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Agribusiness Executive Education and Knowledge Exchange: New Mechanisms of Knowledge Management Involving the University, Private Firm Stakeholders and Public Sector

Maria Ines Jatib,[ⓐ] Fernando Vilella, Hector Ordoñez, Gustavo Napolitano, and
Hernan Palau ^a

^a *All of the authors represent the Food & Agribusiness Programme, School of Agronomy, Buenos Aires
University San Martín 4453, 1417 Buenos Aires, Argentina*

Abstract

The Argentine scenario of the 90s shows that although competitiveness improved, the agrifood system is unable to react immediately to the market because of low efficiency, poor training in agribusiness and high taxation. In the year 2000, FAUBA, the School of Agronomy of the University of Buenos Aires, created two executive management postgraduate courses in food and agribusiness that combined theory with hands-on exercises focused on the competitive management of agrifood chains and on quality. The new courses intended to meet the demand of the food and agribusiness private and public sectors with the aim of creating knowledge, reconverting human resources and providing innovation capabilities, key to building competitiveness.

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① Corresponding author: Tel: + 54-11-4524-8041

Fax: + 64-3-325-3839

Email: calidad@mail.agro.uba.ar

Other contact information: Fernando Vilella decano@agro.uba.ar ; Hector Ordoñez ordonezh@mail.agro.uba.ar ; Gustavo Napolitano gnapolitano@mdpcc.edu.ar ; Hernan Palau calidad@mail.agro.uba.ar

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1. Problem Statement

In recent years the Argentine agrifood sector has proved to be competitive in the production and international trade of grain and food. The key to success lies in harmonising business strategies and public policies with competitive advantages. The capacity of creating knowledge and innovating is key to building competitiveness. In that context, it is essential to form human resources capable of adapting to the dynamics of the times. Companies involved in the agrifood system and aiming at competitive reengineering, require changing the professional profile of their professionals and reconverting their human resources.

In response to that specific demand, the School of Agronomy of the University of Buenos Aires (FAUBA) reaches out to the private and public sectors by offering two postgraduate courses: Food & Agribusiness Executive Management (face-to-face) and Quality-Oriented Food & Agribusiness Executive Management. Both are alternatives to the master's course in food and agribusiness approved by Resolution CS 1766/99.

The master's course in food and agribusiness and the food and agribusiness executive management postgraduate courses make up the Food and Agribusiness Programme (FAP). The Programme, created at the end of the 90s, was to become “an excellent opportunity for the development of human resources –at the service of the agrifood revolution¹– within the framework of institutional changes occurring in Argentina in the last decade.”² The strategy of enhancing competitiveness in the Argentine food sector generated the need to train human resources. To meet that need, the academic sector joined forces with the private and public sectors and created the Food and Agribusiness Programme.

The executive management postgraduate courses in food and agribusiness are targeted to professionals and practitioners. These courses focus on skills and knowledge to do business, while the master's course focuses on academic research, teaching and business from an academic standpoint.

1.1 Innovations in the Argentine Agrifood Sector and the Public University.

The 90s witnessed the boom of the Argentine agrifood system. Primary production, agroindustrial production, and food production flourished hand-in-hand with exports. Changes in the rules of the game and transparency in trade, together with the introduction of new technologies that increased efficiency and productivity and allowed farmers to accumulate greater management powers, resulted in the enhancement of international competitiveness.

¹ Castro, 1998

² Cetrángolo & Ordóñez; 1999

The main institutional innovations that favoured a change of paradigm and the development of the sector were³:

- A structural change in Government: Society relations (State administrative reform, privatisation, deregulation of the market having an impact on production drivers, goods and services, opening up of the economy and reinsertion in the world market).
- A stabilisation plan to check hyperinflation (Convertibility Law).

Institutional change modified relations between the government and society, removed restrictions limiting the manifestation of competitive advantages in the Argentine agrifood sector⁴, and became a launching platform to build competitive advantages. This process is defined as “the second pampas revolution”⁵ aimed at improving competitiveness in the sector. Institutional innovation was accompanied by investment in agroindustrial organisations, giving rise to the highest level of world competitiveness in many sectors.

The outcome is self-evident. Argentina became

- First world exporter of oil and sunflower and soya by-products
- First fresh and industrialised lemon exporter and pear exporter
- Second world exporter of corn, soya by-products and honey
- Third world producer of soya and first world sunflower producer
- Cereal and oilseed production trebled
- Food quality and security issues were addressed
- The foot and mouth disease was eradicated following vaccination

Institutional and organisational innovations were leveraged by the introduction of technological innovations. The opening up of the markets enabled Argentina to avail itself of state-of-the-art technology from developed countries. The introduction of the No Till system at an earlier stage resulted in more efficient production. With the advent of GM soya combined with the best technology available in No Till systems and the deregulation of the glyphosate patent in Argentina, soya production boomed. Additionally, the installation of high-tech oil and meal manufacturing plants transformed this sector into the most competitive sector of the agrifood system.

In this new scenario the largest agrifood firms began to train their staff in marketing, planning, management and quality techniques to rise to the level of competing countries. In the absence of local master's courses in Agribusiness, firms were forced to send their management staff abroad for specialised training. A similar void was identified in the public sector that, out of misinformation, did not provide an adequate solution to further competitiveness in the agrifood sector. That

³ Cetrángolo & Ordóñez; 1999

⁴ Cetrángolo & Ordóñez; 1999

⁵ Castro 1998

state of affairs left out many professionals, entrepreneurs and government officials unable to afford training abroad.

The School of Agronomy of the University of Buenos Aires came to realise the importance of addressing the issue and created the food and agribusiness master's course and the food and agribusiness executive management postgraduate courses that offer a world-class syllabus. The public University had rightly understood that these changes had come to stay⁶. Besides, the system of awards to scientific production, in force at the beginning of the 90s, had not only ignored the development and transfer of technology but had rendered the University of Buenos Aires incapable of facing the changes experienced by the country during that period. Also, the emergence of private universities following criteria of academic excellence and strong interaction with the private sector warned public authorities as to the need for change in public education.

Introducing changes in the University of Buenos Aires –with over 200,000 students and boasting the only 5 Nobel Prize winners in Argentina– is not an easy task. However, in the mid 90s, various academic departments began to innovate in response to what was going on “in the outside world.” They were able to revive the criteria of academic and scientific excellence as well as the social role of University in its search for solutions to the most pressing problems in society⁷.

The Food and Agribusiness Programme was created within that organisational and academic context, later to be followed by the executive management postgraduate courses in food and agribusiness. Given their characteristics, they all manage to integrate public university academic excellence with training requirements of human resources in the private sector and offer, at the same time, to finance postgraduate training activities tailored to their needs⁸.

1.2 The Food & Agribusiness Programme and Professional Training

The Food and Agribusiness Programme (FAP) was created in view of institutional, organizational and technological innovations introduced in the agrifood sector and of significant institutional changes in public universities. This Programme got full support from the public sector –including the Secretariat of Agriculture and the University of Buenos Aires–, as well as from the private sector –agribusiness firms, banks, and service companies among others– by way of training, consulting services, R&D and the deployment of skills.

Further support came from the Argentine IAMA Chapter and the faculty of the Agribusiness Programme of the University of Sao Paulo (PENSA)⁹. PENSA is a

⁶ Cetrángolo & Ordóñez; 1999

⁷ Cetrángolo & Ordóñez; 1999

⁸ and ⁹Cetrángolo & Ordóñez; 1999

⁹ Decio Zylbersjtain y Elizabeth Farina

joint-venture between the Economy and Administration Departments of the FEA-USP, São Paulo and Ribeirão Preto. The University of São Paulo's Dean was initiated on June 17th 1990 and its objective is to promote Brazilian Agribusiness studies. PENSA methodology is based on systemic food and agribusiness analysis, focalising especially in chain and networks among all sectors (inputs, production, industry and distribution). With a mix of teachers from Brazil and other countries, researchers, experts and professionals, PENSA courses try to identify with the necessities of companies, cooperatives and institutions.

IAMA Argentina predicted that a shortage of human resources in the area of food and agribusiness would eventually constrain competitiveness within the agrifood sector¹⁰. The joint efforts of all those engaged in the development of the FAP enabled meeting the primary goal of the Executive Management Postgraduate Course in Food and Agribusiness for professionals and practitioners, namely, to focus on skills and knowledge to do business.

Consequently, the FAP, in collaboration with senior managers of important agroindustrial firms, designed the Executive Management Postgraduate Course in Food and Agribusiness. Given the level of academic excellence of the Master's Course, the Postgraduate Course in Food and Agribusiness was able to focus more on practical issues and is essentially tailored to the needs of those who bear the responsibility of a business and wish to consolidate their career. Companies and their personnel now have the opportunity of accessing a syllabus that incorporates the most relevant topics in the sector and the insight of expert professors from other international agribusiness schools willing to share their knowledge and experience of the agribusiness world at international workshops and seminars.

2. Objectives

The main objective of this paper is to show how the School of Agronomy of the University of Buenos Aires (FAUBA) responded to the demand of the agribusiness sector –private as well as public- by creating the Postgraduate Courses. A response that intends to satisfy the needs of firms, professionals, entrepreneurs and farmers involved in the agrifood system.

This paper likewise confirms that not every postgraduate course offered locally has attained the same level of recognition and that the profile of professionals and practitioners attending such courses varies by venue.

3. Procedures

The main purpose of the Executive Management Postgraduate Course in Food and Agribusiness is to train entrepreneurs, professionals and public officials in Food and Agribusiness. The training strategy employed combines the theoretical and

conceptual framework with hands-on exercises and the study of cases, focusing on competitive management of agrifood chains and on quality. The Programme's field of study and operations is the firm, its relationship with the agrifood system and with the domestic and international institutional environment.

In view of the great interest shown by other universities and institutions to actively cooperate with FAUBA in food and agribusiness training activities, strategic alliances were made through agreements with the FAP to teach the Executive Management Postgraduate Course in their own venues. The Executive Management Postgraduate Course in Food and Agribusiness of Pergamino ensued from the agreement signed with the San Pablo School, while the Postgraduate Course of Mar del Plata was created under an agreement with the Mar del Plata Community College. These strategic alliances enabled professionals, entrepreneurs and farmers living inland to train in food and agribusiness-related issues following the same Programme conducted at the FAUBA venue. The training of future leaders of individual or collective ventures was thus accomplished within the scope of regional economies.

Taking advantage of the experience gained over the two years of training in food and agribusiness at three different venues, a Quality-Oriented Postgraduate Course in Food and Agribusiness was launched. The new course dwells on food safety and food chain quality management and on agribusiness quality management. This Executive Management Programme was launched to address the need expressed by public and private institutions to train professionals in the field of quality, food safety and leadership in order to further increase competitiveness in the agrifood sector. A strategic alliance was made with IPACE (Institute for Quality and Excellence) and SENASA (National Animal Health and Agrifood Quality Service), the two most representative and prestigious institutions in Argentina in all that concerns food safety and business quality.

A distance learning Executive Management Postgraduate Course in Food and Agribusiness has also been designed, addressed to professionals, entrepreneurs and farmers distant from educational centres and willing to embark on virtual learning. Expert tutors guide remote students in every aspect of training. Students must submit a monograph on every subject taken for evaluation by the professor of the module.

The 2003 edition of the Executive Management Postgraduate Courses in Food and Agribusiness will be conducted by FAUBA in Buenos Aires as a monthly or a weekly face-to-face course and as a distance learning course. The Food and Agribusiness Postgraduate Courses were welcomed with enthusiasm by professionals, researchers and teachers related to the agribusiness sector and also by small and medium-sized agricultural entrepreneurs.

Following are the main topics covered by the Postgraduate Course:

The International Agrifood Scenario and MERCOSUR; Economy and Strategy of Agribusiness; Strategic Management and Business Planning; Marketing and Communication; Capital Markets and Financial Engineering; Formulation and Evaluation of Projects and Business Risk; Trading Commodities; Trading Specialties; Negotiation and Organisational Analysis; Food and Agribusiness Management and Quality Assurance.

The faculty of both Postgraduate Courses is made up of professors of the Master's Course in Food and Agribusiness of FAUBA, professors from other Universities and experts coming from the private sector. Professors from other countries conduct specialised seminars as part of the cooperation activities organised by the FAP together with various foreign universities. The Royal Agriculture College (UK); ESSEC and INRA (France); Wageningen (Netherlands); Barcelona (Spain); Bologna, Catholic University of Milan and Naples (Italy); Purdue, Texas A&M and North Carolina (USA); Guelph (Canada); Sao Paulo (Brazil), and ORT (Uruguay) are engaged in such cooperation activities.

PENSA from University of Sao Paulo Brazil has the education area in three divisions: PENSA Agribusiness Courses, "in house" for Organizations Agribusiness Courses, and the "Agribusiness PENSA Seminars." PENSA Agribusiness Courses is the traditional Agribusiness Course (14 years), 60 hours last, during the months of April-June every year. This executive course is special for professionals related to Agribusiness area. The "in house" for Organizations Agribusiness Courses is focalised to PENSA clients, trying to balance the theory and practice in the Agribusiness, attending their specific needs. To finish the PENSA activities, the "Agribusiness PENSA Seminars" is a new format in Agribusiness Courses by introducing PENSA Studies of Cases (see link <http://www.fia.com.br/PENSA/publicacoes.htm>, and the Annual Seminars –by 2002 the topics were networks and share strategy in organizations). All these Seminars are opened to employers and businessmen and businesswomen too.

4. Results and Conclusions

The first students who completed the face-to-face Executive Management Postgraduate Course in Food and Agribusiness began their studies in the year 2000. To date, over 250 professionals and practitioners whose main objective was to acquire the skills and knowledge to do business attended the Courses.

Although competitiveness of food and agriculture in Argentina greatly improved during the 90s, some sectors did not develop accordingly as a result of low levels of efficiency, poor training in agribusiness and high taxation. Towards the end of 2001

Argentina fell into an institutional crisis that broke with the social contract and led to the loss of confidence in the institutions¹¹.

Another equally significant event was the end of domestic funding and hyperdevaluation. The interruption of domestic funding affected agriculture and industry. There was little or no capital left for the normal operation of productive activities. Devaluation benefited the system to a certain extent, since certain costs were “pesofied” while others were “dollarized”. The price of grain and other exportable products grew more than the costs in pesos so that profitability of most sectors in the agrifood system definitely improved.

However, lack of trust in the government, taxes on exports, continuous changes in the rules of the game, poor access of agrifoods into the world markets, failure to reimburse VAT to exporters, poor management of Argentine organisations, and high taxation contributed to the general turmoil where training is seldom considered a priority. Consequently, interest in training dwindled as time went by, particularly the interest for the Executive Management Postgraduate Course in Food and Agribusiness focusing on Quality.

The face-to-face Executive Management Postgraduate Course in Food and Agribusiness dictated at the FAUBA venue began its activities in mid June 2000. Participants of the course varied from agricultural engineers to veterinarians, and from lawyers and accountants, to chemical and industrial engineers (See Table 2). Public institutions linked to the agrifood system (e.g. the Secretariat of Agriculture, Livestock, Fisheries and Food, the National Institute of Agricultural Technology, and the National Animal Health and Agrifood Quality Service) have sent their own technicians and professionals to attend the Course with a view to increasing the knowledge and expertise of their personnel.

Table 2 shows the varied profile of participants as well as the growing number of professionals and entrepreneurs coming from sectors outside the agrifood system who have registered in the latter years. Their reasons for attending these Postgraduate Courses relate to institutional changes that occurred towards the end of 2001 and the beginning of 2002. The resulting devaluation modified the business scenario, particularly foreign trade.

Table 1. Percent Distribution of Attendees to the EMPCFA with seat in FAUBA in Terms of Their Professional Activity.

YEAR	PROFESSIONALS (%)	ENTREPRENEURS (%)	PUBLIC OFFICIALS (%)
2000/01	45%	45%	10%
2001/02	35%	30%	25%
2002/03	30%	30%	40%

¹¹ Ordóñez, 2002

Table 2. Percent Distribution of Attendees to the EMPCFA held at FAUBA in Terms of Their Degrees.

YEAR	AGRIC. ENG. / VETERINARIANS (%)	ACCOUNTANTS AND BUSINESS ADM. (%)	CHEMICAL/IND USTRIAL ENGINEERS (%)	NO DEGREE (%)
2000/01	43%	33%	10%	14%
2001/02	85%	11%	0%	4%
2002/03	55%	35%	5%	5%

After a successful year (2000), the Executive Management Postgraduate Course in Food and Agribusiness with seat in Pergamino was forced to close down on its second year of activities. This was due, in part, to the low number of students passing the exam and also to poor management by the coordinators in charge of the venue.

The Executive Management Postgraduate Course in Food and Agribusiness of Mar del Plata started in October 2000 as a result of a cooperation agreement in the field of food and agribusiness signed in June that year with the Mar del Plata Community College (an educational institute owned by the Mar del Plata Stock Exchange). This training course was enthusiastically welcomed by professionals and entrepreneurs Southeast of the Province of Buenos Aires, one of the richest crop farming and stockbreeding regions in Argentina.

Table 3. Percent Distribution of Attendees at the Mar del Plata Venue of the EMPCFA in Terms of their Professional Activity.

YEAR	PROFESSIONALS (%)	ENTREPRENEURS (%)	PUBLIC OFFICIALS (%)
2000/01	77	19	4
2001/02	92	4	4
2002/03	79	17	4

According to the figures, the course was highly valued by private professionals of different fields of specialisation devoted to issues related to food and agribusiness. On average, the number of entrepreneurs has been rather low, consistent with the academic nature of the institutions involved (FAUBA and MdPCC). What is flagrantly clear is the low number of participating public officials. This can be interpreted in several ways. One is the lack of interest on the part of government employees working inland to train and improve their professional background combined with an extremely low budget allocated by public agencies to train their medium management ranks.

New training programmes are being set up for the 74 individuals still involved in the Executive Management Postgraduate Course in Food and Agribusiness of Mar del Plata. The new courses for 2004 will address topics of interest for the

development of their particular business activities. Special attention will be given to the study of the major agrifood chains in the region, quality management in agrifood firms, food safety, networking with suppliers, partnered projects and managing agrifood firms.

The distance learning Executive Management Postgraduate Course in Food and Agribusiness was created towards the end of 2000 in response to a specific training need voiced by individuals who could not afford travelling to the nearest venue. Participants of the distance learning courses generally live more than 600 km away or live in other South American countries.

There are practically no farmers participating in the distance learning courses. Most students are professionals working in related activities who wish to expand their knowledge with a view to improving agribusiness in the firms where they provide consulting services. There is a marked absence both of farmers and of government employees. Further, neither the monographs presented nor the exams passed are up to standard. Of the 100 students registered, only two obtained their degree, and thirty are still training. The rest simply dropped out at some point despite having paid for part or the entire course.

The current edition of the distance learning Executive Management Postgraduate Course in Food and Agribusiness is considering the incorporation of the portal www.elprincipio.com as a strategic partner in order to retain and attract new students. This portal specialises in virtual learning in other academic fields and is widely known in several countries of South America. The aim is to help the Executive Management Postgraduate Course in Food and Agribusiness become a key part of training in this field in Latin America.

The Executive Management Quality-Oriented Postgraduate Course in Food and Agribusiness was received with great enthusiasm the first year. 50% of the participants belonged to the public sector and the other 50% came from the private sector. At the beginning of the second year, the distribution changed significantly and only 20% of the attendees belonged to the private sector. Under the circumstances, the third edition of the Quality-Oriented Management Postgraduate Course will not take place in 2003. This paper concludes that there is little awareness of the significance of agrifood security and quality issues within the Argentine private sector. Professionals are reluctant to train in that area at a time when the demand for that specialisation has paradoxically fallen, probably due to the 2002 economic and political crisis.

Consequently, the face-to-face Executive Management Postgraduate Course in Food and Agribusiness is only held in the FAUBA venue. There is still strong demand among students for this Course and only one Postgraduate Course offered. In view of the shortage of Postgraduate courses in the interior of the country and the high demand for this Postgraduate Course voiced by entrepreneurs, professionals and farmers who live more than 250 km away from the FAUBA venue, a new monthly

course was conceived at the beginning of 2003. Attendees to this monthly Course are mostly professionals, entrepreneurs and farmers providing consulting services or owning a farm who are aware of the flaws in trade and agribusiness in the agrifood sector, particularly within the farms.

The figures presented show that the truly successful course is the face-to-face Executive Management Postgraduate Course in Food and Agribusiness conducted at the FAUBA venue. So much so that the monthly modality had to be introduced in order to cater for inland candidates. The full dedication and continuous concern of the Coordinating Team to meet the demands and expectations of the market has proved highly successful. Today, around 75 students attend either training modalities following the failure of other Postgraduate Courses –particularly that of Pergamino–. Likewise, the limited number of candidates from Pergamino and Mar del Plata was of great concern to the Coordinating Team.

The Team responsible for coordinating the Executive Management Postgraduate Course in Food and Agribusiness offered by FAUBA is fully committed to academic excellence and continuous improvement. The Team is permanently in touch with the students and has introduced a system for teacher evaluation. By means of this system, teachers get feedback at the end of each class and have the chance of improving their performance. The Coordinating Team is responsible for implementing the necessary changes at once to satisfy the demand in a sustained manner. Since the culture of claim is not installed among the students, many are unaware of the benefits to be obtained through their involvement. In order to solve the problem of lack of participation the Coordinating Team appoints one or two assistants to attend the course as students. This is an opportunity to hear first hand to what students have to say about the Course and to take the necessary steps to improve on the system.

However, the Coordinating Team has failed to engage students in R&D, consulting, and other activities either with their peers, the professors or the members of the Coordinating Team..

Finally, given that the Executive Management Postgraduate Course in Food and Agribusiness is perceived in the market as being one of the most prestigious in the country, private and public organisations in the agrifood sector have channelled their search for specialists through this Postgraduate Course. Many postgraduates have been hired as expert managers in origin and quality assurance systems of the food chain, or as consultants, while others have become successful agribusiness entrepreneurs with a new and fresh insight to the business.

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