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## Conference Paper

Relationship between value chain governance and value chain integration (as an outcome of a public private partnership to promote value chain competitiveness at the regional level). The case of the value chain cotton/textile/clothing in Tolima (Colombia)

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**Relationship between value chain governance and value chain integration (as an outcome of a public/private partnership to promote value chain competitiveness at the regional level).**

**The case of the value chain cotton/textile/clothing in Tolima (Colombia)**

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## **1. Introduction**

This paper focuses on the study of the relationship between value chain governance and value chain integration (as an outcome of a public private partnership to promote value chain competitiveness at the regional level).<sup>1</sup> The theoretical framework is based on institutional theory. The study expands and disaggregates Gereffi's Global Commodity Chain framework and applies some of its analytical categories (input output structure and governance amongst others) to the study of regional value chains.

The value chain cotton-textile-clothing in Tolima is a very special case that merits a discussion on its own. The competitiveness agreement for the value chain was developed in a region that was severely affected by the destruction of a city located in the northern part of Tolima (Armero) by the eruption of a volcano in November 1985 in which more than 30,000 people died. The national government reacted by giving tax exemptions and guaranteeing free import duties to new enterprises that settled in the region during the first decade after the disaster. The case analyses the different economic and power relations within the value chain in the context of the competitiveness agreement as far as Fibratolima (a regional firm created in the aftermath of the natural disaster) sought to break the long standing monopsony of Diagonal (controlled by Medellin larger textile firms), by seeking regional value chain integration through a directed network type of governance. In this sense, the competitiveness agreement is an instrument for competitive struggles between lead firms. This is a case where the value chain is locally

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<sup>1</sup> Blandon, L.A (2012) Economic restructuring and value chains. The search for regional competitiveness in Colombia. PhD thesis. Institute of Social Studies of Erasmus University Rotterdam

constructed by a new emerging lead firm, which eventually collapsed under the impact of its efforts.

This paper is divided in six parts beginning with an introduction. Second, theoretical framework. Third, methodological design. Fourth, description of the case which includes the development outcomes of the competitiveness agreement. Fifth, value chain governance and finally, concluding remarks.

## **2. Theoretical framework**

**2.1 Value chain:** This research adapts the value chain analysis framework to the study of regional issues. A value chain incorporates the group of economic activities that encompass the process of bringing a product from its conception or design up to the last use of it. The concept of agro-industrial value chain includes the value added, in the context of the technical and social relations carried out throughout the production process of a final good. This development takes place along the different links of the chain, from sourcing of inputs, planting of the crop, primary processing and industrial transformation, the distribution, consumption and even recycling. (Kaplinsky and Morris, 2001, Bandon, 2016:144)

According to Gereffi's analytical framework (1994) a commodity chain incorporates three main dimensions of analysis: input output structure (economic structure), geography (territorial location of the links) and governance (power structure of the chain).

### **Value chain governance**

The governance of a value chain refers to the 'authority and power relations that determine how financial, material, and human resources are allocated and flow within the chain' Gereffi (1994: 97). The concept also includes the institutions that facilitate and or exert this power. (Kaplinsky and Morris, 2001:67) According to Gereffi et al. (2001:4), "Governance can be defined as non-market coordination of economic activity... Governance involves the ability of one firm in the chain to influence or determine the activities of other firms in the chain."

In regards to the governance dimension, Gereffi et al. (2001: 4) distinguish three broad forms of governance in value chains: 'inter-firm networks, quasi-hierarchical relationships between

powerful lead firms and independent but subordinate firms in the chain, and vertical integration within enterprises'. In a subsequent work, Gereffi et al. (2005) proposed a new, though related, classification to explain governance patterns in GVCs describing five types of governance beginning with market on one extreme and hierarchy on the other. Additional forms of value chain governance are classified as inter-firm networks, and have different forms of network governance. These are modular, relational and captive value chains. First, market type governance has the lowest degree of coordination in this classification. 'The essential point is that the costs of switching to new partners are low for both parties' (2005: 83). The captive value chain encompasses quasi-hierarchical relationships between powerful firms and independent but subordinate firms in the chain (2001: 4). "In these networks, small suppliers are transactionally dependent on much larger buyers. Suppliers face significant switching costs and are, therefore, 'captive'. Such networks are frequently characterized by a high degree of monitoring and control by lead firms" (2005:84). The third type of governance is hierarchy-vertical integration. In a hierarchy type of chain governance there is the highest degree of coordination (monitoring and control) of this classification. The fourth type of governance is modular value chain. In this network type of value chain, the degree of coordination is low, 'suppliers in modular value chains make products to a customer's specifications, which may be more or less detailed' (2005: 84). Finally, in the relational value chains there are complex "interactions between buyers and sellers, which often creates mutual dependence and high levels of asset specificity. This may be managed through reputation or family and ethnicities" (ibid,)

### **VC main sources of power**

There are two main power sources originated from a multiplicity of barriers of entry and rents from which value chain dominant firms underpin their governance: 'their market power...and their positioning in value chain segments in which they can create and/or appropriate high returns' (Kaplinsky 1998, quoted by Gereffi et al. 2001: 1).

**Market power:** Related to relative position of a firm in a given market and the degree of control that it has over it.

**Positioning in key segments** has to be with the positioning of the main firms in key value chain segments such as design, marketing, product development and network coordination. The

positioning of value chain governors in key segments of the value chain such as transportation, processing and/or marketing gives a strong bargaining condition in relation to its suppliers.

**The distribution of gains** throughout the chain is a key issue related to the sources of power. ‘Kaplinsky (2000), in particular, suggests that the ability to govern often rest in intangible competences (R&D, design, branding, marketing) which are characterized by high barriers of entry and command high returns-usually reaped by developed country firms. In contrast, developing-country firms tend to be locked into the tangible (production) activities, producing to the parameters set by the “governors”, suffering from low barriers to entry and reaping low returns’ (Humphrey and Schmitz 2001: 20).

## **2.2 Public/private partnership to promote value chain competitiveness**

The competitiveness agreement of a value chain (VC) embodies a new management approach of the government in regards to the support policies of the private sector, and is one of the most outstanding instruments of the new institutional arrangement developed in Colombia during the last two decades. The scheme draws several stakeholders (business, agricultural and livestock producers, their associations, universities, the government, etc.) to work in different sorts of partnerships with the purpose of creating synergies in the private and collective action domains at the national and regional levels. These efforts are aimed at improving the productivity of firms and farms and their overall competitive position amidst the process of internationalization of the Colombian economy.

The signing and development of competitiveness agreements of value chains among different countries in Latin America, and in particular in Colombia, represents an actual change of policy emphasis in two different and interrelated aspects. First, the policy embodies a change from a supply orientation to a demand driven one. In the past, ‘the state administration carried out, with a supply vision and in a centralized way, the management of the policy through direct financial support to those firms and sectors that met the established requirements in the incentives laws’ (Vazquez Barquero 2005: 45). ‘The new development policy has a “demand” vision and emphasizes on endowing territories and productive systems with the services that firms require to solve their competitive problems instead of facilitating direct funds to the firms’ (2005: 45). Second, the change in policy orientation is also reflected in a move from a traditional sector

orientation to an agro-industrial value chain, which is a more comprehensive approach. It includes not only the particular agricultural sector but also involves the whole range of activities and actors as well as the economic and technical relations that are established among them in the process required to bring an agro product from the inputs sourcing and production through its processing, distribution and supply to the final consumer. The multi-stakeholder partnerships for agro-industrial value chain development involve public and private sector coordination of activities and exchanges through regional councils for competitiveness. In this scenario, the identification of needs at the micro and meso-level by the agricultural producers, their associations as well as by other producers engaged in processing and transforming downstream the value chain, constitute an important input for policy design, in particular for the Ministries of Agricultural and Rural Development and the related sectoral agencies. The commitments acquired by the government through its participation in competitiveness agreements of agro-industrial value chains embody the new demand-oriented approach of the sectoral policies. The resulting policy design is genuinely demand inspired, based on firsthand knowledge of the needs of agricultural producers, which means direct feedback from the intended beneficiaries. Then, industrial policy becomes an ‘interactive process of strategic cooperation between public and private sectors which, on the one hand, serves the elicit information of business opportunities and constraints and on the other hand, generates policy initiatives in response’ (Rodrik 2004: 38). The notion of sectoral competitiveness agreements was introduced in Colombia in 1994 in the national development plan, and then in 1996, the first agreements were signed.

### **2.3 Developmental outcomes of a value chain competitiveness agreement**

These refer to the value chain itself. They are explained in terms of improvements in the organization of the value chain (e.g. integration, upgrading, gains in productivity, etc.). The outcomes of the competitiveness agreement should constitute a positive contribution to the attainment of the competitiveness goals established in the competitiveness agreements, to the strengthening of coordination along the value chain and to the overall development of regional capabilities for competitiveness.

## **Upgrading Opportunities**

According to Gereffi et al. (2001), ‘The concept of upgrading refers to several kinds of shifts that firms or groups of firms might undertake to improve their competitive position in global value chains’ (2001: 5). Upgrading is a key criterion to assess the outcomes of value chain competitiveness agreements. It provides a framework to evaluate changes in the position of smallholders and their associations, and small industrial entrepreneurs in the value chain because of competitiveness agreements. In effect, upgrading refers to a process in which value chain actors improve their ability to move to more efficient or more value-added activities, thereby becoming more profitable and resilient commercial producers (Van Wijk 2009). For analytical purposes, we include three types of upgrading: product, process and functional upgrading.

## **Collective Learning**

Collective learning is about information flows amongst the different stakeholders of the value chain, which ease cooperation and strengthen their capabilities individually and as a whole stimulated by the geographic agglomeration. The policy of value chain competitiveness agreements and its key operative instrument (the national and regional council for competitiveness of the value chains) facilitates the collective learning amongst key stakeholders of the value chain including support institutions, public agencies, NGOs and others. This policy scheme facilitates the collective learning amongst regional stakeholders beginning with the basics of a conformation and organization of public-private partnerships for value chain development. Since these partnerships cooperate in terms of the identification of competitiveness needs along the value chain, development of a vision and definition of a strategic plan to solve the competitiveness problems of the value chain, collective learning is the result of inter-firm cooperation through information exchanges and sharing amongst different links of the value chain (e.g. technological and organizational knowledge exchanges particularly amongst support organizations, industrial firms and the agricultural producers).

## **Value chain integration**

The degree of value integration promoted by the competitiveness agreements is important though this process is likely to be more robust in some value chains than in others. Integration is stronger in value chains that have a dynamic technical secretariat and a functional regional council of competitiveness as well as an active involvement and support of non-chain actors such as NGOs, regional agencies and value chain governors. In general, developments in vertical integration amongst value chain actors go along with improvements in coordination among support institutions. They are reflected in a rationalization and optimization of the financial and technical resources of the different support institutions through inter-institutional agreements that include public-private sector partnerships.

### **3. Methodological design**

The data comes from a case study of a Colombian regional value chain (cotton/textile/clothing), including its competitiveness agreement, signed during the period from (1998-2003) which constituted a key landmark of this policy.

The study applies stakeholder techniques to develop the ex-post analysis of the competitiveness agreement for the selected value chain. In regards to the information sources and primary strategies for data collection, it is important to state that the primary sources are composed by value chain stakeholders, non-chain stakeholders, and experts. There were used 'in-depth semi-structured interviews' with key informants. The secondary sources are composed by minutes of the Regional Council for Competitiveness and the National Council for Competitiveness, executive summaries and detail technical reports of value chain technical Secretariat as well as databases (public and private sector).

### **4. Description of the case**

The case analyses the different economic and power relations within the value chain in the context of the competitiveness agreement as far as Fibratolima (a regional firm created in the aftermath of the natural disaster) sought to break the long standing monopsony of Diagonal (controlled by Medellin larger textile firms), by seeking regional value chain integration through

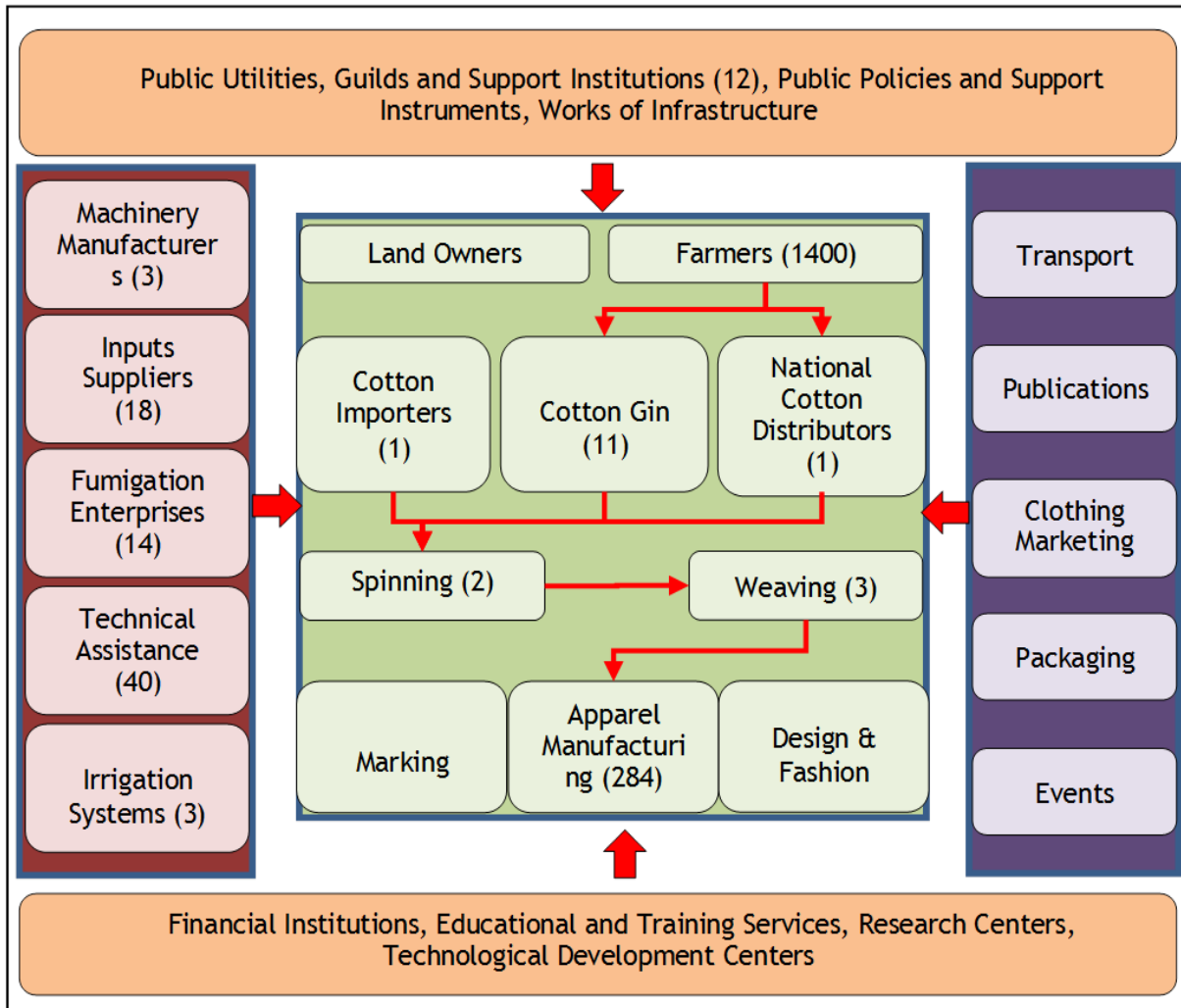


a directed network type of governance. In this sense, the competitiveness agreement is an instrument for competitive struggles between lead firms. This is a case where the chain is locally constructed by a new emerging lead firm, which eventually collapsed under the impact of its efforts. This section is divided in three parts. First, a description of the value chain Cotton/Textile/Clothing and second, the agreement on competitiveness of the value chain. Third, the main development outcomes are presented.

#### **4.1 Value chain Cotton/Textile/Clothing of Tolima**

In the 1950s, Tolima became the main cotton producer in Colombia with around 70 per cent of the total domestic output. Cotton production rose from the 1950s from expansion of the agricultural frontier with the introduction of commercial mechanized cultivation of transitory crops reaching a peak of around 70,000 hectares sown with cotton, in the 1970s. Then, the cultivated area began to decrease, with the most notorious decline happening during the 1990s. Until the first half of the 1980s, the regional industry was underdeveloped especially in the case of clothing and textiles. However, as Campos (2004) points out, the clothing's sector had achieved an important expansion in Ibagué, where there were about 200 clothing workshops, 45 per cent of them small and medium firms and the others micro and family enterprises that produced mainly for the regional market. In addition, there was a spinning company called Textiles Del Espinal S.A. (Texpinal), which was created in 1973 with capital from Fabricato, IFI and the Financial Corporation of Tolima S.A. There was regional investment in Fabricato, although not enough to control the company.

**Figure 1 Value chain cotton/textile/clothing in Tolima**



Source: Own elaboration, based on MADR-IICA 2001.

In November 1985, the region was severely damaged by a natural disaster, the eruption of the volcano ‘*Nevado Del Ruiz*’, which destroyed Armero a city located in the northern part of Tolima and devastated its surroundings. The death toll of the tragedy was estimated at about 30,000 people. The different branches of the Colombian government reacted in a coordinated way to promote an organized socioeconomic recovery, reactivation and reconstruction of the areas affected by this disaster. Decree 3830 of December 1985, Law 44 of 1987 and Decree 78 of 1988 were issued. In addition the city council of Ibagu e issued the agreement 044 of 1988. These were

enacted to establish tax exemptions and guarantee free import duties to new enterprises to facilitate the economic recovery of the region, including Ibagué in the second instance. The tragedy triggered the regional industry and started what Campos (2004) calls a period of induced industrialization. These active policies allowed an important increase in the economic activity of Tolima, especially in Ibagué where the most investment was targeted. According to the Bureau of Tax Administration, 834 enterprises took advantage of these exemptions generating 3,186 direct jobs and 476 indirect jobs.

The industrial sector began to play an important role in the regional economic structure and its traditional agricultural base was complemented by a growing presence of the industrial and service sectors. As a result of these incentives, large textile industries were created in Tolima: Fibratolima (textiles), Fatextol (stockinet-tela de punto), CP Company (clothing), T-Shirt and T-shirt (clothing) amongst others. About 156 SME in clothing and textiles were registered in the Chamber of Commerce of Ibagué during the period 1986-1989 (Bayens 1991). During the period 1990-1995, a peak in the industrial production was reached because of the entrance into the production stage of new firms (Campos 2004). Only 25 out of the 132 industrial firms initially constituted remained active in the city after the whole array of incentives ended. Afterwards, real competitive problems emerged; some of the factories closed in Ibagué and moved to other areas such as Cauca, Huila and Quindío where the impacts of severe natural disasters were ameliorated by the national government with similar incentive policies to the ones applied in Tolima.

Before signing of the competitiveness agreement in 1999, the cotton/textile/clothing value chain had the following links in Tolima: agricultural production of cottonseed and cotton farming; transformation-processing (cotton gin, spinning, weaving; dyeing and finishing, and apparel manufacture) and retailing. Although some exchanges and relations between the links were present, there were underlying tensions among them. The region counted with support institutions that were very active in the chain such as SENA, Corpoica, ICA CPT, ANDI, ACOPI, some NGOs, Coruniversitaria, Universidad Del Tolima and Gobernacion Del Tolima. These organizations provided services such as education, research, training and technological transference, mainly to members of the chain. The efforts of dialogue and concerted action among the actors of the VC hint that there was potential for a better integration of the chain

especially when Productivity Centre of Tolima estimated that in 2002 about 43 per cent the total value added by the chain was generated regionally.

Historically, Tolima has been one of the biggest producers of cotton in Colombia. In 2000, cotton production was concentrated in three departments: Cordoba with 46.8 per cent of the total national production, Tolima (19.7%) and Valle del Cauca (9.5%). In 1999, there were about 1200 cotton producers and 5453 hectares cultivated. Cotton production took place mostly in smallholdings. The producers were affiliated with 11 associations (agremiaciones) (MADR-IICA 2001: 16). There were 10 cotton gin firms located in cotton production zones, including Agrinsa, Desmotolima and Remolinos. They belonged to the associations of producers and most of them were affiliated with Conalgodon (MADR-IICA 2001: 19).

#### **4.2 The agreement on competitiveness**

When the competitiveness agreement was signed, the textile and clothing sectors were enduring a great economic crisis. There was low demand for their products, imports, smuggling and revaluation. In addition cotton production had dropped to its lowest level of the decade. In cotton production, the competitiveness agreement was expected to increase output to fulfill the internal supply deficit and generate surpluses for exports. Cotton growers faced the challenge of becoming sustainable and competitive while overcoming their low degree of integration to the regional value chain. However, determination of the national cotton price would be a strong condition for development of the competitiveness agreement and fulfillment of its goals.

It is important to point out two major challenges that the value chain faced because of changes in the international political and institutional environment, which had strong economic impact at national and regional levels. The first challenge was the imminence of the entrance of China to the WTO in 2001 and its potential participation in the reduction of export quotas since the mid-1990s because of the end of the multifiber arrangement (MFA) and signing of the agreement on textile and clothing. The final rounds of restrictions imposed by the latter were to expire in January 2005. The second challenge was the negotiation of a free trade agreement with the USA, which imposed on the whole VC the need to improve its competitiveness considerably.

The specific strategies of the competitiveness agreement were human talent development, technical and technological development, productive development, market development and

development of a competitive environment. The competitiveness agreement included goals for the period 2000-2005. However, since the technical secretariats ended its work in 2003 and the regional council for competitiveness of the chain lost its dynamism, the competitiveness agreement is analyzed for the period in which those administrative bodies were active (2000-2003).

The main goals of the competitiveness agreement were: to increase cotton cultivated area to 70,000 hectares; doubling cotton consumption to 40,000 tons, obtaining productivity per hectare equivalent to 2.2 tons. This generated around 166,000 direct and indirect jobs in the Department of Tolima distributed as follows: 125,000 in cotton production, 15,000 in the textile industry and 26,000 in the clothing industry (MADR-IICA 2001).

The most important regional firms at the signing of the competitiveness agreement were Fibratolima, Texpinal, Fatextol and Carolina. Texpinal was mainly a spinning firm created in the 1970s and located in Espinal, the core of the cotton production area. Fabricato, *a leading textile firm from Medellin* was one of its main shareholders. The industry organized its purchases through Diagonal, a firm that was the only cotton buyer on behalf of the largest textile factories; hence, the market presented a monopsonistic structure. Most of the cotton produced in Tolima was bought by the regional industry. However, the industry imported a great deal of cotton, given that it was generally cheaper than the regional one.

### **The coordinating role of the regional value chain by Fibratolima**

Fibratolima was founded in 1988 by members of the family Abadi Ruben who were the main shareholders of the entrepreneurial group HILACOL (Hilaturas Colombia S.A.) a traditional firm from Bogotá with more than half a century of history. The investors took advantage of the incentives of Law 44/1987 allocated to new industries willing to relocate in a region impacted by the eruption of volcano Nevado Del Ruiz including Ibagué. During the period 1992-1995, Fibratolima consolidated its leading position in the segment of trouser fabric, made of 100 per cent cotton. It specialized in cotton drill fabric. Its production peak was in the period 1995-1996. In 2001, the company was amidst a financial crisis and entered law 550 of 1999 in order to ameliorate its bad economic situation. The main reasons for the downfall of the company were

the lack of working capital, high financial indebtedness and disloyal competition. Additionally, the economic opening of the country brought legal and illegal competition.

The coordinating role of Fibratolima encompassed three very innovative schemes. First, cotton purchases outside the monopsony (Diagonal); second, textile sales outside the scope of the largest commercial textile firms in the country; and third, functional upgrading in the value chain and integral assembly of imported inputs with clothing producers. These schemes involved development of partnerships with different regional stakeholders (regional and local governments, decentralized sector institutions, universities, the productivity center, and cotton and clothing producers).

*This paper focuses on the first approach.* Fibratolima broke the monopsony of Diagonal in the cotton market. The cotton market was traditionally operated between two larger organizations, which were amongst the main institutional actors of the value chain. The agriculturalist centralized the supply of cotton through the cotton grower federation FEDERALGODON (1953) and Conalgodon (Cotton Colombian Confederation) starting in 1980. The cotton growers were registered in the regional ‘agremiaciones’ associated with Conalgodon.

However, the stronger organization in the market was Diagonal (National cotton distributor). Diagonal is a corporation created in 1950 by a pool of textile firms largely from Medellin. It is an intermediary between the cotton fiber national producers and the cotton buyers. The owners of Diagonal were then the main textile and spinning producers. It was the purchasing unit of the textile industry. The firm had the capacity to buy in bulk for the entire textile sector. Before the signing of the competitiveness agreement, cotton costs accounted for around half of the total costs of the textile firms and ran the risk of being manipulated by Diagonal given its strong market position. The textile firms were owners of a firm capable of manipulating the prices of their main input. In addition, Diagonal did not offer a clear commercialization scheme to the cotton growers to help them to defend against the market problems associated with price instability, lack of credit and technological transfer as well as the reduction in government subsidies. Diagonal did not sign the regional competitiveness agreement although it went to some preparatory meetings.

In the traditional market scheme, the textile and spinning industry bought cotton fiber directly from Diagonal. However, Fibratolima withdrew from the scheme in 1999 and began buying directly from cotton producers though in that year and 2000, it directly bought part from cotton growers and part from Diagonal. Then, from the end of 2000 until 2004, it, in practice, withdrew from Diagonal. In 2003, Fibratolima bought about four per cent of the total harvest (interior) directly from cotton producers.

Fibratolima broke the monopsony in the period 1999-2000 and about two years later other industrial firms, including some spinning firms from Bogotá, joined the former and started purchasing cotton directly from producer associations represented by Conalgodon (MADR-IICA 2006: 334). According to Victor Ardila, Financial Director of Fibratolima, while Diagonal had the financial muscle and purchasing logistics, the company had to create the entire commercialization infrastructure to do that and since Fibratolima went alone, this process caused the firm too many problems. Meanwhile, most of the textile companies were waiting to see the developments of the new scheme introduced by Fibratolima, to decide whether to break with Diagonal or not. In practice, Fibratolima had to quit its participation in Diagonal board of directors or any of its administrative bodies because it was at odds with Diagonal policies.

The new scheme had a financial advantage for the regional value chain. Under this scheme, agro-producers received funding for their cultivation projects based on a statute that guaranteed the harvest purchase by Fibratolima. The scheme was endorsed by the agro and livestock national stock market (BNA), consolidating by this means a solid system of contract agriculture through forward contracts. Before this format, cotton was bought in cash by Diagonal, and now the industry had achieved a discrete time limit to carry out its sourcing of raw materials while the cotton growers were assured funding for their production projects. In general, negotiating directly with cotton producers allowed better logistics of cotton flows and facilitated the coordination of harvest exits with spinning requirements.

The innovative scheme developed by Fibratolima aimed at working directly with cotton producers to avoid problems related to mishandling of fibers at the farm level, for example, cotton contamination by other materials damages large quantities of textiles each year. To develop the new scheme Fibratolima worked in association with Pajonales and a small group of

cotton associations. The firm undertook a leading position beginning with the definition of quality standards for the crop.

Fibratolima attempted as a regional leading firm to confront Diagonal through quality competition by means of sourcing directly from cotton growers. The forward contracts were a clear way of improving the quality of Tolima's cotton growers and a way to break Diagonal's monopoly. Fibratolima established a direct connection with cotton producers and their associations. Also, price differentials by quality were established and concerted actions were directed to achieve productivity improvement in the crop. Then, accountability clauses were included in the contracts for quality. Likewise, punishment and reward tables were included for accountability of the cotton producers. If the cotton overcame the resistance tests, maturity and length then price differences were established. Thus, forward contracts for the crop were established between Fibratolima and the cotton producers with the support of the Agro and Livestock national stock market (Personal interview-Victor Hugo Ardila, 5 April 2006).

Conversely, in the preexistent model there were no direct contacts between Diagonal and the cotton growers. Instead, Diagonal dealt with the cotton ginning firms, which generally belonged to the associations of cotton producers. The agriculturalists harvested the fiber and subsequently took it to their association to carry out an industrial process called desmote (cotton ginning). These associations usually lend resources to the agriculturalists to cover production costs such as seeds and other inputs. 'It is normal that the association establishes a tariff per ton of cotton seed that enters the cotton gin process, and takes care of the commercialization of the fiber for which it also charges a fee to the agriculturalist' (MADR-IICA 2006: 333). In such a scheme there was no innovation, there were seasonal price variations, storage logistic problems and long delays before payment.

The pioneer approach developed by Fibratolima was followed by other textile and spinning productive units and at present several firms are outside the purchasing unit of Diagonal except Fabricato, Coltejer and some enterprises, which are larger cotton consumers in the country and main shareholders of Diagonal.

The scheme followed by Fibratolima faced several adverse factors in the beginning including a severe currency appreciation. Second, the firm endured a drastic contraction of the domestic and



international demand for the final products of the chain. In this sense, investment and efforts accompanied by low demand produced huge income losses. Third, Fibratolima had to create the entire commercialization infrastructure while Diagonal had financial muscle and purchasing logistics.

The oligopolistic and monopsonistic market structure affected the growing path of Fibratolima. The company entered into liquidation process on 20 April 2004. It sold all its assets to Fabricato in December 2004. Afterwards, three spinning firms from Bogota continued with Fibratolima's scheme—Hilandería Fontibon, Hilandería Universal and Hilos de Mosquera. Meanwhile the regional textile firms (Fatextol and Texpinal) and Fibratolima finally were liquidated.

In this particular case, the governance structure of the value chain influenced adversely the value chain integration as an outcome of the agreement on competitiveness for the chain.

### **4.3 Developmental Outcomes of the Competitiveness Agreement**

This section focuses on the analysis on value chain integration as an outcome of the agreement on competitiveness.

#### **Value chain integration**

During the period of the agreement (2000-2003), a great deal of integration among the key stakeholders of the different links of the chain took place. All the interviewees asserted that the agreement provided a good opportunity to know each other's strengths and weaknesses and to learn about the functioning of the whole chain.

- New cotton gin factories were created in Espinal, Chicoral, Guamo and imported modern machineries were introduced in the agricultural sector as well as in the cotton gin cooperatives.
- The National Service Learning (SENA) increased its investments on training of professional and technicians and updated software for crop management.
- Forward contract schemes were developed between Fibratolima and cotton producers.
- There was a meaningful shift from individual to collective credit.
- Contracts for assembly (maquila) between local textile firms and local clothing firms.
- Coordination among support institutions increased and became more fluid.

- The agreement facilitated though temporarily the direct commercial relationship between the textile firms and the cotton producers. Before, this relation took place only with DIAGONAL.

The cotton-textile-clothing value chain in Tolima experienced an important degree of integration during the period of the competitiveness agreement. An example of that can be found in Fatextol, a textile firm from the region. The company used to make ‘assembling’ contracts outside the region before the competitiveness agreement. In the context of the latter, Fatextol and the local garment firms agreed to make the assembling contracts in the region with the condition that the regional garment producers committed to maintain the required standards (i.e. use of fire extinguishers, labor issues, opportunity, quality etc.). Fatextol agreed to part of its clients’ demands. It was a win-win scheme and Fatextol became a type of second tier supplier. Other examples of value chain integration can be found in the forward contract schemes, developed between Fibratolima and cotton producers, and the institutional credit to individual cotton producers, which practically disappeared and was replaced by associational credit.

As pointed out above, during the period of the competitiveness agreement (2000-2003), several examples of integration among the main stakeholders of the links of the chain took place. However, after that the regional council for competitiveness and the technical secretariats were dismantled and the scheme of the competitiveness agreement was abandoned when the national government (Ministry of Agriculture and Rural Development) support to the technical secretariat of the value chain was dropped.

The competitiveness agreement facilitated, although only temporarily, the direct commercial relationship between the textile firms and the cotton producers. Before, this relationship took place only with Diagonal. Forward contract schemes were developed between Fibratolima and direct cotton producers. There was a shift from individual to collective credit; institutional credit to individual cotton producers practically disappeared and was replaced by associational credit.

In addition, coordination among support institutions increased and became more fluid. SENA (National Service Learning) increased its investments in training of professionals and technicians and updated software for crop management. Finally, Fibratolima made alliances with the clothing producers and worked with full package schemes.

## **5. Value chain governance**

Although Diagonal (National Cotton Distribution Company) went to some of the meetings during the discussion of the competitiveness agreements, it did not sign it because apparently it faced a conflict of interest since it represented the main cotton buyers in the country. This posture was also made evident when Diagonal directly or indirectly opposed the scheme developed by Fibratolima in the regional Competitiveness agreement.

The directed network lead by Fibratolima favored the achievement of some of the developmental outcomes of the competitiveness agreement in terms of industrial exports and cotton production until the company was liquidated. At the regional level, Fibratolima worked with full package schemes and embodied a directed network type of coordination since it was willing to purchase cotton directly from the agro-producers and to subcontract with local clothing firms.

The currency appreciation and other factors made it unviable for the leading firm of the Competitiveness agreement to function and put severe stress on several regional clothing firms entrenched in the subcontracting schemes developed by Fibratolima such as Calvin Klein.

Finally, the determination of standards of performance for participating in the value chain was set by Fibratolima based on its clients' quality demands. They supported the achievement of outcomes in terms of cotton production increases, absorbed by regional demand.

Compliance with standards set by international clothing customers supported the achievement of developmental outcomes of the competitiveness agreement, for example better integration of the chain and increases in product quality. The main textile and clothing firms certified their factories according to ISO standards and others demanded by their customers. It made increased exports in the clothing link possible. As Carolina Prada, Quality Manager of Fatextol explained. "The international client seldom comes to Ibagué. However, they send supervisors to certify the factories and verify that everything works well according to their standards. For instance, foreign buyers demand quality raw materials (mature cotton). Likewise, the social part is taken into account in the evaluation. To measure social accountability, they evaluate how personnel are treated, punctual payment of wages, payments to social security etc."

## **6. Concluding Remarks**

The emphasis of the public/private partnership (competitiveness agreement) for the value chain cotton/textiles/clothing in Tolima was on production and employment.

From the cotton/textile/clothing value chain experience can be drawn the following conclusions:

Different types of value chain governance influence the value chain integration (as an outcome of a public/private partnership to promote value chain competitiveness at the regional level) in various ways. The governance structure of the value chain cotton/textile/clothing (Tolima) adversely affected the developmental outcomes of the competitiveness agreement and particularly the value chain integration at the regional level. This posture was made evident when Diagonal (a firm from other region) opposed the scheme developed by Fibratolima in the regional competitiveness agreement which was the core of it. Fibratolima attempted as a regional leading firm to confront Diagonal (monopsony) through quality competition by means of sourcing directly from cotton growers. This evidence shows that “the main interests of the VC governors prevail over those of the small agro and livestock producers, [and small entrepreneurs] in the development of the CA. Issues are agreed upon and outcomes are finally reached depending on the lead firms’ competitiveness objectives. They support or block initiatives and introduce standards (quality and processes) to participate in the VC according to their own goals” (Blandon, 2016:152)

While upgrading is central to the competitiveness policy and the development interventions at the level of value chain, the value chain’s governance structure promotes the product and/or process upgrading of agricultural producers as lead processing firms are interested in improving both the quality and quantity of the input produced by their suppliers in a coordinated effort to introduce systemic efficiency to the chain. This case is more likely to be found in captive value chains, which are more prone to promote the product upgrading of farmers in the context of a competitiveness agreement. This was the case of the leading efforts carried out by Fibratolima in the cotton/textile/clothing in Tolima. In this scenario, the competitiveness agreement left to the value chain a tested financing scheme to the agriculturalists, alternative negotiation schemes and high sensitivity of the national government toward cotton producers.

The economic cycle can motivate the decision of a value chain stakeholder for the signing of a competitiveness agreement. For instance, the cotton/textile/clothing competitiveness agreement was signed considering the need of the agro sector to recover from a recession as well as the needs of the industrial sector to cope with its opening to international competition with a simultaneous currency appreciation process.

The institutional framework that a competitiveness agreement offers to a value chain becomes a necessary step for many actors—producers, industrialist, and support institutions—to get wider recognition and be part of: a) government incentives, b) access to credit, c) positioning the chain at the national and international levels, and d) benefit from the synergy generated in some areas and take advantage of access to information, research, education and training programs.

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