

Methodological proposal to add value to the agroproductive chains

Propuesta metodológica para añadir valor a cadenas agroproductivas



Daylubis Rivera Hernández¹, Jineht Pérez Martínez², Lisset Cándano Viñas³

¹Consejo de la Administración Municipal, Artemisa. Cuba. Email: riena.jesus14@gmail.com

²Centro de Estudios de Dirección, Desarrollo Local, Turismo y Cooperativismo. Universidad de Pinar del Río "Hermanos Saíz Montes de Oca". Cuba. Email: jperezm@upr.edu.cu

³Instituto de Investigaciones Económicas y Empresariales. Universidad Michoacana de San Nicolás de Hidalgo. México. Email: lissetcandano@gmail.com

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ABSTRACT

The identification and mobilization of local productive potentials is a basic principle of local development since these can be a source of income and products that contribute to the development of the communities' both from an economic and social points of view, satisfying population's every time growing needs. The methodological proposal to add value to the selected agroproductive chain, through four phases, and ten steps, allowed the harmonious development of the management of productive chains under the organization principles and with a participatory approach. With the application of this tool it was possible to diversify the production of products from fruit trees, their textures and forms of presentation were improved, new channels of communication and commercialization of the production were created, levels of satisfaction in the clients, and profits were increased.

Keywords: local development; productive chains; added value.

RESUMEN

La identificación y movilización de los potenciales productivos locales constituye un principio básico del desarrollo local, ya que pueden ser fuente de ingresos y productos que contribuyan al desarrollo de la de las comunidades, tanto desde el punto de vista económico como social, satisfaciendo las necesidades cada vez más crecientes de la población. La propuesta metodológica para añadir valor a la cadena agroproductiva seleccionada a través de cuatro fases y diez pasos permitió el desarrollo armónico de la gestión de cadenas productivas bajo los principios de la organización, con un enfoque participativo. Con la aplicación de esta herramienta se logró diversificar la producción de productos a partir de frutales, se perfeccionaron las texturas y formas de presentación de los mismos, se crearon nuevos canales de comunicación y comercialización de la producción, altos niveles de satisfacción en los clientes, e incremento de utilidades.

Palabras clave: desarrollo local; cadenas productivas; valor agregado.

INTRODUCTION

At present, the predominant features at the global level are due to the imbalances resulting from globalization, strengthening the presence of transnationals and multinationals that spoil a controlled international market; This brings with it low wages, excessive unemployment, the existence of a deep dependence of some countries on others, the privatization and exploitation of natural resources and the deep interconnection of economies, making a great differentiation increasing the present gap between underdevelopment and development.

The studies on local development begin in the context of the crisis suffered by the industrialized countries in the seventies, from which it is necessary to imagine other forms of development that qualitatively surpass the previous forms. This is considered as "a process of social construction and structural change that from an innovative territorial environment develops local capacities to manage public policies (...)" (Torres Páez, 2018). Within this process of social construction, the development of the agricultural sector and its productive forces must play a major role in promoting the sustainable development of rural areas and responding to growing social demands for environmental benefits.

Local development should aim to "build the institutional and productive capacities of a defined territory, often a region or municipality, to improve its economic future and the quality of life of its inhabitants" (Clark, Huxley, & Mountford, 2012).

The identification and mobilization of the local productive potentials according to Almaguer (2014), constitutes a basic principle of the local development since these can be source of income and

products that contribute to the development of the local economy and the satisfaction of necessities of the population, among them makes allusion to the possibility of adding value to primary productions.

In this context, and in line with the Inter-American Institute for Cooperation on Agriculture (IICA, 2018), it can be argued that the management of production chains is of great importance, since it makes it possible to describe the development of the activities of a business organization, generating value for the final client; at the same time, it articulates, in the same analysis process, all the actors involved in the activities of primary production, industrialization, transport, marketing, distribution and consumption, becoming a basic instrument for agreement and dialogue among the actors, in order to achieve greater levels of competitiveness.

The production chains are also considered as a group of economic agents directly involved in the production, processing and transfer to the market of the same product. Its main objective is to locate companies, institutions, operations, dimensions and negotiation capacities, technologies, production relations and power relations in the determination of prices" (Tomta & Chiatchoua, 2009). These elements denote the need to adequately exploit and strengthen the benefits of the productive chain in the management of local development.

The present article describes a methodological proposal to add value to the productive chain Fruit trees of the UBPC "Rigoberto Corcho", contributing to the achievement of the local economy and the satisfaction of needs of the population.

MATERIALS AND METHODS

For the diagnosis of the process of management of productive chains in the UBPC "Rigoberto Corcho", secondary sources of information were consulted with the objective of looking for the antecedents that with respect to the object of study existed, and the peculiarities of the same one in the official documents that regulate the process of management of cooperative companies. With respect to the primary sources of information, a set of surveys and interviews were applied to members, management of the cooperatives and members of the Municipal and Provincial Administration Council, and the results were processed from the use of descriptive statistics, using the SPSS software, version 21.0.

The development of the proposal took as a reference the theoretical-methodological basis presented by Sablón, Acevedo Urquiaga, López, Acevedo Suárez, Urquiaga & Medina (2015) and Suárez, Hernández, Roche, Freire, Alonso & Campos (2016), which carries out an analysis of productions ranging from producer to consumer, considering that the production chain should be formed by the whole set of products processed in the entity, as well as those directly in charge of supply, transformation, distribution and delivery to the final customer. These methodologies, individually, do not fulfill the necessary requirements for the design of a productive chain of fruit trees with added value, since they include a set of actors at municipal or national level, as well as their interrelations, which express the analysis of the chain as well as the incorporation of value; for this reason, the mini-industry chain is not designed, which is the objective that surrounds our research, hence a procedure was applied that integrates two methodologies that go from the design, analysis and increase of value for the conformation of the agroproductive chain.

RESULTS AND DISCUSSION

The results of the application of the research techniques and the study of the methodologies for the conformation of the proposal were the following:

Elements about the management of productive chains

Potentialities

- The municipality of Artemisa is the provincial capital, where the fundamental economic activity is agriculture.
- The UBPC "Rigoberto Corcho" is a cooperative with an economic surplus.
- The UBPC has two mini-industries, one of construction materials and one of fruit and vegetables, in addition to various means of transport for the development of their activities.
- There is a legal and regulatory framework in the country that defines the functions of the productive forms and the importance of establishing productive chains at the municipal level.
- In the mini-industry of fruit trees 13 different productions of fruits and vegetables are elaborated.
- Eighty percent of the UBPC's production goes to the municipality's balance sheet.
- UBPC production is considered to be of high quality.
- There are ideal conditions in the UPBC for the development of agricultural production chains.
- UBPC's customers are considered to be highly satisfied.
- 63 % of customers prefer processed fruit.
- 92 % of the customers consider the prices to be reasonable.

- The development of production chains is a strategic axis of government management in the province.
- Provincial and municipal recognition of the activity developed by the UBPC "Rigoberto Corcho" in the management of productive chains.

Restrictions

- 100% of co-operators lack knowledge about production chains.
- Despite the recognition of the need to develop production chains in the municipality, it is difficult to make concrete proposals associated with this activity.
- Insufficient preparation for the elaboration of proposals and projects.
- There is a lack of technology and training for the development of production chains in the municipality.
- It is assumed that certain actors do not have sufficient preparation.
- Lack of or deteriorated infrastructure of existing facilities at the municipal level.
- Municipal-level linkages are not considered to be well conceived because certain links do not work.
- There is centralization of inputs at the municipal level.

- There are no proposals for improving production chains in the municipality of Artemisa.

Methodological Proposal to add value to the Fruit Chain of the UBPC "Rigoberto Corcho"

The principles that support this proposal are: continuous improvement, participatory approach of all partners and managers, leadership in processes and compliance with the values of the organization.

It is characterized by adaptability, flexibility, contextuality, integration and relevance.

The premises for the application of the methodological proposal are:

1. UBPC management and partners must appreciate the need for change and be committed to the application of results.
2. The training of the personnel involved for the understanding of cultural transformations.
3. An organizational climate that contributes to teamwork, a permanent learning environment and access to information.

The structure responds to IV Phases, as shown in figure 1.

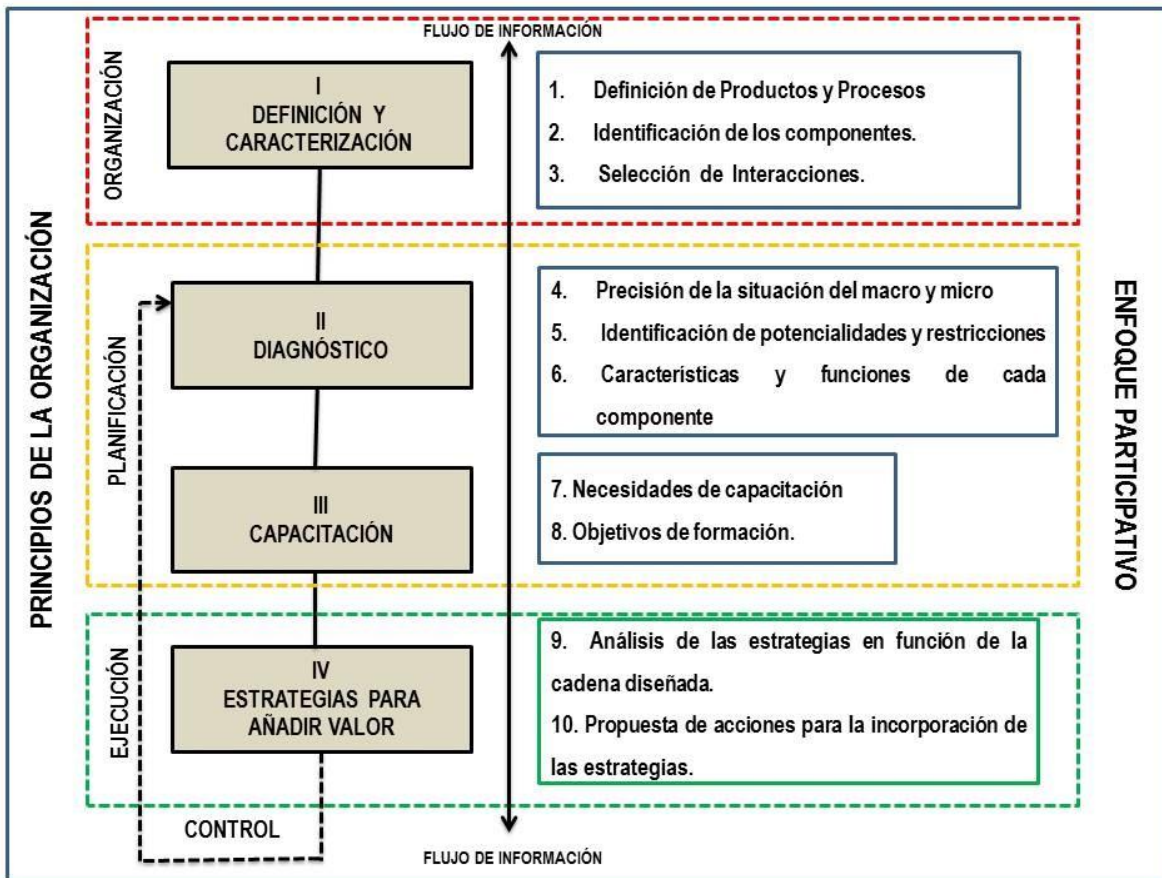


Fig. 1. - Methodological proposal for the management of value-added production chains

PHASE DESCRIPTION

Phase I: Definition and characterization of the chain

It focuses on the impact and importance of the creation of the chain, depending on the needs of customers, a particular territory or a specific entity that perceives the need to integrate into a network to be competitive in the market.

Step 1: Definition of products and processes that make up the chain.

Step 2: Identification of the components.

Step 3: Identification of the interactions that may occur within the links.

Phase II: Chain diagnostics

To carry out the technical and organizational diagnosis of the components of the chain.

Step 1: Accuracy of the macro and microenvironment situation.

Step 2: Identification of the potentialities and restrictions of the entity for the development of the chain.

Step 3: Functions of each component of the chain.

Phase III: Training

The decision-making human talent in the chain must function under the learning-doing trend, in relation to the needs of each client.

Step 1: Identification of training needs from the critical points that makes up the chain.

Step 2: Training objectives.

Phase IV: Strategy for increasing the value of the chain

Step 1: Analysis of the strategies according to the designed chain.



Fig. 2. - Links in the fruit production chain at the UBPC

With respect to interactions, TecnoAzúcar acts as a supplier and also as a final consumer, which provides the seeds for the sowing of the products that will be taken to production by the mini-industry. The producer is the same agent that commercializes the product, which reduces the costs associated with intermediaries in the commercialization process. The production, transformation and commercialization is carried out in the same entity bringing with it the elimination of bottlenecks. The economic agent that has the least interrelation with the other components of the chain is the final client, even though the production is destined to satisfy the needs of this last link.

Step 2: Prepare a proposal of actions for the incorporation of the strategies.

In summary, the results of the application of the proposal in the UBPC were as follows:

- The fruit trees were chosen for the design of the production chain. Among them are: mango, pump fruit, guava and pineapple that have a high nutritional content providing vitamins, minerals and proteins essential for health.
- The components are associated with the key processes in the development of these productions, as shown in figure 2:

Analysis of the strategies according to the designed chain

Different international organizations agree that three generic value-added strategies can be identified (Agricultural Marketing Resource Center (AGMRC), 2016; IICA, 2014; Salvador, 2016), which can be developed through:

1. Physical changes of the product, through processes of conservation, transformation, packaging and labeling.
2. Market differentiation and segmentation in such a way as to increase the value of the product, incorporating quality and safety systems, attributes linked to the origin and aspects related to environmental protection, health and social responsibility.

3. Innovative mechanisms such as the use of by-products, the generation of bioenergy, the use of native biodiversity and the diversification of the agricultural unit.

Analyzing the first value-added strategy, agrifood products can be divided into two broad categories: fresh and processed products. The degree to which agricultural products are processed depends to a large extent on market demand and the characteristics of the products themselves. In the case of fruits, the market for fresh produce is generally more uncertain, with smaller volumes and higher prices. On the other hand, processed products have a more stable market, higher volumes are traded but prices may be lower (Salvador, 2016). One of the main objectives of food processing is to prolong its useful life; that is, through adequate transformation, packaging, outbound logistics and cold chain, food safety is ensured, an essential aspect that is highly valued by consumers.

The second value-added strategy refers to differentiation mechanisms through which the product is positioned in the market as possessing attributes of distinctive character, which are recognized and valued by consumers. In order to do so, it tries to communicate these special particularities to the consumer through brands, quality seals, certifications and promotion. In many cases, these are intangible qualities that have repercussions on health, nutrition, care for the environment, respect for the landscape and culture, among others (Salvador, 2016). We can distinguish three differentiation mechanisms: by health quality management; according to attributes linked to origin and by attributes related to environmental protection, health and social responsibility.

In addition to the above-mentioned strategies of adding value through

processes of conservation and transformation, and differentiation, there is a third generic strategy based on innovative mechanisms such as the use of by-products, the generation of bioenergy, the use of native biodiversity and the diversification of the agricultural unit.

In this case we are going to refer to two of them, in the first place to the use of native biodiversity or "biotrade" that is based on the production, collection, transformation and/or commercialization of native species with potential for the production of functional foods and nutraceuticals. Another value-added mechanism is diversification at the "property level", through the incorporation of new activities that may be agricultural, forestry or even from another sector.

In the case that it is sought to value the landscape, the traditional practices and the artisan products, the agrotourism appears like an activity of great potential. This requires adapting the offer in aspects such as customer service and quality; promoting the organization of suppliers of products and services; establishing alliances between these suppliers and local governments; rescuing and valuing local traditions and knowledge that allowed the development of processes, products, recipes and consumption habits (Cándano, 2017).

Concrete proposal of actions for the incorporation of the strategies

Strategy 1: Physical product changes

- Diversify the production of products using other processing techniques that allow their presentation in different forms (quinces, jams and slices in large

and small containers and natural juices).

- Improve the presentation of the product by making it more attractive to consumers.

Strategy 2: Diversification and market segmentation

- Establish a production line with products low in sugars intended to meet the needs of consumers with these requirements.
- Link the presentation of the product (labeling) with the background of the origin of the name of the province (Artemisa) that may be attractive to customers.
- Design a reforestation strategy with fruit trees maintaining and balancing the environmental conditions.
- Coordinate with other organizations and institutions the donation of part of the productions for social works.

Strategy 3: Innovative mechanisms

- Use the by-products of the production process as fertilizer for the development of agricultural activity.
- Produce feed for livestock: cattle, horses, buffalo, sheep, goats, pigs of the cooperative from the by-products.
- Project a communication strategy based on the characteristics of the fruit trees of the UBPC as nutraceutical foods.
- Coordinate with the Delegation of the Ministry of Tourism (MINTUR) the incorporation of new activities

within the packages and tourist excursions, related to the valuation of the landscape and the traditional practices of the treatment of the fruits as an element besides to promote the agrotourism through the marketing of experience.

The methodological proposal used in the elaboration of the agroproductive chain of fruit trees facilitated to establish the interrelations of the components of these links, from a perspective of value.

For the proposal the general premises were established, with objective, concrete and integral character, attending to the real possibilities of the entity. In this sense, strategies of incorporation of value for the productions of the fruit trees are proposed.

The proposal shows the possibilities of improvement in the UBPC "Rigoberto Corcho" as for the incorporation of the design of this chain whose end would be the real satisfaction of its clients, to increase the income, to minimize the costs, to extend the range of products, to insert in new markets, to incorporate other sectors that consume the productions and to improve the traceability of the productions from the producer to the final consumer.

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