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Financing Chain Associations

Industry Speaks

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Abstract

Fundecitrus, an industry association in Brazil which serves as a consortium of orange juice related industries and producers recently created a new contribution model for its organization. The model was developed based upon four pillars: (1) Benchmarking with other associations, both national and international companies. (2) Interaction with the chain community, through questionnaires, a consulting panel and workshops. (3) Formulating a collection model that was more equitable to the participating stakeholders. (4) A management and control system plan for implementing the project. The model was developed by working closely with the Fundecitrus Management Board. This research will be relevant to managers of other trade associations who are interested in restructuring their own contribution model by utilizing a process which can be replicated.

Keywords: industry associations, contribution systems, citriculture, Fundercitus

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Introduction

The Brazilian citriculture industry has an exemplary past. From the beginning it has generated more than $60 billion for Brazil and has provided worldwide leadership in marketshare, innovations, logistics and positioning. Maintenance of the Brazilian citriculture industry is of the utmost economic importance. Brazil grows 20% of all oranges produced worldwide and accounts for 85% of commercialized orange juice internationally. Most of the oranges grown in Brazil (98%) are exported. Brazilian citrus is primarily exported to: Europe (70%), North America (13%), Asia (13%) and others (4%). This productive chain generates around $1.5 to 2 billion per year for Brazil. Citriculture is one of the major activities in Brazilian agribusiness, impacting nearly 400 cities in the state of São Paulo, creating about 200,000 direct and indirect jobs, including temporary employment during the harvest phase that is characterized by manual picking in Brazil.

Country	Grapefruit	Lemons and limes	Oranges	Tangerines, etc.	Other	Total
Brazil	72,000	1,060,000	18,279,309	1,271,000	-	20,682,309
China	547,000	745,100	2,865,000	14,152,000	1,308,000	19,617,100
United States	1,580,000	722,000	7,357,000	328,000	30,000	10,017,000
Mexico	390,000	1,880,000	4,160,000	355,000	66,000	6,851,000
India	178,000	2,060,000	3,900,000	-	148,000	6,286,000
Spain	35,000	880,000	2,691,400	2,080,700	16,500	5,703,600
Iran	54,000	615,000	2,300,000	702,000	68,000	3,739,000
Italy	7,000	546,584	2,293,466	702,732	30,000	3,579,782
Nigeria	-	-	-	-	3,325,000	3,325,000
Turkey	181,923	706,652	1,472,454	738,786	2,599	3,102,414
World	**5,061,023**	**13,032,388**	**63,906,064**	**26,513,986**	**7,137,084**	**115,650,545**

Figure 1. Top ten total Citrus Fruit Producers for 2007[1]
Source: Food And Agricultural Organization of United Nations: Economic And Social Department
*World's top producer in each category is highlighted in gray.

In recent years, one of the biggest threats to the Brazilian citriculture is the increase in number of plant diseases that attack the groves. Such problems, besides making production onerous and dependent on high technology controls, reduce productivity and cause irreversible damages through tree eradication.

Periodic inspection of groves is essential to early disease detection and prevention.
The São Paulo state government was responsible for providing this service. However, limited financial and structural resources within the Brazilian government jeopardized quality monitoring. In order to support citriculture and adequately address these challenges, orange juice indus-

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tries and producers joined forces in 1977 to create Fundecitrus—Fund for Citrus Plant Protection. In the 1990's, the organization developed a research partnership with both Brazilian and international institutions and universities. Since its founding, Fundecitrus has become one of the most respected organizations in the world for vocation and innovation in tracking diseases, as well as for generating and disseminating new technology.

In 2009 this non-governmental organization was re-structured into three areas:

1. Technical—responsible for inspection and producer training. They employ approximately 2,000 assistants and more than 100 coordinators, distributed through 54 regional offices.
2. Scientific—conducts and finances scientific research with about 15 researchers.
3. Communication— provides a communication channel for the producers through an informative bi-monthly magazine and manages the institution's web site.

An operating budget of nearly $20 million annually is funded through assessments from producers' and the orange juice industry. Contributions are calculated on a base collection of $ 0.08 for each orange box (40.8 kg) delivered from producers to the orange juice industries. The revenue from each box of oranges delivered from the producer to the orange juice factories, are divided between producers and factories equally.

Meanwhile, the collection model for contributions was modified in 2008 by a new statute. The new model proposed a different way to calculate the assessment, by switching from a per box charge to the number of citrus trees—per property of each associate. This modification enabled for the inclusion of citrus producers who deliver fresh consumption products to markets.

The new model would generate additional revenue from the factories producing juice, machines utilized in juice production, inputs and others. The new model provides a wider collection range by including citrus producers whose products are destined for the fresh market and adding some additional links into the production chain. However, this new inclusion model created a new set of questions and challenges for the Fundecitrus management board:

- How to assess the inventory of the citrus groves?
- What operational procedures are needed to implement this new collection?
- Is this the right time to modify the contribution model or is it still too early, based on the information that the organization received from the associates?
- How do we get other links within the production chain to contribute to Fundecitrus?
- How do we strengthen our credibility and support for the proposal?
- How can we motivate other agents to contribute to Fundecitrus?

One of the biggest factors effecting the development of group actions in Brazil is resources and leadership. The majority of non-members simply are not interested in becoming members. These factors impede any significant change.

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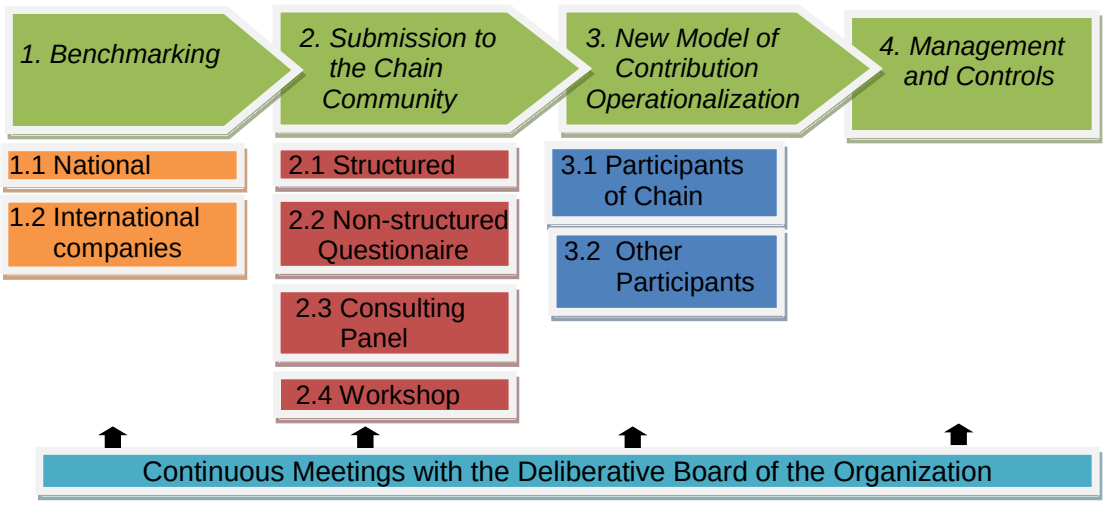
Organizations that want to prosper must respond quickly to the challenges posed by political, economic, technological, social and environmental regulations. Non-mandatory industrial organizations may experience difficulties in financing, mainly in times of economic crisis. Because there is no guarantee of economic stability today, it may be necessary to rethink models of contribution. Whether an organization is linked to the citrus industry in Brazil, the dairy industry in Australia, or coffee industry in Colombia, it is important to know how other contribution systems are organized in order to gain new ideas and solutions on how to best operationalize it within another organization. This type of information extraction can be accomplished through a tool called benchmarking.

This paper discusses the challenge of creating a new revenue stream for industry associations and examines the process that one non-governmental organization went through when it decided to change its contribution system. This research can serve as a resource and model for others chain organizations facing similar issues.

Benchmarking

In order to answer the posed questions, a model was developed based upon four pillars: (1) Benchmarking with other associations—both national and international companies. (2) Interaction with the chain community, through questionnaires, a consulting panel and workshops. (3) The formulation a contribution model that is more equitable to the participating stakeholders. (4) A management and control system for the new method. It is important to emphasize that each of these steps were developed through continuous meetings with the management board of the organization. This method is synthesized in Figure 2.

The benchmarking method was applied to fifteen organizations, seven domestic companies and eight abroad. Each represented different production chains and services. Apart from separating compulsory and non-compulsory contributions, the study attempted to answer three main questions:



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Steps	Details
1. Benchmarking	To understand the contribution method of the system that is being studied. To search contribution models of national and international industry organizations to learn their core objectives, value proposition for its their membership, ways of coordinating the contribution system, frequency of collection and how their database renewal works
2. Submission to the Chain Community	This is the central issue of the methodology. It should be conducted interviews with all actors in the productive chaining using structured and unstructured questionnaires, consulting panel and workshops aimed at increasing the degree of stakeholder involvement across the chain.
3. New Model of Contribution Operationalization	Define the contributions to the private sector, based on their participation and reliance on agro-industrial system and what are the resources coming from source public funding. Set to make this charge.
4. Management of Control	The results obtained with the global goals of the productive chain should be measured, preferably with quantitative criteria (increase in consumption, production, employment, bank profit, etc.) and widely disseminated to all members.

Figure 2. The Method for Industry Association's Contribution.
Source: Neves, Gomes and Trombin, 2010.

1. What is the base collection system used by these organizations? What is the collection criterion used (e.g. based on plant, area, processed volume, fiscal discount)?
2. How is the resource collection carried out (for example: Are bills sent via a bank? Are discounts given on payments for raw materials? Are taxes collected)?
3. How is the database of contributing members managed and how is data updated?

Results

Notice that from the 15 organizations polled in the benchmarking sample, seven receive income from compulsory contributions, as shown in Table 1 (Appendix). The international organizations: IDFA, Dairy Australia and the Florida Department of Citrus, all received contributions based on processed volume. Dairy Australia, apart from charges based on processed volume, receives financial AID from the American government to supplement its income.

IDFA is an interesting case. In addition to collecting charges from producers and industry based on the volume of processed milk, IDFA finds additional ways to collect revenue from stakeholders through a charge based on turnover from all agents within the chain; all companies supplying ingredients, equipment, and packaging according to the gross turnover of sales related to the dairy industry.

It was noted that all the compulsory organizations use a database renewal system that uses a self-reporting system supplied from contributing members—a process which is not costly to implement. The collection mechanism for non-compulsory contributions, are completed mostly through billings sent by banks. Another fact that draws attention is that most organizations have

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a more onerous database renewal system, including constant visits to property and/or use of GPS and satellite.

Table 2 (Appendix) shows organizations whose contributions are not compulsory. Among the cases worth highlighting is BSCA (Brazil Specialty Coffee Association), who not only collects a charge based on planted area, but also has other methods of collection based on exported volume, nominal collection (different charges for each member category), a charge for production certification and a charge for the stamp.

Industrial organizations that involve all links in the production chain tend to generate a stronger contribution system and organization. This paper provides examples of how an organization could restructure its contribution model to involve more participants in the supply chain. The objective of this case study is to serve as an example for other industry associations to see how this association has proposed the contribution to different links in the supply chain.

Under the current contribution model, Fundecitrus's income is basically composed of contributions coming from citriculturists, orange juice industries, punctual deposits made by the State and Federal Government, and other resources that Fundecitrus obtains in Brazil and abroad.

In the new stature, resources for Fundecitrus will consist of contributions and donations from: (1) citriculturists; (2) nurserists; (3) manufacturers of components used in citriculture; (4) fruit processing companies (packing houses); (5) income generating and contractual services such as the government (MAPA and Agriculture Department of São Paulo State); (6) subventions and donations from individuals, private corporations and other sources.

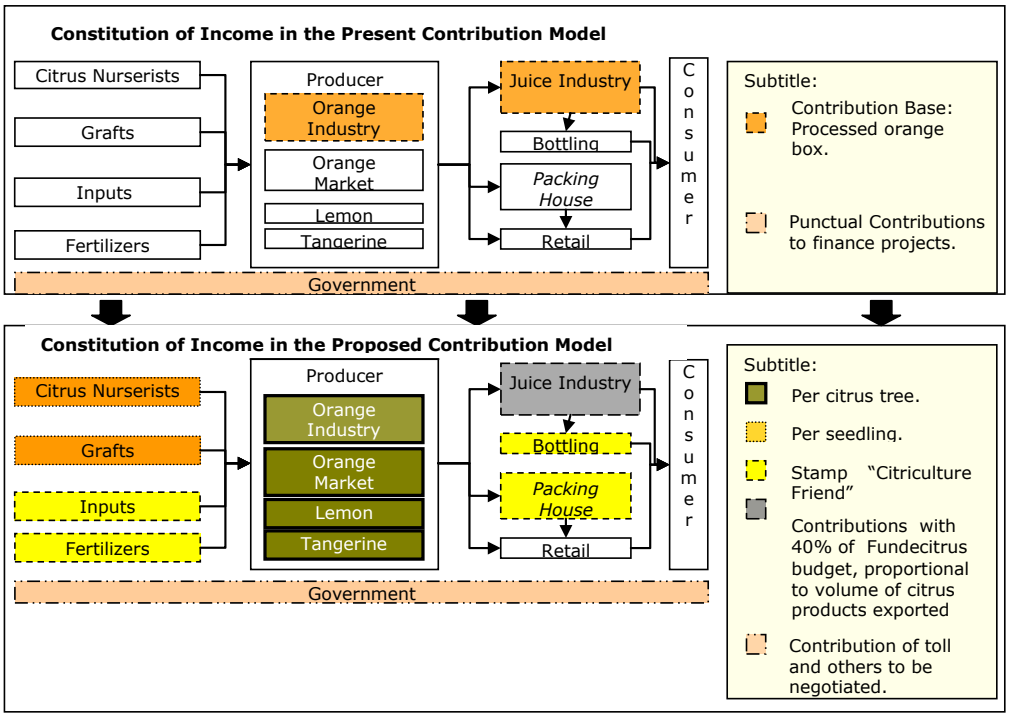

Figure 2. Fundecitrus income constitution by links of the production chain.
Source: Neves, Gomes and Trombin, 2007.

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Figure 2 shows the origin of contribution in the present model and the model proposed by the new statute. The new model broadens the contribution base, including growers of fruit for "in natura" consumption, besides including other sectors of the citrus production chain.

Restructuring the contribution model so that revenues are calculated by trees rather than boxes creates new opportunities and challenges. The benefits are:

- Higher coverage, since all citrus groves would now be covered in the new calculation rather than only saleable citrus. This creates a more equitable revenue stream for Fundecitrus. Inspection costs account for the largest part of their budget, which is already based on trees rather than boxes. Therefore, they will now be able to charge for this service using the same cost generating unit.

- The new calculation model will increase productivity. The more productive the citriculturist (box/tree), the lower the amount paid per box. For example, a citriculturist, who produces on average three boxes per tree, pays $ 0.04 per box. If we consider a unit cost based on average of $ 0.076 per tree, this citriculturist will pay approximately $ 0.025 per box.

- Greater citriculturist involvement and participation in the association. Since the trees belong to the citriculturists and the new contribution model is based upon the number of trees, a greater representativeness will occur with Fundecitrus. As a more complex inventory system of citrus groves become cataloged, there are will also be opportunities to collect additional data such as tree varieties and age. These will create valued added services that encourage citiculturist to become more engaged in the strategic decision-making and planning.

- Producers know in advance how much they will have to pay, regardless of their production. The cost will be fixed and it won't be variable.

However, a big concern among associations and trade unions, which also must be considered is that citriculturists face a serious situation in terms of economic sustainability due to older groves that are in more advanced stages of diseases and consequently less productive. These will have an impact on budgets and are a hindrance to expanding groves and operations. Due to this challenge, this report aims to suggest possible solutions divided into 8 sub-items: (1) citrus producers, (2) citrus nurserists, (3) inputs manufacturers, (4) processing companies or packing houses, (5) the Orange Juice industry, (6) bottling companies, (7) government, (8) service supply.

Management and Control

Alternatives were discussed on how to best operationalize the new model in a short-time period. A set of alternatives were named *Short-Term Solutions*. In addition to the proposal, this work also suggests more elaborate measures that could be implemented after the first two years of the implementation, that should occurs in the following two years.

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The proposal is explained in detail, following the order of citriculture dependence and importance in relation to the volume of contributions. Table 3 shows all the solutions proposed and summarized, per agent involved in the chain, for short and long-term implementation.

Table 3. Solutions for deployment for short and long-term

Item	**Short-Term Solutions (2 first years)**	**Purpose from the third year ahead, but that must be developed immediately**
Citrus Grower Contribution	Maintenance of the actual model for more two harvests. Conquest groups and producers that do not contribute to re-contribute To star immediately the procedures to operationalize the 3rd year purpose. Research of the number of citric trees owned by the citrus growers, through declaratory act or with the government help to use National System of Rural Register (NSRR) or the Rural Territorial Tax (RTT). Use Geo-referencing System	Contribution of US$ 0.076 per citric tree. This value equates to the current contribution of US$ 0.04 per box, considering the historical average yield of 1.9 boxes / tree. The purpose from the 3 year ahead can be anticipated when Fundecitrus has the correct data for the groves age. Contributions vary according to the tree age. ▪ New Tree = US$ 0.03 ▪ Grown Tree = US$ 0.076 Another option is: ▪ New Tree = US$ 0.00 (zero). ▪ Grown Tree = U$ 0.089
Orange Juice Industry Contribution	50% of the Fundecitrus budget (US$ 19.5 million in 2007/08) will be divided proportionately between industries in accordance with the market share of each one, based on SECEX data joined.	Gradual decrease of the industry participation in the Fundecitrus budget, with the average between 30 to 40%.
Citrus Nurseries Contribution	Contribution of US$ 0.01 per commercialized stem.	Include the contribution of graft-stocks, with proportional value for the stem based on the production cost.
Inputs Suppliers Contribution	Contribution of 0.5% of gross revenue of the company with the citrus industry. However, the company can use in their communications materials for a trademark such as "Friend of Citriculture," which will certify that the company contributes to the citrus tree protection. Agreement of Fundecitrus with industry associations or companies.	Check whether the contribution of 0.5% may increase depending on the trademark recovery and recognition by the citrus growers.
Packing Houses Contribution	Contribution of 0.5% of the company gross with citrus. On the other hand, authorization to use the trademark "Friend of Citriculture".	Join the MAP to link the CFO emission only for products grown or derived from citrus groves that have a Fundecitrus certificate of inspection.
Packaging Companies Contribution	Individual negotiations with the packaging companies. It is also recommended 0.5% of benefits with citrus to use the Fundecitrus trademark.	See how this contribution can increase according to the time, if there is the trademark possibility and acceptance are big.
Government Contribution	Negotiate 50% of taxes collected in tolls created from the handling of citrus products to be transferred to the tree defense and a supplementary budget for special projects through FAPESP, Department of Agriculture and other state and federal organizations.	ICMS credit recovery and other forms.

Source: Neves, Gomes and Trombin, 2010.

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Managerial Implications and Discussion

The purpose of this paper was to show how industrial organizations can expand their current contribution method to include a wider distribution network by including other links in a productive chain. To achieve this goal, a case study approach was developed which identified critical factors important to the success contribution system planning process. The factors identified were: (1) to utilize communication mechanisms in order to educate and enhance awareness showing the importance of the association to all stakeholders, (2) to ensure transparency in the contribution collection, and to (3) hire an external audit to enhance credibility.

Although the method has been applied in the case study described in the paper, the new contribution model has not been effectively implemented yet, preventing a full statement about its effectiveness. This method can be utilized and adapted to any industry association; however it requires adjustments, depending on the specificity of the chain.

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Appendix

Table 1. Benchmarking of organizations whose contributions are compulsory.

Organization	International Dairy Foods Association (IDFA)	Dairy Australia	Florida Citrus Departament	SENAI	SENAC	SEBRAE	CAFE DE COLOMBIA
Country	**USA**	**Australia**	**USA**	**Brazil**	**Brazil**	**Brazil**	**Colombia**
Main Objective	Represent the AGS of American milk	Represent the AGS Australian milk	Promote Florida's citrus products	Train workers for industry sector	Train professionals for commerce and services	Support the development of small enterprises	Foment Colombian coffee
Size	533 companies	9300 farms	Florida's Citrus Industrial Sector	28 industry sectors	All commerce and service sector	Brazilian commercial sector	380000 coffee producers
Collection of Contribution (Source of Income)	Producers: charge on processed volume Other Agents: % of the turnover	Charge on processed volume and Financial aid from the government for R&D	Charge on processed volume	1% on the industries pay rolls Companies with more than 500 employees pay 1% more	% on the commercial sector pay roll Own income from courses and training programs	% on the companies' pay roll	Difference between the price of coffee in foreign market and domestic market, collected by the fund FONC Issuing of Public Bonds
Collection System	Bill	Discount on delivery of raw material to the industry	Discount on delivery of raw material to the industry	Bill ▪ Security Note ▪ Federal Revenue Service	Bill	Through INSS	Collection of export price difference
Collection	Annually	Monthly	Weekly	Monthly	Monthly	Monthly	Monthly
Database renewal	Survey with Members	Survey with milk processors	Forms sent by the Industry	Companies Reports	Companies Reports	Companies Reports	Export Reports

Source: Surveys and interviews conducted by Markestrat, 2007.

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Table 2. Benchmarking of organizations whose contributions are not compulsory.

Organization	Lactea Brasil	Agopa – Association of Cotton Producers in Goias State	Incentive Fund for Culture of Cotton in Goias State	Highlands Country Citrus Growers	Brazil Specialty Coffee Association	Fedelech - National Federation of Milk Producers	Florida Citrus Mutual	National Cattlesmen's Beef Association
Country	**Brazil**	**Brazil**	**Brazil**	**USA**	**Brazil**	**Chile**	**USA**	**USA**
Main Objective	Represent AGS of Brazilian milk	Represent cotton producers in São Paulo and Goiás State	Research and develop cotton cultivars and control pests and diseases	Represent citrus producers of the 3rd largest producing area in Florida	Promote Brazilian Premium Coffee abroad	Represent Milk producers in Chile	Defend interests of Florida's citriculturists	Promote American Beef
Size	1.000 members	77 producers	6.000 producers	Not informed	50 associates	80% of the country's milk	11.000 members	25.000 members
Collection Mechanism	Charge on turnover, in categories of associates	Charge on planted area	Fiscal Reduction ICMS	Charge on planted area	Charge on planted area and exported volume; nominal value in categories of associates	Charge on processed volume	Charge on processed volume	Charge on head traded Nominal value in categories of associates
Collection System	Bill	Bill	Bill	Bill	Bill	Discount on delivery of raw material	Discount on delivery of raw material	Bill
Collection	Monthly	Annually	Monthly	Annually	Monthly	Monthly	Monthly	Monthly
Database Renewal	None	GPS Mapping (annually)	Mapping, Official Invoice, collection document	Annual survey with producers	Certifier (annual visits)	Associations and industries Consults	Agriculture Department Consults	Not informed

Source: Surveys and interviews conducted by Markestrat, 2007.

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