

Cooperation imperatives between rice farmers and millers to survive international competition in the context of the Free Trade Agreement (FTA) between Colombia and USA

Alexander Blandón López PhD. Universidad del Tolima

Janeth González Rubio M.A. Universidad del Tolima

Joel Hernando Cruz Díaz M.A. Universidad del Tolima

Introduction

The main objective of this research is to determine competitive responses of the key stakeholders of the rice value chain of Colombia to the economic insertion in the international markets in the context of the signing of the free trade agreement with the USA. One important contribution of the paper is that it puts into perspective the governance changes in an agro-industrial value chain as a result of a free trade agreement in favor of the agricultural link. The producers of the agro and rice milling links in spite of their manifest rivalry are moved to develop alternative cooperation schemes due to the urgent need to be competitive in face of the threats to the value chain by the FTA.

The core concepts and theoretical aspects that frame the current research are drawn on two strands of academic literature: competitiveness strategy and value chain analysis. From a theoretical perspective, the new industrial policy and in particular the competitiveness policy became even more systematic after the publication of the influential book by Michael Porter, *The Competitive Advantage of Nations* (1990). Porter, from the business administration and strategy perspective, argued that competitiveness is created, but not derived, from static comparative advantages as was traditionally accepted. In sum, the competitive advantage of a firm depends not only on static but also largely on dynamic advantages. Since competition goes beyond prices, productivity improvements and innovation become key factors in Porter's framework. (Blandon, 2012: 46, 47)

In regards to the value chain analysis it can be stated that a rich array of research followed influential book edited by Gereffi, Korzeniewicz and Korzeniewicz (1994), *Global*

Capitalism and Commodity Chains. According to Gereffi et al (1994) A global commodity chain (GCC) ‘consists of sets of inter-organizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world economy’ (pg. 2). Gereffi (1994) presents three main dimensions within its analytical framework. First, there is an *input output structure*, defined as the series of economic interrelations within the links in the commodity chain in a sequence of value added activities. Second, there is a *territoriality (geography)*, related to the ‘spatial organization of production in the commodity chain’ (pg. 97). Last, the framework contains *governance structure*, which embodies the ‘authority and power relations that determine how financial, material, and human resources are allocated and flow within the chain’ (ibid). Gereffi et al. (2001: 4) distinguished 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 global value chains 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 create mutual dependence and high levels of asset specificity. This may be managed through reputation or family and ethnicities” (ibid,)

The study follows a descriptive methodological approach through the combination of quantitative and qualitative analysis focusing on the microeconomic and meso-economic level. Methodologically, in-depth interviews with key stakeholders are carried out to determine the specificities of their competitive response to the challenges in terms of opportunities and threats of the FTA. A total of thirty interviews were carried out including 18 rice mills, to determine the competitive response of the industry, the main trade associations of rice producers and the industry (Fedearroz and Induarroz), and other institutional stakeholders at the regional and national levels. In addition, data gathered from secondary sources fulfilled a key role given the policy analysis nature of this project, namely: archives, administrative documents and databases and documents from public and private organizations, especially from: Ministry of Trade, Industry and Tourism, Ministry of Agriculture and Rural Development, DANE, Centers of Productivity, NGOs, Universities and private firms.

Historically, the rice sector has had an important weight in the productive structure of the country. However, the presence of strong players in the international rice market, added to events such as smuggling, "subsidies" to producers in other countries, the high cost of land and inputs and the revaluation of the currency during periods prolonged and intermittent since the early 1990s, have generated a competitive lag of the country despite the significant progress made in productivity. To this, we have added the enormous challenges arising from the signing of the FTA with the United States. The rice-rice threshing value chain in Colombia is based on a commodity that is very highly subsidized globally. Rice is a crop produced with high productivity that cannot compete against other countries given the price distortions originated in subsidies and other protection measures. The value chain's main links are greatly protected by the government by means of tariffs and nontariff barriers. Moreover, the agricultural production and the white rice produced by the industry target mainly the domestic market and only under special circumstances are opened to imports (mostly to cover internal supply deficits) and exports. This value chain is constantly threatened by smuggling. All of these facts put the price issue as a central point in the agenda

of the relationship between rice producers, the threshing industry and the government as a third party (referee) with or without a FTA. Government policies decide the profitability of the sector domestically and abroad.

In 2015, the area planted with rice in Colombia was 462,117 hectares, the production 2,339,042 tons and a yield of 5.46 tons / ha. Around 500,000 families depend directly or indirectly on this activity. According to the study conducted by Fedesarrollo (Ramirez JM, 2013) in 2013, the rice mill industry in the country consisted of about 60 rice mills, of which 23 are located in the Departments of Huila and Tolima (pg. 31). The milling industry was highly concentrated and oligopolistic in nature, since three firms controlled around 50% of the rice that is commercialized in the country, Arroz Roa (21%), Flor Huila (12 %), Diana Corporación, (16%) (SIC, 2015: 29).

Table 1. White rice. Sown area, production and yields obtained in Colombia, agricultural years 1998 - 2015

Agricultural year	Sown area (Has)	Paddy production (Ton)	Yields Ton/Ha
1998	233.046	1.271.063	5.454
1999	274.030	1.597.633	5.830
2000	271.823	1.644.943	6.052
2001	274.208	1.682.618	6.136
2002	260.285	1.618.021	6.216
2003	259.467	1.644.764	6.339
2004	267.870	1.739.658	6.494
2005	247.442	1.631.107	6.592
2006	246.406	1.638.997	6.652
2007	256.660	1.721.961	6.712
2008	269.909	1.825.039	6.762
2009	297.650	1.922.078	6.458
2010	264.380	1.562.397	5.910
2011	259.547	1.391.661	5.362
2012	ND	ND	ND
2013	469.957	2.394.017	5.030
2014	372.807	2.133.907	5.520
2015	462.117	2.339.042	5.460

Source: Ministerio de Agricultura y Desarrollo Rural (2012, 2017).

The Free Trade Agreement

The Free Trade Agreement with the United States entered into force on May 15, 2012 during the Summit of the Americas in Cartagena. In the negotiations established in the FTA there were special considerations for the Colombian agricultural sector given its economic and social relevance for the country, in this way safeguards were defined for sensitive products such as rice, in which protection mechanisms were applied with wide tariff reduction periods, and grace periods in order to face adverse competition conditions. Colombia undertook a special negotiation in the FTA with the US in the case of rice, taking into account two main aspects, the first has to do with the import quota and the second with the tariff reduction applicable to imports that are made by outside the quota. (MCIT 2012). In the case of rice, imports considered within the quota approved until year 19 of the agreement have a zero tariff and are made through the auction mechanism. In fact, the import quota that was established in 79,000 tons of white rice or its equivalent, with an annual growth of 4.5%, enters the country with zero tariff during the whole tariff reduction period until year 19, when the tariff for the imports that are made outside the quota reaches 0%, in which case the quota disappears and all imports enter with 0% tariff. (MCIT, 2016)

Table 2. Rice quota, tariff and agricultural special safeguard (SEA) for the FTA between Colombia and the United States (2012 - 2030)

Year of tariff reduction	Quota	Extra imports	Tariff relief (%)	Tariff SEA (%)
2012	79.000	15.800	80	80
2013	82.555	16.511	80	80
2014	86.270	17.254	80	80
2015	90.152	18.030	80	80
2016	94.209	18.842	80	80
2017	98.448	19.690	80	80
2018	102.879	20.576	73,8	78,5
2019	107.508	21.502	67,7	76,9
2020	112.346	22.469	61,5	75,4
2021	117.402	23.480	55,4	73,8
2022	122.685	24.537	49,2	72,3
2023	128.205	25.641	43,1	70,8
2024	133.975	26.795	36,9	58,5
2025	140.003	28.001	30,8	55,4

2026	146.304	29.261	24,6	52,3
2027	152.887	30.577	18,5	49,2
2028	159.767	31.953	12,3	46,2
2029	166.957	33.391	6,2	43,1
2030	Unlimited	Not applicable	Not applicable	Not applicable

Fuente: MCIT, 2016

To manage this part of the FTA, the Colombian Rice Export Quota, Inc. (Col Rice) - a company that administers the rice tariff quota (TRQ) was created. According to this scheme, producers of the rice value chain could have a share of the income obtained by the administration of this quota. The resources raised by the auctions are allocated to cover for administrative expenses of the Col-Rice company and the net profits of the business are distributed equally among the investors of the two countries (Colombia-US shareholders of Col-Rice.) It is important to point out that the conformation of the board of directors of Col-Rice includes on the Colombian side a majority representation of rice farmers (Fedearroz) with a minimum participation of the industry; meanwhile the US representation in ColRice has a fully integrated and coordinated value chain. On the one hand, in the Colombian case, the participation of rice farmers and a sectoral vision (Fedearroz) prevail. On the other hand, a value chain vision is observed in the composition of the members, with the representation of the rice producers, the industrialists, the marketers and the boards or councils of research and promotion of rice (The USA Rice Miller's Association, USA Rice Merchant's Association, Texas Rice Producer's Board, Arkansas Rice Research and Promotion Board, Louisiana Rice Research Board, Mississippi Rice Promotion Board, California Rice Research Board Missouri Rice Research and Merchandising Council) (Col-Rice, 2018). In the United States, the producer is integrated forward, that is, the producer is an industrialist and a marketer, as evidenced by Riceland Foods.

During the 19 years covered by the tariff reduction schedule, rice farmers and millers must have resources to promote competitiveness and achieve an important change to avoid being affected by the FTA, once the protection period ends.

During the development of the FTA, the resources of Col-Rice have been decisive to strengthen the rice sector. The millers show their nonconformity because they claim that these resources must strengthen the entire chain. The conformation of the board of directors

of Col-Rice includes in the case of the eight representatives of Colombia a representation of rice producers of 87% with a minimum participation of the industry. At the national level as a result of the dynamics originated by the FTA, events are being presented that gradually produce changes in the governance structure or power relations that appear in the value chain. The AMTEC strategy, associated with the management of Col-Rice yields, is mainly benefiting rice farmers from the management that makes of them Fedearroz before the criticism of Induarroz for not having a stake in this scheme. The resources have a purpose to promote technological reconversion and substantial improvements in productivity and competitiveness of the rice sector through the promotion of schemes such as precision agriculture, laser leveling, and precision technology through satellites, management systems to monitor and to do statistical analyzes of the lots. Regarding the use of inputs particularly agrochemicals and fertilizers, in the opinion of experts, the FTA has gradually reduced costs by being able to resort to the use of generics. The above is an effort that constitutes a race against time to reduce the gaps in competitiveness compared to rice farmers in the United States, due to the fact that there are large differences that greatly favor farmers in the North. As the tariff reduction schedule progresses, effective protection for domestic producers decreases, competitive pressures increase.

FTA and changes in the governance structure of the rice value chain

An analysis scenario shows that to the extent that millers begin to import their rice needs they have the perception that they depend less on the national producer in their value chain relationship, since they can incrementally access more raw material free of tariff in accordance with increases in the quota of rice. However, as time goes by it, the millers lack of competitiveness against its peers in the United States also becomes evident and some fear ending up as maquiladoras of northern firms or facing downgrading processes in the global value chain. The signs of the previous thing begin to show before the period of reduction is fulfilled. The mechanism set for the management of the auctions, as contemplated in the final report of the study “commercial policy for rice” (Fedesarrollo, 2013)

“has brought the entry of new American players to the Colombian market, that by not buying Colombian raw materials, they do not have to average

inventories so that their arrival has represented an additional competitive pressure on Colombian mills. Colombian millers are limited in their ability to compete by not being able to buy (import) American raw material under the same conditions as these new players. (2013 p 30).

As established by the Superintendence of Industry and Commerce, SIC (2012), the Colombian rice industry is characterized by the presence of few competitors in the purchase of the green paddy rice harvest and in the sale of white rice, especially packaged. According to Blandón (2016) "the dominant position in the market and the role of governance carried out by the leading companies in the value chain are strengthened by the appropriation of monopoly rents and by their capacity to enjoy other rents: natural rents, if these exist and endogenous and exogenous rents (Kaplinsky, 2000)". It is precisely the full enjoyment of these rents of monopoly and other rents by the millers, which by different means is facing challenges in the context of the FTA. To this is added the improvements in the capacities that the rice sector is experiencing with the strategy of productivity and forward linkages supported by the AMTEC program. The threat of external competition for both rice farmers and millers in turn is a factor that cannot be overlooked. Another element to consider is the strengthening of the capacities of wholesalers and large retail chains by the FTA, which participate in the link of the distribution of white rice and are increasingly less restricted in their ability to import at lower prices.

The possibility that the wholesale distributors of packed rice or retailers positioned with own brand directly import the white rice from the United States and distribute it through their channels, represents the most alarming signal that both green paddy rice producers and millers have their activity threatened especially at the end of the tariffs reduction schedule amidst the aggressive strategies of external competition and other actors in the chain. The oversupply caused by the previous strategies and their impact on the prices of being massive could lead some millers to eventually sell or provide maquila services for industrial entrepreneurs and/or traders in the United States, constituting a downgrading scenario for the national rice industry. The sum of the above begins to lay a solid foundation for a dialogue with less power asymmetries and crucial and definitive points in common that lead to the realization of agreements to promote competitiveness in the value chain between the two

most relevant actors. This situation should contribute to change the distrust attitude of farmers versus industrialists and vice versa when exploring cooperation schemes to promote the competitiveness of the value chain

At the national level as a result of the dynamics originated by the FTA, events are being presented that gradually produce changes in the governance structure or power relations that appear in the value chain. The Massive Adoption of Technology (AMTEC) by its initials in Spanish) strategy associated with the management of 'Col-Rice' yields is mainly benefiting rice farmers. The management of this program made by Fedearroz has faced criticism from Induarroz (a trade association on behalf of the industry), for not having a stake in this scheme. The resources have a purpose to promote technological reconversion and substantial improvements in productivity and competitiveness of the rice sector through the promotion of schemes such as precision agriculture, laser leveling, and precision technology through satellites, systems' management for monitoring and to do statistical analyzes of the lots.

In the above context, the rice milling entrepreneurs in Tolima, a major rice producing region and host of the largest rice mills in the country, mostly have an opinion that converge towards bad (39%) and regular (56%) perceptions regarding the signing of the FTA with the United States, responding to a valuation of the evolution of the sector during and after the signing of the agreement. The majority of the respondents (61%) answered that the FTA represents a threat because it implies greater competition for the sector and an economic imbalance occurs because of the subsidies granted to producers from other countries, especially in the United States. The rest of the companies perceived the FTA as an opportunity because the current and future imports of more economic and better quality rice could be mixed with the national rice obtaining a larger utility.

The strategy that is having the greatest impact on governance relationships in the value chain is the construction of rice storage, drying and threshing facilities in the country's producing regions with resources from Colombia, Rice Export Quota, Inc., company that administers the rice tariff quota (TRQ). In fact, Fedearroz (Federation of Colombian Rice Growers) has built plants in Casanare, Meta, Cesar and it is planned to finalize one in Tolima. The competitive strategy above pointed out is summarized in what Fedearroz calls the process of forward integration of rice producers. These actions improve the rice farmers' options and

their negotiation skills with the large mills that have traditionally negotiated on the basis of their financial muscle, and greater capacities for storage, drying and threshing and with the urgency of the farmers. These facts give them, the option of negotiating dry paddy or white rice harvest.

The FTA lowers the import costs of threshing equipment, which not only benefits the millers, but in this case also the rice farmers. The development of greater storage capacity by Fedearroz has been reinforced by the gradual development of marketing options for rice growers outside the traditional channel; that is, the one established by the millers in an oligopsonistic market scheme.

Competition by differentiation and export strategy

The strategy of competition by differentiation, highlights the efforts tried by rice producers in Tolima, with the *certification of origin for rice* from the Ibagué plateau, which gives possibilities of eventually participating in markets of export and achieve better negotiation in national markets. The Ibagué plateau which covers the municipalities of Ibagué, Alvarado, Piedras, has the first designation of origin (denomination de origen) of rice in the country. In virtue of the quality of the plateau rice in November 2016 through Resolution No. 76532, the Superintendence of Industry and Commerce declared the protection of the denomination of origin: Rice of the Plateau of Ibagué "White and integral rice of the species *Oryza Sativa* L., Indian type, produced in the Ibagué Plateau." (SIC, 2016:15). In turn, the Superintendence delegated the authorization of the use of the denomination of origin of the rice from the Meseta de Ibagué to the Cooperativa Serviarroz Ltda- a cooperative with around 100 middle and large rice producers from the Ibague Plateau as its affiliates. This upgrading approach is complemented with the use of own and alternative mills as opposed to the traditional Roa-Flor Huila and Diana.

This strategy implies the possibility of exporting at a better price, which already has a pioneering example in Colombia in 2018 with the export of one ton of white rice to Canada directly through the National Federation of Rice Growers, which is an option for forward

integration of producers and an attractive alternative of rice marketing in white outside the internal market, traditionally dominated by large mills (MINCIT, 2018/03/20).

National Park of the Rice-Hacienda la Guaira

The case of “Hacienda la Guaira” is an important functional upgrading experience that is part of the strategy of diversification by rice producers to break their income dependence on their buyers-the largest rice mills. The farm goes from being a traditional rice farm, which includes milling on a smaller scale, to forming a "theme park" that incorporates the previous activities and where the rice culture of the plateau is disseminated as well as the peculiarities of regional culture. For its consolidation as an agro-tourism area, it needs to complete the requirements established in the local and regional institutional formalities, although in practice it is an experience to highlight and with great potential. Located less than half an hour from the capital city of Tolima, this productive unit epitomizes an experience of functional upgrading in the value chain by moving the center of activity from the agricultural link to tourism with the greatest possibility of creation of added value, permanent employment and environmental sustainability.

Finally, it is important to point out that all the efforts described above mark a trajectory that potentially improves the conditions of the rice farmers and that affects the existing governance structure, which is attracting the attention of the big millers for the purpose of achieving tacit and explicit agreements between the parts. This occurs at a time when the greatest competitive threat to rice farmers and millers is the national business system of the United States and the remarkable competitive strength of the American rice mill value chain and the inexorable path to the total liberalization of prices in the market with the United States.

References

- Blandon, L.A. (2012) *Economic restructuring and value chains. The search for regional competitiveness in Colombia*. PhD thesis in Development Studies. Institute of Social Studies of Erasmus University Rotterdam.
- Blandon, L.A., (2016). “Effectiveness and pertinence of public private partnerships to promote regional competitiveness at the level of value chain: The case of Colombia”. En, Gomez. G.M y Knorringa, P (2016). *Local governance, economic development and institutions*. EADI Global Development Series. Palgrave Macmillan.
- Blandón, L.A, González, R.J y Rodríguez, M.A (2018). Efectividad del proceso de política y relevancia de los acuerdos de cooperación público-privada para promover la competitividad de las cadenas de valor (CV). El caso de la cadena de valor arroz-molinería del Tolima.
- Col-Rice (2018) <http://www.col-rice.org/>
- Fedesarrollo (2013) “Política comercial para el arroz” Reporte final. Bogotá, D.C. 2013
- Gereffi, G., M. Korzeniewicz and R. Korzeniewicz (1994) ‘Introduction: Global commodity Chains’, in: G. Gereffi and M. Korzeniewicz (eds), *Commodity chains and global capitalism*, pp. 1-14. Westport: Greenwood Press.
- Gereffi, G. et al. (2001) „Introduction: Globalization, Value chains and development“, *IDS Bulletin* 32(3): 1-8.
- Gereffi, G. et al. (2005) „The governance of global value chains“. *Review of international political economy* 12(1): 78-104.
- Kaplinsky, R. (2000), ‘spreading the gains from globalization: what can be learned from value chain analysis?’, in: *Journal of Development Studies*, Vol. 37, No 2, pp117-146
- Kaplinsky, R. and M. Morris (2001) ‘A handbook for value chain research’. *IDS*. <http://www.prism.uct.ac.za/papers/vchnov01.pdf>
- Mincomercion Industria y Turismo. (2012). Instructivo Contingentes Arancelarios para el Acuerdo de Promoción. Obtenido de

http://www.tlc.gov.co/loader.php?lServicio=Documentos&lFuncion=verPdf&id=73598&name=Instructivo_Contingentes__Version_Final.pdf&prefijo=file

Mincomercio Industria y Turismo. (2016). TEXTO FINAL disponible en:
<http://www.tlc.gov.co/VBeContent.TLC/newsDetail.asp>. Recuperado el 23 de 6 de 2016

Porter, M.E. (1990) *The competitive advantage of nations*. New York: The Free Press.

Ramírez, J. M. (2013). *Política comercial para el arroz*. Recuperado el 22 de 5 de 2016, de Disponible en: Biblioteca Digital Repositorio Fedesarrollo. Recuperado de <http://hdl.handle.net/11445/208>

SIC (2012) Estudios de Mercadeo: Diagnóstico del mercado del arroz en Colombia (2000-2012). Bogotá. D.C. Superintendencia de Industria y Comercio.

SIC (2015). Superintendencia de Industria y Comercio. Bogotá. Resolución 16562 de 2015

SIC (2016) Resolución No 76532 de 2016