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Organizational innovation on the growth of farmers' income in Ecuador

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Abstract. Put forward is the research on the way to improve the farmers' economic and social situation based on an innovative organizational system; all organized into a cooperative association called a "Consortium".

Keywords: Organizational innovation; Partnership; Consortium; Farmers' income; Small and medium agricultural productive unites (APU's).

Introduction. Ecuador has a strong agricultural orientation and this sector is a vital and dynamic part of the economy, employing a high proportion of the workforce, which provides income to almost 40 % of the population and contributes almost 50 % to the country's income [1].

The agricultural sector's contribution to the economy is large, accounting almost for 26 % of the national income and 111 % of the GDP. Most agricultural production in Ecuador is primarily undertaken by small producers (less than 20 ha), representing 84.5 % of APUs [2].

Only 2.3 % of the production units are large with over 100 ha. This productive duality shows in one hand the small productive agricultural units (APUs) with relatively small acreage, low productivity, limited access to credit facilities and non-position on the markets; and on the other hand, production units that will be referred to as "the monopolists" with large acreage, broad access to expanding technology, support, resources, high levels of productivity, and access to foreign markets; these consolidated operators are able to produce food in high volume but have little to no compromise with the society, and even worse, no regard for the environment.

There are an endless number of weaknesses in the common farmers' practice due to the lack of an established production system, which is due to the lack of market facilities and financial means for investment, low educational level or lack of skills for business.

If just a few farmers get organized and fight back against this unfair market, solutions may be found for the other problems. These problems can be tackled with the effectiveness that partnerships offer, by combining efforts and sharing responsibilities, production can be strengthened, resources can be shared and hence making profit as they work together to support economic progress and collective development.

Quoting a few lines from one of the most famous and ancient books in the world can explain the objective of this system, "one may be over powered, two can resist" and "Two are better than one, because they get more fruit from their efforts". The organizational term refers to a partnership relationship between two or more people or ventures working towards a common goal. This system's concept is not new, there are many kinds of organizational structures and management systems but the common objective of them all is to put together the strengths and overcome the weaknesses.

The organizational innovation proposed is the conception of a form of partnership called Productive Agricultural Consortium which based on the association of small and medium-scale farmers and is focused on bringing about continuous progress for the partners of the consortium

based on an autonomous system. The Consortium can be defined as a network of individuals and enterprises getting together to strengthen their position in the markets, allowing the participants to operate with the advantages offered by the cooperative model, all the while without losing their autonomy. The consortium acts under a structured system of Agribusiness and is regulated by institutions and policies that manage its behavior and performance.

Organizational innovation in agriculture is imminent; it will change the old concept of the rural country side from an undeveloped poor place to a successful industrial sector. The aim of increasing the farmer's income is one of the most important policy guidelines for rural areas, and starts with increasing the productive capacity which is one of the objectives of the organizational concept.

The Consortium's concept has been used predominantly to explain patterns of economic performance in developed countries for construction and manufacturing companies, and even if in the past it has received far less attention as an operational tool in the agricultural business, nowadays it has become the new mechanism to raise agriculture to a high level, not only in economic productive parameters, but also as a source of research knowledge and development of fresh techniques for the agro-industry, although in Ecuador the operational aspects of this concept remain largely unexplored.

Materials and methods. This paper seeks to review the effectiveness of the Productive Agricultural Consortium in guiding small and medium scale farmers to increase their income to support themselves and the agricultural rural areas' development.

Materials to accomplish the research were overseas' sample experiences in the model of the organizational partnership called Productive Agricultural Consortium, which were used to assess the usefulness of this system to guide investments in the agricultural sector, also the review of literature related with Ecuador's agriculture situation was utilized. Empirical knowledge about the peasant's imperative characteristics in social, cultural and productivity matters was used as well in order to determine the feasibility, challenges and limitations of the Consortium concept in rural areas of Ecuador.

The methodology used is Exploratory and Explanatory due to the fact that this research is done on topics that have not been really explored and recognized in Ecuador.

- Exploratory, because the Productive Agricultural Consortium is a new phenomenon and does not yet support a systematic description.

- Explanatory, since the research requires knowledge, and even more to understand the origins or causes of each matter and determine the delimitation of causal relationships.

The data source will be public surveys aimed at some of the rural communities in Ecuador, collecting strategic information, which includes the households' expectations with respect to future events, changes and contingencies, and their intentions with respect to future events. Survey analysis is one of the most commonly used research methods to investigate a wide range of social issues.

Results. Ecuador has total of 25,637,000 hectares, of which 46 % are intended for agricultural and livestock production, including mountains, forests and fallow land [3], from that less than 30 % is economically active which makes the system productively inefficient.

The agricultural rural areas is one of the most repressed sector in Ecuador, but is also one the most prolific and strategically important for the economy; provides income to about 40 % of the population, where it should be noted that small producers (from 1 to less than 50 ha) represent 90 % of the total, of which 70 % of small producers' land is underutilized.

The motivation for exploring the utility of an organizational change is that old analytical frameworks, with their "traditional" systems for maintaining the agricultural business, cannot deal with the rapidly changing context of agriculture. Developed countries are making changes in this matter; there is the example of Chile, Brazil, Italy and United States, they are already working under partnerships models, with good experiences that prove the efficacy of the change.

In Ecuador the Sole Proprietorships have been for decades the traditional system used for the majority of farmers, its deficiencies in productivity are reflected more than its achievements. Having a weak structure with no support to deal with unexpected situations, this system places the farmer in a state of productive and economic instability and this is shown by statistics, where more than the 50% of the farmers are denied a deal in agriculture.

Several concepts were applied to explore the partnership as the organization model; these concepts address a central insight into the innovational organization framework. Partnerships and linkages have been analyzed in their whole context, which greatly defines the necessities for innovation, especially when most of these concepts have been eroded and corrupted by diverse kinds of entities that had exercised the guiding principles incorrectly.

The organizational concept in Ecuador is understood as joint social groups, for example some farmers are part of these groups called “Associations” or “Cooperatives” in many different agricultural industries (cattle and potato producers in the Coast, in the High Lands, etc) where the advantages obtained in this kind of organization are subject to relationships, in some cases discounts on inputs and occasional training courses, but there are no supportive rewards in terms of business development or financial backing.

The Consortium is a partnership, association or society of two or more individuals, companies, or organizations (or combination of these entities) with the idea of participating in a common activity or pooling their resources to achieve a common goal. Several companies and individual people are aware that if they get together with other people with similar interests, it is possible to create a powerful force to get more favorable business, enabling companies to become part of huge corporations and provide strength to obtain credit and loans.

The Productive Agricultural Consortiums as the Organizational innovation seems to offer the opportunity to solve the ineffectiveness of the agricultural sector under the traditional “Solo” model, which is evidently seen in the low level of farmers’ income. Table will provide an explanation of how various factors influence agricultural income in the traditional system and the system under the proposed organizational change.

Table Factors that influence the agricultural income in two systems

Influencing factors on agricultural income	Traditional system	Consortium
Marketing	Lack of market facilities. Depends on the Intermediary.	Build and enjoy a fair market, with stronger integration of the agricultural sector in international markets
Productivity	Lack of an established production system	Strengthen the productive capacity; Higher volumes to satisfy the demand.
Economic psyche	Lack of confidence to engage in business	Sum of individual ambitions which drives economic activity
Developmental resources	Lack of training and technical support due to the high costs; Lack of skills for business.	Access to training and technical support facilities due to the share of costs.
Financial means	Lack financial means for investment	Has capital foundation
Employment generation	Family labor unit	Large employment generation to support the company structure
Technology	No chance for access to technology	Technological innovation, industrialization of the production chain.
Rural development	No commitment	Improvement of the economic and social environment for the surrounding community
Business Structure	Absence of business structure	Shared resources and jointly planned activities that enable the members to provide more

Cost effectiveness	Lack of definitive logistics.	services and more effectively Reduction in the costs of resources, purchasing in bulk.
Potential growth	Weak and undetermined	Expansion of services

This system appears to be able to solve the current exposed problems, although there are few exceptions especially in the areas related to political regulations, which could have had an earlier solution if the voices that point out the problems can be heard, and that can only happen if those voices are strong enough.

Discussion. As a result of economic deregulation, innovations in information, technology and telecommunications, the small and medium-scale APU's are increasingly exposed to global competition, but the relatively small volume produced due to the lack of financial means and expertise keep them away from successfully positioning their products on the markets which requires further development in the organizational basis, products and services.

The structural adjustment programs and economic liberalization have been oriented to favor the agricultural export sector, promoting a more dynamic integration of agriculture in the international market, but these adjustments have excluded the small units that are also productive; detrimental to basic food production and adversely affecting the rural economy. Only highly capitalized producers are able to maintain their competitiveness in international markets, which requires large investments as well as high productive capacity.

The current situation of agriculture in Ecuador shows APUs working under the traditional Unit System, also called Sole Proprietorships, which is the ordinary agricultural production scheme around the world in terms of small and medium scale farming, with an income that does not represent the real value of the total effort put into taking care of and growing that apple or rearing that cow.

In Ecuador after harvesting of produce, what do the common farmers do with their goods? The marketing factor has been the Achilles heel for small-to-medium scale farmers, since they always have had to depend on the local intermediary dealer who ends up being the first and only option. The middleman is an informal trader who misappropriates the householder work, makes the city life expensive and pays the producers a minimum amount for their products, while depending on the dealer's goodwill, which can result in the inflation of commodity prices; indeed when there are places that pay for a product three times the normal price, the same product, in other cases, has to remain in the fields without any profit for the simply lack of marketing structures.

The traditional farmer is characterized by the lack of confidence in not only others but even himself. Added to this is the farmer's fear of taking risks and starting new projects that can lead to better production and economic standing.

Education and training engenders an increased capacity, confidence and willingness to change, seek and adopt innovative technologies and best-practice management techniques and enables a farmer to be adept at risk management. Improving human capital in agriculture is especially important where the shortage of trained human resources is a major limiting factor to development, but unfortunately for many smaller producers the cost of training is high and it is known that farmers who participate in training and educational activities are more likely to be profitable and to change their practices to improve performance.

For decades the traditional system for agricultural production has not shown any sign of success; the farmers being hindered from consummating their efforts is a result of the absence of a structured organizational system that might give the producer the power to directly distribute, get a fare deal, stop speculation and subsequently stabilize the economy.

With an organizational system many things can be done, like systematizing a strong structured plan to overcome "market gangs", as well as improving the productivity, finding knowledge supply and even the ability to have a source of support and help for decision-making matters. A fair market is just one of the basics things that could be achieved with the influence of this organizational model, and if implemented properly, can directly help in finding subsequent solutions for the other problems.

The productive agricultural consortium is a fresh concept in Ecuador and so will be readily accepted by people who have been left despondent by previous failed systems. By borrowing innovative ideas from countries that have achieved agricultural effectiveness following the Consortium model, this same model can be applied to Ecuador's current agricultural system. The potential for Ecuador to obtain very convincing/significant results in the agricultural sector through this model signals the significant importance that this approach has.

With secondary effects like employment to support the conformed company structure, there will be economic and social improvement for the surrounding community. Making governmental marketing policies is very important in this regard because they can regulate the informal market, encourage production by offering incentives and protect the consumer and the producer with laws and they are what the country urgently needs.

The consortium's compound definitive structure and its various positive features can allow it to work under a more dynamic policy, leading to a better market, technology and socio-economic environment.

Conclusion. The diversity and complexity within the various regions of Ecuador and stakeholder relationships indicate that there are a number of operational challenges to be resolved, which deserve research efforts that contribute to expanding the understanding of localized processes to promote development.

Knowledge about rural population attitude plus additional research on rural development, agricultural production, management and consortium issues complete the formula to shape the process of increasing farmers' income in rural areas, as well as providing actual information on problems in the agriculture sector and solutions to some of the farmers' problems.

One of the main obstacles faced by this kind of project is the lack of credibility that has been generated by activities of this sort, since on more than one occasion people have been defrauded by offers of improvements from those in authority, which in some cases were half done or never came into being. Those people with "fake offers", unfortunately, not only had taken money but also, worse, the trust of the people.

It's necessary to continue to support, consolidate and expand this project despite the enormous challenge that it faces. This can be done with continuous training of farmers and workers, while keeping an eye on future sustainability, where there can be the implementation of open socially oriented units and thereby realizing one of the aims of the project, i.e. its commitment to social development.

Another potential strategy is the promotion of big partnerships, not only where farmers team up with farmers, but also where resources are pooled together, including collaboration among farmers, scientists, universities, other stakeholders and even the government, so as to achieve the desired objective competitiveness in the face of market demands.

This research on Productive Consortia in Ecuador promises to be a model guide that will offer to bring development to the rural agricultural areas. This organizational innovation does not focus only on the productive and commercial activity, but also on the social and even environmental commitment.

Collected strategic information substantiates the feasibility of applying this model and the entire process will precipitate in the people having a new concept of Agribusiness and the provision of chances for them to become socially and economically active through a methodological and effective program.

In conclusion, farmers will be able to increase production capacity under the consortium model and thus be able to penetrate international markets. Small and medium-scale farmers can find a place to develop their business allowing for the establishment of a consortium niche. This niche includes functions and benefits that extend to the various facets of the surrounding community and the country as a whole.

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Организационная инновация роста дохода фермеров Эквадора

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Аннотация. В работе исследуются способы улучшить экономическую и социальную ситуацию фермеров, основанную на инновационной организационной системе, сводящуюся к кооперативной ассоциации под названием «Консорциум».

Ключевые слова: Организационные инновации, партнерство, консорциум, доходы фермеров, малое и среднее сельскохозяйственное производственное объединение (ВСУ).