biggest challenge in their history (Reyes, 2021).

Before the covid-19 pandemic, a newspaper article by Mirna Hernández (2018) pointed out in June that, in order to obtain government benefits, more than a thousand fishermen would join various cooperative societies, as shown in Figure 8. However, when reviewing data from later dates, the shrimp fishermen's cooperative society mentioned by the interviewee did not appear.

To ensure that the more than a thousand shrimp fishermen in southern Tamaulipas obtain official credits, gasoline subsidies, and economic support from the state government and Conapesca, new cooperatives are in the process of integration, which will make fishing cooperatives flourish again in this town.

Figure 8 Statement by the President of the Federation of Fishing Cooperatives of Southern Tamaulipas
Source: Hernández (2018)

Interviews carried out

In the first instance, an attempt was made to contact members of the fish-producing cooperatives, as these are the predominant ones in the area. However, when asked for an interview, all of them chose to decline the request.

Therefore, two semi-structured interviews were conducted with members of the cooperatives. The questions focused on the difficulties they have faced over time, the strategies implemented to deal with them and, from their perspective, what actions were taken to be successful.

These questions were answered by the Mejor Pan partner in the following words: "We changed the external advisory services both in accounting and legal and it was nice to discover that we found skilled professionals who have adapted to our vision" (Herrera, 2023).

Another person interviewed was Eduardo Castillo (2023), a cooperative leader with an engineering background in agronomy and vast experience in rural production. Castillo recommends always making a business plan, because any enterprise should be a business, including cooperatives. This implies having a vision of the demand to be covered by the supply, being aware of the risks and having a strategy for it.

Mr. Castillo also commented on the six-year fickleness of government support. Since there is no certainty about this, this situation should be considered. Finally, he insists on the need to share experiences, so he is willing to advise those who are starting a rural production cooperative.

Discussion

As described, the existence of co-operative societies is not at all consistent from one source to another, fieldwork has been essential for direct contact and validation of information.

Although fishing cooperative societies represent the majority in the southern zone of Tamaulipas, the ones that stand out for their permanence, crossing generations, are those of commerce, such as the bakeries: El Mejor Pan and La Flor de México.

Meanwhile, the GUA cooperative society, whose members were workers in the port of Tampico, still remains, legally speaking. However, it is in the process of liquidation following multiple lawsuits and embezzlement by the partners who once ran the society.

In Altamira, the salt works are also in financial trouble, initially because of the occupation of the land for the port of Altamira, and in recent times because of the covid-19 pandemic. In this particular case, in the early 1980s, a series of national policies began to be implemented affecting the then rural area of Altamira. Thus, "the ejidos as a whole have lost around 11,000 hectares, the most important of which are those located on the coast. Tensions between peasants and industrialists have surfaced in different ejidos in the region: Francisco Medrano, Ricardo Flores Magón, Congregación Armenta, Lomas del Real and Villa de Altamira" (Vera Vázquez, 2011, p. 189).

Hence, the fishing production cooperatives were directly affected, specifically those located around the Marismas area, where there were salt mines and rural producers. See Figure 9.

Vera Vázquez (2011) states that "neither the Federación de sociedades Cooperativas de la Industria Pesquera del Sur del Estado de Tamaulipas, nor the civil organisation linked to the Sociedad Cooperativa "Las Marismas" had the presence or the empowerment required to negotiate retribution for affecting the ecosystem and changing land use" (p. 194) and points to the prevailing illiteracy and trust in government authorities as two main causes.



Figure 9 Topographic chart F14B74
Source: INEGI (2021)

Based on the results presented, the main factors affecting the openness and development of co-operative societies are broken down below.

Foreign investment. The cooperative members mentioned that until the 1980s, all entrepreneurs in the area knew each other and there was no difference between commercial and social companies.

With the opening of the market to transnational companies, their income was affected. This situation led to the closure of several cooperatives, including the Miramar fishing production cooperative and small salt production cooperatives in Altamira.

Academic preparation. There have been repeated difficulties in the administration of the societies, as most of the members do not have higher education, having joined the operational area of the societies at a very young age.

Expert professionals. Some agreed that they have not been properly advised by outsourced legal and accounting services, due to their lack of knowledge of how to manage cooperatives.

Environmental factors. The pandemic was a challenge for the cooperatives to continue operating; today, the drought in the area is a challenge.

Political factors. Governmental actions carried out without involving the cooperative members and ejidatarios. Participatory actions should be appropriate for the sustainability of the area.

Recommendations for new social entrepreneurs

Training. It is necessary to have some basic knowledge in social economy and in the administration of these societies, when having the desire to undertake cooperative societies (INAES, 2021). In this way, values such as solidarity and participatory strategies will be present, so that there is effective collaborative work management and an awareness of the need for sustainability.

Specialised consultancy. For the opening of new companies it is necessary to seek professional advice from experts in the social area. This represents a challenge because there are no universities in the area that have related programmes. Recently, the National Technological Institute of Mexico, through the Technological Institute of Ciudad Madero, started a Master's programme in Social and Solidarity Economy. It is hoped that by 2025 there will be graduates who will be able to address this problem.

Acknowledgement

This work has been financed by the Tecnológico Nacional de México through project 13551.22-P.

Conclusions

The importance of this article lies in the identification of the existing cooperative societies in the southern area of Tamaulipas, and through the interviews, the challenges they have faced, as well as the strategies applied to remain in force.

The information presented shows that there is a majority of commercial enterprises as opposed to cooperatives, which represent a minority. This does not mean that the purely mercantile path is the right one, because given the existing deterioration of the local economic model, it is necessary to look for alternatives that allow for the reactivation of the economic situation of certain sectors in the southern zone of Tamaulipas.

This does not have to be done individually or in isolation; there are options such as those offered by the social economy, based on collaborative work with responsibility, solidarity and commitment, which can replace some commercial companies through cooperative societies.

This economic model will not replace the prevailing one, but it is a real and viable alternative to strengthen alliances between independent entrepreneurs who find the necessary support in the union with their peers.

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Analysis of the Corporate Social Responsibility (CSR) of Mipymes before the implementation of the Mayan train. A studio in the northern area of Campeche

Análisis de la Responsabilidad Social Empresarial (RSE) de las MiPymes ante la implementación del tren Maya. Un estudio en la zona norte de Campeche

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DOI: 10.35429/JMME.2023.13.7.36.49

Received July 25, 2023; Accepted December 30, 2023

Abstract

This work focuses on determining the potential that MSMEs (micro, small and medium-sized businesses) in the northern area of the state of Campeche have to implement corporate social responsibility (CSR) in the face of the construction of the Maya train. This work seeks to identify what strategies are established by companies to be able to remain in the market, in the face of the national development plan (PND) seeking to improve the local economy of the State; Part of these implementations have been actions related to CSR as a defensive strategy to compete in the business market, based on local idiosyncrasy, reporting constant cases of failure due to misguided administrations, as well as inadequate socio-cultural and environmental practices. (Urriolagueta, Murillo and Lozano, 2009).

Corporate social responsibility, MSMEs, Mayan Train, Benchmarking

Resumen

Este trabajo se enfoca en determinar el potencial que tienen las MiPymes (micro, pequeñas y medianas empresas) de la zona norte del estado de Campeche para implementar la responsabilidad social empresarial (RSE) ante la construcción del tren Maya. Este trabajo busca identificar que estrategias se establecen por las empresas para poder permanecer en el mercado, ante el plan nacional de desarrollo (PND) buscando mejorar la economía local del Estado; parte de estas implementaciones han sido acciones relacionadas con la RSE a manera de estrategia defensiva para competir en el mercado empresarial, basada en la idiosincrasia local, reportándose constantes casos de fracaso debido a las desatinadas administraciones, así como a prácticas socio-culturales y ambientales inadecuadas (Urriolagueta, Murillo y Lozano, 2009).

Responsabilidad social empresarial, MiPymes, Tren maya, Benchmarking

Citation: AVILA-ORTEGA Jorge Iván, HERNANDEZ-RAMIREZ, Julieta, BACAB-SANCHEZ, José Rubén and DOLORES-ATLAHUA, Adriana. Analysis of the Corporate Social Responsibility (CSR) of Mipymes before the implementation of the Mayan train. A studio in the northern area of Campeche. Journal-Macroeconomics and Monetary Economy. 2023. 7-13:36-49.

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Introduction

It is important to mention that the structure of local MSMEs is based on family organisational structures, where they do not accept other members outside the family, which allows them to implement socially responsible actions, even without realising or knowing the concept of CSR. For this reason, they may not be aware that these actions can be measured and evaluated to identify whether they have a positive impact within the company. CSR is not unrelated to the local economic development of each of the communities, especially with the existing implementation of the Mayan train, since, despite the great effort of the government, its social impact is not perceived. Furthermore, by not evaluating them, it is not possible to determine whether or not these actions have an effective impact on the communities.

Considering that CSR can generate a multiplier effect of development in local communities, specifically in MSMEs from an approach, based on the implementation that exists in the region of the Mayan train and its impact on CSR for the benefit of the development of the state, without affecting the communities, together with the participation and effect that MSMEs have on the economy, the impact of these companies could agree on some of its intrinsic elements that provide greater competitiveness.

However, due to the complexity of this type of companies adopting this philosophy, a great effort will be required from the different sectors involved, both from the governmental and private sectors, non-governmental organisations and academia, to corroborate that this approach generates positive results in the companies.

Faced with the demands and rapid changes in today's world, organisations must adapt to their environment as quickly as possible, but in a sustainable manner. Managers or owners are aware that their actions and operations have a profound impact on the society around them, positively or negatively, and that something must be done to build a better and sustainable society (Rochlin, 2005).

For Porto and Castromán (2006), it is true that a commonly accepted definition of SR has not been achieved, as there is still confusion about its actual scope. As Rochlin (2005) points out, some confuse it with philanthropy or acts of goodwill, such as building schools in the places where the organisation operates, be it a company, government agency, church or civil society organisation. However, this concept is gradually being refined and its character of voluntary initiatives is highlighted in three aspects: environmental, labour and the ethics of organisational behaviour with the various groups with which the organisations relate. The author argues that organisations must go beyond the immediatist approach of simply complying with the established rules, as it is not enough to comply with them in order to be socially responsible. It would be like accepting that what is legal is always what is fair.

Nor is it a fad; it is about aligning economic activity with social and environmental activity (Rochlin, 2005). The measures adopted are expected to mitigate environmental impacts without affecting the profits of their shareholders, generating an increase in the value of the organisation, with the impact of the Mayan train. It is about being able to cope with the onslaught of globalisation by improving their families and dealing ethically with everyone involved in the business beyond the bottom line. However, for organisations, CSR is often synonymous with improving the working environment, marketing or customer acquisition, which means that for them it has a practical purpose, as a tool, rather than a working philosophy (Barroso, 2008).

Due to the particular characteristics of MSMEs, they have very few possibilities of implementing CSR-related activities, or they carry them out, but without a particular methodology or without documenting them, making this situation a problem that makes it difficult to link them to quantifiable CSR actions that contribute to their business growth.

Since MSMEs play a fundamental role in the state economy, it is necessary to carry out studies to verify whether they have the capacity to implement CSR actions, as well as to determine the areas susceptible to development and/or improvement in this area, taking into account the implementation of the Mayan train in the south-southeast of the Mexican Republic, especially the impact on the state of Campeche, with the aim of influencing the increase in their competitiveness.

In view of the above, the following research questions arise: Do MSMEs in the northern part of Campeche carry out actions related to CSR, linked to the impact of the Mayan train in this region? What is the compliance of MSMEs in relation to CSR indicators and their impact through the Mayan train?

Justification

The identification of the reasons why CSR efforts are not working in the participating MSMEs could be common to others in the region or across the country, and identifying them can help them to propose plans to improve socially responsible behaviour towards sustainability. The findings can also be incorporated into curricula in the subjects of entrepreneurship development in Campeche or other states, social responsibility or related subjects. De la Cruz (2010, 2011). In addition, the methodology followed can be useful for monitoring and follow-up of actions, so that the practice of CSR becomes a philosophy, whether for educational institutions, governmental, non-governmental or private initiative.

The contribution of this work lies in presenting a preliminary analysis to verify the feasibility of MSMEs in the state of Campeche integrating the CSR philosophy into their actions, so that they can align their social, economic and environmental behaviour in order to contribute to the improvement of the environment without sacrificing their profitability, with the consequent benefit to their workers, customers, investors and all those who have an interest in the company.

Overall objective

To analyse the extent to which MSMEs in the northern part of Campeche comply with the indicators of the CSR axes proposed in view of the impact of the Mayan train in this region.

Theoretical framework

Corporate social responsibility (CSR)

CSR is a concept that allows organisations to add value through the implementation of actions that benefit all stakeholders, particularly those who are affected, benefit or could be affected by the activities carried out by a company (Freeman, 1984). According to Nieto and Fernández (2004), the adoption of social responsibility criteria allows companies to resolve conflicts and distribute the value created among the different stakeholders. Despite the complexity of philanthropy and business complementing each other, Porter and Kramer (2002) argue that there is a point of convergence of interests that will influence both social and economic benefit.

Until relatively recently, it was assumed that the responsibility of business was only to generate profits; today, this is neither sufficient nor acceptable. In addition to generating profits for its shareholders, business must take into account that its activities affect, positively or negatively, the quality of life of its employees and the communities in which it operates. As a consequence, a growing number of companies perceive that social responsibility is not only restricted to the social or environmental actions developed by the organisation in the community, but also involves dialogue and interaction with the various publics related to the company. For the company to act with social responsibility, from a systemic and broad perspective, it is necessary that this concept is incorporated into its management processes and, therefore, that it becomes an integral part of its business strategies and its internal planning system.

Although Corporate Social Responsibility (CSR) is inherent to the company, it has recently become a new way of managing and doing business, in which the company ensures that its operations are economically, socially and environmentally sustainable, recognising the interests of the different groups with which it relates and seeking the preservation of the environment and the sustainability of future generations. It is a business vision that integrates respect for people, ethical values, the community and the environment with the management of the company itself, regardless of the products or services it offers, the sector to which it belongs, its size or nationality.

Corporate Social Responsibility (CSR) is the conscious and consistent commitment to fully comply with the purpose of the company, both internally and externally, considering the economic, social and environmental expectations of all its participants, showing respect for people, ethical values, the community and the environment, thus contributing to the construction of the common good.

One of the most important references for the application of CSR principles is the European Community Green Paper (2001), which suggests the application of this concept in organisations and seeks to promote a reference framework, highlighting its implementation in MSMEs. For their part, Sotelo and Durán (2014) mention that at the international level, the ISO 26000:2010 Standard identifies the Fundamental Subjects of Social Responsibility. With a total of seven axes, this guide aims to ensure that, on a voluntary basis, both public and private organisations obtain benefits from operating and governing themselves with this philosophy (see Figure 1).



Figure 1 Fundamental Subjects of Social Responsibility
Source: Based on Sotelo and Durán (2014), based on ISO 26000:2010

MSMEs and CSR

It is important that the management and/or ownership of the company understand and assume the commitment to improvement that a process to systematise the introduction of CSR entails. Making this commitment explicit from the outset is fundamental both for dealing with the successive phases and for establishing the criteria of transparency and dialogue that CSR entails.

A company's socially responsible behaviour is measured by the degree of business excellence achieved in the three fundamental dimensions of sustainability: economic, environmental and social.

Dimensión económica	Dimensión ambiental	Dimensión social
<ul style="list-style-type: none"> •>> Obligaciones legales •>> Buen gobierno •>> La política de retribución •>> Entidades financieras •>> Inversiones y rentabilidad •>> Distribución de beneficios •>> Costes de producción •>> Gestión de proveedores •>> Condiciones de pago •>> Cumplimiento de condiciones 	<ul style="list-style-type: none"> •>> Política Ambiental •>> Sistema de Gestión Ambiental •>> Indicadores de consumos •>> Residuos •>> Vertidos •>> Contaminación del aire •>> Ruido •>> Envases y embalajes •>> Formación ambiental •>> Certificación ambiental 	<ul style="list-style-type: none"> •>> Política de Seguridad y Salud Laboral •>> Prevención de Riesgos Laborales •>> Participación de los trabajadores •>> Igualdad de oportunidades •>> Colectivos desfavorecidos y/o en riesgo de exclusión de social •>> Conciliación de la vida laboral y personal •>> Quejas, reclamaciones y sugerencias de los clientes •>> Códigos de conducta o carta de servicios •>> Colaboración con proyectos sociales •>> Contratación de proveedores locales

Figure 2 Dimensions of CSR. from the ISO 26000:2010 Standard

There are various indicators that guide organisations in understanding their corporate performance. However, relating CSR actions as an indicator of corporate performance represents a great difficulty for MSMEs.

Although some research has been conducted on CSR particularly in SMEs, such as those presented by Au and Tse (2001), Thompson and Smith (1991), as well as Brown and King (1982), it is necessary to know the relationship between the competitiveness variables that CSR brings to this type of organisation, its impact on corporate performance and its effect on the economy. Due to the fact that the strategies implemented in the direction and management of companies have a particular interpretation in SMEs, it is necessary to make considerations according to their context that are much more concrete and specific (Rives and Bañon, 2008).

Business model based on the Mayan train and CSR

The Mayan Train project is located in the Yucatan Peninsula, a region rich in natural and cultural resources such as beaches with crystalline waters, cenotes, Mayan ruins and other tourist attractions; the region is also characterised by extensive agricultural production in crops: corn, chili, tomatoes, beans, fruits and vegetables; in species: cattle, sheep, poultry and horses. The fishing industry is characterised by the exploitation of grouper, octopus and shrimp and the production of goods derived from the manufacturing industry of food products, textiles, footwear and leather goods.

The willingness of governments to develop infrastructure projects to improve conditions for the transport of goods and passengers is vital for the development of the regions. In the case of Mexico, the Gulf region and the Isthmus Axis are immersed in diverse tourist attractions, including historical, religious, recreational, nature and cultural attractions, which could be developed and marketed nationally and internationally as a means of economic development.

An example of this is what is happening with the Mayan Train project in Mexico, which seeks to enhance the tourist and nature attractions of the Yucatan peninsula, promoting social, cultural and economic development, enabling transformations in the environment of the population, and improving people's living conditions. Through the interconnection of the states of Tabasco, Campeche, Chiapas, Yucatan and Quintana Roo where the Mexican government is committed to achieving sustainable development in the southeast of Mexico.

The business model is an element that shows the way in which organisations are managed. Magretta (2002) defines it as the stories that explain how the company works. Drucker (1954) conceptualises it as the way of generating income in a business. For Amit and Zott (2001), the business model explains the content, structure and the way of governing the transactions that create value by exploiting the opportunities that a business has.

In this regard, Chesbrough and Rosebloom (2001) identify the functions of a business model as: developing the value proposition, identifying the market segment, determining the structure of the value chain, defining the costs and potential benefits, describing the desired positioning, and formulating the competitive strategy.

The business model becomes a conceptual tool that integrates a set of elements and their relationship, allowing the business logic to be expressed (Osterwalder, Pigneur and Tucci, 2005). Currently, these models have had to innovate according to the trends in markets and industries. CSR has been involved in this evolution.

For Mair and Martí (2004), the importance of the social entrepreneur as the main component of innovative business models implies that they include within their offer of goods and services, the orientation and focus towards solutions that allow them to be effective and self-sufficient in the face of social and environmental problems. For his part, Manfredi (2005) points out that the social enterprise formulates a self-sufficient business model and that its strategy has a vision of improving society.

CSR management tools

The concept of sustainability thus arises as a questioning of the economic model in which the economy is at the centre and ecological systems such as the environment and social systems are outside this economic system, which uses them for its own benefit.

The Brutland report defines sustainability as: "Development that meets the needs of present generations without compromising the ability of future generations to meet their own needs". Simply put, sustainability is a frame of reference, a set of values, a set of principles, which give rise to an open-ended process of sustainability. This search for sustainability applies both to the design of the development model and to the natural environment, with the aim of maintaining and improving the living conditions of current and future generations, while safeguarding the environment, i.e. sustainability is a commitment to the future of the planet in every sense.

It is from this mentality that other initiatives emerge through which it is intended to articulate this important change of direction in the model of growth and development. Therefore, what we find with this sustainable development is a questioning of the economic systems and the predominant systems in Western societies, and the need for a paradigm shift towards a system that really rethinks our ethical foundations.

The development experienced in recent years in terms of CSR and the growing challenges in environmental matters lead today's societies to demand mechanisms and tools that allow them to ensure a symbiosis between management and the values of the organisation.

Being able to meet these demands of society and the environment, responding in terms of creativity and innovation (designing more energy-efficient organisations or promoting the integration of diversity, equal opportunities and professional development of employees) is not an action exclusive to large companies, but involves all types of organisations regardless of sector, size or location. The integration of CSR in the management of organisations has been consolidated as an indispensable element.

The development of a management system that integrates the economic, social and environmental variables of business activity seems to be a good alternative and the multi-stakeholder nature of the standard makes it possible to respond to the following 5 dimensions: Ethics and Good Governance, Environment, Community, Workplace and Market.

Any management system is focused on continuous improvement. The most important tools available to the company to ensure this process are the following:

The Framework, which includes the Reporting Guidelines, sets out the principles and indicators that organisations can use to measure and report their economic, environmental and social performance. GRI is committed to the continuous improvement and increased use of these Guidelines, which are freely available to the public.

Benchmarking

Benchmarking is a strategic tool that allows companies to analyse their performance. Joyner and Raiborn (2005) indicate that companies should carry out benchmarking, both competitive and functional, which allows them to obtain information from their direct or indirect competitors that are trying to develop in public responsibility, as it establishes a competitive environment between companies because it acts as an incentive for improvement (González, Alén and Rodríguez, 2011).

Graafland, Eijffinger and Smid (2004) mention the main advantages resulting from the application of benchmarking in CSR, which are: promoting transparency, improving measurement, making it possible to compare companies and simplicity in the procedure. The systemic approach to judge the company's contribution without depending on incidents carried out by external bodies guarantees a more objective and impartial view of the results and requires the company to provide the necessary information for the construction and/or contribution to the indicators proposed. The problems identified by Graafland et al. (2004) are the following: monism and measurement, intentions, subjectivity of evaluation, ethical concerns, context of moral action and communicative damage.

Method

Type of research

The present study is descriptive with quantitative approach and non-experimental cross-sectional design, as the information was obtained in a single period of time.

Research design

The design is non-experimental, as there is no interference in the results (Hernández, Fernández and Baptista, 2014). The study method is field and the technique used is the survey.

Population

Prior to this study, research was carried out to identify a company that had a recognition related to corporate social responsibility.

For this purpose, the database of the Mexican Centre for Philanthropy (CEMEFI) was used. With this, a company with fiscal domicile and corporate identity in the state of Campeche was identified.

In order to determine the participating companies, firstly, it was considered that they were classified as micro, small and medium-sized companies (DOF, 2009), as the type of companies to be promoted in order to develop CSR actions. As a second element, it was considered that they should be included in the list of companies in the Mexican Business Information System (SIEM, 2023). From a total of 6,546 companies in the three municipalities under study, a sample of 283 companies was taken, with a confidence level of 95 % and a margin of error of 5 %, which was distributed according to the contribution of each municipality in terms of the number of companies (see table 1).

Municipality companies sample

Calkiní	4442	193
Hecelchakán	1434	62
Tenabo	670	28
Total	6,546	283

Table 1 Distribution of the sample in relation to the contribution of companies by municipality
Source: SIEM (2023)

Table 1 represents the distribution of the sample in relation to the contribution of the number of companies by municipality in the state of Campeche. Own elaboration based on information provided by SIEM (2023).

Instrument

A diagnostic instrument proposed by ADEC (2009) was used, which presents 10 self-assessment axes: Organisational governance, Human rights, Labour practices, Fair operating practices, Corporate image, Consumer affairs, Community development, Productivity and responsible competitiveness, Fiscal formality and Supplier and consumer management (see Figure 1).

The scale is represented as follows: "Strongly Agree", "Agree", "Indifferent", "Disagree" and "Strongly Disagree".

The score achieved is then divided by the total number of items in the indicator to obtain the final score. With this, the performance per indicator and per axis can be identified, comparing the score achieved with the maximum score to be obtained. Finally, the results are weighted by indicator and by axis to visualise the company's performance.

The validation of this instrument by content was carried out by expert judgement when it was designed (Hernández et al., 2014). Cabero and Llorente (2013) define expert judgement as a validation methodology that consists of asking a group of people to make a judgement regarding an object, instrument, teaching material or some specific aspect. To verify the reliability of the instrument, a sample of 43 companies (12.16% of the sample) was applied, covering only in Calkiní (24), Hecelchakán (15), and Tenabo (4) for being the most representative, obtaining a Cronbach's Alpha of 0.8712, which indicates that the instrument is reliable.

Procedure

Companies were visited in person. As a strategy with local students, it was identified that during the implementation of the instrument they were included in the classification of micro, small and medium enterprises, based on the information provided by the SIEM (2022) and compared with the stratification of enterprises provided in the DOF (2021). As a second filter, it was verified that they were located in the state of Campeche, which is located in the southeast of Mexico. Subsequently, the instrument was applied, 100% of which was distributed in person. The people who responded to the instrument were, at the time of the study, the managers or owners of the enterprises.

For data management, the averages of the participating MSMEs were taken and Excel utilities were used.

Results

The results of the performance of each of the axes are presented in a general and specific way, in order to identify the fulfilment of the indicators.

Results of the qualitative phase

The answers and open questions at the end of the themes of the quantitative phase were taken for each of the actors.

CSR is understood as making managers, owners or administrators responsible, promoting issues that have an impact on society, in search of social harmony, healthy interaction and social and economic benefit. In general, although there is agreement on the existence of programmes to promote care for the environment and support for the community in general, long before the federal Mayan Train project was proposed as a mega-project of millions of dollars, the local communities or populations did not perceive that there was a real governmental commitment to their environment. Incidentally, they often demonstrated a lack of knowledge about CSR actions, as well as not knowing what the term refers to in concrete terms, which led them to get confused on several occasions when trying to define the concept.

Participation has involved designing and implementing CSR actions, recycling strategies, environmental management systems, anti-corruption, health and addiction prevention. Efforts have been made to get communities involved in community projects in which support is provided in the form of toys, personal items and visits to shelters, providing people in need with eyeglasses, legal advice, courses, blankets and other items. Health brigades are also carried out. However, it is rarely mentioned that the population is involved in the activities, as there is a certain apathy among them to participate in CSR actions. It is likely that this is due to the lack of interest of young people in the subject. Of course, it is relevant to mention that parents do not assume the responsibility of being examples for their children, they no longer participate, some are interested and it is noticeable with the sowing lives programme, but others are indifferent. There are some MSMEs that highlight their participation in supporting the cultural sphere. It is worth commenting that it was mentioned, although few times, that community support activities have also been implemented, contemplated in the temporary employment programme in some communities, but in recent years no authority at different levels supports social responsibility, because there are programmes established throughout the year.

However, if the communities had enough possibilities to carry out different actions, they would support projects for vulnerable people with scarce resources, as well as give different courses to the society, in different areas of development and not only in the economic one. Most of them agree on the need to create projects that support the communities in general, which means actions aimed at health, drug addiction, alcoholism and security of society. It is striking that MSMEs rarely knew what to answer, they were confused and the answers they gave often fit into the framework of philanthropy. It is also striking that there were responsible managers, albeit few, who responded that the authorities do not manage to get involved in CSR actions, i.e. their involvement is not perceived.

Actions for the care of the environment

The villagers mentioned that there have been reforestation campaigns promoting responsibility on the part of the authorities, but not on the part of the MSMEs, since they do not commit themselves to improving their ecosystem or preserving the environment, only to participate in courses of the Ministry of the Environment and Natural Resources (SEMARNAT), public transparency, service and support to the community.

For the entrepreneurs, several times they answered that environmental care refers to sorting and recycling waste. However, it is striking that the second most frequent response was that they do not know if the government carries out environmental care actions, and that it was said, albeit rarely, that no conservation actions are carried out at all. Although the authorities have CSR programmes under development, they are rarely adequately disseminated among the communities and mainly among MSMEs, leaving aside the intentions to participate that some of them might have. Other comments: Several times it was mentioned that CSR should be promoted with micro enterprises in campaigns of different types, favouring culture, in the 4 fundamental axes and supporting socially and economically vulnerable groups.

Quantitative results

Overall performance by Axis

The general results of the MSMEs studied by CSR axis in relation to the indicators that comprise them are: Axis Governance of the organisation 58% totally agreed and 33.87% agreed, establishing very high parameters of corporate responsibility; In the axis of Human Rights 46% totally agreed and 40% agreed being the second highest in compliance and responsibility by MSMEs; In the axis of Labour Practices 31% totally agreed and 43% agreed, establishing the conditions of irresponsibility and failing to give the importance; On the Fair Operating Practices axis, 34% strongly agreed and 43. In the axis of Corporate Image 42% agreed and 26% were indifferent, giving it very little importance; In the axis of Consumer Affairs 38% totally agreed and 27% agreed, retaking the interest in consumers and the sense of responsibility towards them; In the axis of Community Development 42% agreed and 28% were indifferent, being the second axis where businessmen do not perceive or do not give it the importance it has; In the axis of Productivity and responsible competitiveness 46% totally agreed and 27% agreed, retaking the importance of the update and competitive validity in the enterprise scope; In the axis of Fiscal Formality 47% totally agreed and 30% agreed, coinciding but generating many doubts in the responsibility; and in the axis of Management of suppliers and consumers 48% totally agreed and 34% agreed, there it is facilitated to them since they exist portfolio of suppliers established in the region. (see figure 5).

With regard to the age of the companies, they are practically distributed within their age range, with young companies between 1 and 5 years old being the ones that with 35% had the highest participation in the surveys, with greater relevance in mentioning that despite the years they continue to remain as MSMEs, establishing a lack of growth, corroborating the responses generated and supporting the lack of interest in growing, related to several factors, among the most relevant being the fiscal axis, as they do not want to commit to compliance (see figure 3). (see figure 3).

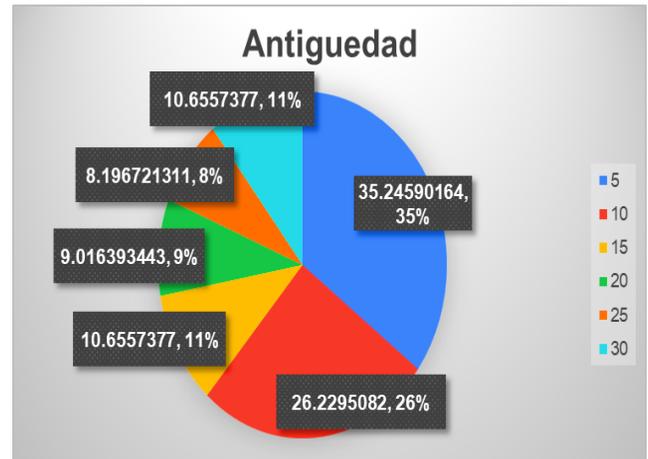


Figure 3 Age of the MSMEs surveyed
Source: Own elaboration (2023)

Of the companies surveyed, those in the commercial sphere had the greatest participation, being the most active those involved in the purchase and sale of goods or products in low volume to retail customers or families, establishing immediate income and short-term current assets, as most MSMEs depend on daily sales to establish conditions for feeding each of the families of the micro-entrepreneurs, conditioning growth and establishing a business dwarfism.



Figure 4 Type of service or activity of the MSMEs surveyed
Source: Own elaboration (2023)

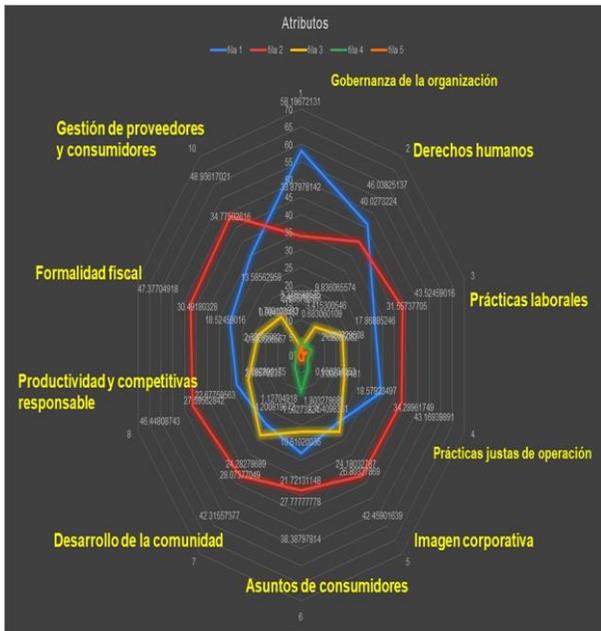


Figure 5 Comparison of performance attributes by CSR axis

Source: Own elaboration (2023)

Overall performance by Axis

Performance of the Governance Axis of the organization

The results of the Governance and Society Axis according to the indicators are as follows: Political participation of MSMEs obtained very high results of 93% in compliance with the Governance of the organisation, based on the family hierarchy, from grandparents to the youngest son; Contribution to political campaigns, MSMEs obtained very high participation from the approach by the federal government in the construction of the Mayan train work with high impact on each of the communities, which are the subject of study; Anti-corruption practices, MSMEs obtained an average of 96% in agreeing to put them into practice; and Participation in government social projects that contribute to the development of communities; and in the Building citizenship indicator, MSMEs obtained very high results in participation.

Performance on the Human Rights Axis

The results of the Human Rights Axis according to the indicators are as follows: Protection of freedom as a business commitment, MSMEs obtained a high commitment, based on the fact that they are family businesses.

Welfare practices, MSMEs obtained on average 88 % as a primary livelihood activity in the family economy; and Impact of dignity, MSMEs obtained on average high impact as family businesses are supported by their children and maintain ties in relation to respect.

Performance on the Labour Practices Axis

The results of the Labour Practices Axis according to the indicators: In Employment generation as business commitment, MSMEs obtained results on average of 4, as these are the average values of family members in this region; in Forced labour practices, MSMEs obtained on average high values as it is based on family commitment, where forced labour is implicit, as it is compulsory because they are children of the family; In the Impact of contracts, MSMEs obtained that they do not exist, as family ties are established and formality is not established; in Recruitment, MSMEs obtained that they do not do it as they agree to do it but to do it with their own family without contemplating external people, as they feel it as a threat, to teach business management.

Performance of the Fair Operating Practices Axis

The results of the Fair operating practices axis indicators are as follows: In Labour practices as business commitment, MSMEs obtained their commitment to personally attend to their business; in Habits and customs practices, MSMEs obtained that it has bad habits and everything they do administratively is by custom and has come from generation to generation, without modifying the forms of operation; Protocol of attention and follow-up of complaints, MSMEs obtained that they do not handle and do not have suggestions to address the problems generated by the attention of the business.

Performance of the Corporate Image Axis

The results of the Corporate Image Axis according to the indicators are as follows: Products and services, MSMEs commented that they do not take into account the products and image management is not significant to them as it is not representative and as management of the service offered; based on culture, MSMEs obtained that they are not interested in developing it, neither in the short nor in the long term.

Performance of the Consumer Issues Axis

The results of the Consumers/Customers Axis according to the indicators: Consideration of customer opinion, the MSMEs obtained an average of 92% where their opinion is considered or taken into account; Complaints process, the MSMEs obtained that there is a very low index since by use and customs it does not exist; in Marketing and communication, the MSMEs obtained that they do not establish elements that promote marketing and advertising; and in the indicator Knowledge of consumers, it was obtained that people are based on the consumption of products from the basic basket of goods.

Performance of the Community Development Axis

The results of the Community Development Axis according to the indicators are as follows: In the management of planning as a business commitment, the MSMEs obtained that they do not manage it as they establish their work at the moment and with the daily sales that they have within the business, which does not allow them to establish plans, as they become immediate; Practices for the benefit of society, the MSMEs obtained that they do not get involved but have expectations that with the arrival of the Mayan train, the government can establish plans and programmes that generate social impact in each of the communities, increasing development indicators; Impact of the Mayan train on the community, the MSMEs obtained that expectations are very high since community growth is proposed in all areas, generating growth and community development.

Performance of the Productivity and Responsible Competitiveness Axis

The results of the Productivity and Responsible Competitiveness Axis, the indicators are as follows: In technological updating, the MSMEs mentioned that they do not handle technology because they are unfamiliar with it and have costs that they do not intend to add to their goods, being the only thing to use a calculator; In the area of security, the MSMEs commented that they do not have, nor do they intend to obtain in the short term since a bureaucracy and fiscal commitment is established that they find it very difficult to comply with; In infrastructure, MSMEs use their own homes as improvised premises to sell or market their products, establishing a lack of infrastructure according to their business needs; Sustainability of the business economy, MSMEs found on average that it is complicated, even to manage the issue of savings because they do not have control of their sales and customers.

Performance of the Tax Formality Axis

The results of the Fiscal Formality Axis according to the indicators are as follows: In the accounting part, MSMEs commented that they do not have any and the few that do it are external, paying for the service and management of their accounts; Fiscal management practices, MSMEs obtained that they do not know the subject and are not committed, although they recognise that the arrival of the Mayan train will force them to document themselves on this subject, complying with their responsibility; On labour formality, MSMEs commented that it is difficult to establish formal mechanisms, even if the Mayan train generates development, they find it difficult to grow and therefore hire people or formalise their status to generate obligations, this being the most important factor in the growth of MSMEs, creating a business dwarfism that does not generate the mentality to grow and therefore they remain as family businesses with no growth objectives despite some having been in operation for more than 30 years.

Performance of the Supplier and Consumer Management Axis

The results of the Suppliers and Consumers Axis according to the indicators are as follows: Supplier selection and evaluation criteria, MSMEs obtained on average; Child labour in the supply chain; and in the indicator Relationships in supply chains, MSMEs obtained on average an informal link established with established formal companies, such as Bimbo, Coca cola, Barcel, Yucatecan grocery shops that are established as intermediaries; Participatory management, MSMEs obtained, not working or applying since as retailers they do not have the capacity to purchase in large volumes, which limits management.

Performance of the Values, transparency and corporate governance Axis

The results of the Values, transparency and corporate governance axis according to the indicators: Ethical commitment, MSMEs obtained on average, that they comply with their values as they are family businesses and have links with their children, this commits them to set an example within their business; Organisational culture, MSMEs obtained on average, do not manage as they are family businesses and their business is based on their culture; Corporate governance, MSMEs obtained; the lack of the use of an internal governmental entity since the hierarchy is established through the relationship between grandfather, father and children and thus establishes vertical hierarchies within the company; and in the Social balance indicator, the MSMEs obtained that many shops or businesses are recognised for the time they have been operating in their business activity.

Acknowledgements

For the present work we thank the Instituto Tecnológico Superior de Escárcega, for the work carried out in the research project of the TECNM M00-PR-03-R02 Project: (18613), entitled "Characterisation of the Social Solidarity Economy and Corporate Social Responsibility in micro-enterprises of "services in the localities of Escárcega and Calkiní of Section 2 (Mayan Train)", for obtaining the results presented.

Conclusions

In this work it was possible to evaluate the performance of the MSMEs in the municipalities of Tenabo, Hecelchakán and Calkiní, with which it is possible to visualise the fulfilment of the indicators in the axes proposed by the selected instrument and the difference that exists between them.

With these results, it can be observed that the companies have areas of opportunity to improve their performance and that the MSMEs studied still have to develop actions focused on improving CSR indicators.

Despite the non-existence of a single model of CSR at the international level, this study allows through a benchmarking model to quantitatively establish the current state and/or potential of MSMEs in the state of Campeche, Mexico, through training and generation of performance strategies with the company and seek business growth, although this becomes a problem, since many do not intend to obtain responsibilities starting with the tax.

A fundamental part will be for companies to base themselves on their environment, contemplating the Mayan train as part of their development strategies and thereby establish appropriate practices, as well as considering their organisational capacity for the design, development, implementation, execution and evaluation of these actions.

It should be noted that this research is in its second stage, with the aim of incorporating MSMEs into fully documented CSR practices that may be susceptible to validation, certification and recognition.

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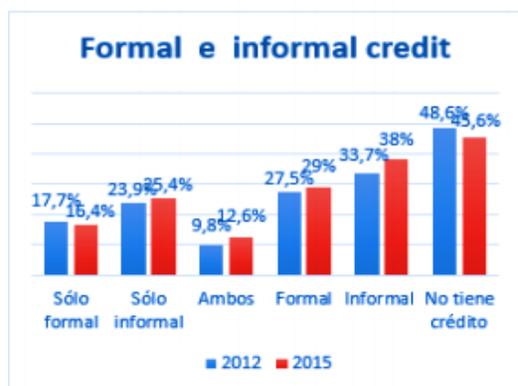
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