

Do Standards and Certificates Support Upgrading and the SDGs in Global Value Chains? The Case of the Uganda Organic Coffee Farmers' Association

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Abstract

Coffee plays an important role in the living standards of Ugandans and contributes significantly to the national economy. As such, this study investigates the impact of standards and certificates (S&C) on the ability of small-scale Ugandan coffee producers to participate in global markets and position themselves in global value chains (GVCs) in a manner that provides socially and environmentally sustainable income growth. The results of this case study show that S&C can act as a powerful catalyst, rather than as a nontariff barrier to trade. However, the downside of such schemes is that they may expose smallholders to global risks, such as natural disasters, market risks, and regulatory and policy risks. Moreover, the extent to which S&C play a positive role in GVCs depends on local conditions. Although S&C help develop local communities, they may fail to provide a viable path for regional or national development, unless they are accompanied by a restructuring of support for the agricultural sector.

1. Introduction

Coffee plays an important role in the living standards of Ugandans and contributes significantly to the national economy. The achievements of many successful coffee-producing countries in the last quarter century have been based on learning and adapting to new market structures and trends [Uganda Coffee Development Authority (UCDA) 2015].

Since the mid-1990s, there has been an increasing focus on sustainable coffee production. Driven by strong consumer demand, international certification standards were developed to promote sustainable coffee production. These include the organic standards, Fairtrade (FT), UTZ Certified, Rainforest Alliance, and what is now known as a baseline common code, 4C. Previously, only 2–3 percent of Uganda's coffee production was sold as certified. However, this is changing, with the government of Uganda aiming to increase this share to 15 percent by 2019/2020, and to 50 percent by 2039/2040.¹

As such, this study investigates how standards and certificates (S&C) affect the ability of producers to participate in global markets and position themselves in global value chains (GVCs) in a manner that provides socially and environmentally

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¹ See (UCDA 2015:23) for further details.

sustainable income growth. This study differs from earlier works in two respects. First, it conducts an impact assessment using a framework of GVCs and systems of innovation, whereas previous studies have tended to focus on once-off changes in, for example, productivity, coffee price, and total revenue. Eventually, coffee farmers would like to participate in GVCs in a manner that maximizes learning and value creation. Second, this study focuses on producers in an organic farmers' association. As noted by the Uganda Coffee Development Authority (UCDA 2015), substantial gains in productivity and quality require strong grassroots organizations. However, only 15 percent of small-scale Ugandan farmers are currently members of a group, association, organization, or cooperative.² Thus, investigating how S&C affect institutional capacity and the capabilities of farmers' organizations and cooperatives offers significant value.

The remainder of the paper is structured as follows. Section 2 provides an overview of Uganda's coffee sector, including the policies and strategies adopted by the Ugandan government to promote this sector. Section 3 provides theoretical and empirical arguments for and against coffee growers adopting one or more types of S&C. This section also identifies unresolved issues related to this theme. Section 4 discusses the framework and methodology used in the empirical analysis. Sections 5 and 6 summarize the empirical results and analyze the findings, respectively. Section 7 concludes the paper.

2. Uganda's Coffee Sector

2.1 The International Coffee Agreement (ICA) regime³

The distinguishing characteristics of the global coffee chain over the past 50 years are

best understood in terms of a distinction between two broad historical periods: the International Coffee Agreement (ICA) regime (1962–1989), and the post-ICA regime, which has been in place since 1989. Under the ICA regime, a price band for coffee was set and export quotas were allocated to each producer country. Although the relatively homogeneous form of trade resulted in limited possibilities for product upgrading, there was a general agreement that the system at least contributed to both raising and stabilizing coffee prices.

Under the ICA regime, Uganda's domestic trade of parchment, dry cherry, and green coffee was controlled by cooperative societies/unions and marketing boards. As such, farmers sold most of their coffee to their respective cooperatives, which operated under fixed producer prices and fixed margins. After processing, all green coffee was sold to the Coffee Marketing Board (CMB), Uganda's sole exporter. As a result, the CMB operated as a monopoly in the coffee export sector. Thus, other than some hulling and internal trading, the private sector's activities were extremely limited before liberalization.

2.2 Post-ICA period

In July 1989, the export quota system under the ICA regime collapsed. The biggest factor contributing to this collapse was that Brazil, the biggest producer of coffee in the world, lost interest in preserving the system, owing to domestic pressure and an emerging preference for a more market-oriented economic policy.

Many coffee-producing countries, including Uganda, had little choice but to undertake liberalization, for two reasons. First, government marketing agencies ceased to be necessary because there was no longer a need to ensure that exports to member countries did not exceed the ICA quota. Second, the collapse of the quota system led to a

² See UCDA (2015:8).

³ See Ponte (2002) and Akiyama (2001) on coffee marketing and quality control prior to liberalization.

sharp decline in world coffee prices. Fixed-price policies for coffee are effective only when world prices are stable, or when a stabilizing system exists (e.g., the export quotas under the ICA regime).

Liberalization in Uganda brought significant changes to the coffee sector. According to Akiyama (2001), the most important effects for coffee farmers were the jump in producer prices and the end to long waits for payment. Before liberalization, coffee growers did not benefit from the high international commodity prices because, owing to factors such as high taxation, they received only a small fraction of the export price (at times as low as 15 percent) (Baffee 2006). Furthermore, prior to the market reforms, coffee producers were forced to supply coffee on credit to primary cooperatives.

As such, liberalization led to the end of the CMB and the introduction of tough competition among exporters purchasing coffee from producers. After liberalization, the number of private exporters increased significantly, many of which were joint ventures or companies owned by foreigners. This increase in competition subsequently increased the share of producer prices in border prices, as mentioned above.⁴

2.3 Effects of liberalization on small-scale coffee producers

While recognizing the gains from liberalization, such as higher producer prices and prompt payment, Godfrey (2002, 2010) argued that the shift to market liberalization in Uganda had yet to transform the coffee marketing system to empower weak actors and eliminate rural poverty, mainly owing to distributive disparities between producers. Although most rich and medium producers benefited from higher market-set producer prices and contributed to the increase in coffee production, smallholders were less able to do so, owing to their weak bargaining power with private traders and intermediaries.

The weak bargaining position in the coffee value chain of coffee smallholders in Uganda

arises from at least two reasons: high transaction costs, and hard-pressing problems (Godfrey 2002). First, obtaining information on better prices is costly, especially for smallholders. Reasons for this include a lack of transportation and means of communication, long distances from the major markets, and a poor quality road infrastructure. Second, factors such as health costs (particularly those related to malaria in children), mental health care, AIDS, and school fees (particularly secondary and tertiary levels) tend to weaken a producer's bargaining power with traders and intermediaries, especially in the case of small-scale growers. As a result, Ugandan policy now focuses on empowering coffee smallholders and achieving the Sustainable Development Goals (SDGs).

2.4 Uganda's national coffee strategy and policy

Despite the importance of coffee to Uganda, by 2013, the country had yet to implement a comprehensive coffee policy (Ministry of Agriculture, Animal Industry and Fisheries URL1). Given its dominant position in export earnings and employment, coffee needed a policy to guide public and private activities in the development of the sector. Accordingly, the comprehensive National Coffee Policy, formulated in August 2013, focused on the entire coffee value chain, with special emphasis on farmer empowerment.

Several public and private sector initiatives were launched to improve coffee productivity and quality. One strategy expands the production of specialty coffee through certification schemes, which include sustainability standards. Perhaps as a result, Uganda has the largest organic-certified area and the largest number of organic producers among all countries in Africa (Meemken et al. 2017). The number of Fairtrade and/or UTZ certified farmers is increasing. Although certified coffee's share of Uganda's total coffee production is still relatively low, it has increased considerably (Chiputwa and Qaim 2016).

⁴ See Akiyama 2001.

Therefore, it is important that we examine the impact of these S&C, as well as the extent to which they improve the livelihoods of coffee farmers by providing upgrading opportunities and supporting the SDGs in GVCs.

3 Advantages and Disadvantages of Growing Certified Coffee

3.1 The effect of S&C on sustainable development? A theoretical view

GVC theory tells us that S&C may be important to coffee smallholders for two reasons. First, S&C can change the power relationships between stakeholders, including coffee growers. Second, they can provide upgrading opportunities for coffee producers, depending on local conditions.

Governance is the central theme of the framework of GVCs. This framework explains how a chain is controlled and coordinated when certain actors in the chain have more power than others do (Humphrey 2019, Gereffi and Fernandez-Stark 2018). One stream of the literature argues that S&C may influence the governance of agri-food value chains, including coffee, by controlling production systems in developing countries, redefining quality, and influencing the distribution of power and value among stakeholders (Henson and Humphrey 2010). The positive opportunities provided by adopting S&C are associated with product differentiation and adding value, predominantly through the development of credence goods. S&C enable coffee producers to supply blends of products and process attributes for customers, thus distinguishing them from their competitors. This evolution of product and process differentiation can be viewed as a trend toward quality-based competition in agri-food markets, particularly in the global coffee market.

Many of the implications for development in the framework of GVCs are related to the notion of upgrading (Daviron and Ponte 2005). In the GVC literature, upgrading is viewed as the process of learning, acquiring capabilities, and accessing new market segments by participating in a chain.

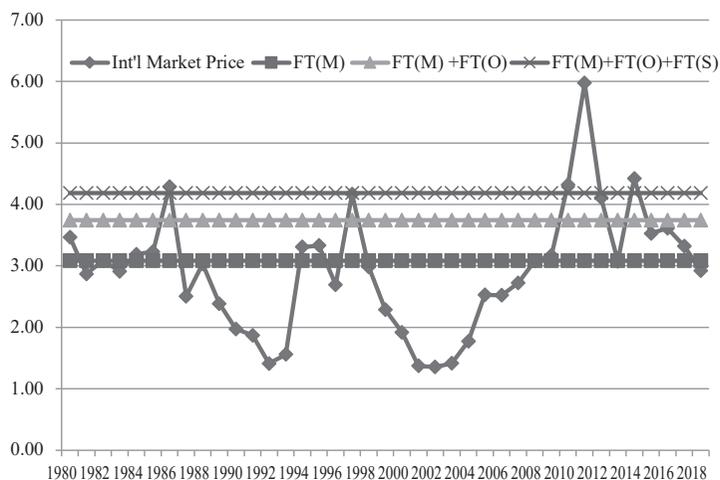
Humphrey and Schmitz (2002) identify four types of upgrading: product, process, functional, and chain or inter-sectoral. S&C are expected to provide significant learning and capacity-building opportunities for coffee farmers. In order for farmers to produce high quality products that meet the sustainability needs of buyers and consumers, they will need to learn, for example, new farming techniques, good agricultural practices, and production methods that conform to social and environmental standards. They will also need to acquire business skills in order to identify new market segments and to export green coffee. GVC analyses employing the concept of upgrading are innovative in the development literature, because they orient attention toward demand-side factors related to chain entry, as well as the implications for Southern firms and producers (Donovan 2011:55).

Nevertheless, GVC theory predicts that local conditions dictate the extent to which S&C affect the structure of governance over stakeholders in the coffee value chain and provide upgrading opportunities for coffee producers in order to achieve the SDGs. Recently, GVC analysts have begun focusing on the role of local systems of innovation in the development process (Humphrey 2019, Lema and Sampath 2018). They argue that the presence of a strong local innovation system would likely change the types of value chains businesses would enter, and would provide new possibilities for the co-evolution of buyer and supplier capabilities. This implies that the effects of S&C on chain governance and development vary between local institutions and organizations.

3.2 The effect of S&C on sustainable development? An empirical view

3.2.1 Governance and power relationships

The effects of S&C on chain governance and the power relationships between stakeholders are partly reflected in the degree to which producers can charge local traders, exporters, or buyers for their coffee. The clearest example of this is how FT or a combination of FT and organic standards affect the



Source: The author'S construction based on the data provided by the World Bank (URL2).

Figure 1. Comparisons among Various Prices of Coffee, Arabica (USD/kg)

coffee price.

Figure 1 compares the trends in international market prices with those in the FT and FT and organic prices of Arabica coffee for the period 1980 to 2018. Before the collapse of the ICA regime, international coffee prices were stable, at or above the FT minimum price [FT(M)], currently set by Fairtrade International. Then, after the collapse of the ICA regime, coffee prices became highly volatile, and seldom exceeded the FT(M). Moreover, only within a few years, international coffee prices exceeded those of the FT(M) and organic premium combination [FT(O)], as well as those of FT(M), FT(O), and social premium [FT(S)]. This implies that FT and organic standards can change the power relationships between stakeholders in favor of small-scale producers.

However, the true effects of FT and organic standards on producers are less clear. First, the FT market is still relatively small. The *Monitoring Report 9th Edition*, published by Fairtrade International in 2018, found that farmers sold just 185,777 metric tons (MT) of FT coffee, even though they produced 541,254 MT of certifiable coffee in 2016 (Fairtrade International 2018). In other words,

only one-third of the total coffee production is being sold in the FT market. Second, the net benefits of FT or FT(O) may be much lower, owing to the substantial costs farmers have to pay to acquire and maintain S&C. These costs are so high that more recent entrants to the international coffee market, such as coffee producers in Rwanda, have entered the specialty coffee market without acquiring S&C (Gereff 2018).

Few studies examine how other types of S&C affect power relationships or bargaining power, particularly in Uganda. One exception is the work of Latynskiy and Berger (2017), who conduct a case study of the Kibinge Coffee Farmer Association. The added value of UTZ certification was found to be rather modest (around 10 percent of the conventional price), after the certification costs were taken into account.

In another work, Chiptuwa et al. (2015) argue that FT provides a stronger position from which to negotiate conditions than those of other voluntary standards, such as UTZ or organic alone. This is because producers that own FT certification documents can sell coffee to anyone, whereas participating farmers have to sell their coffee to

the specific exporters that own UTZ and organic certification documents.

3.2.2 Long-term development

The long-term effects of S&C on empowerment and development remain unclear (Darko et al. 2017, Oya et al. 2017). Even within a single S&C, there is substantial variation in the effects across outcomes (Oya et al. 2017). The costs and benefits associated with S&C are highly context- and region-specific (Meemken and Qaim 2018). As a result, any findings on the effects of S&C on smallholders may not be generalizable.

Most existing studies concentrate on Latin America, with few focusing on Africa. Nevertheless, the amount of empirical data on Uganda has begun to increase as the government continues to promote the adoption of S&C and the production of certified coffee as a means to reposition the country in the international coffee market. Certified coffee production is estimated to be 3 percent of Uganda's total coffee exports, and continues to expand (Akoyi and Maertens 2018).

Table 1 summarizes the major empirical findings on the effects of S&C on the livelihoods of coffee farmers in Uganda. This evidence is mixed, partly because the studies use different methodologies, types of S&C, locations, and sample sizes. However, a common trend does emerge in Table 1, namely, that the effects of S&C on development depend on the characteristics of the group or organization to which producers belong. Therefore, this study examines how S&C affect development at the level of farmers and producer organizations.

3.3 Contribution of this study to the existing literature

This study contributes to the existing literature in two respects. First, it provides a more consistent picture of the causal relationships between types of interventions under S&C (Oya et al. 2017) because

it examines the direct effects of S&C on producer organizations, rather than their indirect effects on producers. Ever since the World Bank (2007) emphasized the need for institutional innovation in agriculture and the relevance of producer organizations, the number of studies on their effects on farmer income in developing countries has grown steadily. However, few studies have examined the effects of S&C on the development of farmers and producer organizations, especially in Uganda.⁵ Such research could identify which aspects of S&C facilitate or hinder the development of farmers and producer organizations and, thus, provide a clearer S&C impact pathway.

Second, a case study method is adopted in order to identify the evolutionary path each country and/or organization is following (World Bank 2007). Previous literature shows that the costs and benefits of S&C are highly context- and region-specific. In other words, the effects of S&C on development are not uniform. Therefore, a more flexible approach to this topic is required.

4. Methodology

This study carefully examines the effect of S&C on the degree to which a Ugandan coffee farmers' association, the Bufumbo Organic Farmers' Association (BOFA), and its members succeed in entering GVCs in a fair manner, upgrading their activities within GVCs, and reducing the level of poverty among farmers. The association was chosen as a unit of analysis because of its recent success in marketing Ugandan organic Arabica coffee in developed economies, despite its small size. GVC theory and systems of innovation are used as the framework for the analysis.

The BOFA is located in the Bufumbo sub-county, in the Mbale district of Eastern Uganda. Detailed interview surveys were conducted at the BOFA to investigate:

(a) the evolutionary path of the BOFA,

⁵ An exception here is the study of Elbers et al. (2015).

Table 1. Summaries of Empirical Evidence from Uganda

Publication Year	Authors	Standards and Certificates	Potential Impacts Addressed	Location	Sample Size (Farmers or households)	Data Collection, Methodology	Findings
2019a	Ssebunya et al.	Fairtrade-Organic (FO) Fairtrade (FT)	Observe group membership and certification effects on incomes of coffee farmers in Uganda.	Sheema and Kasese districts in Western part of Uganda	Robusta (Sheema district) FO 60, FT 62, CN 60 Arabica (Kasese district) FO 60, FT 60, CN 60	Comparison between different groups	For Robusta farmers, no significant effect of S&C on income is found. For Arabica farmers, high and significant effect of S&C on income is found. Long-standing group membership is found to have positive income effects.
2019b	Ssebunya et al.	FO FT	Examine whether certification is associated with improved sustainability performance of smallholder coffee farms.	Kasese and Busenyi districts in Western part of Uganda	Robusta (Busenyi district) FO 60, FT 62, CN 60 Arabica (Kasese district) FO 60, FT 60, CN 60	Comparison between different groups	Certification contributed to strengthening the sustainability performance of farms through its influence on group organization and collective action.
2018	Meemken and Qaim	FT UTZ	Analyze whether standards and certificates contribute towards more gender equality.	Central Uganda	Non-certified 172 Male-headed 131 Female-headed 41 Certified 174 Male-headed 137 Female-headed 37	Gender-disaggregated data Comparison between different groups using entropy balancing techniques	Standards may not completely eliminate gender disparities, but can at least contribute towards this goal.
2018	Akoyi and Maertens	FO vs. UTZ-RA-4C	Different impacts on poverty reduction depending on the type of standards and certificates.	The Mount Elgon region (Eastern)	Non-certified 300 UTZ-RA-4C certified 130 FT-Organic certified 170	Cross-section data Regression analysis	Participation in UTZ-RA-4C scheme had positive impacts, while those in the FO did not.
2017	Meemken, Spielman and Qaim	FT Organic	Analyze and compare the welfare impacts of FT and Organic standards in terms of household consumption, child education and nutrition.	Central Uganda	Type, Year=2012, 2015 Non-certified 146, 193 FT 108, 121 Organic 101, 71	Panel data Regression analysis	FT and Organic certifications had positive impacts in terms of consumption, but not necessarily in terms of other aspects. Characteristics of farmers organizations can influence the effects of S&C.
2017	Latynskiy and Berger	UTZ	Conduct an empirical assessment of group certification in Uganda including the certification-related costs for farmers.	Central Uganda	The Kibing Coffee Farmer Association	Case study An agent-based simulation of coffee producer organizations	Only a small positive impact on the income on participating households is found.
2016	Chiputwa and Qaim	FT Organic UTZ	Analyze impacts on nutrition and gender balance of standards and certificates schemes	Central Uganda	Non-certified 148 UTZ-FT certified 108 UTZ-Organic certified 101 UTZ certified 62	Cross-section data Regression analysis	Participation in one or more schemes had positive impacts on nutrition and gender equality.

Table 1. Summaries of Empirical Evidence from Uganda --- continued

Publication Year	Authors	Standards and Certificates	Potential Impacts Addressed	Location	Sample Size (Farmers or households)	Data Collection, Methodology	Findings
2015	Chiputwa et al.	FT Organic UTZ	Analyze and compare impacts of three sustainable standards on the livelihoods of small-scale coffee farmers in Uganda	Central Uganda	Non-certified 148 FT certified 108 Organic certified 101 UTZ certified 62	Cross-section data Regression analysis	Fairtrade certification increased household living standards by 30 %, while the other two schemes had no significant impacts on the livelihood of farmers.
2015	Elbers et al.	UTZ	Analyze impacts of UTZ certification on smallholder farmers both at producer and organizational levels.	Western and Eastern Uganda	Type, Year=2009, 2012 ① Ibanda district (Western) Non-certified 124, 115 UTZ certified 193, 187 ② Kamuli district (Eastern) Non-certified 167, 156 UTZ certified 128, 115	Comparison between different groups Comparison before and after	The outcomes of the study proved to be rather positive for Ibanda district and more mixed results are found for Kamuli district. The existence of a reliable buyer was found to be important for farmers in particular.
2015	Cummings, Eliza	FT Organic	Examine the relationship between specialty coffee certifications and development in Uganda	The Mount Elgon region (Eastern) Central Uganda	① Arabica Non-certified 15 Organic certified 20 FT certified 35 ② Robusta Non-certified 10 FT certified 20	Comparison between different groups	The development impacts of FT certifications are largely local and limited in scope.
2009	Bolwig et al.	Organic	Examine the revenue effects of certified organic contract farming for smallholders, and of adoption of organic agricultural farming methods.	The Mount Elgon region (Kapchorwa district)	Non-certified 48 Organic certified 112	Cross-section data Regression analysis	There were positive revenue impacts from participation in the scheme and, more modestly from applying organic farming technique.

Source: The author's construction

- (b) the types of S&C the BOFA has adopted,
- (c) how S&C have influenced the governance structure surrounding the BOFA, and
- (d) the types of upgrading opportunities generated.

The surveys took place six times: ① November 30, 2016; ② September 4, 2017; ③ March 9, 2018; ④ September 3, 2018; ⑤ from February 26 to March 5, 2019; and ⑥ September 2, 2019.

First, this study examines how the BOFA has evolved since its foundation in order to determine the forces driving or hindering the producer organization. Then, the roles played by S&C in providing upgrading opportunities and supporting the SDGs in GVCs are investigated. The evolutionary path of the BOFA is examined first because many factors other than S&C may be having an effect. Thus, understanding this path will serve to highlight the roles of S&C.

5. Empirical Results

5.1 Evolutionary path of the BOFA

Figure 2 shows the evolutionary path of the system structures within the BOFA, following four distinct phases: background, pre-emergence, emergence, and expected future direction. The figure shows how each phase becomes the foundation for the next phase.

5.1.1 Background

The BOFA was founded in 1997 by seven members, after meeting with an extension worker. The seven members agreed that organic agriculture was the best way for them to escape poverty. They theorized that using available organic inputs and collective marketing would help them to improve their yield per unit area or per plant, as well as their bargaining power in the market (BOFA 2016). In 1999, the group was registered as a community-based organization (CBO) at the regional level,

acquiring its first CBO certificate.⁶ By 2007, membership had increased to 103 and, thus, was re-registered as an association at the national level. This laid a solid foundation for the transition to the next phase, in two respects. First, the BOFA had become recognized as a group that engaged in organic coffee farming in the Mbale region. Second, it was now recognized as a coffee producer at a national level. As a result, it drew the attention of the National Organic Agricultural Movement of Uganda (NOGAMU).

5.1.2 Stage of pre-emergence

The objective of the NOGAMU, created in 2001, is to promote organic farming through training, the development of standards, promotion (local and international), lobbying, and advocacy (Baffes 2006). The institutional development of the NOGAMU began with the support of Sweden's Export Promotion of Organic Production in Africa (EPOPA) program. The EPOPA program concentrates on subsidizing certifications and providing technical assistance related to setting up internal control systems (ICSs), training project personnel, and marketing (Gibbon 2006).

Recognizing the increasing demand for certified organic coffee from international buyers in Europe, the NOGAMU provided the BOFA with intensive training in organic standards between 2007 and 2009. In 2009, the BOFA received its first EU-standard organic certificate. To the best of the knowledge of the general manager (GM) of the BOFA, the producer organization was the first to obtain an organic certificate from the EU among similar organizations in Uganda. This achievement is not trivial because, although traditional cash crops remain the backbone of certified organic exports from Uganda, the majority of new operations since 2000 have been established in higher-value sub-sectors, where cooperatives have never played a significant role (Gibbon 2006).

Its organic certificate allowed the BOFA to

⁶ Based on information in a leaflet explaining a brief history of the BOFA. The leaflet was acquired at the BOFA on September 3, 2018.

Movement of System Structures	Background (1997/8 - 2006/7)	Pre-emergence (2007/8 - 2013/14)	Emergence (2014/15-2018/19)	Expansion (Since 2019/20 -)
Type of Organization	Community-based organization (CBO)	The Association registered at the national level	The Association	Will become a cooperative
Standards & Certificates (S&C)				
No S&C	Learn an organic farming. Produce coffee organically by practice	2009		
Organic (EU)			2014/15	
FT			2015/16	
Organic (NOP ¹)			2016/17	
Organic (JAS ²)			2016/17	
UTZ				
Number of Members				
Non-certified	Start with 7 members	103		
Organic certified		> 101 (Year 2009)	319	>342 Will be increased to 611
FT certified			520	542 >611 658
FT and Organic certified			319	>342 Will be increased to 611
Export Markets of Certified Coffee				
(a) Year		2009-12	2014/15 2015/16 2016/17 2017/18 2018/19	
(b) The Volume of Exports		Less than one container	19.2MT, 57.6MT, 76.8MT, 84MT, <i>Around 100MT</i> ⁴	
(b) Export Destination		Italy	Denmark USA Japan Germany (1) Belgium Germany (2) UK S. Africa	
External Assistance				
(a) Financial		NOGAMU ³	Progresso	Rabobank
(b) S&C and/or Marketing		NOGAMU ³	Bio Nile	Rabobank & USADF ⁵
(c) Technical and/or Business Supports		NOGAMU ³	NUCAFE ⁶	
			NUCAFE ⁶	
			Bio Nile	
			African Fine Coffee Academy	
			Agricultural Business Development Center	

Figure 2. Evolutionary Path of BOFA

Notes: 1 NOP stands for National Organic Program under the United States Department of Agriculture.

2 JAS stands for Japanese Agricultural Standard.

3 NOGAMU stands for National Organic Agricultural Movement of Uganda.

4 This export volume is based on contracts concluded between BOFA and international buyers.

5 USADF stands for United States African Development Foundation.

6 NUCAFE stands for National Union of Coffee Agribusiness and Farm Enterprises.

Source: The author's construction based on the information acquired through a series of interviews.

export certified organic coffee to Europe through an exporting company, called Amfri Farms. Initially, the BOFA exported between 9 and 15 MT, which was less than a full container. However, in 2012/13 and 2013/14, the BOFA exported 17.5 MT (nearly a full container) to an Italian roaster, based on the recommendation of the National Union of Coffee Agribusiness and Farm Enterprises (NUCAFE). Founded in 1995 as the Ugandan Coffee Farmers Association, the NUCAFE changed its name and mandate in 2003 to its present form as a result of strategic planning supported by a USAID-funded project. The NUCAFE is well known for advocating the farmer ownership model, where farmers are encouraged to retain ownership as long as possible in order to sell a more valuable product that earns a higher return in the market (Nkandu 2016). As such, the BOFA can sell certified organic coffee directly to the Italian buyer, while paying the NUCAFE a fee for its services. By the end of 2014/15, the number of certified coffee farmers in the BOFA increased by more than three times, from 101⁷ in 2009 to 319 in 2014.

5.1.3 Stage of emergence

This stage began with the adoption of FT standards in 2015. The BOFA received its first FT certificate with 520 farmers. According to the GM of the BOFA, it was easy for the organization to acquire the FT certificate, because the producer organization had already acquired and maintained an EU organic certificate since 2009. The GM of the BOFA also noted that the earlier training provided during the process leading to the acquisition of the EU organic certificate between 2007 and 2009 laid out the solid foundation for obtaining FT standards later on.⁸

Moreover, the BOFA adopted multiple certification paths between 2015 and 2019,

acquiring National Organic Program (NOP),⁹ Japanese Agricultural Standard (JAS), and UTZ organic certificates. Multiple certification paths became possible because of the earlier training given to the BOFA, and because it was able to secure funding (grants) from Progreso Netherlands in the mid-2010s. The long-term goal of the nonprofit organization (NPO) is to strengthen weak producers, enabling them to run their organizations as professional businesses, based on the notion that sustainable producer organizations can best support small-scale farmers (Progreso Netherlands URL3). The BOFA used the funding provided by Progreso Netherlands to further develop its capacity. Specifically, the BOFA strengthened both its production and organizational capacity, and secured access to new markets. The BOFA's good record related to external grants and identifying new markets enabled it to secure crop finance from Rabobank (Dutch Bank).¹⁰

The adoption of multiple S&C led to a rapid expansion in the volume of certified coffee exports. In 2015, the BOFA exported around one container (around 20 MT). By 2019, its export capacity had grown to between 4 and 5 containers (around 100 MT).

5.1.4 Stage of expansion

The rapid emergence of the BOFA as a supplier and exporter of certified organic coffee then led to the acquisition of the funding (grants) from the US African Development Foundation. This stage of development will be successful if the BOFA's business plan is realized after the 2019/2020 coffee season, for two reasons.

First, the BOFA plans to form a cooperative, which will increase its capacity and offer better legal protection for the interests of farmers.

Second, the BOFA plans to use the funds from

⁷ According to the brochure on the BOFA, the membership was 103 in 2007. However, the number of certified coffee farmers was given as 101 in 2009 by the EU organic certificate.

⁸ Based on an interview conducted with the GM at the BOFA office on February 28, 2019.

⁹ The NOP falls under the United States Department of Agriculture.

¹⁰ Rabobank is a cooperative bank. There are more than 100 local Rabobanks in the Netherlands, each of which operate with a high degree of independence. Rabobank also has sizeable international banking operations. They focus on international business and rural activities in general, and on the Food and Agricultural sector in particular (Rabobank URL4).

the US African Development Foundation to install a coffee processing machine for green coffee beans, build a coffee storage facility, purchase a truck to transport coffee beans safely to the port for export, and build coffee cupping/tasting facilities. In other words, the functions of the BOFA will become fully integrated up to the point of export.

5.2 How have S&C influenced the governance of the coffee value chain?

Figure 3 shows the coffee marketing chain for small-scale farmers in Bufumbo. If they operate on an individual basis, they sell red cherries or parchment, mostly through intermediaries, who then sell to exporters (Ministry of Agriculture, Animal Industry and Fisheries URL1). Coffee farmers would prefer not to enter the GVC in this way, because intermediaries offer them the same price for their coffee, regardless of its quality. No upgrading opportunities are generated as long as farmers have no alternative but to sell their coffee to intermediaries. In this case, farmers remain locked into producing low value-added coffee.¹¹

As an alternative, Bufumbo coffee farmers

can enter GVCs by joining a contracting coffee production scheme with international exporters, such as Kyagalanyi Coffee Limited (KCL) and Kawacom. These two firms implement coffee certification schemes mainly in the Mt. Elgon region, providing farmers with a chance to learn how to improve the quality of coffee in an environmentally and socially sustainable manner. KCL has implemented a triple UTZ, Rainforest Alliance (RA), and 4C coffee certification scheme since 2006 (Akoyi and Maertens 2018). Kawacom has implemented the Kawacom Sipi Organic Arabica scheme since the late 1990s (Bolwig et al. 2009). Unfortunately, these international exporters had little contact with Bufumbo farmers, owing to the latter's remote location and the poor quality of the roads around their villages.

As a result, some farmers in Bufumbo and in nearby sub-counties formed a producer organization, called the BOFA, and are now engaged in collective marketing. S&C are important because they enable the BOFA to increase its bargaining power over other stakeholders by retaining ownership of S&C schemes such as organic, FT, and UTZ. As such, the BOFA can contact international buyers directly,

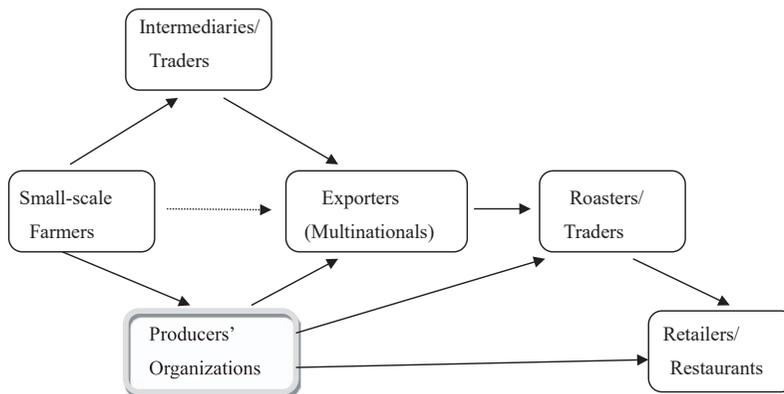


Figure 3. Coffee Marketing Chain¹ of Small-Scale Farmers in Bufumbo

Note: ¹See Figure 5.5 in García-Cardona (2016) for the case of Colombia.

Source: The author's construction, based on a series of interviews conducted in Uganda

¹¹ Fujita and Hamaguchi (2016) and UNCTAD (2013) note that developing countries may remain locked in low value-added activities unless entering the GVC generates potential benefits, such as capacity building and upgrading.

and so is in a better position to negotiate conditions. Moreover, the BOFA can control the construction of quality to benefit from any quality-related price premiums.

According to a Japanese roaster who purchased both FT and organic JAS coffee from the BOFA in spring 2019, his payment to the BOFA per kilogram of green coffee was almost double that of coffee without S&C.¹² This indicates that farmers benefit substantially from forming a producer organization, adopting S&C, and engaging in collective marketing.

This is also consistent with the difference between the prices that member farmers receive from intermediaries and the BOFA. According to the aforementioned surveys, BOFA farmers received 6,500 Ugandan shilling (UGX) per kilogram of parchment coffee in 2017/18 and in 2018/2019. However, BOFA farmers received only 4,000 to 5,000 UGX from intermediaries during the same period.

Note that quality-related price premiums generated by S&C are not transmitted fully to farmers, because the producer organization has to pay the certification bodies to apply for and maintain the S&C. The BOFA pays CERES¹³ for organic certificates¹⁴ and UTZ, and pays FLOCERT for the FT certificate.¹⁵ For instance, a Japanese roaster purchased 21 MT of double-certified¹⁶ coffee from the BOFA in 2018/2019. Even though the BOFA was able to sell coffee at organic-FT standards (i.e., around USD 4.1 per kilogram of green coffee beans; FOB price), it had to pay around USD 5,000 to acquire the JAS certificate. Therefore, around 36 percent of the organic premium included in the FOB price is offset. As Jaffee (2014) argues, farmers should be compensated financially for the additional costs in going organic and maintaining

a certification, because the environmental services provided by the organic production of coffee and other crops, especially tree crops, are considered particularly important in global ecological terms.

5.3 Learning and upgrading opportunities created by the S&C for the BOFA

The evolutionary path of the BOFA reveals the effects of the S&C on its development. First, in order to acquire the EU organic certificate, the BOFA learned how to produce certified organic coffee and how to apply for the certificate. As part of the process, the BOFA was able to acquire market information related to the EU. Thus, the EU organic standard and certificate generated a **product upgrading** opportunity for the BOFA, which it could then use to acquire NOP and JAS certificates, as well as penetrate the US and Japanese markets.

The acquisition of the EU organic certificate led the BOFA to apply for other S&C, such as FT and UTZ. These two S&C provided **process upgrading** opportunities for the BOFA because they focus on the production process (e.g., better farming methods, working conditions, and care for nature) rather than on the product itself.

The acquisition of the S&C also gave the BOFA a **functional upgrading** opportunity, because they could connect with international buyers and export green coffee beans to them directly. The BOFA currently holds an export license issued by the Uganda Coffee Development Authority (UCDA).

During the 2019/2020 coffee year, the BOFA will be granted funding to purchase a second coffee processing machine, a storage facility, and a BOFA-branded truck to transport coffee. Once complete, the overall coffee business, from production to export, will be vertically integrated. This vertical

¹² The cost, insurance, and freight (CIF) price of coffee exported by the BOFA to the Japanese roaster was around 800 yen/kg in 2019. The lowest price for Arabica coffee imported from Uganda without a certification was around 400 yen/kg.

¹³ CERES stands for the Certificate of Environmental Standards. The CERES conducts inspections and offers certifications based on local governmental organic standards, such as the regulation EEC 834/07, USDA-NOP final rule, and JAS for the Production of Organic Foodstuffs (CERES URL5).

¹⁴ Organic EU, NOP, and JAS.

¹⁵ FLOCERT is the audit and certification body of the FLO. It was created in November 2003 as an independently governed subsidiary of FLO.

¹⁶ Organic and FT certified coffee.

integration will also allow far better control of the quality of the coffee.

Moreover, the BOFA (2016) plans to start promoting the sales of other types of cash crops, such as organic banana and vanilla beans, once they reach their coffee export target of 10 containers (more than 100 MT). This is a very good example of **chain-shifting upgrading**, because the BOFA will be able to apply its knowledge of S&C to other types of cash crop.

5.4 Effects of the FT certification on community development

The FT certification has an advantage over most certifiers that is significant for organizations such as the BOFA: in addition to guaranteeing a minimum floor price, an FT social premium is paid to the producer organization to be used for capacity building, community development, and related projects (BOFA 2016).

Table 2 shows the list of projects implemented by the BOFA since 2016 using FT social premium funds. Many members of the BOFA live in remote areas without adequate public services to meet basic human needs. Here, the FT standard can play an important role in narrowing this gap.

Table 2 also shows that everyone in the

community benefits from these projects, not just the members of the BOFA. Surprisingly, this spillover effect of FT activities to nonmembers is not a source of complaint among members, because projects for community development are decided in a democratic way.

For any organization to qualify as an FT organization, members must decide collectively and democratically how to use the FT social premium fund to best suit their needs. In order to acquire an FT certificate, the BOFA constructed its own organization (see Figure 4). The BOFA consists of 10 zones,¹⁷ each of which elects five people to represent the interests of its respective zone.¹⁸ Thus, 50 representatives make up the general assembly (GA) of the BOFA. The GA elects the members of the executive committee, which appoints the general manager.¹⁹ Essentially, the GA, the highest decision-making unit, determines how to use the FT social premium fund. Thus, nobody complains about the project spillover effects.

5.5 Global risks²⁰

S&C are not without risk. As noted by Cummings (2015), S&C other than the FT certificate cannot protect the producer organization and its members from the volatility of international prices of primary

Table 2. A List of Community Development Projects Implemented by BOFA

Category	Contents	Limited to members
Education	Promotion of school attendance: Paying school fees for children of poor families.	Fees are provided, regardless of the membership.
Health	A health center is under construction in Madenge Zone, which is far from any other health centers.	Access is not limited to members, and is open to the public.
Infrastructure	① A water spring was constructed in Bubyangu Zone. ② A clean water project was implemented to provide the whole community with running water.	Access is not limited to members, and is open to the public.

Source: The author's construction, based on information provided by BOFA.

¹⁷ A zone does not necessarily correspond to an administrative division.

¹⁸ Two out of five representatives need to be female representatives, as suggested by FT requirements; acquiring an FT certificate also promotes gender equality.

¹⁹ As of September 2, 2019, the executive committee comprised nine members, and 15 staff members were working closely with the GM. One staff member, the internal control system (ICS) officer, was added to the previous governance structure (Figure 4); see the Appendix. This change was made in response to a problem the BOFA had in acquiring S&C, especially organic S&C; refer to Section 5.5.

²⁰ See Okamoto (2016) on the classification of GVC risks.

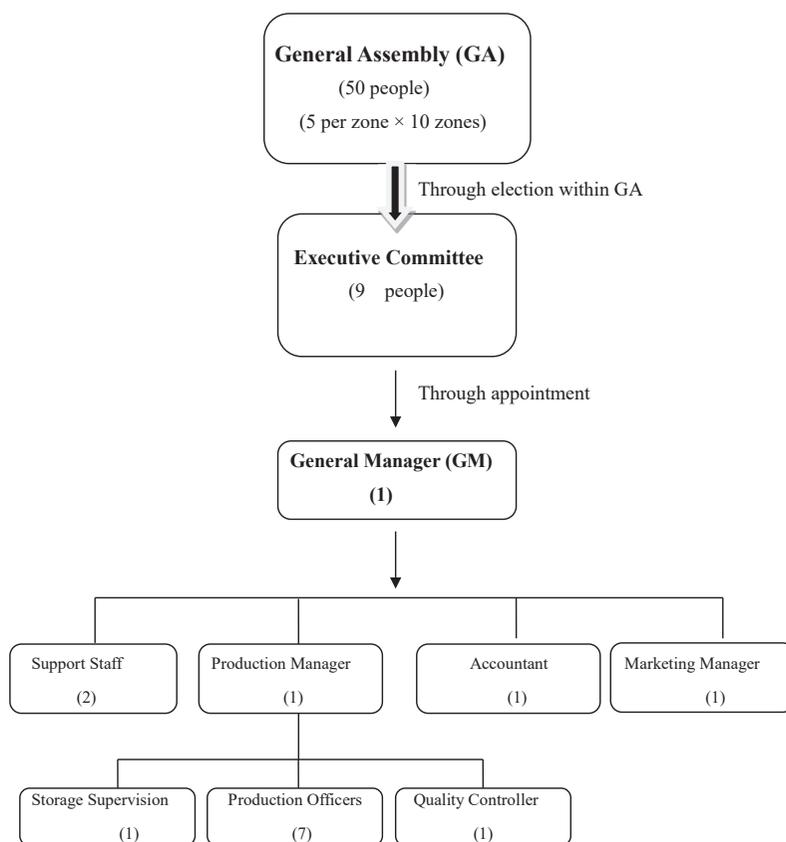


Figure 4. Management Structure of the BOFA

Source: The author's construction, based on information provided by the BOFA.

commodities such as coffee, because they do not guarantee a minimum price. In fact, this is the most important reason why the BOFA decided to join the FT movement in 2015.²¹ The unfavorable effects of market risks are exacerbated by an overdependence on a single crop, such as coffee. The BOFA is no exception. Risk management theory tells us that we should avoid putting everything in one basket. In addition, the tendency to depend too much on the income generated from a single cash crop is not desirable from an environmental viewpoint either, because crop diversification and intercropping are essential for soil conservation and sustainability

(BOFA 2016).

A second type of risk is posed by natural disasters. Global climate change is increasing the likelihood of economic activities being hampered by natural disasters. In this case, the financial burden on producer organizations may be exacerbated because, regardless of the amount of coffee they produce, they have to pay substantial amounts to obtain multiple certifications. FT certification alone is no longer sufficient to gain access to advanced economies, where both organic and FT certificates are often required to enter high value-added segments of international markets.²² Consequently,

²¹ This point emerged from the interviews with BOFA staff on February 28, 2019.

²² This point was made by all producer organizations engaging in FT in the Mbale region.

the financial burden related to S&C imposed on producer organizations has become a nontrivial problem.

In addition, S&C may expose producers to other types of GVC risks, such as regulatory and policy risks. These include unexpected changes in regulations or inconsistencies in enforcement that increase business uncertainty and, thus, the transaction costs associated with value chain processes. During the period 2018–2019, the BOFA found it difficult to obtain an organic JAS and, as a result, almost missed a business opportunity with a Japanese buyer. During the same period, the BOFA also had difficulty obtaining other types of organic certificate, such as NOP and EU certificates,²³ and thus was not able to fulfill all of its business contracts.

6. Discussion

6.1 The role of S&C in supporting upgrading and the SDGs

The BOFA has gone through four phases of evolution since its establishment in 1997, with each stage forming the foundation for the next. The case of the BOFA tells us that S&C can play at least two important roles in achieving the SDGs in GVCs. First, acquiring S&C can increase the bargaining power of the producer organization vis-à-vis international buyers, as well as its distribution. This is possible because, with S&C, small-scale producer organizations can also access high value-added market segments, giving them greater control over their operations. As a result, small-scale coffee producers no longer need to “beg money, can stand on their own, and can dictate their own lives.”²⁴

Second, acquiring S&C can provide the producer organization and its members with learning and upgrading opportunities in a collective manner.

Before acquiring S&C, the producer organization must undergo training before transferring the skills and knowledge to its members. At the same time, the organization needs to acquire the business skills necessary to apply for and obtain S&C, identify buyers, and obtain marketing information. Furthermore, in order to deal with international buyers, the producer organization needs to learn about logistics and determine an economical way of exporting crops. Moreover, small-scale producer organizations must obtain financing on their own. In other words, the process of acquiring and maintaining S&C creates many learning opportunities for the producer organization, leading to an accumulation of technical, business, and financial skills and knowledge. These opportunities enable the organization to upgrade its operation (e.g., product, process, functional, and chain-shift upgrading).

The empirical results of this case study of the BOFA also identify several risks and drawbacks associated with entering GVCs using S&C. Global risks as market risk, natural disasters, and regulatory and policy risks may endanger the viability of producer organizations unless appropriate risk management measures are introduced.

6.2 Importance of local conditions

Note that whether S&C play an important role in achieving sustainable development depends on local conditions. For instance, S&C led the BOFA through four phases of development, for two reasons. First, the BOFA started as a community-based organization (CBO), which laid the foundation for the latter stages of development. This is a good example of an endogenous growth model. The organization grew initially as a result of its desire to extract itself from poverty, before engaging in S&C-related business. In other words, the BOFA already had a strong organizational base, which gave it a

²³ The exact cause of the delay in the issue of organic certificates by the regulatory agency (CERES East Africa) is unknown. It is difficult, however, to attribute the delay entirely to the BOFA, because it was able to obtain an FT certificate from FLOCERT during the same year. Furthermore, the BOFA has been acquiring organic certificates since 2009.

²⁴ This is a comment made by one of the BOFA management staff members.

strong competitive advantage over other producer organizations engaging in S&C-related business.

Second, local NGOs, such as NOGAMU and NUCAFE, helped the BOFA build its capacity building, at least during its initial stage of development. Without the technical, business, and/or financial assistance provided by these local NGOs, the BOFA would have been far less likely to succeed. Moreover, it later made international assistance accessible from organizations such as Progress (a Dutch NGO), Rabobank (a Dutch bank), and USDAF (a US foundation). This implies that a strong local innovation system is likely to change the types of value chains businesses enter, and may open new possibilities for the co-evolution of buyer and supplier capabilities.²⁵ As such, over time, innovation systems can affect both the structure and the governance of GVCs.

7. Conclusion

This study investigated the roles of S&C in supporting upgrading and the SDGs in GVCs, based on a case study of an organic coffee farmer association, called the BOFA, located in the Mt. Elgon region of Uganda.

The results show that S&Cs play two important roles in promoting the SDGs in GVCs. First, they create static gains by empowering the producer organization and increasing its bargaining power vis-à-vis international buyers. Using S&C, the governance structure surrounding stakeholders can change in favor of producer organizations and their farmers, such that the latter receive a greater share of the revenue from the production of coffee.

Second, S&C can create dynamic gains for producer organizations by promoting sustainable development, generating learning opportunities, and supporting upgrading. By adopting S&C, the producer organization learns how to produce coffee in a socially inclusive and environmentally

sustainable manner, leading to product and process upgrades. Moreover, using S&C, the producer organization can perform a functional upgrade by moving along the GVCs. In other words, using S&C, the producer organization engages in production, marketing, logistics, and exports by establishing stronger and direct links with international buyers.

FT strengthens the producer organization and improves community development. However, small-scale farms must establish a producer organization before they can acquire FT. In addition, the farmers' association must run the organization in a democratic way. Moreover, social premium funds are provided to the producer organization once it succeeds in penetrating FT markets. As noted by Sacks (2015), sustainable development requires social institutions that promote cooperative behavior at the community scale.

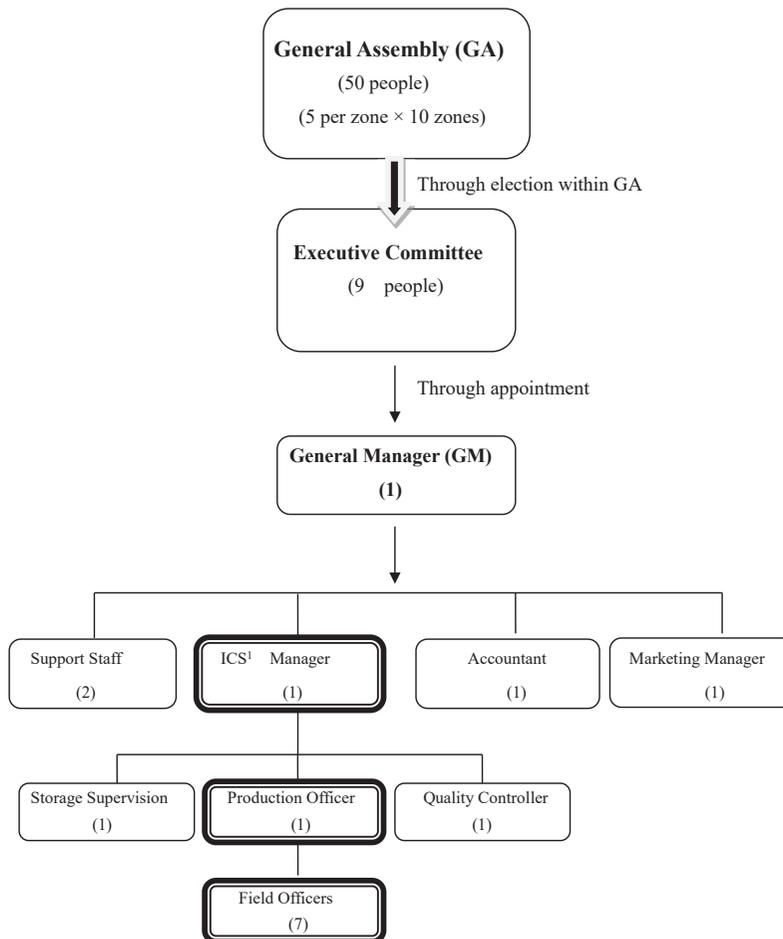
The results also show that acquiring S&C may not yield static nor dynamic gains for producer organizations in GVCs. The degree of success depends on local conditions. The availability of local systems of innovation and the degree of commitment by the organization influence the performance of the producer organization. A strong local innovation system seems to change the types of value chains businesses enter, as well as opening up new possibilities for the co-evolution of buyer and supplier capabilities.

This study has also shown that entry into GVCs using S&C tends to be accompanied by certain risks, including exposure to the volatility of international coffee prices. Here, FT shields coffee producers from this volatility, but other types of S&C do not.

Natural disasters are often accompanied by financial risks. Thus, a diversified strategy related to risk is required to achieve sustainable development.

The final risk examined here is that of regulatory and policy risks. Unexpected changes in regulations and inconsistencies in enforcement can increase business uncertainty and, thus, the transaction costs associated with global value chain processes.

²⁵ A Japanese buyer plans to transfer a new primary processing method of coffee to the BOFA after transacting with it for three years. Here, the BOFA and the Japanese buyer have undergone a co-evolutionary process.



Appendix Changed Management Structure of the BOFA during 2018–2019

Note: ¹ ICS stands for Internal Control System.  indicates places that changed during the coffee year of 2018–2019.
Source: See Figure 4.

S&C can play an important role in promoting sustainable development, depending on local conditions; however, S&C are not a panacea. Risk management measures need to be put in place to avoid short-term disruptions during the process of long-term development.

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