

## Chapter 8

# Analysis of Financial Flow for Small Producers of Colombian Coffee: A Systemic Approach

**Oscar Rubiano Ovalle**  
*Universidad del Valle, Colombia*

**Helmer Paz Orozco**  
*Corporación Universitaria Comfacauca, Colombia*

**Hector Angulo Sinisterra**  
*Fundación Centro Colombiano de Estudios Profesionales, Colombia*

### **ABSTRACT**

*The Colombian coffee that grows in the mountainous coffee zone, due to its qualities such as its clean rate, acidity, aroma, softness, and body, continues to have a representative share in the market. In this way, the intervention of the state has been necessary so that the sector can have sufficient income both to satisfy its basic survival needs and to guarantee the continuity of production. In this chapter, the impact of the own investment and economic support policies formulated by the Colombian government on the financial flow of the coffee farmers was evaluated through a systems dynamics model. To achieve this objective, the current conditions of the Colombian coffee sector were studied, the supply chain was modeled with systems dynamics, and scenarios were simulated alluding to the policies evaluated.*

### **INTRODUCTION**

The coffee agri-industry field has been a pillar of the internal economy of Colombia, closely linked to the origins of the national industry. It has served as a source of financing for the rest of the economy, allowing linking the national economy with the international economy, and occupying a relevant place in the generation of foreign currency in the country. The Colombian coffee is one of the favorites in the

DOI: 10.4018/978-1-5225-8160-4.ch008

## ***Analysis of Financial Flow for Small Producers of Colombian Coffee***

international market for its aroma<sup>1</sup>, flavor, acidity, and different degrees of palatability, which makes it is desired by countless consumers, inside and outside the Colombian territory. The coffee sector in Colombia employs about 35% of the labor force in agricultural work (631,000 jobs per year) and its contribution to the total GDP is 0.6% (Perdomo, J. A. and Mendieta, J.C. 2007). On the other hand, coffee exports represent 5% of the total agricultural exports of the country, the total area planted with coffee is 974,100 hectares, corresponding to 0.85% of the area of Colombia, distributed in 32 departments of the 42 of the country (Perdomo, J. A. and Mendieta, J.C. 2007).

Notwithstanding the dynamics of the coffee system in Colombia, it has resulted in relatively unsatisfactory effects during the last years, in an international conjuncture of increases in world production, exports and consumption, which has affected the financial flow of the sector in Colombia. For this reason, it is important to study the behavior of the Colombian coffee supply chain, especially in the first link where small coffee farmers mainly operate. Thus, it is necessary to analyze the system to examine significant variables, identify the underlying systemic structures, as well as analyze the coffee policies that seek to support and contribute to improving the current behavior of the financial flow of the coffee farmer.

This chapter aims to propose a characterization of the financial flows for small producers of Colombian coffee. To study this problem, in this research the systemic approach was considered appropriate, characterized by a set of methods in which problems with dominant presence of complex systems are addressed. (Sterman, John 2000).

In the first part of this document, the development of the methodology used to approach the problem is presented, in the second part the results are presented and discussed and, finally, the conclusions about the results are exposed.

## **BACKGROUND**

In humanitarian support organizations and actions, we find three main types of logistics problems: (1) social improvement logistics, related to distributing products to support everyday needs of poor and sensible populations and improve their social welfare, (2) humanitarian logistics in disasters (Kovács and Spens, 2007), which deals to efficiently and quickly react to a disaster and support populations in an emergency and sometimes dangerous situations and (3) post-disaster logistics, which aims to support populations in re-location and reconstruction of their daily lives after a disaster (Holguín-Veras et al., 2012). Although humanitarian logistics (both for disasters or post-disaster) is nowadays a popular research subject (Kovács and Spens, 2009; Apte, 2010; Chandes and Paché, 2010; Holguín-Veras et al., 2016), we find a lower scientific interest for social welfare logistics. Indeed, we find a first statement on the importance of logistics in supporting the social welfare, or social improvement, made by Orwell and Dawes (2007), after what we observe only three works related explicitly to the logistics of social improvement: Stock (1990) is the first, to the best of our knowledge, that states the poor contribution of logistics research to evidence its contribution to social welfare; Adivar et al. (2010) focus on the notion of supply chain for social improvement and welfare; finally, Maldonado and Moya (2013) show the importance of combining social welfare policies with reverse logistics in developing and improving food banks actions and logistics schemes.

According to the FAO (2010), the improvement of sensible population social welfare is crucial to their development, but does not be only focused on decreasing hunger and malnutrition (Maldonado and Moya). To this fact, the *Latin America and Caribbean without hunger* initiative, by FAO in 2011,

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/analysis-of-financial-flow-for-small-producers-of-colombian-coffee/231971](http://www.igi-global.com/chapter/analysis-of-financial-flow-for-small-producers-of-colombian-coffee/231971)

## Related Content

---

### International Fashion Retailing from an Enterprise Architecture Perspective

Torben Tambo (2013). *Supply Chain Management: Concepts, Methodologies, Tools, and Applications* (pp. 1250-1266).

[www.irma-international.org/chapter/international-fashion-retailing-enterprise-architecture/73398](http://www.irma-international.org/chapter/international-fashion-retailing-enterprise-architecture/73398)

### Two-Commodity Markovian Inventory System with Set of Reorders

N. Anbazhagan and B. Vigneshwaran (2010). *International Journal of Information Systems and Supply Chain Management* (pp. 52-67).

[www.irma-international.org/article/two-commodity-markovian-inventory-system/42119](http://www.irma-international.org/article/two-commodity-markovian-inventory-system/42119)

### Solid Waste Management in the Context of Public Policies and Private Sector Participation: Thoughts on the Need of a Comprehensive Approach

Gamze Yildiz (2019). *Ethical and Sustainable Supply Chain Management in a Global Context* (pp. 229-247).

[www.irma-international.org/chapter/solid-waste-management-in-the-context-of-public-policies-and-private-sector-participation/226130](http://www.irma-international.org/chapter/solid-waste-management-in-the-context-of-public-policies-and-private-sector-participation/226130)

### Adopting Identification Standards in the Medical Device Supply Chain

Yousef Abdulsalam, Dari Alhuwailand Eugene S. Schneller (2020). *International Journal of Information Systems and Supply Chain Management* (pp. 1-14).

[www.irma-international.org/article/adopting-identification-standards-in-the-medical-device-supply-chain/246053](http://www.irma-international.org/article/adopting-identification-standards-in-the-medical-device-supply-chain/246053)

### Customer Perceptions on Service Satisfaction with Third Party Logistics (3PL) Service

Socrates J. Moschuris and George F. Velis (2012). *International Journal of Applied Logistics* (pp. 33-47).

[www.irma-international.org/article/customer-perceptions-service-satisfaction-third/74730](http://www.irma-international.org/article/customer-perceptions-service-satisfaction-third/74730)