Competitiveness and Environmental practices. A South American case study.

This is a time of great change in Uruguay. The reality of the Common Market of South America (Mercosur) union working as an economic trade block comes closer. The importance of Mercosur for agribusiness, either on the input side, on farming, or on the output side of agriculture, is due to its position as a leading global supplier of several commodities. It is not possible to understand the global dynamics of agribusiness commodity systems without understanding the trends and sources of the performance of agribusiness in Mercosur. In terms of growth, it could be argued that Mercosur has been to the production side of global agribusiness what China has been to the consumption side of global agribusiness in the last five years.

Until now within Mercosur (it has four members: Argentina, Brazil, Paraguay and Uruguay), the agreement has not been fully implemented (Philipiddis and Sanjuan, 2007). Some industries have requested the adoption of an 'adaptation regime' (Paiva and Gazel, 2003). This adaptation regime has allowed these industries to benefit from various measures of protection, such as tariff and non-tariff barriers that have given them the possibility of competing in isolated environments. As the process of integration continues, the barriers, which have protected some industries such as broiler or wine in Uruguay, will disappear. This will create a new competitive environment for the companies that exist in those sectors.

Several uncompetitive Uruguayan companies belonging to industries such as sugar, plastics, and orange juice have collapsed during the integration process (Pippo, 2007). However, Mercosur has also been beneficial for some Uruguayan companies and for the Uruguayan economy as a whole. In fact, Uruguay has clearly increased its exports within the Mercosur market (COMISEC, 2004). To get full benefit from their integration within the Mercosur trade block, Uruguayan companies in different sectors and sub-sectors have to be prepared and adapted in order to compete successfully with international Brazilian and Argentinian companies (the 'big players' of Mercosur).

This study is concerned with an analysis of Uruguayan broiler competitiveness in this new scenario, where Mercosur would operate free of any barriers. Until now, a 'sanitation barrier' has isolated and protected the Uruguayan broiler industry from neighbouring markets. This measure has affected other countries, by making it impossible to export fresh chicken products to Uruguay (Errea and Llundain, 2007). This protection has permitted technological investment and an improvement in the efficiency of some of the links in the broiler food chain but within the comfort of a protected environment. If Uruguayan broiler companies do not improve their competitiveness, they may be displaced by Argentinian or Brazilian broiler firms (Ruiz *et al.*, 2003). The report also looks at the impact that environmental practices would have on the competitiveness of Uruguayan broiler companies.

Literature review

This section discusses which would be the most suitable framework to analyze the competitiveness of the Uruguayan broiler industry within Mercosur union.

The reason why some firms belonging to certain nations are more competitive than others is a very complex topic. Nowadays most countries increasingly find themselves more integrated into the global economy. In that scenario, the importance of competitive advantage is enormous as trade agreements have forced firms to face competition from domestic and global competitors (Requier-Desjardins *et al.*, 2003). This is the situation that Uruguayan broiler firms might be likely to face in the short-term.

In general, national macro-economic factors, such as government deficits, exchange rates, interest rates or currency strength, are pointed out by many theories as having a relevant role in competition (Smith, 1776; Ricardo, 1817). Nevertheless, there are examples of nations that have achieved international success in spite of adverse macro-economic conditions. The desire of individuals to maximize their profits, labour availability, and comparative cost advantage has also been identified as important factors in determining national and corporate competitiveness (Murphy, 2001). However, in some nations with short supply of labour and high wages, firms have been able to gain competitiveness through automatization and redistribution of processes.

According to some theories, competitiveness depends on natural endowments. Therefore, nations rich in natural resources should gain competitiveness easier than those less fortunate on natural endowments (Heckscher, 1991). Yet, the lack of natural resources has not prevented firms from some nations such as Japan from achieving international competitiveness (Yoshitomi, 1991).

Many scholars have pointed at government policy as the main factor responsible for achieving national prosperity (Dunning, 1995). Evidence suggests that economic success has been achieved by nations with either strong government control or limited government policy (Harling, 1989; Wint, 1998).

Finally, business management practices are identified by some models as key determinants for competitive success. Some authors argue that it is unrealistic to draw generalizations out of management practices because the same management approach would have very different outcomes in different industries from different countries (Bloom and Van Reenen, 2007; Thang *et al.*, 2007).

Most traditional theories and models contain some 'truth'; however, they fail to account for many factors that are important to explain competitiveness in specific sectors (Deraniyagala and Fine, 2001). The few models that take into consideration the firm's dynamics tend to oversimplify the process by which a firm achieves competitiveness. The new strategic trade theory has tried to amend some of the flaws of traditional theories introducing the concepts of economies of scale, product differentiation, and imperfect competition. In spite of addressing some of the flaws of former theories the new strategic trade theory is still imbued with many limitations of the old theory (Bhattacharjea, 2004).

Among management theories, Porter's (1990) framework and the resource-based view (RBV) have been recognized as the most influential perspectives to explain competitive advantage and why some firms succeed where others fail (Abbott and Bredahl, 1994; Powell, 2001). The debate should look then at the real differences

among these two models. The RBV theory has been supported by those scholars who believe that competitive advantage is associated with firms' specific resources (Wernefelt, 1984; Foss, 1997). Supporters of this theory claim that the management of firms' specific resources is the main determinant of differential performances between companies (Barney, 2001). They argue that those companies capable of developing rare and non-substitutable resources and capabilities such as technical know-how, managerial ability, and organizational capabilities (routines and interactions), will achieve competitive advantage over competing firms (Wernerfelt, 1984; Barney, 1991).

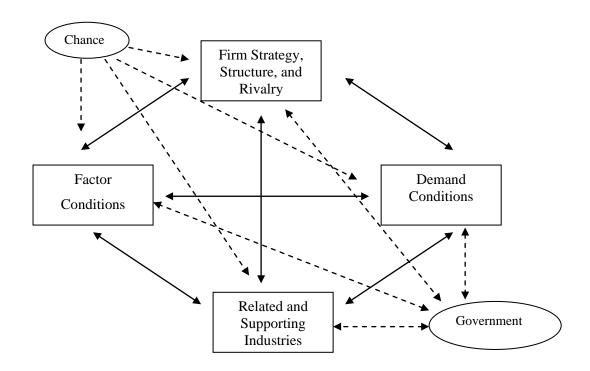
Porter (1990) with his work 'The Competitive Advantage of Nations' has been the main contributor to the development of a framework that explains those factors responsible for the success or failure of a firm. 'The Competitive Advantage of Nations' discusses the role that the nation's environment and governmental policies has on a firm's competitiveness. Porter (1990) maintains that a nation succeeds where the country's environment helps to develop the 'proper' strategy for a particular industry or segment. National factors affecting the possibility of pursuing a particular strategy include: norms of behaviour that shape the way firms are managed, the availability of skilled labour, the nature of home demand, and the goals of local investors. Porter's (1990) main objective is to explain the way in which a firm's domestic environment shapes its competitive success over time and why some nation's industries and firms succeed at international trade where others fail.

Porter (1990) emphasises that developing a competitive advantage in industries demands continuous improvement and innovation. According to him, nations succeed where the local environment pushes firms to take risks and to invest in new strategies for competing. To pursue this kind of strategy demands having sophisticated technology, skills, and the financial resources to continuously invest. When these sources are present nations will succeed in pursuing the right strategy.

According to Porter (1990) the nation's 'right' environment, that supports the creation of competitive advantage, is based on the attributes included in a national 'diamond' model based on certain determinants. Even though Porter's approach uses the firm as the centre of analysis he also takes into account the role that exogenous factors have on firm's competitiveness (van Duren, Martin & Westgren, 1994).

The main determinants embraced by Porter's (1990) 'diamond' are: factor conditions; demand conditions; related and supporting industries; and firm strategy, structure and rivalry. This model is then expanded with the inclusion of another two determinants (the role of government and chance) that address exogenous forces.

Figure 1: The complete system



Source: Adapted from Porter (1990).

Porter (1990) claims that the success or failure of a specific industry is a result of the interaction among all 'diamond' determinants and that each determinant can be influenced and influences the conditions of chance and government policy. As in his previous work, Porter (1990) stresses the importance of competition as firms benefit from having aggressive home-based suppliers, strong domestic rivals, and demanding local customers.

Porter's theory has the ability to acknowledge the impact of the industry without forgetting the role played by operational activities at the firm level (Grant, 1991). Therefore, Porter's model seems to provide a better framework than the RBV for understanding the competitiveness of the Uruguayan broiler industry, as well as the firm's activities that have contributed to the development of this industry.

The benefit of Porter's theory is that it is not only about the analysis of industries and competitors but also about the activities within the firm (O' Shaughnessy, 1996). By concentrating only on the firm, the RBV forgets to consider important industry factors that may affect the acquisition of resources to develop competitive advantage (van Duren *et al.*, 1994; Barney, 2001).

The model to be employed in this study must be able to overcome the constraints of traditional theories. The selected framework must be capable of explaining the success of industries from specific nations when competing locally and internationally. In spite of its limitations, Porter's (1990) model of competitive advantage is the one that best meets these requirements.

Methodology

Within a deductive approach, this study opted for an industry-level case study research strategy because it appears to be one of the best options to collect the required data for understanding the impact of Mercosur upon the competitiveness of Uruguayan broiler firms.

This strategy is operationalized through in-depth personal interviews with owner directors, managers, and administrators in six of the seven possible broiler companies within Uruguay. One of the firms refused to be interviewed on the basis of company policy rules.

In this study the semi structured interview was the major data collection instrument. This method was selected because of its suitability to provide insights into an understanding of the subject under study.

Secondary data has also played an important role. Because of the nature of this study, the analysis of Mercosur environmental policies became a core component of the research. Specific sources of secondary data were: the Secretariat of Mercosur, and the Ministry of Agriculture.

The findings

Using Porter's diamond this research has identified the weaknesses and strengths of the Uruguayan broiler industry. Table 1 and table 2 respectively provide a breakdown of the in-depth interviews with owner-directors and professionals within the analytical framework of Porter's (1990) model.

Tables presented below depict the following symbols: \checkmark , x, x*, and PS. The meaning of these symbols is explained as follows:

- ✓ means that qualitative data supports Porter's (1990) hypothesis.
- x means that qualitative data does not give support to Porter's (1990) arguments.
- x* means that Porter's (1990) argument remains valid if the success of the Uruguayan poultry industry is assessed in a regional context.

PS means that Porter's (1990) hypothesis are only partially supported.

Table 1: Determinants of Competitiveness in Interviewed Firms (owner-directors) within the Analytical Framework of Porter's Model.

	Calpryca	Pollos Tenent	Avicola del Oeste	Avesur	Avicola San Bautista	Avicola del Remanso
Factor Conditions						
Human resources	✓	√	√	X	√	✓
Physical resources	✓	✓	✓	✓	✓	✓
Knowledge resources	✓	√	x *	x *	x *	x *
Location factors	✓	√	✓	X	X	✓
Infrastructure resources	✓	√	X	X	√	√
Demand Conditions						

Large number of	Demanding customers	√	√	✓	✓	√	√
independent local customers Building long relationships with key customers Local demand anticipates buyer needs in other markets Export markets X		v		v	v	v	
Customers Cust		Λ	Λ	X	X	Α	A
Building long relationships with key customers Subject of the customers Subject of Subje	_						
relationships with key customers Local demand		√	√	✓	✓	√	√
Customers		·	,	,		·	
Local demand anticipates buyer needs in other markets	_						
anticipates buyer needs in other markets Export markets Export markets X X X X X X X X X X X X X		**	** *	** *	**	w *	**
In other markets Export markets X		Χ	X	X	X ·	X T	X **
Export markets							
Firm Strategy, Structure, and Rivalry Decision-makers with clear goals Compete on cost Compete on quality Motivated managers Vainum Foreignsional technicians Good work relationships Ongoing investment to ugrade skills Domestic competition Competition with foreign firms Related and Supporting Industries International competitive supplier firms Coordination between local suppliers and firms Cluster of supporting industries Concentration of domestic rivals Global successful related industries Business and technical advice Tax measures Chance events V V V V V V V V V V V V V V V V V V V		**		**			**
Structure, and Rivalry Decision-makers with clear goals Compete on cost Compete on quality Motivated managers National prestige Professional technicians Good work relationships Ongoing investment to upgrade skills Domestic competition Competition with foreign firms Related and Supporting Industries International competitive supplier firms Coordination between local suppliers and firms Cluster of supporting supporting industries Global successful related industries Government Policy Business and technical advice Tax measures Chance events V V V V V V V V V V V V V V V V V V V		X		X	X	X	X
Decision-makers with clear goals Compete on cost Compete on quality V V V X X X Motivated managers V V V V V V V V V V V V V							
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National prestige					X		X
Professional technicians Professional technicians V X V X V X V X V X V X V X V X V X V X V X V X V X V X V X V X V X V X V X X		,				-	
Good work relationships V						✓	
Ongoing investment to upgrade skills Domestic competition Competition with x*	Professional technicians				, i		,
upgrade skills Domestic competition Competition with		✓					
Domestic competition Competition with		x *	\checkmark	x *	x *	x *	x *
Competition with foreign firms Related and Supporting Industries International competitive supplier firms Coordination between local suppliers and firms Cluster of supporting supported (PS) Concentration of local successful related industries Global successful related suppliers Government Policy Business and technical advice Tax measures V X X X X X X X X X X X X X X X X X X	upgrade skills						
Related and Supporting Industries International competitive supplier firms Coordination between local suppliers and firms Cluster of supporting industries Concentration of domestic rivals Global successful related industries Government Policy Business and technical advice Tax measures Chance events Related and Supporting Industries V V V V X X X X X X X X X X X X X X X	Domestic competition	✓	✓	✓	✓	✓	✓
Related and Supporting Industries International competitive supplier firms Coordination between local suppliers and firms Cluster of supporting industries Concentration of domestic rivals Global successful related industries Government Policy Business and technical advice Tax measures V V V V V V V V V V V V V V V V V V V		x *	x *	x *	x *	x *	x *
Supporting Industries International competitive supplier firms ✓ ✓ X							
International competitive supplier firms Coordination between local suppliers and firms Cluster of supporting industries Concentration of domestic rivals Global successful related industries Government Policy Business and technical advice Tax measures Chance events Coordination between w	Related and						
supplier firms Coordination between local suppliers and firms Cluster of supporting industries Concentration of domestic rivals Global successful related industries Government Policy Business and technical advice Tax measures Coordination between ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓							
Coordination between local suppliers and firms Cluster of supporting industries Concentration of domestic rivals Global successful related industries Government Policy Business and technical advice Tax measures V V V V V V V V V V V V V V V V V V V		✓	\checkmark	✓	X	X	X
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Cluster of supporting industries Concentration of (PS) Concentration of domestic rivals Global successful related industries Government Policy Business and technical advice Tax measures V V V V V V V V V V V C V V V C V V V V		✓	\checkmark	✓	✓	\checkmark	✓
industries Supported (PS)	local suppliers and firms						
Concentration of domestic rivals Global successful related x x x x x x x x x x x x x x x x x x x	Cluster of supporting	Partially	PS	PS	PS	PS	PS
Concentration of domestic rivals Global successful related industries Government Policy Business and technical x^*	industries	supported					
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	Concentration of	\checkmark	\checkmark	✓	✓	\checkmark	✓
Government Policy X* X* X* X* X* Business and technical advice X* X* X* X* X* Tax measures \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark Government grants X* X* X* X* X* Chance events	domestic rivals						
Government Policy X* X* X* X* X* Business and technical advice X* X* X* X* X* Tax measures \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark Government grants X* X* X* X* X* Chance events	Global successful related	X	X	X	X	X	X
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Tax measures \checkmark \checkmark \checkmark \checkmark \checkmark Government grants $x*$ $x*$ $x*$ $x*$ $x*$ Chance events $x*$ $x*$ $x*$ $x*$	Business and technical	x *	x *	x *	x *	x *	x *
Government grants	advice						
Chance events	Tax measures	✓	✓	✓	✓	✓	✓
	Government grants	X *	x *	x *	x *	x *	x *
	Chance events						
	Military conflicts	√	✓	√	√	✓	√
Sanitary events \checkmark \checkmark \checkmark	Sanitary events	√	√	√	✓	✓	√

x *: Porter's (1990) argument remains valid if the success of the Uruguayan poultry industry is assessed against its competitors from Brazil and Argentina.

Table 2: Determinants of Competitiveness in Interviewed Firms (middle and junior managers) within the Analytical Framework of Porter's Model.

	Calpryca	Pollos Tenent	Avicola del Oeste	Avesur	Avicola San Bautista	Avicola del Remanso
Factor Conditions						
Human resources	✓	√	√	√	✓	✓
Physical resources	✓	√	√	√	✓	✓
Knowledge resources	✓	✓	x *	x *	x *	✓
Location factors	X	✓	✓	✓	√	X
Infrastructure resources	✓	√	X	X	√	✓
Demand Conditions						
Demanding customers	√	√	√	√	√	√
Large number of independent local	X	X	X	X	X	X
customers Duilding long	√	√	√		√	
Building long relationships with key customers	,	v				X
Local demand anticipates buyer needs in other markets	X *	X *	х *	х *	X *	X *
Export markets	X	√	X	X	X	X
Firm Strategy,						
Structure, and Rivalry						
Decision-makers with clear goals	X	✓	X	X	X	√
Compete on cost	✓	✓	√	✓	✓	✓
Compete on quality	✓	√	✓	X	X	X
Motivated managers	✓	√	✓	X	✓	X
National prestige	✓	√	√	✓	✓	✓
Professional technicians	✓	√	√	✓	✓	√
Good work relationships	X	√	X	X	X	Х
Ongoing investment to upgrade skills	x *	x *	x *	x *	x *	x *
Domestic competition	✓	✓	√	√	✓	✓
Competition with foreign firms	X *	X *	x *	x *	х *	х *
Related and						
Supporting Industries						
International competitive supplier firms	√	√	√	X	X	X
Coordination between local suppliers and firms	X	√	√	✓	√	√
Cluster of supporting industries	Partially supported (PS)	PS	PS	PS	PS	PS
Concentration of domestic rivals	√	√	√	√	√	✓
Global successful related industries	X	X	X	X	X	X

Government Policy						
Business and technical	x *	x *	x *	x *	x *	x *
advice						
Tax measures	✓	√	✓	✓	✓	✓
Government grants	x *	x *	x *	x *	x *	x *
Chance events						
Military conflicts	✓	√	✓	✓	✓	✓
Sanitary events	✓	✓	✓	✓	✓	✓

x *: Porter's (1990) argument remains valid if the success of the Uruguayan poultry industry is assessed against its competitors from Brazil and Argentina.

The analysis of the collected data revealed that those 'factor conditions' that played a critical role for the success of Uruguayan broiler firms were: infrastructure resources including water, electricity, and transportation network. The analysis revealed that the port structure of Montevideo's port is limiting a further development of the industry. It also identified that the lack of employees with the required qualifications to work in the broiler industry may also compromise the development of the industry in the near future. Being close to contract growers and the largest markets of consumption were also identified as determinants of success in all interviewed firms.

The main 'demand conditions' associated with the success of the firms targeted in this study were: demanding customers looking for cheaper and leaner sources of protein, and building long relationships with key customers. Price is the main driver for consumers' choice. Domestic competition, along with supermarkets increasing power of negotiation, has forced broiler companies to become more cost efficient. This has been translated into a reduction of prices to consumers. As chicken prices have become more competitive, the industry has been able to gain new customers from other meat chains, which have not been able to reach the same level of development. The Uruguayan market is small, underdeveloped, and mainly integrated by low-income consumers.

From the analysis of in-depth interviews, 'firm strategy, structure, and rivalry' were very much a contributing factor to success in this industry. The key elements associated with success in the interviewed firms were: the ability to adapt foreign technological packages to the conditions of the national environment; the motivations of owner-directors; key decision-makers with clear goals; national prestige; qualified technicians at the start-up phase of the business; and fierce competition.

Close working relationships with home-based suppliers and firms were factors partially associated with the success of the sector. The qualitative analysis did not support the importance that Porter's 'diamond' gives to the role of government policy. For the Uruguayan broiler firms the role played by the government was irrelevant with a minimum influence on firm strategy.

How competitive could the Uruguayan broiler industry be if the cost of production was internalized?

Secondary data indicates that environmental concerns are in theory considered to be on the region's agenda. Mercosur reports include a chapter addressing the condition of the union's natural endowments. However, the reality shows that environmental agreements of the Mercosur union are weak and have declined during the course of the integration process.

In a supposed scenario where the cost of production was internalized Uruguayan competitiveness could change. Brazil, one of the possible competitors that could put in danger the feasibility of the Uruguayan chicken industry has the most extensive and thorough environmental protections. The slowness of the introduction of genetically modified organisms is a clear example for environmental policy making in Brazil. However, Brazil struggles with numerous environmental problems. In spite of the number of environmental problems that are still to be resolved, Brazil is many steps ahead of its Mercosur's partners who will have to do a lot of work before matching Brazil's levels of formal environmental protection. Because of that, by the time the environmental costs of production was internalized Brazil's industries would have a competitive advantage.

Uruguay occupies the second place in terms of environmental protection followed some steps behind by Argentina. Argentina lags behind due to its environmental protections which are undeveloped in comparison to its other political institutions. Argentina created an Environmental Secretariat in 1973. The secretariat was dissolved in 1975 and there was no environmental department until 1991 when former president Carlos Menen reconstructed a National Environmental Secretariat. In 1999 the National Environmental Secretariat was moved into the Ministry of Social Development. As a result the department lost the power of action. Recent administration has further diminished the role of environmental organisations.

Mercosur's Implications on the Competitiveness of Uruguayan broiler firms

In comparison to those in Argentina, qualitative analysis indicates that Uruguayan broiler firms are less competitive due to the Argentinian poultry mills handling larger scales grain purchases and because of the current Argentinian policy of exchange that makes some inputs cheaper than in Uruguay. The Argentinian government has implemented policies to keep the price of raw materials down in an attempt to keep inflation under control. Moreover, agriculture producers have benefited from subsidized fuel. This fact, jointly with an exchange policy favouring the export sector, is boosting the competitiveness of Argentinian agriculture firms against Uruguayan agriculture firms in general. Argentina has also a competitive advantage that arises from the fact that it has the best soils of Mercosur, allowing Argentinian farmers to achieve larger and more stable harvests than Uruguayan farmers. Prices of maize (broiler food input) position Argentina as the most competitive producer followed by Brazil and Uruguay respectively. Another advantage of Argentinian broiler firms is that they have developed the know-how and skills to compete in a free market. Even though the government has supported Argentinian companies during the process of opening the economy to regional competition, Argentinian broiler companies would have not survived without making the required adjustments to remain competitive against very efficient broiler companies from Brazil.

Uruguayan broiler firms are also less competitive than Brazilian broiler firms. The competitiveness of Brazilian broiler firms relies on the following reasons: market promotion efforts coming from the Brazilian government and the poultry industry; indirect and concealed subsidies such as subsidies to grow maize; a favourable climate for growing grain; cheap and dedicated labour; the ability to tailor products to customers locally and in foreign markets; and entrepreneurs that build plants like cathedrals that have always been updated. Moreover, Brazil is the soya world producer leader. Soya and maize are the core ingredients for poultry food.

Supporters of the free market economy would argue that the disappearing of Uruguayan broiler companies against Argentinian and Brazilian more efficient producers should be seen as a natural progression of internationalization. In the light of current events, the free market approach should be exercised cautiously. The Uruguayan poultry industry consumes 52% of the total Uruguayan production of maize, and 34% of sorghum. It is clear then that the disappearance of broiler companies would directly impact other sectors of the Uruguayan economy.

In this scenario government intervention is required to make key decision makers of the industry aware of the upcoming threat that may put their businesses under risk. Government intervention has been exercised by Uruguayan Mercosur neighbours. Even though Brazil and Argentina has eliminated barriers of protection, both countries have adopted different packages of subsidies to protect the interest of different industries such as broiler. The Uruguayan government may take an active role in settling the right environment to allow Uruguayan broiler companies to improve their competitiveness. Policies aiming to improve the competitiveness of the Uruguayan broiler industry must incorporate environmental policies. These policies must ensure that Uruguayan levels of environmental protection are at least the same of Brazil, the country with the most developed environmental policy of the block.

Policy Recommendations

Qualitative data indicates that without the intervention of the government there are not many opportunities for Uruguayan broiler firms to compete in an open market with their counter parts from Brazil and Argentina. Policies that are recommended to prepare Uruguayan broiler firms to compete efficiently in the new environment are discussed below.

Local human resources were identified as one of the factors constraining a major development of interviewed firms. In order to ameliorate this situation, the first recommended policy would be to directly involve the government in the creation of specialized human resources. Public University programmes need to be carefully reviewed and the government must ensure that graduates have the skills to enter the broiler job market. Moreover, The University of Work of Uruguay (UTU) should perhaps start to run poultry technical courses again. In a country with more than 9 % unemployment, it does not seem sensible to stop running poultry courses when the poultry industry is one of the few industries creating job opportunities.

None of the interviewed firms have been involved in research with private or public institutes. For Uruguayan firms to remain competitive in the new environment, the government should not leave research and development completely in the hands of poultry firms. Therefore, the second recommended policy would be the allocation of resources to conduct poultry research in one of the agriculture centres that belong to the government. These resources should be carefully allocated in those areas that are identified as priorities for the competitiveness of the industry. Private firms must be included in the decision-making process.

Not only there is no government research conducted on poultry but also there are no government bodies running programmes to disseminate cutting edge poultry related technologies or other relevant information related to poultry themes. The third policy would be the creation of a committee within the Ministry of Agriculture of Uruguay with the tasks to disseminate all information that may help poultry firms to enhance their productivity and to act as a consultant body. This committee will provide practical help and guidance in strategic management, collaborative research, business planning, financial assistance, marketing and quality. According to collected data these are the areas where poultry firms need assistance and training to be prepared to face competition from larger broiler companies from Brazil and Argentina.

A good policy must ensure that domestic competitive firms have access to low cost available capital. The lack of access to the nation's capital forced all targeted firms to develop their businesses with their own resources. This situation contrasts with what happens in Argentina and Brazil, where poultry firms not only get access to low cost capital but they also enjoy different types of incentives such as subsidised credits, concessions of land, concealed subsidies, and tax and tariff exemptions. The fourth policy recommendation would be to allocate low cost capital to poultry firms. This can be accomplished through The Republic Bank of Uruguay (BROU) that handles more than 50% of the operations in the domestic market.

Trade policy is another area where a government can play a role that may help national poultry firms to achieve competitiveness. So far, the Uruguayan government has done very little to promote the excellent health status of the Uruguayan chicken industry in foreign markets. Even though Uruguayan broiler firms are not competitive in price, the government should support domestic firms in conquering niche markets willing to pay more for high quality sources of chicken meat. The fifth proposed policy would be to allocate some funds to the Ministry of Commerce to promote Uruguayan chicken meat abroad and to help poultry firms to identify potential customers and target them accordingly.

The last policy would be to elaborate a programme that would help to improve the environmental protections of the country. Some of the measures to be taken are:

- i. to concede to the Ministry of Housing, Territorial Ordering, and Environment the power to enact and enforce environmental legislation,
- ii. to promote higher environmental protection,
- iii. to enact legislation that would allow the ban of imports from other Mercosur members that do not comply with national levels of environmental protection,

- iv. to support the development of technologies that are in line with environmentally friendly production,
- v. to reward with economic incentives those firms that show environmentally sound results, and
- vi. to include environmental themes in education programs.

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