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Extended abstract

Title: Building innovative capacities that enhance producer competitiveness and strategies for sustainable and resilient trajectories in GVC's. Experiences from the southern hemisphere[1]

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[1]This paper is based on a research and development work undertaken by the authors in Argentina between 2008 and 2014. The views and conclusions presented do not represent the views or positions of any institution the authors are affiliated to. Some of the materials and the framework presented are part of earlier work by Prof. J. Water and by H. Manson in 2002, 2005 and 2010 with Universidad de San Andrés. Preliminary versions of this paper were presented in the International Conference on State, Market and Society in Industrial Transformation & Upgrading (29-31May 2013), Institute of Development of the Pearl River Delta, Sun Yat-Sen University; in the CERALE-EULAC International conference on SME's: actors of dialogue between EU and Latin America: Internationalization and participation in GVC's (19-23 February, 2014), ESCP-Europe and in the Academy on Global Governance program on Global Value Chains: Policy Implications and Opportunities (27-29 October 2014), European University Institute (EUI). The authors wish to thank Ms. Sabrina Herzog for her substantive contributions and assistance in the compilation of this paper and Dr. Martina Bozzola for her feedback and comments.

This paper builds on existing literature on the benefits and risks of participation in GVC's and seeks to combine both the buyer and the producer perspective in order to present four case studies which illustrate different trajectories of firms and value chains in Argentina and Uruguay, all happening during the period of 1998 to 2014. Each case study presents unique and increasingly sophisticated form of organization and association between stakeholders which result in improved enterprise and –in the most sophisticated cases- cluster and value chain competitiveness. The trajectories followed by the producer firms also result in a combination of survival, adaptation, defensive and offensive strategies which combine and recombine the roles of companies, associations, support institutions and government.

The global value chain (GVC) literature highlights the importance of innovation and upgrading as a means of ensuring virtuous trajectories for countries and companies in order to maximize the benefits -and reduce risks- of participation in GVC's. At the same time, economic literature on global value chains emphasizes individual transactions, which according to Rindfleisch and Heide (1997) is a common feature of transaction cost analysis. This emphasis on individual transactions shows that global value chain literature often focuses on the buyer's point of view. This approach –buyer focused prism- does not allow the understanding of GVC participation strategies followed by producer firms in developing countries (e.g., small-holders farmers, Small and Medium Enterprises -SME's- or large national companies). Such strategies include ways in which producers increase their autonomy when facing dominating individual buyers or in which they diversify markets and or adapt knowledge and create linkages for learning. Even though GVC literature recognizes the simultaneous insertion into multiple value chains by producers, its causes and consequences have not yet been properly described (Walter 2006). Several authors, mainly from developing countries, reinforce these arguments considering that GVCs are used as an instrument to endorse liberal economic reforms and do not take into consideration the negative consequences of the reforms on developing countries (Dalle, Fossati & Lavopa, 2013). These considerations foster a new debate in the GVC framework calling upon stakeholders to adopt the GVC approach by simultaneously considering the perspective of the buyers as well as the producers in developing countries, therefore acknowledging the agency and influence of local firms in creating strategies for their own survival and for the betterment of their position and performance in the GVC. Notably, academics linking the cluster and value chain literatures have explored how small and medium-sized enterprises (SME) competitiveness and participation in international markets take very different forms. Through the examination of Latin American case studies these authors have addressed the question of how SMES may participate in global markets in ways that provide for sustainable income growth, the "high road" to competitiveness; as opposed to the "low road" that is often typically followed by small firms from developing countries which most of the times compete by squeezing wages and revenues rather than by increasing productivity, salaries, and profits (Pietrobelli and Rabellotti, 2010).

Inspired by this growing debate among policymakers, recent literature assessing the role of GVC's in the post Washington consensus has discussed the role of economic upgrading and social upgrading in order to conclude that the gains from 'moving up the global value chain' are not equally distributed. The authors propose that Governments and Institutions do have an active role to play and propose ways in which policy can help people manage risks and reap the benefits in the participation of global value chains (Gereffi and Luo, 2014).

The following section presents four case studies illustrating different trajectories of firms and value chains in Argentina for the period of 1998 to 2014. We analyse impact of participation in GVC's and seeks to combine both the buyer and the producer perspective, drawing comparisons with and building on the insight of existing literature in other geographical regions.

For each case study, the methodology used for collecting information consisted of three steps i) sector and industry secondary research and stakeholder mapping ii) assessment of relationships and linkages between stakeholders (enterprises, institutions, associations, government) through structured and unstructured interviews with key value chain stakeholders and government institutions both individually and through focus groups and iii) analysis of producer and value chain trajectories using a dual logic: functional through the identification of key functions required for competitiveness and export and dynamic by assessing the evolution of the producer perceived situation through time via periodic interviews in the period 2002 to 2014. The cases are illustrative and the research focus was on the producer's perspective in relation to their own positioning and trajectory in the GVC and to the strategies adopted for improving their situation, surviving competitive pressures and/or making the best of participation in GVC's -as well as reducing risks- . The selection of the cases was deliberate because of the *persuasive power* of this type of cases which provide and illustrates certain insights on the research problem that other cases would not be able to provide, as supported by Siggelkow (2007).

Case 1: Reweaving the configuration of participation in the global value chain. Trust, interfirm relations and multichannel strategies in the Argentinean White Good Industry

> In the 1990's the white goods industry in Argentina was composed of several national and multinational companies MNC's or lead firms. The lead firms where designing, assembling and commercializing home appliances –such as refrigerators and freezers- for both regional (export) and domestic markets- and had a network of over 500 SME tier 1, tier 2 part and component suppliers. Since its beginnings, the Argentinean white good industry catered mainly for the domestic or internal market. In 1998 it was composed of 30 assembly companies each with their own brands; two of which were multinational. One of the MNC's operating in Argentina - named 'Whirlpool'- had 22% of world market share (sales) in 1998 and was the most important white good industry lead firm in the world. The majority of firms however, where mainly SME's focusing in the interior of the country and where assembling unsophisticated and low price range appliances distributed through a series of local retailers. Following the regional integration process in the context of Mercosur, macroeconomic shocks in Brazil and Argentina (particularly regarding exchange rates), regional market size growth, investment attraction policies in Brazil and Lead Firm's long term strategy for regionalization and concentration of production; the period of 1993 to 2002 was characterized by entrance of several MNC lead firms into Brazil. As a matter of fact, nine of the top ten white good industry firms where

operating in Brazil in 1997. In parallel, the Argentinean market beacame less attractive and following regionalization of production strategies Whirlpool decided to exit Argentina (relocating into Brazil) in 2003. With the exit of 'Whirlpool' the MNC-Lead firm from Argentina to Brazil; Argentinean white good imports surged, production decreased over 60% and the industry concentration in Argentina followed. Between the period 1999 and 2002, a total of 406 white good industry companies operating in Argentina filed for bankruptcy and out of 30 assembly companies, only nine remained in operation.

Whirlpool represented the lead firm that *articulated* this value chain in Argentina for over 15 years. The company ensured governance – and supplier learning and compliance- through direct control and support to suppliers for quality, innovation and conformity with its international standards. In terms of cluster dynamics, there was not much horizontal cooperation between supplier firms, given the lack of a challenge that involved many producers. Because of the lead firm's spill-overs and quality support programs, the Argentinian white goods value chain was immersed in a virtuous knowledge process that enabled the development and existence of a national industry, even if the intra-cluster knowledge spill overs were indirectly transmitted through Whirlpool suppliers that were also supplying other national SME's.

In this scenario of industry concentration, crisis and exit of the lead firm, of particular interest, was the trajectory and the adaptation strategies followed by one of Whirlpool's tier 1 suppliers, Prano which was an SME manufacturing condensator parts. The strategy used by Prano to survive the exit of the lead firm in 2003 can be characterized as an exploitation of existing opportunities with simultaneous exploration of new opportunities and linkages. Leveraging on the international quality certification obtained by supplying to Whirlpool, Prano was able to produce good quality condensators, adapting to buyer specification at a competitive price. Prano continued to supply to Argentinean manufacturers while it simultaneously started exporting to Chile, followed by tackling the even larger Brazilian market. In 2004, Prano transformed itself into one of the key players in the regional white goods value chain through an alliance with its technology and input supplier, a multinational group in the steel pipe business. Prano followed a multichannel approach, whereby the company formed an alliance to opened a steel pipe and condensator factory in Brazil and simultaneously started exporting and operating in service delivery to third parties for the finishing auto parts – using similar technology than the one used for condensators-. The entrance strategy used to get in the Brazilian market was through the strategic alliance with Marcegaglia, an Italian Lead firm that was supplying steel pipes to Prano and was a MNC actor with knowledge, linkages and resources. The relationship between Prano and Marcegaglia evolved from supplier of steel pipes during a decade staring in the 1990's to a trust relationship between owners, based on common Italian cultural roots. This relationship ensured a process of virtuous knowledge between the firms, whereby technology spill overs and management techniques that would be inaccessible to Prano became available and on the other hand, local market knowledge and entry strategies in Brazil became easier for Marcegaglia. The extensive changes in the white goods industry in the Mercosur region in the period 1990-2003 created an opportunity for the Argentinean sector to acquire advanced technological production while facing a large sectoral crisis as of 1999. In that context, some companies developed innovative methods to compete, a case in point being Prano. However, this was done through links to leading firms and transnational connections of the chain. In summary, Prano limited or reduced its dependence to the local value chain and to one lead firm through the exploration of new markets (Chilean and Brazilian) and through the recombination of its position in the chain. The key for its survival was a strategic alliance with a leading global leader – its historical technology provider. Hence, demonstrating the importance of trust in the relationship between the involved firms and breaking from the idea of an association between the same sector -in this case the technology supplier -became the means of internationalization.

Case study 2: Horizontal associativity between producers and cooperation for innovation.

As a major agricultural player, Argentina's evolution and sustained growth of production shows a substantial leap in productive technologies in the late twentieth century. This was caused by the strong technological innovations done in the field of production, which reflected on rising yields. This case focuses on AACREA (*Asociacion Argentina de Consorcios Regionales de Experimentacion Agricola*) which is a National and sub-regional consortium for the dissemination of technological innovation in the agricultural sector, founded in 1960 by agricultural producers. AACREA defines itself as ''a is a group of farmers willing to share their experiences in order to capitalize individual skills to find better solutions to their problems and take decisions''. In 2014 AACREA included more than 2000 farmer members, 4.5 million farmed hectares divided in 200 CREA local groups present in 20 provinces out of a total of 28.

In each of the CREA local groups its producer members meet to identify common problems relating to technology, sales, finance and develop joint strategies. The producer groups are autonomous but share a common working methodology and framework for information dissemination and linkages. In their meetings they invite and ask collaboration from National research institutions, universities, farmer groups and worker unions, public policy makers and public sector as well as other value chain actors such as transporters and buyers. The organization has actively worked on increasing the level of technical information about production, innovation adaptation and adoption by its members.

CREA has above all become a learning platform for associated actors resulting in technological thinking and innovation. This is done by improving knowledge exchange, sharing experiences, creativity, solving common problems, and creating a measurement of performance, whereby an analysis of production results, markets and capabilities is completed. The initiative also represents a private sector led group that requests and demands specific support for institutions, bringing a segmentation of producers, SME types and support policies. Therefore, associativity has resulted in upgraded products, processes, functions and joint learning. The highlight about CREA is its mode of association: a horizontal association that permits its members to innovate maintain themselves competitive and develop joint solutions to common problems shared. Besides the share and dissemination of innovation, the partnership model concerns other business functions - such as business information, financing, joint selling - from a territorial logic. Therefore, there is segmentation of SME and producer types, as well support policies. In that manner, the organization can promote various interests without losing its overall objective. Another striking factor about the organization is the association between actors within the value chain and from outside, through its partnerships with support institutions such as the National Agricultural Technology Institute (INTA), the chamber of export promotions and others. In this way, CREA develops innovative technologies jointly with these support institutions.

Case study 3: Combining Multichannel strategies, horizontal and vertical associativity

This case study focusses on the citric production areas located in the border zone between Argentina and Uruguay. In both countries, individual citric (oranges) producers commercialize their products through their own individual commercial channels and through other channels they share as associated producers. The data used in this case was gathered through fieldwork carried out between 2002 and 2004. The citrus producer structure in the border zone, can be characterized by a relatively small group of seven companies with associated producers; each of which produce relatively small individual volumes with a total planted surface of 13000 hectares approximately. In order to export, regional producers have to integrate and jointly invest in packaging and cooling plants, which are too expensive for individual producers; but can be afforded if shared between them. Both Argentinian and Uruguayan producers concentrate a great part of their production in the domestic market and the exporters are complying with the main standards demanded by the major retailers in the European market (Eurep-Gap, HACCP, TESCO Nature Choice, BRC). These certifications and the product traceability -requested to enter the European market since 2002 –required large investments that have challenged, once again, the regional exporter's ability to invest without endangering their own survival. Most of the regional exports are carried out by associative organizations. When characterizing types of organizational forms between producers; two different forms of associations emerge: On one hand, consortiums (the Urud'Or consortium in Uruguay and FAMA in Argentina) and on the other hand strategic alliances (between Citrícola Salteña de Uruguay and san Miguel in Argentina – San Miguel was the biggest world exporter of lemons in 2004 and is based in the Argentinian province of Tucumán-).

In their attempts to advance in the global value chain, consortiums have allowed them to sell to large European wholesale distributors, while strategic alliances has taken them even further: they have allowed them to supply supermarkets directly and offer these supermarkets new additional services. FAMA group is an example of a consortium that makes use of multiple channels, as a whole and by its members individually. FAMA was created in 1986 with the objective of exporting to Europe, establishing a consortium to fight in the international market jointly, while continuing to compete in the domestic market. But given the consortium's strong productive capabilities it started selling to Carrefour for the domestic market in 1993, as it was the only producer in Argentina that could supply the volume and quality of orders requested by Carrefour. In this way, the organization gained a solid position in the domestic market. Also in 1993, the strong increases in quantities commercialized by means of the consortium and the complexity of the commercialization forms made the organization establish an internal traceability system for the producer's deliveries in the domestic market and abroad. FAMA's single producer members place two fifths of their production in the domestic market through their own channels (Buenos Aires spot market, retailers or their own shops) and the other two fifths also focused on the domestic market but through the consortium (joint sale to powerful and demanding local supermarkets). The final fifth is also exported by means of the consortium, through foreign wholesale distributors. At the same time, since 2003, the consortium started supplying Carrefour's distribution network in Europe. Referring to the types of processes and products, the most traditional varieties and the lower quality fruit are placed in the domestic market, while the exports consist of new varieties.

Consortium members benefit from diversification opportunities from both sales and financing sources. The joint sourcing of inputs is one of the most attractive topics, as the consortium is legally able to export and import sources inputs either in the domestic market or abroad (Uruguay, Brazil or Spain). The consortium's financing sources made investments in packaging and cooling facilities, as well as in juice and by-products production plants. Hence the consortium does not have to rely on burdensome local financing sources, but rather to credit provided by their foreign clients at low rates or even at no sources, but rather to credit provided by their foreign clients at low rates or even at no cost at all. Regarding the experience between the channels used by the companies in the consortium, a nonlinear trajectory can be observed between chains that evolve independently throughout time.

The strategic alliance between Citrícola Salteña San Miguel involves not only a commercial relationship between producers inside the same cluster but also an inter-cluster commercial link at many levels: first, it links a lemon-producing region in Argentina and the trans-border citrus producing region in Argentina and Uruguay; moreover it connects argentine and Uruguayan producers. The arrival of an external player ended the isolation between the two domestic markets and of competition between Uruguayan and Argentinian producers in international markets. At the organizational level, in addition to management professionalization and capital opening, Ctrícola Salteña has outsourced its harvesting labour to reduce costs. Regarding commercialization channels, the alliance with San Miguel opened the doors for Citrícola Salteña to enter a powerful distribution network directly connected to supermarkets abroad, which was added to its own distribution system connected to large wholesale distributors. Concerning products, both Citrícola and San Miguel increased the variety of products offered to their clients. A comparison between the FAMA consortium and the strategic alliance between San Miguel and Citrícola Salteña , we can see both involve a combination of local and global value chins, multiple commercialization and financing channels.

The different forms of association used by citrus producers in the border area in Argentina and Uruguay with their local and foreign buyers enable the producers to survive, defend, and compete (offensive and defensive). In particular, focus is provided to producer-specific organizational forms that allow producers to create and manage specific arrangements typically associated with plural coordination forms; in a region where single producers' production is insufficient (both in volume and variety), and where commercialization is not undertaken by specialized companies, all strategic export efforts carried out require simultaneous investments in several steps of both production and commercialization processes. In particular, the cases of FAMA and Citrícola Salteña & San Miguel highlight the importance producers give to the possibility to access alternative commercial, financial, technology development and adoption channels. These combinations allow producers to preserve and recreate their independence, condition necessary to capture an increasing share value added in buyer-controlled global chains. Therefore, the best way to help developing countries' producers is to start by learning from their own experience, which is through an unstable equilibrium between exploration and exploitation in plural coordination forms.

Case study 4: Towards innovative forms of value chain association involving enterprises, institutions and policy

Traditionally, the Argentinean cotton to clothing value chain was composed of diversified small, medium and large companies present in all stages of the chain, from cotton and wool to design and retailing. During the period 1999 to 2014 the threat of imported finished products generated significant difficulties and competitive pressures to the industry who was under ‘’attack’’ by Brazilian and Chinese imported garments and could no longer depend on the domestic market –exclusively- for survival. Some of the pressures were originated in the context of tariff free intra-regional trade and regional economic integration and others were generated by different incentives and disincentives that generated distortion in the competition between countries. However, the immediate competitive pressure was of structural nature due to Brazil's higher installed productive capacity and domestic market size ensuring better and more competitive economies of scale.

This case focuses on the spheres of action and roles of business associations in the textile industry in the context of the global and regional competitive pressures as well as the national trade restrictive measures and economic shocks which Argentinean companies where exposed to. In Argentina, the most common business associations are non-profit associations classified as chambers of commerce or federations. The ProTejer Foundation is an example of an association that differs in structure and levels of operations and has contributed to achievements in its industry. ProTejer was created in 2003 with the leading influence of TN&Platex, the largest yarn producer in Argentina (national capital). While ProTejer started with 35 members, currently it counts with more than 115 members. Among them are cotton producers, wool producers, yarn producers, weavers, designers, clothing brands, clothing retailers, chemical producers and industry support institutions providing services and technical expertise (of public and private nature). ProTejer's mission is to “assist, develop, contain and integrate the textile and clothing industry in Argentina, helping these industries to grow.” Its medium term plans include boosting investment and increasing international market share of Argentinian textile products.

Protejer initially focused on lobbying against *the invasion of imports* and in requesting government's protection for the national industry and employment (approximately 270 thousand jobs in 2003). ProTejer centralized all producers and value chain firms in one organization; hence the industry gained legitimacy and political weight, making it easier for its mandates to be heard. After initial success – in stopping the imported good invasion via government *salvaguardias*, the organizational strategy continued to be focused on lobbying but once it had achieved its objectives of gaining influence and trust, the organization was also able to increase the number of its associates by twofold, including fashion designers and retailers. Once the representatives of the different stages of the value chain were present, ProTejer widened its realm of action and integrated advocacy for public policy to its portfolio. In 2006, the foundation evolved to provision of information services to the value chain and included linkages with universities and technical training programs, the promotion competitiveness and export development as part of its mandate. Ten years after its origins, the foundation performed roles such as the creation and facilitation of linkages for investment and financing mechanisms, as well as capacity building and coordination of value chain. In 2014, the textile and garment value chain employed 470 thousand workers increase accounted by the revitalization of several industrial parks and the increase in Argentinean designer brands.

In short, ProTejer integrates the textile and clothing industries with actors from the whole supply chain. The association is therefore, not limited by sector, like the many business associations. In fact, the organization exchanges with businesses through chambers and not by the businesses themselves. Therefore, the representatives of different sectors take their concerns and exchange on possible solutions for the value chain. The Foundation is both focused on promoting the political – defensive- interests of the industry, as well as the promotion of competitiveness and innovation. Hence, the organization increases the industry's bargaining power but also facilitates innovation (and design) which are important components of Argentina's competitive advantage. In order to maintain that competitive edge, the organization has partnerships with many universities and design institutes and facilitates capacity building programs for the industry. ProTejer also ensures knowledge spill overs through collecting information from the industry - such as sales volumes, jobs generated, trade balances and other indicators – and putting the different sectors of the value chain in contact, including the consumer or general public.

In summary, ProTejer can be seen as an example of change in association types in Argentina. While most business associations can be characterized as sector initiatives, this organization can be seen as an alliance integrating the interests of the industry's value chain, generating linkages and collaboration as well as training applied personnel for the businesses involved. The foundation does not have a new format in terms of association of functions, but its innovation lies in promoting the business interests of the entire value chain while still understanding the relationship between state and business.

The four case studies show the relationship between strategy, value chain governance, association and innovation with the evolution in the position -and performance of- firms involved in the Global Value chain. More specifically, the cases evidence how producers from developing countries can play an active role in defining organizational forms in which they are embedded by adapting, combining and recombining their vertical and horizontal linkages as a multichannel strategy to ensure survival, improved participation (reduction of risks) and maximization of the benefits derived from their insertion in GVC's.

In the first case, the association and recombination of linkages is between two firms and is of endogenous nature to the value chain. The association between a technology and an lead firm tier 1 supplier, triggered by the exit of a lead firm and by trust relations between firms, enables the supplier company to keep exploiting existing opportunities (domestic market) while exploring new opportunities through internationalization (direct exports to the region and a joint venture business in Brazil). In the second case, the association mainly takes place between several producer firms at the cluster level and leads to innovation via joint learning and common problem solving. Of particular interest is the inclusion (and participation in problem solving) of support institutions, resulting in public private partnerships at the local level. In the third case, the association is both horizontal between producers and vertical with value chain actors (buyers). It results in innovation that also includes technical collaboration with support services but result in offensive commercial strategies that achieve multichannel (multi product multi market) insertion. In the fourth case, the association is global, including both horizontal and vertical levels as well as policy and support institutions.

Of particular interest and crosscutting nature to all cases is the existence of mechanisms adopted by producers for improved competitiveness and reduction of risk. Notably, the active quest for -and adoption of- multichannel strategies for production, commercialization and association (Cases 1 and 3), the importance of territorial innovation systems where producers collaborate for joint problem solving and generate the demand for technology support and innovation (Cases 2 and 3) and the composition of institutionalized value chain networks, as a new more complex form of flexible associations that has inclusive governance mechanisms and fosters simultaneous alignment by private sector, policymakers and support institutions (Case 4). The case studies also seem to suggest that private sector led broad participation at cluster and value chain level; co-opetition (by including different actors and interest groups with different views and enabling deliberation and interest based negotiation for joint problem solving) and adoption of multichannel strategies can be key pillars for more resilient enterprise and value chain trajectories in the context of developing countries insertion in GVC's.

The type of private sector led producer adaptation and innovation strategies evidenced by the case studies provide insights to the importance of adopting the producer perspective when assessing the benefits and risks of participation in GVC's. In conclusion, by adopting the producer perspective -and combining it with the buyer perspective-, a clear shift takes place in the conceptualization of the integration dynamics of countries and enterprises in GVCs. The upgrading, innovation and learning does not only take place from a top down – vertical- relationship with the lead firms but can also happen from the bottom up or via horizontal linkages between producers and with support or service delivery institutions. Building innovative capacities that enhance producer competitiveness and achieve resilient strategies for sustainable trajectories in GVC's also require a multichannel approach for specific functions (production, commercialization, finance, association and linkages) that can be combined and recombined as a means of adapting to changes in the environment. Finally, the innovative capacities for a more sustainable participation in GVC's also include innovative associativity through associations and alliances (private-private and public-private) for improved learning and adaptation through common problem identification and solving between enterprises and within the value chain. Rest assured, the adoption of the producer perspectives with associated multichannel strategies and innovative forms of association, also has upgrading implications in terms of the roles of support institutions, finance and development support and policies in order to achieve resilient enterprise-value chain-country development trajectories.