



# **INTERNATIONAL STANDARD CERTIFICATIONS AND EXPORT PERFORMANCE OF TOP FOUR COLOMBIAN BANANA EXPORTERS**

**CERTIFICACIONES DE ESTÁNDARES INTERNACIONALES  
Y EL DESEMPEÑO EN EXPORTACIONES DE LOS CUATRO PRINCIPALES  
EXPORTADORES DE BANANO EN COLOMBIA**

**CERTIFICAÇÕES DE PADRÕES INTERNACIONAIS E O DESEMPENHO  
EM EXPORTAÇÕES DOS QUATRO PRINCIPAIS EXPORTADORES  
DE BANANA NA COLÔMBIA**

Recibido: 10/04/2014

Aprobado: 30/04/2014

## **Cristina Robledo-Ardila**

Profesora Asistente del Departamento de Negocios Internacionales, Universidad EAFIT, Medellín, Colombia. Trabajo realizado en el marco del Grupo de Estudios Internacionales de la Universidad EAFIT. Magíster.

Correo electrónico: [crobled1@eafit.edu.co](mailto:crobled1@eafit.edu.co)

## **Alejandro Londoño- Avila**

Docente de cátedra del Departamento de Negocios Internacionales, Universidad EAFIT en Medellín, Colombia. Trabajo realizado en el marco del Grupo de Estudios Internacionales de la Universidad EAFIT. Magíster.

Correo electrónico: [alondo19@eafit.edu.co](mailto:alondo19@eafit.edu.co)

## **INTERNATIONAL STANDARD CERTIFICATIONS AND EXPORT PERFORMANCE OF TOP FOUR COLOMBIAN BANANA EXPORTERS**

## **Abstract**

International standard certifications are becoming increasingly important in the international trade of goods and services, especially in the agribusiness industry. In the case of the fruit industry, there seems to be a strong influence and companies have prominently started the implementation of such standards related mostly to social welfare, environmental welfare, and processes of food safety and quality. The Colombian banana industry has focused on the international market since its origins, first by multinationals that entered the Colombian market and later on through international trading companies constituted entirely with Colombian resources. When discussing the internationalization of these companies, standard certification is a necessity. Based on a qualitative case study, this article presents an exploratory study to analyze the existing relationship between international standard certifications and the export performance of the top four banana exporters in the country. The number of export markets and the total volume of exports have been selected as the key variables for the analysis. As a result, it was found that international standard certifications for banana companies have led to market concentration instead of diversification, and that there is a positive relation between exports volume and the acquisition of certifications. However, further research and statistical analysis are highly recommended.

### **Key words**

Export performance, international standards,  
banana industry.

**Clasificación JEL: M10, M16, M31**

## **CERTIFICACIONES DE ESTÁNDARES INTERNACIONALES Y EL DESEMPEÑO EN EXPORTACIONES DE LOS CUATRO PRINCIPALES EXPORTADORES DE BANANO EN COLOMBIA**

## **Resumen**

Las certificaciones en estándares internacionales, otorgadas por terceros, están tomando cada vez más importancia en el comercio internacional de bienes y servicios, especialmente, en el sector de la agroindustria. En el caso específico de las frutas, parece haber una fuerte influencia y las empresas han comenzado la aplicación de estándares internacionales, sobre todo, aquellos relacionados con el bienestar social, ambiental y procesos de seguridad y calidad de los alimentos. La industria bananera colombiana ha tenido una fuerte orientación a los mercados internacionales desde sus orígenes. Primero, por las multinacionales que llegaron al país, y más tarde, a través de empresas comercializadoras internacionales constituidas con capital 100% colombiano. Cuando se habla de la internacionalización de estas empresas, la certificación en estándares internacionales es un tema obligado. Este artículo presenta un estudio exploratorio que pretende indagar sobre la relación existente entre las certificaciones en estándares internacionales y el desempeño exportador de los cuatro principales exportadores de banano en Colombia, a partir de un estudio cualitativo de casos. El número de mercados de exportación y el volumen total exportado han sido seleccionados como las variables clave para el análisis. Como resultado, se encontró que las certificaciones en estándares internacionales, para las compañías estudiadas, ha llevado a la concentración de mercados, en lugar de la diversificación, y que existe una relación positiva entre el volumen de las exportaciones y la adquisición de las mismas. Adicionalmente, se concluye que, estudios adicionales a partir de métodos estadísticos multivariados son necesarios para comprender la naturaleza de dicha relación.

### **Palabras clave**

Desempeño en exportaciones, estándares  
internacionales, industria bananera.

## **CERTIFICAÇÕES DE PADRÕES INTERNACIONAIS E O DESEMPENHO EM EXPORTAÇÕES DOS QUATRO PRINCIPAIS EXPORTADORES DE BANANA NA COLÔMBIA**

### **Resumo**

As certificações em padrões internacionais, outorgadas por terceiros estão tomando cada vez mais importância no comércio internacional de bens e serviços, especialmente no setor da agroindústria. No caso específico das frutas, parece ter uma forte influência e as empresas começaram a aplicação de padrões internacionais, especialmente aqueles relacionados com o bem-estar social, ambiental e processos de segurança e qualidade dos alimentos.

A indústria bananeira colombiana teve uma forte orientação aos mercados internacionais desde suas origens. Primeiro pelas multinacionais que chegaram ao país, e mais tarde através de empresas comercializadoras internacionais constituídas com capital 100 % colombiano. Quando se fala da internacionalização destas empresas, a certificação em padrões internacionais é um tema obrigatório. Este artigo apresenta um estudo exploratório que pretende indagar sobre a relação existente entre as certificações em padrões internacionais e o desempenho exportador dos 4 principais exportadores de banana na Colômbia, a partir de um estudo qualitativo de casos. O número de mercados de exportação e o volume total exportado foram selecionados como as variáveis chave para a análise. Como resultado, encontrou-se que as certificações em padrões internacionais, para as companhias estudadas, levou à concentração de mercados, em lugar da diversificação, e que existe uma relação positiva entre o volume das exportações e a aquisição das mesmas. Adicionalmente, conclui-se que estudos adicionais a partir de métodos estatísticos multivariados são necessários para compreender a natureza de dita relação.

### **Palavras chave**

Desempenho em exportações, padrões internacionais, indústria bananeira.

## Introduction

Producers of agricultural and food products in developing countries are increasingly required to assure the quality and safety of their products (Henson and Jaffee, 2004). In order to enter international markets, such as the European Union and the United States, agricultural companies must meet the buyer's requirements and comply with the required standards demanded by customers (Henson and Jaffee, 2004). For the specific case of fruits, certifications have become a mean to prove the traceability of products, to assure environmentally friendly processes, fair trade practices and the concern for society's welfare. (Henson and Jaffee, 2004; FLO, 2006).

Different authors have explored the existing relationship between the acquisition of standard certifications and export performance, mostly in developing countries (Masakure et al., 2008; Martincus et al., 2010; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Clougherty, 2008; Fischer and Serra, 2000; Ganslandt and Markusen, 2001; Swann et al., 1996). On one hand, many of them point out the positive impact certifications have over export performance, and how they may result in closing the gap between developed and developing countries when it comes to the mitigation of information asymmetries<sup>1</sup>. Further on, the assurance of quality standards and the improved reputation of the company, are also the result of the standardization of processes in order to access certifications (Masakure et al., 2008; Martincus et al., 2010; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Fischer and Serra, 2000; Ganslandt and Markusen, 2001; Swann et al., 1996). On an opposite view, other studies focus on certifications as inhibitors of export performance; both perspectives contribute to the debate about the inherent costs of implementing standards versus the potential benefits companies may reach (Martinez-Costa and Martinez-Llorente, 2007).

The present study focuses on the banana industry in Colombia, given the relevance of this industry measured as a share of the country's exports, and the sensitivity of agricultural and food industry to the requirement of standard certifications (Basu et al., 2004; Henson, 2006; Henson and Jaffee, 2004).

The purpose of this study is to explore the relation between the acquisition of certifications by Colombian banana exporters and their performance in terms of international sales. In this sense, the aim is to validate what the aforementioned authors have identified through the existent literature, for the case of the top four banana exporters, in order to withdraw conclusions with analytical validity, and to identify issues for further research.

## Literature review

### Standard certifications

Exporters from all around the world are increasingly required to demonstrate the quality, safety, and traceability of their products in order to meet the demands and expectations of importers, distributors and final consumers (Chen et al., 2008). International standards have emerged as an answer to transform such demands into certification systems that allow companies to have a written assurance that a product, process or service is in conformity with the standard certified (Chen et al. 2008; Chen et al., 2006; Meuwissen et al., 2003).

A standard certification differs from a regulation given that the first is obtained through the voluntary compliance with standards approved and granted by a third-party private certifier, while the second is of mandatory adoption and enforced by legal authorities (Meuwissen et al., 2003; Fischer and Serra, 2000; Ganslandt and Markusen, 2001). Even

1. Information asymmetries refers to the difference in the information required between the links in the supply chain, since legal standards and business practices differ from one country to another (Masakure et al., 2008; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006).

though standard certifications are usually not mandatory, market demands and consumer's expectations often make it a requirement for market entry and acceptance (Swann, 2010).

Standards exist for a variety of reasons ranging from protection of human health, safety, security, and environmental protection to providing consumers with sufficient information. However, the existence of multiple standards and technical measures in different countries may lead to increased difficulty for producers to perform in international markets. In order to promote that standards certifications do not become technical barriers to trade, the World Trade Organization (WTO) created with the Uruguay Round the Agreement on Technical Barriers to Trade (World Trade Organization, 2014).

### **Standard certification and export performance**

Several authors have studied the impact of certifications over export performance (Masakure et al., 2008; Martincus et al., 2010; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Clougherty, 2008; Martínez-Costa and Martínez-Llorente, 2007; Czubala et al., 2009; Fischer and Serra, 2000; Ganslandt and Markusen, 2001; Swann et al., 1996). However, when it comes to the findings, opinions are divided on whether certification influences positively or negatively export performance.

On one side, several studies present a positive relationship between the two variables as reflected by the increase in volume of exports, the number of markets and the diversification of exported products (Masakure et al., 2008; Martincus et al., 2010; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Fischer and Serra, 2000; Ganslandt and Markusen, 2001). This way the acquisition of international standards may result in an improved reputation of the company, the reduction of information asymmetries and creation of differentiated products (Masakure et al., 2008; Martincus et al., 2010; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Ganslandt and Markusen, 2001).

On an opposite perspective, several authors have identified a set of difficulties that may result from the certification process and act as inhibitors of export performance (Martínez-Costa and Martínez-Llorente, 2007; Czubala et al., 2009; Swann et al., 1996). Such inhibitors include the high costs relating to the implementation of certifications, the low perception of profitability of the certification process and a negative impact over the company earnings (Martínez-Costa and Martínez-Llorente, 2007; Czubala et al., 2009).

Through the adoption of international standards, a company aims at certifying its products and processes while making it visible to the company's stakeholders (Henson, 2006). Stakeholders may include consumers, buyers, importers, distributors, governments, banks, insurance companies, or even the society (Swann et al., 1996). As a result, added value may be delivered to stakeholders, new markets may be accessed, the market share of the company may be increased, the perception or reputation of the company may be improved and other positive outcomes may be achieved (Basu et al., 2004; Henson, 2006; Henson and Jaffee, 2004; Fischer and Serra, 2000; Swann et al., 1996).

### **Standards in agricultural and food industry**

Environmental, social and food safety standards are considered by FAO (2009) as the most relevant for agribusiness (Basu et al., 2004; Deaton, 2004; Ghemar, 2012; Henson and Jaffee, 2004; Lee, 2006); as such, they have been selected as the focus of this study. Certifications on logistic processes, customs and other issues, such as BASC, C-TPAT and PBIP will not be considered given that they are often demanded by legal entities rather than customers, reducing its relevance to the purpose of the research (FAO, 2009; Basu et al., 2004; Deaton, 2004; Ghemar, 2012; Henson and Jaffee, 2004; Lee, 2006).

In the agricultural and food sector, the most common certifications relate to food safety, quality in processes,

environmental management and fair trade standards (Mitchell, 2003). Nevertheless, when it comes to fruits, international standards have transcended price and basic quality assurance to place stronger emphasis on food safety and agricultural processes (Henson and Jaffee, 2004; FAO, 2009). Previous studies have stated that such aspects help to bring out the strengths of the company's supply chain, affecting its competitive position in the market (Henson and Jaffee, 2004).

Private third-party certifiers play a key role in this industry as external institutions that assess, evaluate and certify quality, safety and responsibility issues resulting in the reduction of uncertainty, information asymmetries, opportunistic behavior and the increase of social returns (Deaton, 2004).

FAO (2009) divides the most common certifications for the banana industry into two categories: the first one comprises environmental and social standards such as Rainforest Alliance, SA 8000, ISO 14001 and Fair Trade; the second category focuses on food safety, quality and good agricultural practices including GlobalG.A.P., ISO 22000 and SQF (Safe Quality Foods) (FAO, 2009). In terms of safety, the Hazard Analysis Critical Control Points (HACCP), and the ISO 9000 are the most widely recognized certifications. These standards concentrate on food safety and proper quality agricultural processes (Lee, 2006).

It is important to consider the existing and wider framework negotiated in the multilateral agreements that created the World Trade Organization –WTO– regarding sanitary and phytosanitary measures that are considered the legal requirements for accessing markets (WTO, 2014). And even though, standards such as GlobalG.A.P. and Fair Trade are not legal requirements imposed by governments, they have become commercial requirements demanded by customers, therefore turning into requirements to enter a certain market (Meuwissen et al., 2003); that is the case of the European Union and the United States (Ghemar, 2012). For instance, in 2004, EurepGAP (Now GlobalG.A.P.) certification became a commercial requirement to enter the European market (Lombana, 2011).

GlobalG.A.P. is a private institution that sets voluntary standards for the certification of agricultural products. The standards are designed to assure consumers on the production process at the farm by reducing the detrimental environmental impact of their production activities, the use of chemicals and ensuring the responsible management of workers' safety and health (GlobalG.A.P., 2013).

The Fairtrade Labeling Organization (FLO) was created in 1997 and is a non-profit organization that offers development standards benefitting small farmers and employees; it promotes sustainable production and guarantees fair prices (FLO, 2006). It also monitors continuously the producers in order to promote improved working conditions, investment in human capital and in environmental sustainability (FLO, 2006). This certification can also be granted by other NGO's including the International Fair Trade Association, the Network of European Worldshops and the European Fair Trade Association (FAO, 2009).

## **The banana industry and standard certifications**

Bananas are the third most traded fruit in volume in the world, with total exports of US\$ 12.825 billion in 2012 (Trademap, 2013). They are an essential source of income and employment for underdeveloped and developing nations, where suppliers are concentrated and focus on exporting the fruit to developed markets (FAO, 2011; FAO, 2009).

The world banana industry is mainly controlled by three companies: Chiquita, Dole and Del Monte, who account for about 65% of the total world exports of this product. They are followed by the Ecuadorian company (10%) and the European company Fyffes (7%) (FAO, 2011; Lombana, 2011).

For the last few decades, this industry has faced increasing criticism by NGOs and consumers over their labor, social and environmental practices (FAO, 2009). On this scenario, the acquisition of certifications appears as a strategy to mitigate these issues by reducing inappropriate practices

and preventing criticism (FAO, 2009). It also provides the certified company the option to obtain differentiation and a price premium through certification (FAO, 2009).

## The banana industry in Colombia

Banana plantations for export in Colombia are geographically concentrated in Antioquia and Magdalena. As for bananas for domestic consumption, production takes place in Antioquia, Tolima and Valle del Cauca (Bonet, 2000; Lombana, 2011).

The presence of economies of scale, concentration on trading and dependence on international prices are the main characteristics of the banana industry in Colombia (Bonet, 2000; Lombana, 2011). Large and medium producers represent only 25% of the number of producers but account for 85% of cultivated land (Villalobos, 2008). Then, 25% of the land belongs to small producers who are mainly families with low income and little access to technology (Villalobos, 2008); These producers sell their production to trading companies to be able to place their products in the international market (Bonet, 2000; Lombana, 2011), and face large constraints when pursuing standard certifications. Nevertheless, price premium may be achieved as a result of certifications and may help mitigate such constraints.

Regardless of the benefits that compliance with international standards may bring, the inherent costs of becoming certified result to be prohibitively high for small and medium size producers from less developed countries, including those relating to hiring qualified personnel to fulfill with the requirement of certifying institutions (Goedhuys & Waegen, 2013). In the particular case of EurepGAP (now GlobalG.A.P), the certification process is so expensive that in some cases producers have opted for becoming certified in alternative standards, such as Fair Trade (Lombana, 2011).

Trading companies have become key players of this industry and have explored social management and welfare practices since the 1980's. (Bonet, 2000; Lombana 2011).

## Methodology

For the present study, an exploratory multiple case study research has been carried. The selection and analysis of specific cases will provide the information required to achieve a preliminary and exploratory understanding of the relationship between standard certification and export performance. It will also allow to determine if further research is required to understand this phenomenon (Eisenhardt, 1989; Pawels and Matthyssens, 2004; Rowley, 2002).

Top four banana exporters in Colombia were selected amongst the other Colombian banana exporters given its level of exports, measured in tons, between 2000 and 2011 (BACEX, 2013). In order to explore the existing relation between export performance and the acquisition of certifications by these companies, export volume and the number of destination markets between 2000 and 2011 have been selected as the key variables. Exports volume is considered an indicator of level of sales abroad each company makes avoiding biases in the information that could emerge from differences in prices, exchange rates or negotiations in the time period considered (Chen et al., 2006). Then, the number of destination markets provides information on market share and market expansion occurred through the selected period of time (Chen et al., 2006).

Data was collected through primary sources: structured interviews, and secondary sources: newspapers, archives, websites, journals, publications, articles, data bases and previous research papers). Then the cases were built and analyzed in order to withdraw conclusions with analytical validity.

## Findings

The following cases were built, considering the international operations, the acquisition of certifications, the volume of exports and number of destination markets as the key variables to analyze export performance.



## Case I: C.I. Unión de Bananeros de Urabá S.A. (Uniban)

Uniban emerged in 1966 as a local response to multinational domination in the banana production and trading business (Bonet, 2000), given that producers could not reach fair negotiations in terms of price and exported volume with large and multinational trading companies (Bonet, 2000; Historia Uniban, 2013; Davila, 2003). Nowadays, it is a vertically integrated organization seeking to respond to its' customers' requirements from the production to the transport and international trading of bananas (Fundauiban, 2013; Turbana, 2013).

In 1970, Turbana Corporation, a sales subsidiary in the United States, was created as the producer's first own trading company abroad (Historia Augura, 2013; Historia Uniban, 2013). By 1975, distribution in the European market was done through Velleman and Tas, nowadays Fyffes. (Historia Uniban, 2013; Davila, 2003). (Table 1)

**Exports and market development.** Between 2000 and 2011 the company reached 22 different markets, exporting 6.9 million tons of bananas. To eight of these markets the company exported only in one year over the studied period of time (BACEX, 2013). Uniban's destination markets are mostly OECD members (BACEX, 2013).

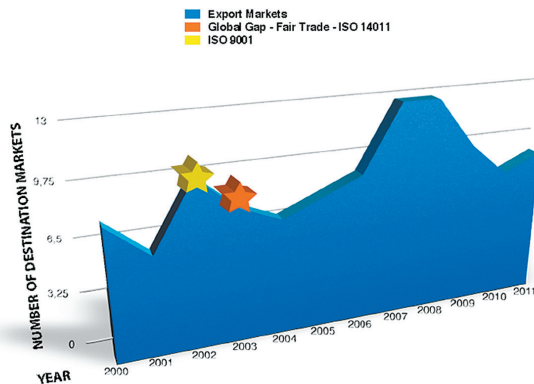
**Table 1.** Timeline Uniban (Turbana, 2013; FundaUniban, 2013; Davila, 2003; Bonet, 2000; Historia Augura, 2013; Historia Uniban 2013

Year	Event
1966	Creation of the company.
1969	Parker Banana, a company from Florida, United States, signs a contract with Uniban.
1970	Creation of Turbana Corporation.
1973	Launch of Uniban's shipyard in Uraba, as part of the integration in logistics for the company.
1975	The Turbana brand enters Europe thanks to the agreement sealed with Velleman and Tas.
1978	Corrugated cardboard factory opens.
1985	Retailers in United States start selling plantains. Marketing efforts are expanded in the U.S. market.
1987	The company creates Fundauiban to support social programs in Uraba. Uniban opens its first owned port in California, United States.
1994	Uniban creates the first private label program for StopandShop in Boston, U.S.
1997	Uniban consolidates its port operation in Gulfport, Mississippi with the building of an exclusive refrigerated warehouse.
2002	Uniban obtains the ISO 9001 certification.
2003	Uniban obtains the ISO 14001 for environmental protection in the farms owned and managed by Agrícola Sara Palma. Uniban obtains, along with its suppliers, the GlobalG.A.P. certification. Uniban obtains the Fair Trade certification becoming the first fruit importer of 100% Fair Trade certified fruit in the United States and the larger banana producer in the world to have this certification.
2005	Strategic alliance with Fyffes (Velleman and Tas) in this alliance both companies now own 50% of Turbana Corporation and strengthen relations for the European market.
2007	Uniban signs a contract to be the exclusive supplier of the Disney Garden label.
2008	Uniban acquires C.I. Proban S.A. rising to 45% of the banana supply in Colombia.

Source: author's creation.

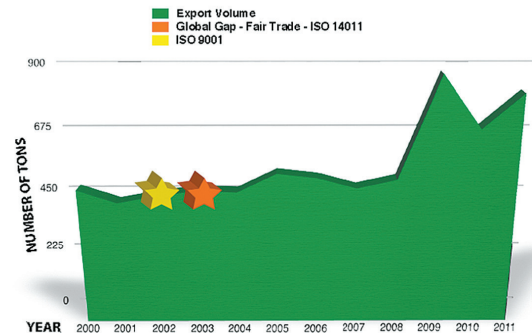


**Graph 1.** Uniban's exports volume and standard certifications



Source: author's creation based on BACEX (2013) and Turbana (2013).

**Graph 2.** Uniban's exports markets and standard certifications



Source: author's creation based on BACEX (2013) and Turbana (2013).

The top 4 markets for the company's exports are United States, Belgium, Italy and Germany. The remaining markets are supplied by the company sporadically depending on its strategy and market demand (BACEX, 2013).

It can be observed that Uniban has a strong strategic focus on the markets of the United States and Europe, which have proven to be its largest and more consistent markets. However, the company has made efforts to diversify sales to other non-traditional, non-OECD markets.

**Certifications and export performance.** According to Graphs 1 and 2 about Uniban's export performance, there is not an apparent connection between the implementation of ISO 9001, GlobalG.A.P., Fair Trade and ISO 14001 and the export volume and number of markets obtained by Uniban. However, after the implementation of these certifications in 2002 and 2003 the export volume has not declined to the levels shown previous to certification. There is a positive trend for exports volume, but it cannot be attributed only to implementation of the certifications, considering that there is not a breaking point in the trend. Also, other variables, not

considered in the graphs about Uniban, may also influence this situation.

## Case 2: Comercializadora Internacional Banacol de Colombia S.A. (Banacol)

In 1980, Banacol was born from the initiative of former partners of Uniban (Davila, 2003). The company has developed as a multinational company with production facilities in Colombia and Costa Rica, and sales subsidiaries in United States and Europe (CIJyP, 2012). Even though Banana is its main product, the company's portfolio also includes pineapple, plantain, other fresh fruits and some frozen products; also, this vertically integrated company has developed in-house production of plastic products, cardboard boxes and aerial spraying (Historia Banacol, 2013).

In 2004, the company joined a holding group named Invesmar, where the biggest company is Banacol. From then on, Banacol refers to itself as a multinational company

with different business units in several countries (CIJyP, 2012; Historia Banacol, 2013; Altex Chartered, 2013). (Table 2)

**Exports and Market Development.** From 2000 to 2011 Banacol exported a total of 3.6 million tons of bananas to 21 different markets (BACEX, 2013). By 2007 exports

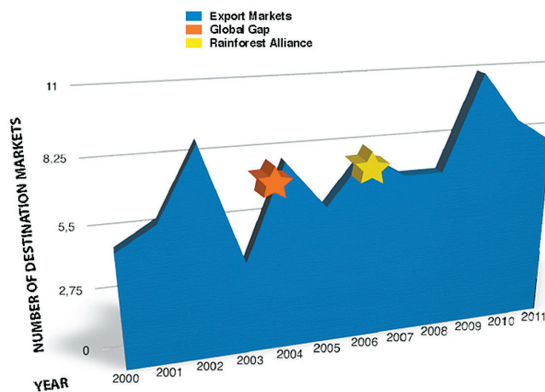
from the company were directed exclusively to 7 OECD members. The number of destination markets grew after 2003 (BACEX, 2013), but Belgium appears as the point of entry to the European Union given that the company has created a sales subsidiary and port management office in this market.

**Table 2.** Timeline Banacol (CIJyP, 2012; Historia Banacol, 2013; Arias, 2004; Rainforest Alliance, 2007; Banacol 2013).

Year	Event
1980	C.I. Banacol S.A. was created.
1983	Starts trading in the United States under the brand <i>Banacol</i> .
1986	The company diversifies its farms and starts producing banana in Costa Rica.
1987	Banacol creates Corbanacol, its social foundation in charge of different social impact programs in Urabá.
1988	Under the brand <i>Banacol</i> the company starts trading and distributing in Europe.
1989	Banacol aims to diversify its portfolio with the harvesting of pineapple in its Costa Rican farms.
1995	All port activity for North America is concentrated in the port of Eddystone, United States.
2001	Redefines its vision and starts distributing pineapple in the United States under the brand <i>Venecia</i> .
2004	The holding company Invesmar acquires C.I Banadex, production subsidiary of Chiquita Brands, consolidating the Banacol Group. The facilities acquired included 5,000 acres of banana plantation and the port infrastructure in Turbo, Colombia. The company obtains the GlobalG.A.P. certification in its owned farms.
2007	100% of the farms are certified with the Rainforest Alliance seal.
2010	The packaging company named Sardinal starts functioning in Costa Rica.

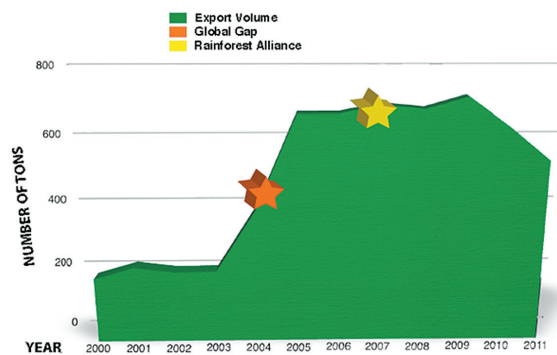
Source: author's creation.

**Graph 3.** Banacol's exports volumes and standard certifications



Source: author's creation based on BACEX (2013), Rainforest Alliance (2007) and CCI (2004).

**Graph 4.** Banacol's exports markets and standard certifications



Source: author's creation based on BACEX (2013), Rainforest Alliance (2007) and CCI (2004).

**Certifications and export performance.** As it can be observed in Graphs 3 and 4 about Banacol's export performance, and considering the exported volume and number of markets reached by Banacol's commercial activity, there is not an apparent relation between these variables and the acquisition of GlobalG.A.P. and Rainforest Alliance certifications. Export volumes were already rising when the GlobalG.A.P. certification was obtained and its continuity cannot be attributed solely to this certification. On the other side, the number of destination markets fluctuates and it is difficult to establish a relation between this variable and the acquisition of certifications.

### Case 3: C.I. Técnicas Baltime de Colombia S.A. (Tebaco)

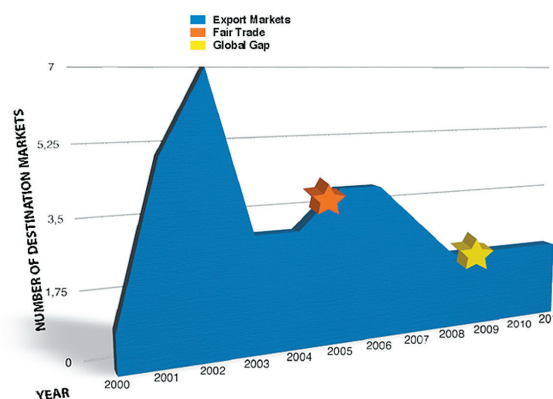
Established in 1976, Tebaco is the production subsidiary in Colombia of the multinational company Dole (Dole, 2013). It is currently located in Santa Marta, Magdalena, from where all its operations are managed (Historia Augura, 2013; Sena, 2003). The company owns its production facilities and distributes bananas produced by small farmers, it also produces card boxes for its own packages. (Tebaco, 2013). (Table 3)

**Exports and Market Development.** Between 2000 and 2011 the majority of exports were directed mainly to The United States (BACEX, 2013). In this period of time there were other 10 market destinations which presented an unstable

trend in the destination markets of the company. However, since 2007 the company only exports from Colombia to United States and Belgium (BACEX, 2013).

When comparing Graph 5 & 6 about Tecbaco, to Graphs 1 & 2 about Uniban, 3 & 4 about Banacol, and 7 & 8 about Banasan, it is possible to observe the difference between local producers (Uniban, Banacol and Banasan) and affiliates of multinational companies (Tebaco) in terms of export volumes and the number of destination markets, where the second are used to export to a few markets.

**Graph 5.** Tecbaco's exports volumes and standards certifications



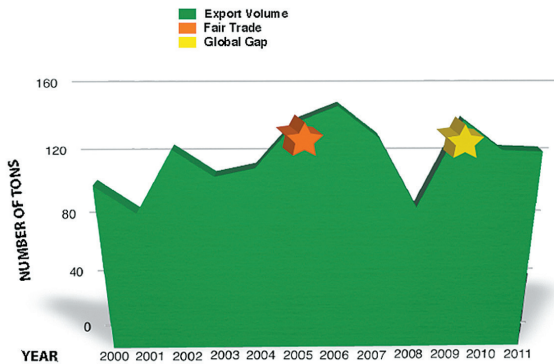
Source: author's creation based on BACEX (2013), Tecbaco (2013) and Dole Organic (2013).

**Table 3.** Timeline Tecbaco (Tebaco, 2013; Historia Augura, 2013; Sena, 2003; Dinero, 1998; Dole Organic 2013).

Year	Event
1976	Establishment of C.I. Tecnicas Baltime S.A. Tecbaco in Urabá.
1983	Closure of the Urabá operations and transfer to Santa Marta.
1998	Acquisition of 60% of Proban in Urabá.
2004	Dole Organic campaign to certify producers in organic banana.
2005	Acquisition of the organic certification.
2009	Acquisition of the GlobalG.A.P. and ISO 9001 certifications.

Source: author's creation.

**Graph 6.** Tecbaco’s exports markets and standards certifications



Source: author’s creation based on BACEX (2013), Tecbaco (2013) and Dole Organic (2013).

**Certifications and export performance.** As shown in Graph 5 about Tecbaco, the company has experienced continuous growth in terms of exports volume since the year 2005. In this year, when the Fair Trade certification was achieved, a breaking point in the exports trend is not observed; on the other hand, when GlobalG.A.P. was obtained in 2009, sales increased notably, especially to Belgium.

The number of destination markets must be analyzed considering that the activities of this company focus on the United States and the European market, especially after the obtainment of GlobalG.A.P. in 2009.

## Case 4: C.I. Banasan S.A. (Banasan)

In June 17<sup>th</sup>, 2005 a group of banana producing companies in the region of Santa Marta decided to join together and create C.I. Bananeros Unidos de Santa Marta S.A. –Banasan- (Freshplaza, 2013; Frundt, 2009; Banasan, 2013).

Unlike other major Colombian exporters with trading and marketing activities integrated in their core business, Banasan dedicates primarily to the production and inbound logistics. It carries out the selling and distribution processes with companies such as Uniban or the European company Fyffes, and focuses only in the European market (Freshplaza, 2013; BACEX, 2013).

In 2006 the company started export operations reaching 22.000 tons of bananas, 90% of which were directed to Belgium (BACEX, 2013). This same year the company obtained the GlobalG.A.P. and the Rainforest Alliance certification (Fundt, 2009). (Table 4)

**Exports and Market Development.** Banasan’s export strategy seems clear after reviewing the different statistics. Only twice in its lifetime it has exported to non-European markets –United States and Aruba- which can be assumed to be a reactive strategy to face specific circumstances. The company’s main focus is Europe, since it started exporting

**Table 4.** Timeline Tecbaco (Tecbaco, 2013; Historia Augura, 2013; Sena, 2003; Dinero, 1998; Dole Organic 2013).

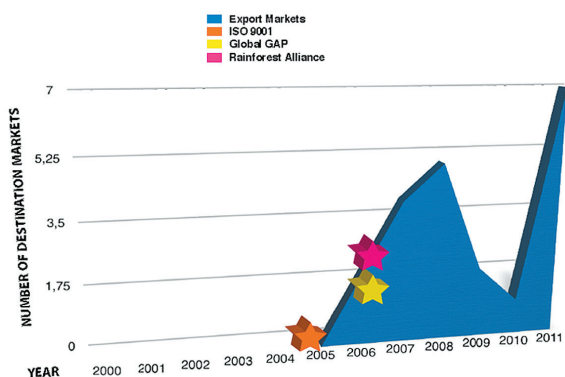
Year	Event
2005	Creation of C.I. Bananeros Unidos de Santa Marta S.A. Banasan. Acquisition of ISO 9001 certification.
2006	First exports to Belgium and Netherlands. Acquisition of GlobalG.A.P. and Rainforest Alliance.
2008	First and only exports to United States in its history.
2010	Exports only to Belgium for 100.000 Tons.
2011	Reached 7 markets with exports of 180.000 tons, being the highest amount of volume exported so far.

Source: author’s creation.

through Belgium and the Netherlands, where Fyffes facilities are located. It can be assumed then that exports to these two countries are later distributed to the rest of Europe where small quantities are required in these other markets (BACEX, 2013).

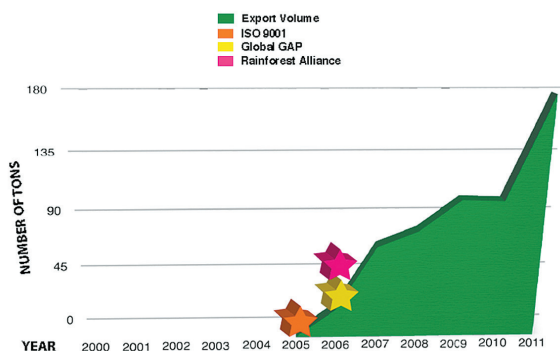
**Certifications and export performance.** According to Table 4, the company became certified on ISO 9001 upon

**Graph 7.** Banasan’s exports volumes and standards certifications



Source: author’s creation based on BACEX (2013), Banasan (2013), Freshplazam (2013) and Fundt (2009).

**Graph 8.** Banasan’s exports markets and standards certifications



Source: author’s creation based on BACEX (2013), Banasan (2013), Freshplazam (2013) and Fundt (2009).

its creation, so it is not possible to infer how such standard influenced its export performance. However, in year 2006, when GlobalG.A.P. and Rainforest Alliance certifications were obtained, a positive trend, in terms of exports volume and the number of destination markets can be observed. Therefore, it is not possible to assume that the exports increase from 2007, or that they may be attributable to these certification, given that this was a new company eager to increase sales and exports implementing a strong marketing strategy in order to improve exports performance.

It is important also to note that in order to enter the European Union market, the GlobalG.A.P. certification is a requirement. This means that the acquisition of such certification was mandatory in order to enter this market.

## Analysis and conclusions

The four companies analyzed on this study can be divided into three categories: direct traders, affiliates of multinational companies operating in Colombia and local producers. The direct traders not only produce but also trade and distribute the product of third-party producers; the affiliates of multinational companies operating in Colombia are managed from abroad and therefore, the decision making processes do not take place locally; the local producers undertake production and international distribution of the fruit and are 100% locally owned. (Table 5)

As Shown in Table 5, in terms of certifications and export performance, differences and similarities can be identified. GlobalG.A.P. has been adopted by all companies, allowing to infer the mandatory nature of such certification. ISO 9011 and ISO 14001 appear to be important for those companies exporting to the US market; as for Fair Trade and Rainforest Alliance, none of the four companies possess both certifications which may show a potential substitute effect between these two standards. When it comes to export performance, differences arise in terms of the number of

**Table 5.** Summary of certifications and export performance by Colombian banana exporters.

Company	Description	Exports Volume 2011 (Millions of tons)	Participation on exports of top 4 banana exporters - 2011	Exports Markets 2011 (Number of destination markets)	Certifications				Prioritized markets			
					ISO 9011/ ISO14001	GlobalG.A.P.	Fair Trade	Rainforest Alliance	Number of certifications	Europe	United States	Others
Uniban	Direct trader and producer	824	49%	9	✓	✓	✓		3/4	✓	✓	
Banacol	Direct trader and producer	545	33%	8		✓		✓	2/4	✓		
Tecbaco	Colombian affiliate of a MNC	126	8%	2		✓	✓		2/4		✓	
Banasan	Local producer	180	11%	7	✓	✓		✓	3/4		✓	
Total for top 4 banana exporters		1675										

Source: own elaboration based on data from BACEX (2013) and the companies' corporate websites.

destination markets, which responds to the companies' specific strategies.

Regarding motivation, it can be inferred that the reasons to become certified differ depending on the above explained categories. Direct traders may be willing to obtain the certification because it enables them to expand to new markets or to expand operations on the existing ones, given the international recognition obtained by the standard certification (Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Fischer and Serra, 2000); Affiliate companies' acquisition of certification may be motivated by headquarters' decisions; and in the case of local producers the motivation may come from international trading companies, distribution channels or even the final customers.

In any case, it can be said that these companies obtain certifications in order to generate marketing processes based on these attributions (Otsuki, 2011, Chen et al., 2008; Chen et al., 2006) and that motivation does not come from the Colombian decision makers, but rather from an outside agent. Therefore, the acquisition of certifications can be considered to be market driven or consumer driven.

Through personal interviews with professionals in the industry, it was identified that certifications are perceived to be an

important factor affecting export performance. However, there is lack of statistical evidence to prove to which extent the acquisition of certifications impacts export performance. (Gomez, A., personal communication, May 3<sup>rd</sup>, 2013; Herrera, J., personal communication May 4<sup>th</sup>, 2013).

In terms of exports volume, this study shows evidence to infer that there is in fact a relation between export performance and the acquisition of international certifications, and that such relation tends to be positive. However, further analysis and statistical evidence is needed to quantify such relation.

In terms of number of market destinations, three out of the four companies reduced the total number of markets after obtaining certification. This implies that standard certifications strengthen the companies' capacity to expand operations on a specific market leading to concentration rather than market diversification. The costs of implementing a given standard may strongly influence this variable since different markets demand different standards increasing therefore, the implementation costs associated with the acquisition of certifications.

In the particular case of Tecbaco and Banasan, markets concentration, rather than diversification in the number of exports markets, was observed, and exports did not decrease



allowing inferring that the acquisition of certifications may contribute to the permanence of the company's presence in a given market and the consolidation of existing operations, as opposed to entering new markets.

## Limitations and implication for further research

Findings suggest that export performance is influenced by other variables including the export strategy, granted access to international markets, available information, regulations and standards, exchange rate behavior, concentration of national or international capital in the company and marketing activities among others (Chen et al., 2006). The present study does not consider such variables but if further studies are undertaken it is recommended to incorporate these factors into multivariate analysis models in order to include cost related aspects and the existence of potential substitutes for certain international standards in order to reduce costs, as it is the case of GlobalGAP and Fair Trade.

Several authors coincide that the acquisition of standard certification and export performance have a direct relation (Masakure et al., 2008; Martincus et al., 2010; Otsuki, 2011, Chen et al., 2008; Chen et al., 2006; Clougherty, 2008; Fischer and Serra, 2000; Ganslandt and Markusen, 2001). However, this study only explores the existing relationship and does not analyze its nature. Further research should focus on determining the quantitative nature of such relationship, in order to determine such nature, and to establish the influence of standard certification over exports performance compared to other variables.

## References

- Altex Chartered. (2013). *Rotación Moin y PTI*. Retrieved on March 20th, 2013 from: <http://altexchartered.com/NewsDetail/10/1/RotacionMoinyPTI>
- Arias, J. (2004, June 14). Banacol compró negocios de Chiquita: US\$51,5 millones. *El Colombiano*. Retrieved on March 20th, 2013 from: [http://www.elcolombiano.com/BancoConocimiento/B/banacol\\_compro\\_negocios\\_de\\_chiquita\\_us\\$515\\_millones/banacol\\_compro\\_negocios\\_de\\_chiquita\\_us\\$515\\_millones.asp](http://www.elcolombiano.com/BancoConocimiento/B/banacol_compro_negocios_de_chiquita_us$515_millones/banacol_compro_negocios_de_chiquita_us$515_millones.asp)
- BACEX. (2013). *Banco de datos de Comercio exterior y servicio de procesamiento de información de importaciones y exportaciones*. Retrieved online on March 9th, 2013 from: <https://www.mincomercio.gov.co/publicaciones.php?id=10235>
- Banacol. (2013). *Certificaciones*. Retrieved on March 21st, 2013 from: <http://www.banacol.com/NewsDetail/222/1/Certificaciones>
- Banasan. (2013). *Bienvenidos a Banasan*. Retrieved on may 2nd, 2013 from: [http://190.90.66.114:8080/banasan/index.php?module=html\\_static&template=bienvenidos.es.htm](http://190.90.66.114:8080/banasan/index.php?module=html_static&template=bienvenidos.es.htm)
- Basu, A., Chau, N. and Grote, U. (2004). On export rivalry and the greening of agriculture – The role of eco-labels. *Agricultural Economics*, 31(2/3), 135-147.
- Bonet, J. (2000). Las exportaciones colombianas de banano, 1950-2000. *Documentos de trabajo sobre economía regional*. Banco de la República, Colombia.
- CCI –Corporación Colombia Internacional-. (2004). *Monitoreo de Mercados No. 9*. Retrieved on March 21st, 2013 from: [http://www.cci.org.co/cci\\_cci\\_x/Sim/Monitoreo%20de%20Mercado/MONITOREO%20%209.pdf](http://www.cci.org.co/cci_cci_x/Sim/Monitoreo%20de%20Mercado/MONITOREO%20%209.pdf)
- Chen, M. X., Wilson, J. S., and Otsuki, T. (2008). Standards and export decisions: Firm-level evidence from developing countries. *The Journal of International Trade and Economic Development*, 17(4), 501-523.
- Chen, M. X., Otsuki, T. and Wilson, J. S. (2006). *Do standards matter for export success?* World Bank policy research paper 3809. Retrieved from World Bank: [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2006/01/18/000016406\\_20060118152026/Rendered/PDF/wps3809.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2006/01/18/000016406_20060118152026/Rendered/PDF/wps3809.pdf)
- CIJyP –Comisión Intereclesial de Justicia y Paz-. (2012). Colombia: Banacol. Empresa implicada en paramilitarismo y acaparamiento de tierras en Curvaradó y Jiguamiandó. *Hands off the land Alliance*. Retrieved on March 20th, 2013 from: [http://www.askonline.ch/fileadmin/user\\_upload/documents/Thema\\_Wirtschaft\\_](http://www.askonline.ch/fileadmin/user_upload/documents/Thema_Wirtschaft_)



- und\_Menschenrechte/Lebensmittel\_Landwirtschaft/Chiquita/Banacol-Estudio-de-Caso-ES-final.pdf
- Clougherty, J. A. (2008). The impact of ISO 9000 diffusion on trade and FDI: A new institutional analysis. *Journal of International Business Studies*, 39(4), 613-633.
- Czubala, W., Shepherd, B., and Wilson, J. (2009). Help or Hindrance? The Impact of Harmonized Standards on African Exports. *Journal of African Economies*. 18(5), 711-744.
- Davila, C. (2003). *Empresas y empresarios en la historia de Colombia: Siglos XIX-XX: Una colección de estudios recientes*. Bogotá, Colombia: Editorial Norma.
- Deaton, B. (2004). A theoretical framework for examining the role of third party certifiers. *Food Control*, 15, 615-619.
- Dinero. (1998). *Colombia, en la mira de los bananeros*. Dinero.com. December 14th, 1998. Retrieved on April 20th, 2013 from: <http://www.dinero.com/edicion-impresa/negocios/articulo/colombia-mira-bananeros/14678>
- Dole. (2013). *About us*. Retrieved on April 20th, 2013 from: <http://www.dole.com/>
- Dole Organic. (2013). *Dole organic Program*. Retrieved on April 20th, 2013 from: [http://www.doleorganic.com/index.php?option=com\\_content&view=article&id=98&Itemid=178&phpMyAdmin=101ec4fece409t73498e50](http://www.doleorganic.com/index.php?option=com_content&view=article&id=98&Itemid=178&phpMyAdmin=101ec4fece409t73498e50)
- Eisenhardt, K. (1989). Building theory from case study research. *Academy of management review*, 14 (4), 532-550.
- FAO. (2009). *Certification in the value chain for fresh fruits. The example of banana industry*. Retrieved online on April 1st, 2013 from: <ftp://ftp.fao.org/docrep/fao/012/i0529e/i0529e00.pdf>
- FAO. (2011). *Banana Statistics 2011*. Retrieved online on March 9th, 2013 from: <http://www.fao.org/docrep/meeting/022/AM480T.pdf>
- Fischer, R. and Serra, P. (2000). Standards and Protection. *Journal of International Economics*, 52, Pp. 377-400.
- FLO. (2006). *FLO. Fairtrade Labeling Organizations International Annual Report 2006/2007: shaping global partnerships*. Bonn, Germany. Retrieved online on March 8th, 2013 from: [http://www.fairtrade.net/fileadmin/user\\_upload/content/FLO\\_AR\\_2007.pdf](http://www.fairtrade.net/fileadmin/user_upload/content/FLO_AR_2007.pdf)
- Freshplaza. (2013). *Colombia: Bananas líder en buenas prácticas agrícolas*. Retrieved on May 2nd, 2013 from: [http://www.freshplaza.es/news\\_detail.asp?id=9284](http://www.freshplaza.es/news_detail.asp?id=9284)
- Frundt, H. (2009). *Fair Bananas!: Farmers, Workers, and Consumers Strive to Change an Industry*. Tucson, United States: University of Arizona Press
- Fundauniban. (2013). *Una empresa comprometida con Colombia, sus accionistas y clientes*. Retrieved on March 20th, 2013 from [http://www.fundauniban.org.co/index.php?option=com\\_contentandview=articleandid=111andItemid=136andlang=es](http://www.fundauniban.org.co/index.php?option=com_contentandview=articleandid=111andItemid=136andlang=es)
- Ganslandt, M. and Markusen, J. (2001). Standards and Related Regulations in International Trade: A Modeling Approach. *NBER Working Paper No. w8346*. Retrieved online on April 29th, 2013 from: <http://www.nber.org/papers/w8346>
- Ghemar, K. (2012). Requisitos obligatorios y certificaciones voluntarias para acceder al mercado de la UE. *Seminario requisitos de acceso para productos agroindustriales en la UE*. Bogotá, November 27th, 2012. Retrieved online March 9th, 2013 from: <http://www.proexport.com.co/memorias/seminario-requisitos-de-acceso-para-productos-agroindustriales-en-la-union-europea>
- GlobalG.A.P. (2013). *GlobalG.A.P.* Retrieved March 8th, 2013 on: <http://www.globalgap.org/>
- Goedhuys, M. and Sleuwaegen, L. (2013). The Impact of International Standards Certification on the Performance of Firms in Less Developed Countries. *World Development*. 47, 87-101.
- Historia Augura. (2013). *Historia*. Retrieved on March 20th, 2013 from: [http://www.augura.com.co/index.php?option=com\\_contentandview=articleandid=12andItemid=30](http://www.augura.com.co/index.php?option=com_contentandview=articleandid=12andItemid=30)
- Historia Banacol. (2013). *Historia*. Retrieved on March 20th, 2013 from: <http://www.banacol.com/NewsDetail/200/1/Historia>
- Historia Uniban. (2013). *Algo de Historia*. Retrieved on March 20th, 2013 from: <http://www.uniban.com/es/historia>
- Henson, S. (2006). The role of public and private standards in regulating international food markets. *IATRC summer symposium - Food regulation and trade: Institutional framework, concepts of analysis and empirical evidence*. Germany: Bonn.
- Henson, S. and Jaffee, S. (2004). Standards and agro-food exports from developing countries: rebalancing the debate. *World Bank Policy Research, Working Paper 3*.

- Lee, G. (2006). *Private food standards and their impact on developing countries*. European commission. Trade Unit.
- Lombana, J. (2011). Colombian exporting bananas. *Market and structure developments oriented to small-scale producers*. 1995-2010. (Prepared for the Committee on Commodity Problem of FAO. Retrieved from: <http://www.fao.org/docrep/meeting/022/AM484E.pdf>)
- Martincus, C., Castresana, S., and Castagnino, T. (2010). ISO Standards: A Certificate to Expand Exports? Firm Level Evidence from Argentina. *Review of International Economics*, 18(5), 896
- Martínez-Costa, M., and Martínez-Lorente, A. (2007). A triple analysis of ISO 9000 effects on company performance. *International Journal of Productivity and Performance Management*, 56(5/6), 484-499.
- Masakure, O., Henson, S., and Cranfield, J. (2009). Standards and export performance in developing countries: Evidence from Pakistan. *The Journal of International Trade and Economic Development*, 18(3), 395-419.
- Maskus, K. Tsunehiro O, and John, W. (2005). The Cost of Compliance with Product Standards for Firms in Developing Countries: An Econometric Study. *World Bank Working Paper #3590*, Washington, DC. Retrieved on April 29th, 2013 from: [http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000090341\\_20050515133900](http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000090341_20050515133900)
- Meuwissen, M., Velthuis, A., Hogeveen, H. and Huirne, R. (2003). Technical and economic considerations about traceability and certification in livestock production chains. *New approaches to food safety economics*. Velthuis, A., Hogeveen, H. and Huirne, R. (Eds.). Wageningen. Pp. 41-54.
- Mitchell, L. (2003). Economic theory and conceptual relationships between food safety and international trade. *International trade and food safety economic theory and case studies*. Ed. Buzby, J. C.
- Otsuki, T. (2011). Effect of ISO Standards on Exports of Firms in Eastern Europe and Central Asia: An Application of the Control Function Approach. *The Osaka School of International Public Policy*, Osaka University, Japan.
- Pawels, P. and Matthyssen, P. (2004). *The architecture of multiple case study research in international business*. In R. Marschan-Piekkari and C. Welch (Eds), *Handbook of qualitative research for international business*. Glos, UK: Edward Elgar.
- Rainforest Alliance (2007). Summary of certified area under cultivation. Retrieved on March 21st, 2013 from: [http://www.rainforest-alliance.org/agriculture/documents/rainforest\\_alliance\\_certified\\_farms.pdf](http://www.rainforest-alliance.org/agriculture/documents/rainforest_alliance_certified_farms.pdf)
- Rowley, J. (2002). Using case studies in research. *Management research news*, 25(1), 16-27.
- Sena. (2003). *Caracterización subsector bananero en Colombia*. Retrieved on April 20th, 2013 from: <http://observatorio.sena.edu.co/mesas/01/AGROINDUSTRIA%20DEL%20BANANO.pdf>
- Swann, G. (2010). International Standards and Trade: A Review of the Empirical Literature. *OECD Trade Policy Working Papers*. OECD Publishing. No. 97.
- Swann, P., Temple, P. and Shurmer, M. (1996). Standards and Trade Performance: The UK Experience. *Economic Journal*, 106, Pp. 1297-1313.
- Trademap. (2013). *Trade statistics for international business development*. Retrieved on March, 23rd, 2013 from: [http://www.trademap.org/Country\\_SelProduct.aspx](http://www.trademap.org/Country_SelProduct.aspx)
- Tecbaco. (2013). *Certificaciones*. Retrieved on April 20th, 2013 from: <http://tecbaco.com/certificaciones.htm>
- Turbana. (2013). *How the goodness began*. Retrieved on March 20th, 2013 from [http://www.turbana.com/about\\_turbana/our\\_story](http://www.turbana.com/about_turbana/our_story)
- Villalobos, B. (2008). *Diseño de una estructura de costos para los pequeños productores de banano en el departamento de Magdalena: Aplicación en la cooperativa ASOBANAR*. (Master's thesis, Universidad del Norte, Barranquilla, Colombia. Retrieved from: <http://manglar.uninorte.edu.co/bitstream/10584/99/1/22521433.pdf>
- World Trade Organization –WTO-. (2014). *Sanitary and Phytosanitary measures*. Retrieved on April, 22nd, 2014 from: [http://www.wto.org/english/tratop\\_e/sps\\_e/sps\\_e.htm](http://www.wto.org/english/tratop_e/sps_e/sps_e.htm)
- World Trade Organization – WTO. (2014). Agreement on Technical Barriers to Trade. Retrieved on April 28<sup>th</sup>, 2014 from: [http://www.wto.org/english/docs\\_e/legal\\_e/17-tbt\\_e.htm](http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm)