

METHODOLOGY FOR DESIGNING AN AGRICULTURAL COMMODITY LOGISTICS INFORMATION SYSTEM

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Introduction

The information revolution as a source of technological innovation and improvement has spread throughout the economy. Exceptional reductions in the cost of obtaining, processing and transmitting information are transforming the way that companies are managed (Porter & Millar, 1985).

The use of information systems is changing the way that companies currently work, achieving considerable improvements, automating operational processes, providing information to support decision making, and enabling the achievement of competitive advantages through its implementation (Cohen & Asin, 2000).

Methodological Proposal

In order to design an agricultural logistics information system, the methodology is proposed in four stages:

- (1) data collection and data validation statistically,
- (2) agricultural logistic indicators design,
- (3) agricultural logistic information system design, and
- (4) agricultural information system implementation.

Expected Results

With the project realization, Chontla municipality will be given a territorial information system that characterizes the agricultural sector, allowing the corresponding authorities to execute projects that enhance the local, socio-cultural and sustainable economic development of its rural localities. The technological impact of this project is based on the strengthening of the agricultural production sector, supporting at least 200 producers of the municipality's shared land in the marketing of their products, improving the income of the producers by concentrating the production information, goods, services and networks of marketing of agricultural products and inputs.

Conclusions

Currently there is a great need for both public and private actors to make decisions on territorial variables in less time and in more complex environments, the Mexican agricultural supply chain system presents several constraints that make it uncompetitive and inefficient: heterogeneity in distribution channels, limited storage and transportation infrastructure, little use of quality standards, traceability and standards, market and information failures and high transaction costs among others. These are only some of the problems on which the country's agricultural policy should put special emphasis. Having a territorial diagnosis of the Chontla Municipality, where there are agricultural logistics indicators, will allow a boost in local economic development, making it easier to make decisions regarding agricultural planning in relation to crop types, production volume and quality or optimal harvest time, sale or distribution, among other aspects.

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