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# **ABSTRACT**

Global value chains often represent an option for local firms and suppliers in developing countries to get access to high-value markets and new technologies. Whereas the potential benefits from global value chains for medium-income developing countries are well documented, the studies dealing with the impact on low-income countries are scarce. The objective of the article is to analyze the main challenges and opportunities derived from the

insertion of small farmers in global value chains. The article suggests that small farmers are intertwined between both challenges and opportunities for development in this globalized market, nonetheless a model for sustainable and competitive insertion can be placed under consideration since aspects like education, access to technology, access to finance, policy support, and innovation can hold the key for turning a crisis into an opportunity.

Keywords: Small Farmers; Global Value Chains; Insertion; Agricultural Sector

### **RESUMEN**

Las cadenas de valor global a menudo representan una opción, para las empresas y proveedores locales en los países en desarrollo, para obtener acceso a mercados de alto valor y nuevas tecnologías. Considerando que los beneficios potenciales de las cadenas de valor globales para los países en desarrollo están bien documentados, los estudios que se ocupan del impacto en los países en vías de desarrollo son escasos. El objetivo principal del artículo es analizar los principales retos y oportunidades que se derivan de la

inserción de los pequeños agricultores en las cadenas de valor globales. El artículo sugiere que los pequeños agricultores se enfrentan a desafíos y oportunidades para el desarrollo dentro del mercado globalizado actual. Asimismo, se propone un modelo para la inserción sostenible y competitiva que pueda ser puesto en práctica, dado que aspectos como la educación, el acceso a la tecnología, el acceso a las finanzas, el apoyo a las políticas y la innovación pueden contener la clave para convertir una crisis en una oportunidad.

Palabras clave: Pequeños Agricultores; Cadenas Globales de Valor; Inserción; Sector Agrícola

### INTRODUCTION

Food has been crossing continents for centuries. Going from the "silk road" that linked China with Europe, to the current operations run by multinational companies (MNC), humanity has witnessed how commodity trading has been accelerating and intensifying as a constituent derivative of globalization (Fold & Pritchard, 2011).

Despite the fact that agriculture is experiencing profound changes in most developing countries, not all localities have shifted from a traditional to a modern productivity sector (Soundarrajan & Vivek, 2015). The above is a major challenge since agriculture continues to be a vital instrument for sustainable development and poverty reduction (World Bank Group, 2008).

Agroindustry contributes significantly to a nation's economic development (da Silva, Baker, Shepherd, Jenane & Miranda-da-Cruz, 2009). As argued by Austin (1992), first, agro-industries are essential to the development of a nation's agricultural sector because they are the primary method of converting raw agricultural products into finished goods for consumption. Second, the agroindustry often constitutes the mainstream of a developing nation's manufacturing sector. Third, agro-industrial products are commonly the major exports from a developing country. Fourth, the food system provides the nutrients critical to the well-being of a growing population.

According to a study by International Fund for Agricultural Development [IFAD] (2013), smallholder farmers form a key part of the global agroindustry, by providing over eighty percent of the food consumed in a large section of the developing world. Despite the above, small farmers are neglected due to issues like increasing fragmentation of landholdings, combined with reduced investment support and demotion of small farms in economic and development policies (IFAD, 2013). Under the proper conditions, smallholder farmers can be at the vanguard of a transformation in world agriculture. They hold many practical solutions that can help place agriculture on a more sustainable and equitable balance (IFAD, 2013). Moreover, small farmers are sources of employment that contribute to rural development, and even to other sectors of the economy, since an increase in their income can create a market for services and goods (Sievers & Saarelainen, 2011).

The need for supporting small-scale farming is evident; however, there is still the question of how to achieve such level of accompaniment. Correspondingly, several inquiries arise: what happens when a small farmer is inserted into a global value chain? Does it imply an opportunity or a threat? Which set of recommendations could be taken into account for a sustainable, yet competitive, insertion?

Based on the above, the present article consists of five sections, including the introduction section. Section two discusses agribusiness through a systemic perspective on how institutions, policies, value chains, and global value chains interplay in this sector. Section three deals with the insertion of small farmers into global value chains, its relevance and the possible threats and opportunities that may develop

from this process. In section four, a set of recommendations for ensuring a competitive insertion for small farmers in global value chains is analized. Finally, section five delves into the conclusions of the study.

## THE AGRIBUSINESS SECTOR

The agribusiness sector consists of all the activities involved in the transformation, preservation and preparation of agricultural production for intermediary or final consumption, with an emphasis on food (Wilkinson & Rocha, 2009). The term was coined in by John Davis and Ray Goldberg, and provides the key insight that the food system must be viewed as an integrated system, thereby stimulating new interests in the linkages between segments of the food system (Davis & Golberg, 1957; King, Boehlje, Cook & Sonka, 2010).

Austin (1992) assumed this endeavor by developing a model of systemic analysis for the agribusiness sector. The author described the existing relations between the value chains (production chains), institutions, policies and global value chains (international linkages). Each of these connections deals with different dimensions of the agroindustry system, and, at the same time, they are all equally interrelated.

## **Agro Value Chains**

Value chains (VC) comprise the full array of activities involved in getting a product or service from conception, through the different segments of production, and delivery to the final consumer or market destination, and its final disposal after use (Kaplinsky, 2000; Kaplinsky & Morris 2001). A characteristic remark of VCs is that they involve a chain of actions associated with adding value to a product, through the production and distribution processes of each activity (Schmitz, 2005).

The VC covers the entire network of actors involved in input supply, production, processing, marketing, and consumption, whilst operating inside an institutional environment that facilitates or hinders its performance (Gereffi, 1995). In consonance with Bammann (2007), there are three main levels of participation in a VC:

- **1. Actors:** deal directly with the products by producing, processing or trading.
- **2. Supporters:** deal indirectly with the product, but their services add value to it.
- **3. Influencers:** design or enforce the regulatory framework, policies, etc.

The agribusiness value chain contains services of pre-farm production, like fertilizers, seeds, pesticides, tools and agricultural machinery; on-farm production, such as primary food processing and products, plus by-products; and post-farm production, related to secondary food processing, packaging and preservation, as well as market and distribution processes (Memedovic & Sheperd, 2009).

In this sense, a typical agro-value chain includes the activities from input companies, farmers, traders, food companies and retailers, all of whom must ultimately satisfy the fluctuating demands of the consumer in a sustainable way (KPMG, 2013). Hence, the raw input is transformed to create a usable product, to increase storability, to obtain a more efficient transportable form, and to enhance palatability, nutritional value, or consumer convenience (Austin, 1992).

# **Global Agro Value Chains**

International linkages have to do with the interdependencies of national and international markets, in which the agroindustry functions (Austin, 1992). Global Value Chains (GVC) are generated from globalized markets that motivate organizations to structure their operations internationally through outsourcing and offshoring of activities, which have derived from strong trends towards the international dispersion of value chain activities, like design, production, marketing, distribution, etc. (OECD, 2014).

A GVC in the agricultural sector resembles the scheme of a simple VC, by starting from the production of materials of plant or animal origin, to the delivery of the final product to the consumer (Austin, 1992; Ickis, Leguizamón, Metzger & Flores, 2009). Nonetheless, GVC have the specific condition that the market outlets negotiate with the foreign market, the latter comprised of global wholesalers and retailers in an attempt to reach out to international consumers (Memedovic & Sheperd, 2009).

## **Policies and Institutions**

Laws, regulations, policies, international trade agreements, social norms and public goods, all contribute to the agribusiness' milieu (Haggblade, Theriault, Staatz, Dembele & Diallo, 2012). Consequently, there is an environment that comprises economic, political, cultural and demographic factors that shape the development goals and strategies of a country.

These tactics are expressed through national policies implemented by several policy instruments (i.e. taxes, credits, subsidies) and institutions, which, at the same time, create an impact on agro-industries and farms. In order to adjust to these policies, the production chain and agroindustry suffer from changes, which consequently force the national goals and strategies to adapt to these new challenges and demands (Austin, 1992).

In concordance with the policies, there are also institutional linkages. These relationships, among the different types of organizations that

operate and interact with the agroindustry production chain, tend to affect the dynamics of the production chain, the access to international markets, and even the instauration of certain policies (Austin, 1992).

Saenz (2002) analyzed an interesting case in Costa Rica related to policies and institutions. According to the author, in the period from 1950 to 1980 there was a national goal to incentivize the rural development towards a more modern sector of the economy in the Central American country. Henceforth, the following agricultural policies focused on substituting traditional imports for exports like coffee, banana, and sugar cane. Public institutions started to provide infrastructure, research and development programs, subsidized credits, etc. This whole chain of actions led to a reported accentuated rural development and sociopolitical stability according to the author.

Nonetheless, it was also stated that, due to political influences, the big producers were the ones who ultimately gained more benefit from these programs, instead of the small farmers for whom the whole strategy was originally created due to their higher degree of economic and social support deficiencies (Saenz, 2002).

# LINKING SMALL FARMERS TO THE GLOBAL MARKET

## Why is this relevant?

Agro value chains are buyer-driven, in the sense that large buyers, instead of producers, are the ones who organize, coordinate and control the activities that reach the consumer market through their core competencies in branding and marketing (United Nations Industrial Development Organization [UNIDO], 2004).

Therefore, in the context of a GVC, international buyers are the ones who define the "rules of the game" and appropriate the largest shares of the gains derived from agricultural production (Webber & Labaste, 2010). A key concern of the present study is how small farmers interplay in this international setting.

Small farmers, also known as smallholder farmers, are considered as those with a low asset base, by operating less than two hectares of cropland and depending on household members for most of the labor (Thapa, 2009). Therefore, they typically have access to limited resources like land, capital, technological skills, and labor (Hazell, Poulton, Wiggins & Dorward, 2007).

Despite the above-mentioned, the economic activity of small farmers is gaining a lot of public interest, for that the United Na-

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tions General Assembly declared 2014 as the International Year of Family Farming. This celebration counts with the support of the World Rural Forum and over 360 institutions, with the aim of stimulating active policies for combating poverty and hunger, and the search for a rural sustainable development based on the respect for environment and biodiversity (Food and Agriculture Organization [FAO], 2014a).

One of the main reason behind this support is the fact that approximately the livelihoods of 2.2 billion people are linked to small-scale agriculture (Vorley, Del Pozo-Vergnes & Barnett, 2012), being the predominant form of agriculture in developing and developed countries (FAO, 2014b). For example, in countries with high population density, like China, India, and Indonesia, there are almost 310 million small farms, accounting for more than 80% of all the farms for each one of these countries (Proctor & Lucchesi, 2012).

Also, there is huge expectation from small farmers, by being considered as key for addressing challenges like fighting rural poverty, securing food supplies, and even safeguarding the world's agro-biodiversity and sustainable use of natural resources (FAO, 2014b). These producers seem to better accomplish these tasks with an external intervention (Vorley et al., 2012), since aspects inherent to globalization, like trade liberalization and a shift in consumption patterns in favor of high-value agri-products, impact their activities in developing countries (Narayanan & Gulati, 2002; Vorley et al., 2012).

Based on the above, it has been demanded from the private sector to become a leverage by granting access to formal modern markets, so, in the end, these small farmers can compete in this so-called "battle to feed the world" (Anderson, 2015; Vorley et al., 2012).

### Opportunities and challenges

GVC serve as means for linking local producers from developing countries to international markets (van Dijik & Trienekens, 2012). However, it is relevant to discuss the opportunities and challenges that come across this engagement, to analyze if it is beneficial for small farmers, lead firms or even public institutions. The next paragraphs will address this topic in key areas like income, employment, upgrading, standardization, food security, and corporate social responsibility.

## Income vs. Poverty Reduction

Hartwich (2012) identified three general ways in which small farmers can directly benefit from economic growth by connecting to national and international buyers. The first one is by the engagement of small farmers in independent primary agricultural production with effect on incomes; one example is República del Cacao in Ecuador. This is an international firm that buys the cocoa beans directly from almost 1,800 small farmers (Dowling, 2011). Currently, the company

sells its products in the local and international market, with the plan of opening soon its own stores in the United States and Europe (Henrichs, 2013).

The second one refers to the engagement of small farmers inside a dependent primary agricultural production system, with effects on incomes and employment. Another example taken from Latin America is the case of the banana producers who work for the multinational company Chiquita Brands®. As claimed by the multinational, all of their workers gain salaries that are above the minimum living wage and approximately 16% above the SA8000 living wage calculation (Chiquita Brands, 2014).

Lastly, the third one alludes to the engagement of small farmers in value addition of agricultural products with effect on incomes and employment. Rice milling in Vietnam is an example of value addition since rice producers engage in expanding to this activity because it is more profitable than the cultivation of rice (Hartwich, 2012).

In sum, the three paths lead to a bidirectional relationship, in which small farmers provide raw material to the buyers, and the latter deliver a source of income and/or employment. Still, there is the challenge that not all income and employment opportunities result in a reduction of poverty or inequality (Hull, 2009). There are agribusinesses who offer underpaid salaries and/or discriminate women (Hartwich, 2012). An example is what happens in New Mexico, where a vast majority of farmers allegedly suffer from wage theft and even work in unsafe or unhealthy conditions<sup>2</sup> (New Mexico Center of Law and Poverty [NMC-LP], 2012). Additionally, there is the case of women in Myanmar who are, apparently, classified as "casual laborers" rather than farmers, and receive wages that are 20% lower than their male counterparts (Oxford Committee for Famine Relief [OXFAM], 2014).

# Upgrading vs. Lack of Financing

Insertion in the GVC represents an opportunity for small farmers to learn and acquire skills and knowledge that would help them improve their agricultural practices (Fromm, 2007). This process is usually referred to as value chain upgrading (Gereffi, 1999). As specified by Kaplinsky and Morris (2001), there are four different ways in which small farmers can upgrade in the VC. The first one is related to increasing efficiency in the production process (process upgrading). An example is the improvement of the processing of coffee beans by wasting less energy and time. The second one has to do with defining a new product (product upgrading). Following the case of coffee, an example would be to invest in developing organic coffee for a new niche market. The third one deals with a change of activities (functional upgrading); for example, a small farmer starts to offer coffee tours inside the plantation for tourists. Finally, the fourth one alludes to moving to a new chain to follow a potentially higher profitability. This

can be observed in the case of producing, for example, coffee-based chocolate candies.

Unfortunately, the reality is that many small producers often face liquidity and credit limitations and have no access to formal finance channels, both of which restrain their potential to make the necessary investments to upgrade (Fernandez-Stark, Bamber, & Gereffi, 2012). The World Bank Group (2008) mentioned that financial constraints arise from a lack of asset possession to serve as collateral (wealth rationing), and in the restraint to put assets at risk as collateral when they are vital to livelihoods (risk rationing).

In other words, small producers do not have the necessary resources to help them surpass a credit analysis, therefore they offer a low level of security for formal financial institutions that results in a credit restriction.

Access to financial services is crucial for farm investments in productivity, enhancing post-harvest practices, providing household cash flow, enabling better access to national and international markets, optimizing practices that are adaptive to climate change (ensuring food security), and promoting better management of risks (International Finance Corporation, 2014).

# Standardization vs. Plausibility

Kiemen and Beuchelt (2010) added a fifth possible means of upgrading: standardization. Producers participating in GVC must implement and comply with standards (Kaplinsky, 2004). These regulations<sup>3</sup> are usually set either by international bodies or private sector lead firms, and allow suppliers to achieve goals related to quality, price and delivery reliability (Kaplinsky & Morris, 2002). Supermarkets, for example, implement vertical coordination along the VC to control how products are grown and harvested in compliance with quality and food safety standards (Bamber, Fernandez-Stark, Gereffi, & Guinn, 2013). However, in the opinion of Vorley and collaborators (2012), these stringent requisites are usually accomplished by the farmers who are not at the bottom of the pyramid, given the technological, educational and organizational requirements. Hence, global markets demand that small-scale producers muts upgrade in areas where they have a relative disadvantage: "For some, modern markets are associated with unfamiliar language, concepts, goals, and codes of conduct. And they oblige farmers to carry higher risks. The way that small farmers (...) manage these risks can get them labeled as unreliable suppliers" (Vorley et al., 2012, p. 27).

## Food Security vs. Dumping

In the case of large firms, by dealing with small farmers they can secure food supply in highly competitive markets, which is a key point due to the juxtaposition of an increasing demand for primary products in a supply-constrained world (Vorley et al., 2012). Forces like increasing concern over costs, security of supply, and traceability are pushing firms towards benefiting from closer links with their suppliers (KMPG, 2013).

Correspondingly, suppliers of agricultural inputs also pursue to engage small farmers in GVC, since the growth of smallholders implies an increase of a demand for products like seeds, fertilizers, etc. (Hartwich, 2012).

A major challenge for food security is an uncontrolled demand joined by dumping, which occurs when a company buys commodities from farmers at low prices and then sells them in foreign markets at below-market prices (James, 2011). Dumping not only affects the domestic small farmers who sell at an undervalued price, but also the ones in the foreign market who cannot compete with such domination of the share of the market (Oxfam, 2004).

An example is the case of the oil industry in India that went from being self-sufficient to becoming the world's biggest importer, due to an alleged dumping of soya and palm oil that has destroyed the local industry (Jafri, 2011).

### Corporate Image vs. Significant Change

Another opportunity for firms is related to complying with the aims of Social Responsibility departments and programs, which seek a more sustainable impact on the communities where companies do business (Carroll & Shabana, 2010). This contributes to improving corporate image since the public believes that businesses should be responsible to their workers, communities and other stakeholders (Bernstein, 2000).

Walmart is a clear example of the above mentioned, by setting the goal of increasing their local produce sales from four to nine percent by the year 2015 as part of a new sustainability program, and to double its sale of locally sourced fruits and vegetables in the United States (Kirkland, 2010).

Nevertheless, social responsibility initiatives have been largely criticized for developing new standards, partnerships and awards programs that fail to tackle the broader picture: fundamental social, economic and environmental problems in which companies are largely responsible (Doane, 2005).

Continuing with the case of Walmart, the paradox is that various farmers have expressed their concerns about how the company is actually paying them a fair or competitive price since many are still financially struggling (Swanson, 2013).

<sup>2</sup> On average, this population received an annual income below \$9000 although at a national level the average is approximately \$18.749 (NMCLP, 2012).

<sup>3</sup> For example, ISO9000 on quality, ISO14000 on environment, SA8000 on labour standards, etc. (Kaplisnky & Morris, 2001).

# THINKING OF A STRATEGY FOR COMPETITIVE INSERTION

As discussed in the previous chapter, the insertion of small farmers into GVC implies not only socioeconomic opportunities but also challenges. In spite of this, the reality is that, for many developing countries, this engagement is one of the very few available options for economic growth (Pietrobelli, 2008). Hence, authors like Kaplinsky and Morris argue that the discussion is not whether or not to insert them in global markets, but of how to do it in a way that provides a sustainable and competitive income growth (2001).

Small farmers who want to take part in a national or international VC must be competitive (Fernandez-Stark et al., 2012). This represents quite a challenge since there is a large and expanding population of small producers inside low-value markets, where they sell a small range of products and compete mostly on the basis of price rather than quality (Dawson, 2011). The following section provides a set of recommendations for the above mentioned.

## Access to information allows networking

Fernandez-Stark and collaborators developed a research about the competitive inclusion of producers in high-value agro-food chains (2012). One of their recommendations is the focusing on education as a key path for granting access to the high-value markets. As maintained by the authors, an intervention should deal with instructing buyers or export intermediaries<sup>4</sup> about the business case of sourcing from small producers, as well as facilitate interactions until the small farmers are in a position to sustainably manage the relationship autonomously.

Moreover, the researchers argued that the education process should also reach the small producers since it is necessary for them to acquire skills and knowledge, but also to be fully convinced about the challenges and opportunities of working with a global value chain. This process should cover elements like (Fernandez-Stark, 2012):

- Awareness building: small farmers must be convinced about the relevance of change as an opportunity for development.
- Technical training: short training sessions and practice to promote good agricultural practices that are aligned with buyers' standards.
- Entrepreneurial training: small producers need to see the farm as firm, and consequently acquire skills that are required for its proper management (e.g. planning, efficient cost man-

agement, accounting, financial literacy, client management, appropriate and timely infrastructure and equipment investments to improve quality and productivity).

• Social skills training: communication, leadership, conflict management, negotiations and teamwork are essential for networking and growth.

In sum, knowledge can serve as a mechanism for small producers and different stakeholders to improve their appraisal of the process and understand the possible business opportunity ahead of them. If different actors manage to dialog with at least a basic common understanding of expectations and definitions, then it is easier for them to delve into possibilities of collaboration. As described by the United Nations Industrial Development Organization, experience from both developed and developing countries shows that small enterprises can effectively integrate into GVC, however, this usually obliges them to follow a model of cooperation (UNIDO, 2001).

In this sense, vertical relationships must emerge between the large firms and the suppliers to create opportunities for innovation in micro and small enterprises, by exposing them to new stakeholders (networking), facilitating access to inputs and improving the transfer of knowledge (Rogers, 2004). Conversely, horizontal relationships must start between the small farmers in order to achieve collective efficiency (UNIDO, 2001), as well as a share of knowledge that is necessary for innovation (James, Gee, Love, Roper & Willis, 2014).

## Access to financing fosters competitiveness

Backward and forward production linkages usually require modern agricultural production systems (FAO, 2002), that inopportunely contrast with the small producers who are labor-intensive (low skills and undifferentiated goods) instead of technology intensive (skilled activities and knowledge-intensive services) (Torres, 2007).

Fortunately, this scenario seems to be shifting, so technology is no longer considered as a threat, but an opportunity. In Indonesia, Natawidjaja reported an emergence of a new class of young farmers, who have a good technological knowledge, are market-oriented entrepreneurs and feel attracted to high-value crops (as cited in Vorley et al., 2012).

Torres and Dornberger (2011) explored the Chilean technology-intensive suppliers and found that many of them are successful in the mining, forest, aquaculture and agricultural sectors. Among the explanations of their achievements, the authors mainly considered their adaptive capability to deliver diversified goods and services (multiple product developments), accompanied with a multiple marketing servicing that is unafraid of reaching new niches.

Another thought-provoking case is the Costa Rican coffee sector. A growing amount of small farmers is using micro beneficios, which are machines that allow them to process the coffee in their own properties (Barquero, 2014). This way, the producers are able to sell the processed coffee directly to the foreign roasting companies without losing profit to traders (e.g. Icafe). The farm "La Estrella" is an example of this, by reporting in 2011 sales to Japan, United States, and Europe after dealing directly with almost 300 foreign buyers (Revista Summa, 2011).

As previously discussed, the lack of financial access hinders competitiveness for small farmers (World Bank Group, 2008). In congruence with Fernandez-Stark (2012), possible solutions include direct financing from buyers throughout loans, in which the buyer provides inputs like fertilizers and other services on credit and the usage of contracts from buyers as a collateral to access credit from formal financial institutions.

Another way for formal financial institutions to reduce the risk, is through the promotion of support to those producers who are investing in upgrading activities that will result in significant increases in their income. This allows them to pay off their loans in a reasonable manner, and endorses a modernization of the sector (Fernandez-Stark, 2012).

Microfinance has also emerged as a powerful answer by granting financial services (e.g. credit saving and insurance services) to low-income clients, where the market fails to provide appropriate services (Khan & Rahaman, 2007). Microfinance institutions believe in fostering a sense of autonomy for the poor and encourages them to become participants in the rural economy with a support network that also deals with aspects like food, shelter, education and health (Pronyk, Hargreaves & Murdoch, 2007).



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# Support agencies should become more visible

As acknowledged by Dawson, "The greater the distance between the market and the small producer, the greater the leading role that support agencies are likely to have to play" (2011, p. 109). Public institutions have an important quota of responsibility in this matter since they formulate and implement rural development policies and projects that affect small farmers (FAO, 2003).

Government actions can include offsetting risks to potential investors, providing temporary public subsidies for inputs (i.e. seeds and fertilizer), facilitating the provision of credit to farmers in remote areas, supporting producers in meeting standards, and promoting public-private partnerships in the provision of market infrastructure (FAO, 2012).

Additionally, according to Nájera (2016), the development of policy frameworks related to resource security has become substantial. In this sense, governments should ensure the protection, maintenance, and restoration of access to food (also known as food security); but also, guard the sustainable management of elementary resources such as land and energy. For instance, in Costa Rica, the government has pursued the installment of economic incentives for small farmers to increase the existence of agroforestry systems, and subsequently protect aspects related to biodiversity and hydric resources, as well as mitigate the effects of greenhouse gases (Oficina Nacional Forestal [ONF], 2017).

Furthermore, other institutions like international organizations can play an extensive role through their global outreach and experience. This way, stakeholders could provide access to international best practices in the establishment of conducive policy frameworks that tackle aspects related to climate, smart agriculture and fair trade; identify and spread the lessons learned by successful support institutions; and implement suitable upgrading programs focusing on the integration of small farmers into GVC in conjunction with businesses and other stakeholders (i.e. governments, research institutions, industry associations, universities, and civil society organizations) (Fernandez-Stark, 2012; Nájera, 2016).

### One strategy cannot fit all

Finally, while implementing a tactic for development, it is necessary to identify the sub-sector and its needs beforehand, especially when dealing with one as extensive as agriculture (Sen & Mahajan, 2011). To achieve this, first, it is recommended to observe the farmers' situation, in order to, afterward, determine the corresponding social, economic and environmental context (Rockwell & Bennet, 2004).

When evaluating the agricultural sector, it is necessary to research about the range and level of available technology, the nature of the market for inputs and outputs, the growth rate of the sector, and

the maturity of the sector (Haggblade et al., 2012; Sen & Mahajan, 2011)

It is also imperative to consider elements related to the community, like extent of poverty, present occupational structure, extent of available skills, extent of entrepreneurship, integration of entrepreneurs in the market economy, literacy rates, access to markets, familiarity with technology, etc. (Haggblade et al., 2012; Sen & Mahajan, 2011).

Additionally, the context of the current political economy and the legal/policy framework also play a role. Thereby, issues like availability of infrastructure, the presence of consumer markets, nature of finance markets, the extent of available policy support, nature of ownership structures, and overall development of the region, should be addressed (Haggblade et al., 2012; Sen & Mahajan, 2011).

This information must serve as a preliminary step to further create a map of the VC, quantify the size of each supply channel, identify the key niches where poor people, youth, and women are most predominant, evaluate the level of technology required at each stage of the VC, analyze the VC structure, and characterize the institutional environment (Haggblade et al., 2012).

### **CONCLUSIONS**

The present essay explored the possible threats and opportunities for small farmers who enter GVC, as well as a set of key recommendations to develop a strategy of competitive insertion and interaction. The following section provides the most relevant conclusions that derived from this study.

Discussing agriculture and its role in a globalized world has become a real necessity for every country. Developed countries are worried that their increasing demand for food supply is not going to be fulfilled, meanwhile developing countries are still searching for a way to place their goods on the market. Small farmers seem to emerge as a possible solution that could provide food security and a robust economic basis for developing countries.

Small farmers have the responsibility of contributing to the national and international economy, but tend to lack the proper set of tools, means, networking or information that is necessary for them to become competitive. Along these lines, they have already been identified as the

heroes, but, paradoxically, small farmers usually represent one of the most neglected populations in the world and are set to be considered as "low-skilled", instead of potential innovators.

It is difficult to summarize the abundant and diverse evidence into single criteria that could answer whether small farmers should insert themselves into GVC or not. Although there are vast opportunities in the economic, social and, even, environmental sector, there are also cases of exclusions and marginalization that have unencouraged small farmers into wanting to trade with international buyers or brokers.

Therefore, in order to analyze how GVC and the upgrading can become opportunities for development, it is necessary to understand that the agribusiness sector is a system as well, and, thereby, it needs a systemic strategy. This means evaluating beforehand the specific context, strengths, weaknesses and stakeholder universe since aspects like culture, geography, policies, and institutions can establish or not an enabling environment for improvement.

The exercise of trying to understand the plans, interests, expectations and limitations of small producers can help create or demand better-informed policies that do more for truly inclusive socioeconomic growth, business revenues and quality of life. This process should be carried out by a reliable actor with local expertise that can create synergies among the different stakeholders to maximize the intervention's reach.

Finally, small producers, firms, governments, and the rest of the stakeholders must learn more about each other as well as how to cooperate vertically and horizontally. Only through knowledge, communication and support, seclusion can be replaced for an opportunity of competitiveness along the VC. There is no true progress in a world that undermines farmers since they are the productive agents who can hold the key to food security, economic development, and sustainability.

## **References**

Anderson, M. (2015). Battle to feed the world pits small farmers against big agriculture. Retrieved from: http://www.theguardian.com/global-development/2015/feb/19/feed-the-world-small-farmers-big-agriculture-mdgs.

Austin, J. E. (1992). Agroindustrial project analysis: Critical design factors (2nd ed.). Baltimore: Johns Hopkins University Press.

Bamber, P., Fernandez-Stark, K., Gereffi, G. & Guinn, A. (2013). Connecting local producers in developing countries to regional and global value chains-update. OECD Trade Policy Paper No. 160. Retrieved from: http://www.cggc.duke.edu/pdfs/Bam-

Small farmers are intertwined between both challenges and opportunities for development in this globalized market, aspects like education, access to technology, access to finance, policy support, and innovation can hold the key for turning a crisis into an opportunity ber\_GVCsandDCs\_2013.pdf

Bammann, H. (2007). Participatory value chain analysis for improved farmer incomes, employment opportunities and food security. Pacific Economic Bulletin, 22 (3), 113-129. Retrieved from: http://www.mtnforum.org/sites/default/files/publication/files/5206.pdf

Barquero, M. (2014). Secreto para producir el mejor café de Costa Rica lo tiene una familia de Dota. Retrieved from: http://www.nacion.com/economia/agro/Secreto-producir-mejor-familia-Dota\_0\_1416258370.html

Bernstein, A. (2000). Too much corporate power? Retrieved from: http://www.businessweek.com/2000/00\_37/b3698001.htm

Carroll, A.B. & Shabana, K.M. (2010). The business case for corporate social responsibility: A review of concepts, research and practice. International Journal of Management Reviews, 12, 85-105.

Chiquita Brands. (2014). Wages & benefits. Retrieved from: http://www.chiquita. com/The-Chiquita-Difference/Improving-Lives/Wages-Benefits.aspx.

Da Silva, C., Baker, D., Shepherd, A.W., Jenane, C. & Miranda-da-Cruz, S. (eds.). (2009). Agro-industries for development. Oxfordshire: CABI for FAO and UNIDO.

Davis, J. H. & Goldberg, R. A. (1957). A concept of agribusiness. Boston: Division of Research, Graduate School of Business Administration, Harvard University.

Dawson, J. (2011). Facilitating small producers' access to high-value markets: lessons from four development projects. In L.M. Jones (Ed.), Value chains in development: Emerging theory and practice (97-112). Practical Action Publishing: United Kingdom.

Doane, D. (2005). The Myth of CSR: The problem with assuming that companies can do well while also doing good is that markets don't really work that way. Retrieved from: http://www.ssireview.org/pdf/2005FA\_Feature\_Doane.pdf.

Dowling, P. (2011). República del Cacao extends travel retail network to Galapagos. Retrieved from http://www.moodiereport.com/document.php?c\_id=37&doc\_ id=28513.

Henrichs, K. (2013). Ecuador's Republica del Cacao goes international. Retrieved from: http://www.borgenmagazine.com/ecuadors-republica-del-cacao-goes-international-with-single-origin-chocolate/.

Food and Agriculture Organization [FAO] (2002). Promoting farm/non-farm linkages for rural development. Case studies from Africa and Latin America. Retrieved from: ftp://ftp.fao.org/docrep/fao/005/y4383E/y4383E00.pdf.

Food and Agriculture Organization [FAO] (2003). Current and emerging issues for economic analysis and policy research (CUREMIS II). Retrieved from ftp://ftp.fao.org/ docrep/fao/006/y4940e/y4940e00.pdf.

Food and Agriculture Organization [FAO] (2012). More public support needed for small farmers: Smallholders key in feeding growing populations. Retrieved from: http:// www.fao.org/news/story/en/item/146561/icode/.

Food and Agriculture Organization [FAO] (2014a). Voices in the International Year of Family Farming. Retrieved from: http://www.fao.org/3/a-i4171e.pdf.

Food and Agriculture Organization [FAO] (2014b). Family Farming. Retrieved from: http://www.fao.org/family-farming/en/.

Fernandez-Stark, K., Bamber, P., & Gereffi, G. (2012). Inclusion of small-and-medium-sized producers in high-value agro-food value chains. Retrieved from: http://www. cggc.duke.edu/pdfs/CGGC-IDB\_%20Inclusion\_of\_Small-\_and\_Medium-Sized\_ Producers\_in\_High-Value\_Agro-Food\_Value\_Chains\_May\_1\_2012.pdf

Fold, N. & Pritchard, B. (2011). Introduction. In N. Fold & B. Pritchard (Eds.), Cross-continental food chains (pp. 1-22). United Kingdom: Routledge.

Fromm, I. (2007). Upgrading in agricultural value chains: The case of small producers in Honduras. Retrieved from: http://www.giga-hamburg.de/en/system/files/publications/wp64\_fromm.pdf.

Gereffi, G. (1995). Global production systems and Third World development. In

B. Stallings (Ed.), Global change, regional response: The new international context of development (pp. 100-142). Cambridge, New York and Melbourne: Cambridge University Press.

Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. Journal of International Economics, 48, 37-70. Retrieved from: http://  $www.uky.edu/\hbox{--}tmute2/geography\_methods/readingPDFs/gereffi.pdf.$ 

Haggblade, S., Theriault, V., Staatz, J., Dembele, N., & Boubacar, D. (2012). A conceptual framework for promoting inclusive agricultural value chains. Retrieved from: http://fsg.afre.msu.edu/IFAD-WA/conceptual\_framework.pdf.

Hartwich, F. (2012). Engaging smallholders in value chains: who benefits under which circumstances? Retrieved from: http://www.rural21.com/uploads/media/rural2012\_04-S12-15\_01.pdf.

Hazell, P., Poulton, C., Wiggins, S. & Dorward, A. (2007). The future of small farms for poverty reduction and growth. 2020 Discussion Paper No. 42. Washington, D.C.: International Food Policy Research Institute.

Hull, K. (2009). Understanding the relationship between economic growth, employment and poverty reduction. Promoting Pro-Poor Growth: Employment. Retrieved from: http://www.oecd.org/development/povertyreduction/43280288.pdf.

Ickis, J.C., Leguizamón, F.A., Metzger, M., & Flores, J. (2009). La agroindustria: Campo fértil para los negocios inclusivos. Revista Latinoamericana de Administración, 43, 107-124.

International Fund for Agricultural Development [IFAD] (2013). Smallholders, food security and the environment. Retrieved from: http://www.ifad.org/climate/resources/

International Finance Corporation [IFC] (2014). Access to finance for smallholder farmers: Learning from the Experiences of Microfinance Institutions in Latin America. Retrieved from: http://www.ifc.org/wps/wcm/connect/ 071dd78045eadb5cb-067b99916182e35/A2F+for+Smallholder+Farmers-Final+English+Publication. pdf?MOD=AJPERES.

Jafri, A. (2011). Trade liberalisation's impact on edible oil sector in India. Retrieved from: http://siccfm.blogspot.de/2012/01/trade-liberalization-and-impact-on.html.

James, D. (2011). Food security, farming, and the WTO and CAFTA. Retrieved from: http://www.globalexchange.org/resources/wto/agriculture.

James, A., Gee, S., Love, J., Roper, S. & Willis, J. (2014). Small firm-large firm relationships and the implications for small firm innovation: What do we know? London: Enterprise Research Centre.

Kaplinsky, R. (2000). Globalisation and unequalisation: What can be learned from value chain analysis. Journal of Development Studies, 73 (2), 117-146.

Kaplinsky, R. (2004). Competitions policy and the global coffee and cocoa value chains. Paper prepared for UNCTAD. Retrieved from: http://www.ids.ac.uk/files/RKaplinskycocoacoffee05.pdf.

Kaplinsky, R. & Morris, M. (2001). A handbook for value chain research. Retrieved from: http://asiandrivers.open.ac.uk/documents/Value\_chain\_Handbook\_ RKMM\_Nov\_2001.pdf.

Khan, M. A. & Rahaman, M.A. (2007). Impacts of microfinance on living standards, empowerment, and poverty alleviation and poor people: a case study on microfinance in the Chittagong district of Bangladesh (Master thesis). Retrieved from: http://umu. diva-portal.org/smash/get/diva2:141240/FULLTEXT01.pdf.

Kiemen, A. & Beuchelt, T. (2010). Certification as an upgrading strategy for smallscale farmers and their cooperatives: A value chain analysis for Nicaraguan coffee. Recovered from: http://opus.uni-hohenheim.de/volltexte/2012/700/pdf/dp022010\_Kiemen\_Beuchelt\_final\_01.pdf.

King, R.P., Boehlje, M., Cook, M.L. & Sonka, S.T. (2010). Agribusiness economics and management. American Journal of Agricultural Economics, 92 (2), 554-570.

Kirkland, J. (2010). Wal-Mart's Plan for Small Farmers Expands Private-Sector



Climate Agenda. Retrieved from: www.nytimes.com/cwire/2010/10/15/15climatewire-wal-marts-plan-for-small-farmers-expands-pri-60411.html?pagewant-ed-all.

KPMG (2013). The agricultural and food value chain: Entering a new era of cooperation. Retrieved from: http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/agricultural-food-value-chain-report.pdf.

Memedovic, O. & Shepherd, A. (2009). Agri-food value chains and poverty reduction: overview of main issues, trends and experiences. Retrieved from: www.unido.org/fileadmin/user\_media/Publications/Pub\_free/Agrifood\_value\_chains\_and\_poverty\_reduction.pdf.

Nájera, J. (2016). Sustainability and Supply Chain Management: An analysis of barriers and enablers in the banana export sector of Costa Rica (Master's thesis). Leipzig Universitaet, Germany.

Narayanan, S. & Gulati, A. (2002). Globalization and the smallholders: A review of issues, approaches and implications. Retrieved from: http://www.ifpri.org/sites/default/files/publications/mssdp50.pdf.

New Mexico Center on Law and Poverty [NMCLP]. (2012). Alerta de derechos humanos: Los trabajadores invisibles y oprimidos de Nuevo México. Retrieved from http://nmpovertylaw.org/WP-nmclp/wordpress/WP-nmclp/wordpress/wp-content/up-loads/2013/10/Report-FINAL-SPANISH-2013-10-01.pdf.

Organisation for Economic Co-operation and Development [OECD]. (2012). *Mapping Global Value Chains*. Retrieved from: http://www.oecd.org/dac/aft/MappingGlobalValueChains\_web\_usb.pdf.

Organisation for Economic Co-operation and Development [OECD] (2014). *Global Value Chains*. Retrieved from http://www.oecd.org/sti/ind/global-value-chains. htm.

Oficina Nacional Forestal [ONF] (2017). Programa de pago por servicios ambientales. Retrieved from: https://www.onfcr.org/article/psa/.

Oxford Committee for Famine Relief [OXFAM] (2004). *Dumping on the world.* Retrieved from: http://www.oxfam.org/sites/www.oxfam.org/files/bp61\_sugar\_dumping\_0.pdf.

Oxford Committee for Famine Relief [OXFAM] (2014). Delivering prosperity in Myanmar's Dry Zone. Retrieved from: http://www.oxfam.org/sites/www.oxfam.org/files/file\_attachments/bp-myanmar-dryzone-smallscale-farmers-280814-summ-en. pdf

Pietrobelli, C. (2008). Global value chains in the least developed countries of the world: threats and opportunities for local producers. *International Journal of Technological Learning, Innovation and Development*, 1, 459-481.

Proctor, F. & Lucchesi, V. (2012). Small-scale farming and youth in an era of rapid rural change. IIED/HIVOS. London: The Hague.

Pronyk, P., Hargreaves, J., & Murdoch, J. (2007). Microfinance programmes and better health: Prospects for Sub Saharan Africa. *Journal of American Medical Association*, 29(16), 1925-1927.

Revista Summa (2011). Más cafetaleros ticos procesan su grano en busca de mejor precio. Retrieved from: http://www.revistasumma.com/17328/.

Rockwell, K. & Bennett, C. (2004). Targeting outcomes of programs: A hierarchy for targeting outcomes and evaluating their achievement. Retrieved from: http://digital-commons.unl.edu/aglecfacpub/48.

Rogers, M. (2004). Networks, firm size and innovation. *Small Business Economics*, 22 (2), 141-153.

Saenz, F. (2002). Política agrícola en Costa Rica y su efecto sobre el campesinado. Educare Electronic Journal, 3, 87-101.

Schmitz, H. (2005). Value chain analysis for policy makers and practitioners. Geneva: International Labour Office.

Sen, B. & Mahajan, V. (2011). A sub-sectoral approach to small business and micro-enterprise development. In L.M. Jones (Ed.), Value chains in development: Emerging theories and practices (pp. 33-44). United Kingdom: Practical Action Publishing.

Sievers, M. & Saarelainen, E. (2011). Value chains for rural development: Key issues and policy options to promote value chains for rural development. Retrieved from: http://ilo.org/wcmsp5/groups/public/---ed\_emp/---emp\_ent/---ifp\_seed/documents/publication/wcms\_161156.pdf

Soundarrajan, P. & Vivek, N. (2015). A study on the agricultural value chain financing in India. *Agricultural Economics* - Czech, 61, 31-38. doi: 10.17221/38/2014-AGRICECON.

Swanson, A.F. (2013). Small farmers aren't cashing in with Wal-Mart. Retrieved from: http://www.npr.org/blogs/thesalt/2013/02/04/171051906/can-small-farms-benefit-from-wal-mart-s-push-into-local-foods.

Thapa, G. (2009). Smallholder farming in transforming economies of Asia and the Pacific: Challenges and opportunities. Retrieved from: http://www.ifad.org/events/gc/33/roundtables/pl/pi\_bg\_e.pdf.

Torres, C. (2007). The role and development of technology-intensive suppliers in resource-based economies: A literature review. Retrieved from: www.giga-hamburg.de/en/system/files/publications/wp60\_torres.pdf.

Torres, I. & Dornberger, U. (2011). Export performance of the Chilean technology-intensive suppliers. Retrieved from: http://sbaer.uca.edu/research/icsb/2011/450.pdf.

United Nations Industrial Development Organization [UNIDO]. (2001). *Pro-poor value chain development*. Retrieved from http://www.unido.org/fileadmin/user\_media/Services/Agro-Industries/Pro-poor\_value\_chain\_development\_2011.pdf.

United Nations Industrial Development Organization [UNIDO] (2004). *Inserting local industries into global value chains and global production networks*. Retrieved from http://www.unido.org/fileadmin/user\_media/Publications/Pub\_free/Inserting\_local\_industries\_into\_global\_value\_chains\_and\_global\_production\_networks.pdf.

Van Dijik, M.P. & Trienekens, J. (2012). *Global value chains: Linking local producers from developing countries to international markets.* Amsterdam: Amsterdam University Press.

Vorley, B., Del Pozo-Vergnes, E. & Barnett, A. (2012). *Small producer agency in the globalised market: Making choices in a changing world.* Retrieved from: http://pubs. iied.org/pdfs/16521IIED.pdf?.

World Food Programme [WFP]. (2009). World must double food production by 2050: FAO chief: Retrieved from https://www.wfp.org/content/world-must-double-food-production-2050-fao-chief.

Wilkinson, R. & Rocha, R. (2009). Agro-industry trends, patterns and development impacts. In C. Da Silva, D. Baker, A.W. Shepherd, C. Jenane & S. Miranda-da-Cruz (eds.), Agro-industries for Development (pp. 46-91). Oxfordshire: CABI for FAO and UNIDO.

Webber, C. M. & Labaste, P. (2010). *Building competitiveness in Africa's agriculture:* A guide to value chain concepts and applications. Retrieved from https://openknowledge.worldbank.org/handle/10986/2401.

World Bank Group (2008). World development report: Agriculture for development.

Retrieved from https://openknowledge.worldbank.org/handle/10986/5990.