

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Competitive Strategies in Agricultural Cooperatives: The Case of a Rice Cooperative, Catalonia, Spain

Dr. M. Teresa Bartual-Figueras

Associated Professor, University of Barcelona, Spain

Dr. Joaquin Turmo-Garuz

Associated Professor, University of Barcelona, Spain

Abstract:

Agricultural cooperatives are an important tool for the survival of rural areas, competing against current trends in business concentration and maintaining social cohesion. This article analyses the competitive strategies adopted by a Spanish rice cooperative. The analysis is based on in-depth interviews with farmers, directives and public information related to the sector and the cooperative. The brand strategy, differentiation and diversification in products related to rice, have been the most significant variables. The key factor has been the acquisition of a relevant brand in the market. The system of participatory governance adopted and the leadership of the Board have also been relevant.

Keywords: Cooperatives, governance, rural area, brand orientation,

1. Introduction

Agricultural cooperatives try to reduce the volatility of agricultural prices, the uncertainty of farm incomes and to correct market failures (Cook, 2005; Novkovic, 2008; Valentinov and Iliopoulos, 2012). However, because of globalization and economic recessions, in recent decades the agriculture food sector has experienced an extensive transformation; the concentration of companies and vertical integration have caused instability in traditional agricultural cooperatives (Fulton and Hueth, 2009). This critical process has caused cooperatives to fail as social organizations, or has led to their modernization and restructuring (Chaddad and Cook, 2004; Höhler and Kühl, 2014). Researchers consider that the management strategies adopted are the key to success, being essential for the achievement of an optimal economic: innovation, brand image, product diversification and internationalization. They have also underlined the attributes of cooperative model as significative elements with regard to cohesion and social harmonization in rural areas (Novkovic, 2008, Kalogeras et al., 2013).

This article studies the response of cooperatives to the recent economic changes, in order to understand the viability of this type of company. We focus our attention on an empirical case, the rice cooperative "Arrossaires del Delta de l'Ebre", sited in a rural area of Catalonia (Spain). We study the governance system, marketing orientation and their effects on performance and the evolution of the cooperative. The article is organised as follows: the first section introduces the main theoretical aspects related to the empirical analysis. The second section describes the methodology used. The final sections introduce the cooperative empirical background, the results and conclusions. Finally, we would want to mention that our findings point to "branding image/participative governance" as a most successful factors adopted by the cooperative.

2. Theoretical Background: Cooperative Model, Efficiency Problems and Main Restructuring Lines

Cooperatives are organizations managed under the principle of collective ownership and the democratic control of members, as well as the tracking of adherence to common values and cooperative principles (Novkovic, 2008; Oczkowski et al., 2013). Their strength is based on the existence of common interests, the joint interests of the members in pursuing the objectives of the cooperative (economic, social and environmental) and in the steadfastness of the established relationships (objectives and commitments, relations among members, and interaction among members and the Management Board).

However, the economic literature attributes difficulties, inefficiencies and lack of incentives mainly associated to the ambiguous configuration of property rights and/or the lack of effective organization (Vitaliano, 1983; Cook, 1995; Nilsson, 2001; Chaad and Cook, 2004; Arcas et al., 2011; Iliopoulos and Cook, 2013, amongst others).

2.1. Efficiency Problems

2.1.1. Inefficiencies Associated to Property Rights

Some inefficiencies are associated with the common property inherent in a cooperative model (Cook, 1995; Nilsson et al., 2012; Hendrikse and Feng, 2013; Grashuis and Su, 2018). The authors refer to transmission difficulties and

the valuation of members' contributions. Their effects generate restrictions or disincentives to investment. In this sense, the following items should be highlighted:

- The free rider problem. it refers to the lack of incentive on the part of the founding members due to the perception of the existence of comparative injustice. The problem appears when the contribution of new members does not reflect the equity revaluation that was generated initially. In this case, the new members would benefit from economic rights that they wouldn't have generated (Vitaliano, 1983; Cook, 1995; Arcas et al., 2011). In addition, farmers who are not members of the cooperative can also benefit from positive externalities generated by the cooperative, such as the increase in agricultural prices due to the greater bargaining power in the sector (Iliopoulos and Cook, 2013).
- The horizon problem. it refers to the different incentives with regard to the members according to their expectations of productive life. That is, the problem arises when a member has an expectation of net return generated by an asset that is shorter than the productive life of that asset. This problem usually leads to investment restrictions in terms of assets with a long maturing process. Investment in intangible assets, such as a brand's image, is a clear example (Porter and Scully, 1987; Cook, 1995; Arcas et al., 2011).
- The portfolio problem. it is related to divergences that arise as a result of the coexistence of several investment alternatives and different attitude and risk profiles. The problem stems from the lack of transferability of residual claims, which prevents members from adjusting their asset portfolio. In this situation, members most adverse to risk try to impose their preferences when making investments, although this implies a reduction in the expected returns. (Fulton and Hueth, 2009; Arcas et al., 2011; Iliopoulos and Cook, 2013).

2.1.2. Cooperative Organisation Inefficiencies

These problems are related to the Agency Theory frame (Cook, 1995). They refer to difficulties that may appear when management is done by professionals, and control and decision making simply relates to monitoring these managers. The conflict appears due to a potential divergence of interests between the board of directors and the manager (agent) (Hansman, 1996; Cook, 1995; Nilsson; 2001). In the case of heterogeneous groups or asymmetric information, this situation could be particularly problematic because making decisions to benefit the interests of specific lobbyists can cause a risk, deterioration of trust and participation (Borgen, 2004).

Nevertheless, some authors underline the point of view that an exclusive reference to economic rationality overlooks the qualities and values of the cooperative movement, as well as its democratic organisation principles (Spear, 2000; Borgen, 2001, 2004; Mooney, 2004; Valentinov, 2004; Novkovic, 2008; Öbterberg and Nilsson, 2009; Arcas et al., 2011, amongst others). Besides, the contribution of cooperatives as instrument of social cohesion and dissuasion of opportunists and discouraging conduct is emphasised. Consequently, both aspects should be considered in the analysis.

2.2. Change Processes in the Cooperative Model: Main Restructuration Lines

Global markets and technological change have conditioned the evolution and the results of agricultural cooperatives, shaping their structural relationships and generating undesired effects. Sometimes, it has entailed greater diversity of members' interests, and a possible limitation of long-term agreements. In other cases, the cooperative trajectory has consolidated power structures and non-transparent decision making, challenging their democratic character and trust. All this makes governance more difficult in terms of conditioning the running of the cooperative model. In these circumstances, cooperative bankruptcies, cooperative conversion to firms owned by investors (IOF) or significant restructurings (new strategies, new alliances or new capitalization processes) have been observed (Chaddad and Cook, 2004; Fulton and Hueth, 2009; Bijman et al., 2012; Feng and Hendrikse, 2012).

New strategies have been proposed to achieve cooperative survival by several researchers. We highlight the main key elements:

- Innovation in capital. This points to a restructuring process aimed at improving the growth of cooperatives through a capital increase. New investment can range from non-member funds to the adoption of hybrid ownership structures (holding groups, transferable or negotiable delivery rights, etc.), but control is in the hands of members (Van Bekkum and Bijman, 2006; Chaddad and Cook; 2004; Chaddad and Iliopoulos, 2013).
- Mergers and acquisitions of cooperatives at the local, regional or international level, in the same phase or in several phases of the food chain. This may be an attempt to counter competition from large transnational corporations and to take advantage of economies of scale and economies of scope (Van der Krogt et al., 2007; Melià et al., 2010).
- Internationalization, strategic alliances or new market orientation (brand orientation and related and unrelated diversification). These proposals respond to the need for finding new markets, reducing operating costs, improving power positions, and diversifying the geographic risk of the activities engaged in by the cooperative (Donoso et al., 2003, Guillouzo and Ruffo, 2005)

Some authors also highlight the influence of the governance structure of cooperatives on the adopted strategy, and on financial results (Oijen and Hendrikse, 2002; Bijman and Iliopoulos, 2014).

The adoption of any of these alternatives does not exclude other proposals. Researches show that strategic changes have often occurred in several directions simultaneously (Bijman et al., 2013; Juliá et al., 2013). The process has often involved a new market orientation, international expansion and additional investment. Such restructuring has also led to significant changes in cooperative governance structures and traditional ownership patterns (Bijman, Hendrikse and Oijen, 2013) and new organizational models.

3. Methodology

Different collection and information techniques have been used to analyse the case study. Firstly, quantitative and qualitative approaches with regard to the rice sector were carried out to contextualize the case study.

Secondly, by focusing on a specific cooperative (Arrossaries), we review the documentary information provided by the company itself: the cooperative's bylaws, the annual reports, the minutes of the Assemblies and governance processes. A qualitative study based on twenty in-depth interviews with relevant agents who were involved in the cooperative competitive strategies was subsequently started. These interviews were done in two steps: January 2015 and September 2018. The selection of agents was released in an attempt to include all possible voices. Among the people interviewed there were the Cooperative President, the Financial Director, the Human Resources Director, two farmers members of the Board Team and fifteen producer farmers. A semi-structured script allowed the creation of open dialogue spaces, making it possible that the people interviewed could contribute and exchange their knowledge, impressions and valuations about the situation of the cooperative and the objectives of the investigation. All the interviews were recorded and edited. All the information was analysed after the identification of three key topics: governance, competitive strategies, and performance. Internal governance was measured through responses to the governance topic (structure of ownership rights, member's attachment, management organization, mechanisms for taking decisions, and governance members' perceptions). Competitive strategies were measured through responses about the brand orientation adopted, capital restructuring changes and members' strategy perceptions. Finally, performance was assessed using economic information about the changes realized from 2012 to 2019, in terms of market share, exports and prices paid to members.

4. The Research Framework

The main characteristics of Spanish agricultural cooperatives are a strong commitment on the part of their members, their products, and a deep connection with the rural environment. Cooperatives have always had an influence on the process of establishing agricultural prices and maintaining agricultural incomes. Currently, they make up 60% of the final agricultural production and 30% of the total turnover of the Spanish food industry. However, on average, they are small, with 72% of them having a turnover of less than 5 million euros, with an average size below that of the rest of Europe (6.7 million euros compared with 7.5 million euros). The rice cooperatives produce almost 60% of the rice raw material. However, their market share of the final product is much lower, representing a little more than 15% of the process of husking, blanching and packaging (Observatorio Socioeconómico del Cooperativismo Agrario Español, 2018). Arrossaires del Delta del Ebro is a cooperative situated in a rural area of wetlands in the northeast of Spain, with a great economic influence on the sustainability of the socioeconomic conditions of the area. In fact, in this area, rice represents more than 80% of the usable agricultural area, which makes up about 75% of the total agricultural production in the territory (Idescat, 2018). There are 2,591 rice farms, more than 90% of which are involved in part-time agriculture (Bartual, 2002).

The Delta del Ebro rice sector produces an annual average of 135,000 tons, 15% of Spanish rice production, with a value of more than 60 million euros and is a strategic component in the territory. Cooperatives, which account for most of the production and sales, play a crucial role in the competitiveness and survival of the sector. Currently, two large cooperatives (Arrossaires del Delta del Ebro and Càmara Arrossera de Amposta), with more than 7,500 members, control more than 65% of the production of paddy rice (Federación de Cooperativas Agrícolas de Cataluña, 2018).

5. Empirical Findings

Once the framework of the study is established, our findings are presented in terms of three key issues: brand orientation, governance and capital innovation.

5.1. Background

Nowadays, rice consumers demand traceability, more variety and better quality. The distribution market has experienced a deep concentration process that has reinforced its oligopolistic structure; distribution brands (DB) have increased their market power. Consequently, in 2011, the four main rice producers accounted for more than 80% of the total sales figures. Distribution brands account for more than 65% of gross sales and 55% of total value (Sánchez, 2012). In addition, the sector faces an uncertain economic environment because of the reform of the Community Agricultural Policy, the gradual increase in rice imports from countries that enjoy preferential agreements with the EU, mainly EBA and ACP countries at lower prices.

The key moment was 2011, when Ebro Food acquired the SOS rice company, because Ebro Food reinforced its concentration in the market with five brands (Nomen, La Fallera, la Cigala, Brillante, and SOS) and more than 37% market share (see Table 2). This multinational company provided the four main brands of rice, with a market share close to 40% in total value and more than 70% in terms of brand segment (Sánchez, 2014). For this reason, the Competition Court forced Ebro Food to sell some of its trademarks; as a result, Ebro Food offered Arrossaires the possibility of acquiring the NOMEN Brand.

Prior to this acquisition, Arrossaries was a cooperative featuring a traditional organization and poor market focus. The NOMEN brand project confronted the cooperative with an opportunity to improve its market share and improve its competitive position. The cooperative reached a favourable final agreement, since Ebro Food financed the 30.1 million euros of the sale, distributed in an initial payment of 1.5 million euros, equivalent to the value of a warehouse, plus thirteen annuities of 2.9 million; no external capital was needed nor changes in the traditional structure of the cooperative. That is, the cooperative agreed to a conservative deal to preserve the cooperative's assets, reduce any risks in terms of investment, and reduced demand for contributions from its members. A clause signed with Ebro Food allowed the return

of the brand in case the brand could not generate the necessary income to meet the annual payments; this guaranteed the cooperative's assets. However, despite this favourable negotiation, the members of the cooperative had to make some sacrifices related to tighter settlement prices (audit report and 2012 annual accounts, sustainability report and information obtained through interviews).

In this regard, some researchers show that although market orientation requires a large capital investment and strategic plans, if the financing agreement is at the expense of reducing the income of farmers in the short term, in return it will reinforce the cooperative's performance in the long term and improve its competitive advantage (Nilsson, 2001; Brogen, 2011; Benos et al., 2015).

Because of the development of Arrossaires, in 2018 a new firm, NOMEN Food, was created as a subsidiary of Arrossaires. According to the final agreement, Arrossaires would remain as a farmers' cooperative, while the main assets and brands would belong to NOMEN Food; the agreement was approved by 98% of the votes of the assembly. This capital restructuring can be understood from the point of view of vaguely-defined property rights, as well as from the attempt to solve any free rider and portfolio problems derived from the aforementioned brand investment (Cook, 1995; Hendrikse and Feng, 2013).

5.2. Internal Governance

Internal governance "refers to the decision-making processes adopted, the role of the different governing bodies and the assignment of control rights to members and professional management" (Bijman et al., 2012, 8). It is one of the fundamental pillars for the success of a cooperative, and is important to avoid ending up engaged in complete demutualization processes (Bijman et al., 2012; Nilsson and Ollila, 2013; Meliá and Marí, 2013).

In the case of Arrossaires, the governance model is regulated by Spanish law, that have three key points: user-owner, user-control and user-benefits. That is, the property owns to the producer members, who pay an initial amount, and assume the commitment to contribute with their harvest: the stockholder's equity can be recovered when they leave the cooperative. The benefits would be distributed according on the member's crop contribution, usually as an extraordinary payment on the liquidation of the crop.

"It should be noted that in agricultural cooperatives, generating or not producing results goes hand in hand with the price of the rice. Members want to be paid at market prices. The key problem in cooperatives is that members contribute to their production and this is achieved only by paying market prices. This encourages loyalty on the part of the members, thus avoiding opportunistic behaviour " (Financial Director).

Three mandatory governing bodies are in place: the General Assembly, the Board of Directors and the auditors. The decision-making structure is democratic under the premise "one vote for each producer member". The members of the General Assembly select their representatives on the Board who also supervise the management of the cooperative. The mandate of the Board is for a period of four years, and three of its members are renewed annually. Despite its theoretical democratic design, in fact a reasonable proposal of the President and the rest of the members of the Board determine the changes. This procedure has the general acceptance of the members.

"The renewal of the Board is proposed by the Governing Board (...) but we have a heterogeneous Board. We try to cover all possible profiles and all visions. We value hard work, honesty and dynamism (...) most members are 40 years old on average, have young children and a future, so they are committed, creative (...) need a project for the future and this way of thinking goes to the cooperative (...) it is necessary to incorporate the young people on the Board to continue and prepare for replacements" (President)

"In the Board there are hard-working young people with a high degree of commitment. They have many projects and they are not at all lazy. They all come from the territory (...) they know their work well as farmers, they are proactive, they are fighters (...) they keep us updated and they give us reasons to trust them fully "(Farmer member of the Board)

It should be noted that after studying the composition of the Board, the existence of specific interest groups was not observed. In addition, according to other authors (Chaddad and Iliopoulos, 2013), this type of centralized decision making seems to have reduced transaction costs and does not mean that the preferences of the members are ignored; on the contrary, close consultation could be considered a seal of good governance.

Cooperative management has been delegated to a team of specialized professionals. However, according to the interviewees, the activities of the management team are committed to cooperative principles. Both aspects have been established in the cooperative literature as a success factor (Cook, 1995; Hueth and Marcoul, 2015).

Decision making is carried out in a participatory environment, and there does not seem to be significant friction.

"We are all farmers, this is our job; we do not know how a company works (...) that's why we have a professional manager who is in charge of the administration and informs us all the time so that we can make the right decisions. The manager understands the cooperative mission and is involved in its principles (...) Management and efficient functioning are based on trust and we trust our professional managers (...) In addition, we manage all this with information, information, information (...) This is the true essence of the value of trust " (President).

"We have a management team. The coordinator is the Financial Manager. We meet a lot, as many times as necessary, and we make decisions that we explain and transmit to the Board which will ratify it or not. All the information is well treated and reasoned (...) We all work hard and we strive for the same objectives (...) we work for Arrossaires and now Arrossaires has a good future, to be profitable but under cooperative principles " (Farmer member of the Board).

The system of governance is focused on establishing structures for debate and for flexible decision-making, especially in relation to communication and information. Transparency in the processes of collaboration, communication

and decision is important to increase the trust of the members. Governance has been reinforced by the incorporation of different voices in the discussions (external consultants in special situations) and strategic formulations. In all cases, the costs and potential benefits have been clearly identified through external viability studies, a process of reflection, study and discussion.

"The key to our system is the information and training of the Board to enable them to make appropriate decisions; The Board is informed every day about the operation of the cooperative. We have monthly accounting controls for all our activities and sections. We have weekly meetings with the management team (...) when we were in the middle of the acquisition of NOMEN, we had up to four meetings per week, so that the team and the Board were well informed and united (...) the process is based on creating trust in the management team through transparency, honesty and the results generated (...) But the decisions are taken by the Board, then passed to the Assembly to be ratified (...) we explain everything." (President).

"When the NOMEN buyout took place, cohesion and shared analysis of the management team, the President and the Board became key elements. After many discussions, fundamental aspects and strategies were agreed and assumed by the governing structure. A communication plan was compiled, specific informative sessions were devised for each group in Arrossaires: members, the labour force (...). Various dialogue channels were opened and several options considered. Eventually the assembly approved it with 77 % of the votes and authorised the Board to start negotiating with Ebro Food but under certain conditions (...) members stressed that it should not increase their indebtedness, nor put the cooperative patrimony at risk (...)" (Human Resources Director).

Finally, we must consider the social ties established after more than 50 years of cooperative development. In this sense, according to the authors such as Valentinov (2004), Obtersberg and Nilsson (2009) and Arcas et al. (2011), we note that the incentives for cooperation were created thanks to long experience of the Board in both management and ensuring results. In addition, we want underline the close relationship between cooperative and territory and its role in maintaining agricultural incomes and socio-economic development. This has been a significant factor to encourage the participation, the commitment and joint responsibility of members, it has been especially relevant in relation to intergenerational conflicts. These findings are similar to those of some researches (Barraud-Didier et al., 2012; Arcas et al., 2014) who show that affective commitment has a mediating role in the relationship between trust and participation in the governance of cooperatives

"Obviously, the indirect economic benefits that the cooperative has generated for non-members, through the prices paid by the buyers, are lower than the direct economic benefits obtained by our partners, who are sure that each year they will sell their rice at a competitive price. (...) this is the main reason why the cooperative was created: the stability and the guarantee of selling the crop, which in the end is to maintain the same number of members. In addition, during the production process, we offer financing, consulting, supplies (...), we also deal with environmental subsidies. We explain everything and we remain open to receiving any of your comments when you want to do it" (Financial Director)

"My main motivation to be a member is to avoid the power of the buyer and the certainty of having assured the sale of the crop (...) the cooperative is fundamental for us, people remember when, in the past, the rice remained there without being collected, much was wasted, the remaining rice was sold at low prices (...) the manufacturer paid what he wanted" (Producer farmer)

"My grandfather was one of the founders of the cooperative. I am a cooperative member with all my heart. The cooperative is a symbol, it belongs to us all, it is essential so that we can continue in agriculture, they help us a lot (...) Before, I was a housewife. and now I manage the land, I feel that the cooperative is mine. They helped me a lot in the paperwork and, if we need them, they give us cash in advance. Besides, we are assured of the sale of the rice at competitive prices thanks to the cooperative (Producer Farmer).

5.3. Competitive Strategies

The ongoing consolidation of the agri-food value chain is putting pressure on agricultural cooperatives to improve their performance and efficiency. Consequently, as discussed in the second section, market orientation becomes one of the most relevant strategies for survive. However, it should be noted that many cooperatives lack the financial resources. The following subsections analyze the strategy developed by Arrossaires emphasizing brand orientation and capital innovation mechanisms.

5.3.1. Brand Orientation

Research shows the positive influence of market orientation on the performance of cooperatives (Brick et al, 2011; Ozkaya et al., 2015). This involves brand investment, the development of new products, product differentiation, customer loyalty, greater market share and higher premium prices (Urde et al., 2011). Following this hypothesis, as we have seen, in 2012, the Arrossaires cooperative made an investment in the NOMEN brand with the main objective of improving its competitive position in the rice brand sector. NOMEN provided access to a strong brand, good brand positioning, and access to several lines of new products that Ebro Food already sold (flours and bread crumbs). All this was very important in an industry where DB concentrated more than 65% of gross sales.

"Previously, we had little more than a brand with a reduced market share, which experienced a constant decrease in prices (...) We had few options: export, work more with our own brand, and innovate; but to create a brand competing in a market where the distribution brands (DB) account for more than 65% of the market is difficult (...) all the existing leading brands that we know, were created in the 60s ... " (President).

Simultaneously, Arrossaires launched a process of product differentiation (rice and its derivatives, rice liquor, ready meals ...) in order to strengthen its catalog with the inclusion of products with higher added value. The objective was to develop niche markets linked to the demand for differentiated products: different qualities, denomination of origin, made-up products, organic products, etc. In addition, the acquisition of NOMEN allowed Arrossaires to develop a "brand change" strategy, enabling the repositioning of other proprietary brands (weak brands) and facilitating the promotion of exports.

"With NOMEN a synergy was created that let us improve the distribution of the rest of the brands (...) Everything is running well" (Financial Director).

Collaboration with other companies has been a key innovation factor to produce new range of products derived of the rice

"Arrossaires has another great potential (...) to establish alliances with other companies, not necessary cooperatives (...) we have the idea to launch new products; we are now trying to create cooperation nets between companies... that have infrastructures to manufacture liquor and beer (...) We cooperate and the benefits are good for all of us" (President).

5.3.2. Capital Innovation

In traditional cooperatives, the investment associated with long-term returns can be problematic due to the lack of negotiable shares and, consequently, the inability to capture the assets that are appreciated. In order to solve it, different types of property have been proposed (see Section 2). In the case of Arrossaires, the brand strategy implied an increase in complexity, and evidenced the need to restructure property rights in order to reduce potential conflicts that could break the cooperative equilibrium, as well as to maintain intergenerational equity (problem of the portfolio) and avoid potential opportunist behaviour (problem of free riders).

"Nowadays, the members of the cooperative contribute their entire production and assume adjusted settlement prices to finance the brand project (...) They decide to continue working (...) and we have to be able to see how the restructuring of the cooperative generates additional value, a new possibility for members to increase their income thanks to this new investment (for example, with a dividend payment or something similar). We have to study how we can pass on this value to the membership of the cooperative and avoid the activities of free riders. When everything is paid, we cannot allow the assembly to limit access to new members (...) but we have to protect members who have made sacrifices to finance the brand project (...) we need the cooperative model to evolve but always we need to maintain the base of the cooperative (...) The concept has to change, we cannot think only about the profitability of rice (...) we must think about the profitability of the cooperative as a company". (President)

To deal with this, in September 2018, Arrossaires created a limited company, NOMEN Food. The new organizational model has legally separated the cooperative and the company, so that the owners have approximately 89% through the Cooperativa Arrossaires, and around 11% through individual participation.

All the assets and most of the commercial activities have been transferred to the new company. NOMEN Foods will be responsible for producing and marketing the main brands and promoting internationalization and new business and projects, while Arrossaires del Delta del Ebro will focus on agronomic areas, advising rice producers and promoting the balance with the environment.

This restructuring improves equity, since it allows the allocation of benefits through stock market share. It also allows the future entry of funds from non-members. Besides, legal separation leaves more room for professional managers and entrepreneurship.

The cooperative literature shows that this new organizational proposal constitutes a good institutional response to improve the investment allocation of cooperative (Grashuis and Cook, 2018), as well as overcoming capital limitations and allowing more flexibility for professional managers. Furthermore, it can reduce potential horizon, portfolio and free rider problems generated as a result of the acquisition of NOMEN (Bijman et al., 2013). However, this expansion strategy cannot yet be evaluated.

5.4. Performance

The evaluation of strategies of cooperative is often difficult to perform due to the absence of a secondary share market. For this reason, some studies have proposed the growth of market share or the expansion of new markets as alternative indicators (Fulton and Gibbins, 2000; Bijman et al., 2012). In addition, according to the principles of cooperatives, indicators of perception or the satisfaction of members have also been proposed (Österberg and Nilsson, 2009; Benos et al., 2015). In terms of these criteria, the results shown are based on the evolution of the cooperative in the period 2012-2018.

Tables 1 and 2 show the main results. Table 1 shows the evolution of production and the distribution by companies in terms of packing and brand. Table 2 shows the market share of each brand.

In 2012, Arrossaires had 1,200 producer members and 75 workers, all together produced 46,000 tons of rice (Table 2), generating an average turnover of more than €20,000,000. The cooperative had two main brands, "Bayo" and "Segadors del Delta", but both together represented only a small percentage of sales - 25% - and exports did not reach 10%. In fact, most of the turnover came from bulk sales (around 75%), destined for subsequent manufacturing transformation or for DB (Sánchez, 2014 and Arrossaires, accounts and annual interviews).

From 2012 to 2018, the cooperative strengthened its competitive position, encouraging brand orientation through NOMEN, repositioning its other brands, differentiating rice types, reinforcing exports, and diversifying products (rice beer, ready meals, etc.).

In 2018, the cooperative was in a great process of productive and commercial transformation, focused mainly on the creation, production and commercialization of high value foods. The commercial orientation of its product towards

branding sector, which covered 95% of market value (Table 1). Therefore, Arrossaires has gained market share in brand market, ranking sixth place in the national market for packaged rice (Table 1).

With regard to rice market, in these years, the most relevant phenomenon has been the increase in the market share of DB, that has evolved from 50.72% to 70.29% in volume, and from 40.3% to 55.93% in market value (Table 2). Despite this, NOMEN's market share has been consolidated, becoming the third national brand, with 5% in volume and 7% of market value. Furthermore, NOMEN's share market has experienced lower relative fall, both in volume and value, than the rest of the brands, as can be seen if we consider the volume and value percentage of 2018 in relation to 2012, for each brand.

In addition, according to data from Sánchez (2019), complemented by the annual accounts and interviews report, Arrossaires has also expanded its performance margin, reaching an average turnover of € 37,000,000, of which, more than 40% comes from its own brands. The export percentage is close to 20% of the value sales, the harvest has been sold at market prices (280 euros/ton) and collaboration agreements have been signed with multinational companies, as McCain (for the preparation of mash), with Bardinet (for the production of liquor and rice beer) and with Costa Levantinos Concentrates (for the production of vegetable drinks).

The number of cooperative members did not vary and the number of workers has incremented in ten (Sánchez, 2019)

	Total (Tons)		PACKING (% s/total)		Brand (% s/packing)		DB (% s/packing)	
	2011- 12	2017- 18	2011- 12	2017- 18	2011- 12	2017- 18	2011- 12	2017- 18
MAIN COMPANIES								
Ebro Food	315000	n.d	25,7	n.d	n.d	n.d	n.d	n.d
Maicerías Españolas	134000	154000	42,5	44,4	18,0	36,0	82,0	64,0
Arrocerías Pons	55000	70000	94,5	100,0	5,0	0,0	95,0	100,0
ARCESA	53645	47237	64,0	61,2	29,0	20,0	71,0	80,0
Coop. Arrozáa	26096	62000	99,6	22,6	7,0	70,0	93,0	30,0
Coop. C.A. del Montsià	46000	65000	54,3	46,2	40,0	8,0	60,0	92,0
Coop. Arrossaires Delta	41797	51211	38,0	34,6	25,0	95,0	75,0	5,0

Table 1: Evolution of Tons, Packing, Branding and DB (2012-2017)

Source: Sánchez (2012, 2019) and Compiled by the Authors

Brand	2012		2017	
	Volume (%)	Valour	Volume (%)	Valour
Sos	19,8	29,1	10,94	16,13
La Fallera	10,6	14,4	5,22	7,9
NOMEN	5,4	7,3	3,26	4,99
Dacsa	1,9	2,5	1,02	1,13
La Cigala	1,8	2	1,46	1,8
Brillante	0	0	4,8	7,12
Otros	3,3	4,4	3,05	5
DB	57,2	40,3	70,29	55,93

Table 2: Share Market by Brands, Evolution 2012-2017

Source: Sánchez (2012, 2019) and Compiled by the Authors

In addition, as the interviews show, there is a high satisfaction of the members, and it can be interpreted as an indicator of acceptance of the corporate changes and the governance system (Österberg and Nilsson, 2009; Benos et al., 2015). The ability to transfer the need to adapt to the demands and trends of the rice sector to members, as well as the harmonization of settlements based on market prices (an important aspect for producer members), have been some of main factors to be considered.

"Broadly speaking, I believe, with other cooperative members, that there is a before and after the decision to buyout NOMEN. It was a unified decision (...) Everybody now, even those who were not supportive, are ready to share in the work, clearly the bet for NOMEN has been a cohesive element (...) At present, members are happy and eager to participate. We have the impression that we have a Project devised for the future that it is getting nearer" (Producer Farmer).

"The methodology employed in the acquisition of NOMEN was admirable (...) A lot of meetings were held so that people could participate and express themselves (...) so that everybody could be involved (...) it was essential to ensure the convergence of interests and reinforce the cooperative members' commitment (...) furthermore the selling prices are also good (Producer Farmer)

" I am very pleased, also with the acquisition of NOMEN, we have improved our market position and our perspectives (...) it was something that had to be done. The Board approach was clear, the members had a lot of information. We voted and participated, because in this case, the members decide, is the owner of the cooperative, has the last decision. Whatever the member decides is subsequently carried out" (Producer Farmer)

"The professional management has also been decisive. It has added greater market orientation and a firm bet towards added value. NOMEN's buy out has performed as an agent of change, reinforcing bonds amongst the members and rewarding the consolidation of trust and cohesion" (President)

Finally, adapting the proposals of Cook (1995) and Novkovic and Power (2005) to our study, we present a synthesis of the facilitating elements of success and the most problematic and outstanding issues.

Successful Factors	Outstanding Questions
<ul style="list-style-type: none"> • Understanding of limitations derived from haziness with regard to property rights and consideration of their consequences. • Goals definition and long-term strategy definition agreed by the President, Board and professional managers. • Cooperative values' integration of the proposed strategies of the professional managers. • Ability to transmit to members the need to generate competitive bonuses and long-term views within an ever changing agro-food environment. • Development of competition strategies without excessive compromising of the financial structure and the cooperative's patrimony. • Generation of confidence bonds and cooperation between everyone involved. • Loyalty of cooperative bond and identification with the cooperative, as well as decisions made by means of communication, participation, discussion and accounts rendering transparency. • Governing structure and activity closely related to society and territory. 	<ul style="list-style-type: none"> • Consolidation and canvassing for new markets and potential niche markets • Consolidation of strategic alliances • Increase of negotiating power in the distribution chain. • Reinforcement and introduction of control measures to avoid potential bias on the part of the professional managers (Theory of Agency). • Deeper analysis of the results of property right restructuring and new investment strategy, with a view to maintain competitive and intergenerational equity • Maintaining commitment and the embeddedness of cooperative members

Table 3: Successful Elements and Outstanding Questions Concerning the Future

Source: Compiled by the Authors

6. Conclusions

This research has studied the competitive strategies adopted by Arrossaries of the Ebro Delta in order to evaluate the economic viability of the cooperative model and, as a result, infer its contribution to the maintenance of agricultural income and territorial cohesion.

On one side, the competitive position of the cooperative in the rice market has been considered as a proof of consolidation of the management and branding strategy. On the other hand, the process of participation and decision making, have been considered indicators of the role of the government. The satisfaction and stability of cooperative's members has been considered as an indicator of the willingness of farmers to cooperate).

In general terms, results show that the cooperative has increased its market share, especially in the brand-conscious sector, rice varieties and the range of manufactured products (as a semolina, prepared soups, liqueurs or beer). It is important to mention that the brand image and quality have been reinforced thanks the investment in an intangible asset, the NOMEN brand. With regard to economic results, the NOMEN brand has undergone a more favourable evolution than the other brands.

Furthermore, the leadership and confidence in the Board have been consolidated and a transparent and participatory process has been achieved in making decision process.

These results are in line with the research carried out in this field (Österberg, and Nilsson, 2009, Arcas et al., 2011; Borgen, 2011; Julia et al., 2013, Bijman and Iliopoulos, 2014; Benos et al., 2015; Grashuis and Su, 2018), which confirms that the presence of factors such as brand orientation, transparency, trust and shareholder equity achievement make the cooperative feasible. In addition to the above-mentioned aspects, other elements such as information, communication, participation, connection with the territory, historical identification of the members with the cooperative values, internal governance based on the leadership of the board (Bijman et al., 2012), confidence, and the reputation and professionalism of managers, have also been relevant.

In general, these findings show the possible success strategies that can be adopted by traditional cooperatives to compete in a globalization market and make it possible to verify that the cooperative model, based on democratic values, does not necessarily in conflict with economic profitability and territorial sustainability, that is critical in this territory.

However, we must point out that the results must be evaluated in terms of taking into account the uniqueness of the case study and its local and sectorial context.

7. References

- i. Arcas, N.; Alcón, F.J.; Cegarra, J.G.; Hernández, J.; López, E.I.; Marcos, G. Martín, J.G.; Mínguez, A. and Tantius, P. (2011). El gobierno en las cooperativas agroalimentarias. Factores de éxito. Sevilla, Fundación Cajamar.
- ii. Arcas-Lario, N., Martín-Ugedo, J.F and Mínguez-Vera, A. (2014). Farmers' satisfaction with fresh fruit and vegetable marketing Spanish cooperatives: An explanation from agency theory. *International Food and Agribusiness Management Review*, 17(1), 127-146.
- iii. Barraud-Didier, V., Henninger, M. C., & Akremi, A. (2012). The relationship between members' trust and participation in the governance of cooperatives: The role of organizational commitment. *IFAMA*, 15(1), 1-24.
- iv. Bartual, M.T. (2005). L'opció de la pluriactivitat agrària: el cas del delta de l'Ebre. Diputació de Tarragona, Tarragona.
- v. Brick, AB.; Rettab, B. and Mellahi, K. (2011). Market orientation, corporate social responsibility, and business performance. *Journal of Business Ethics*, 99, 307- 324.
- vi. Benos, T. Kalogeras, N.; Melia, E.; Verhees, F. Sergaki, P. & Pennings, J. (2015). Cooperatives' Organizational Restructuring, Strategic Attributes, and Performance: The Case of Agribusiness Cooperatives in Greece ". *Agribusiness: an International Journal*, 32 (1), 127-150.
- vii. Bijman, J.; Hendrikse; G.W.; Oijen, A. (2013). Accomodating Two Worlds in One Organization: Changing Board Models in Agricultural Cooperatives. *Managerial and Decision Economics*, 34 (3-5): 204-217.
- viii. Bijman, J. C.; Iliopoulos, K.J.; Poppe, C.; Gijssels, K.; Hagedorn, M.; Hanisch, G.W.J.; Hendrikse, R.; Kühn, P.; Ollila, P.; Pykkönen and Van der Sangen, G. (2012). Apoyo a las cooperativas de agricultores. Informe final. Wageningen: Wageningen UR.
- ix. Bijman, J., and Iliopoulos, C. (2014). Farmers' Cooperatives in the EU: Policies, Strategies, and Organization. *Annals of Public and Cooperative Economics* 85 (4): 497-508.
- x. Borgen, SO. (2001). Identification as trust-generating mechanism in cooperatives. *Annals of Public and Cooperative Economics*, 72: 108-128.
- xi. Borgen, SO. (2004): Rethinking incentive problems in cooperative organizations. *Journal of Socio-Economics*, 33: 383-393.
- xii. Borgen, SO. (2011). Product differentiation and cooperative governance. *The Journal of Socio-Economics*, 40(3), 327-333.
- xiii. Chaddad, F.R. and Cook, M.L. (2004). Understanding New Cooperative Models: An Ownership-control Rights Typology. *Review of Agricultural Economics*, 26 (3): 248-360.
- xiv. Chaddad, F. R., & Iliopoulos, C. (2013). Control rights, governance and the cost of ownership in agricultural cooperatives. *Agribusiness*, 29(1), 3-22.
- xv. Catalunya Caixa (2018). Anuari Econòmic Comarcal 2018. Barcelona, Servei d'Estudis de Catalunya Caixa.
- xvi. Cook, ML. (1995). The Future of USA Agricultural Co-operatives: A Neo-institutional Approach. *American Journal of Agricultural Economics*, 77, 1153-1159.
- xvii. Observatorio Socioeconómico del Cooperativismo Agrario Español (2018). Macromagnitudes del Cooperativismo Agrario Español. Cooperativas Agroalimentarias de España, Madrid, Ministerio de Agricultura, Alimentación y Medio Ambiente.
- xviii. Deller, S.; Hoyt, A., Hueth, B. And Sunaram-Skutel, R. (2009). Research on the economic impact of cooperatives. Madison, WI: University of Wisconsin Center for Cooperatives.
- xix. Donoso, I., Rudzki, R., Shadbolt, N. and Bailely, W. (2003). The internationalisation of agricultural co-operatives: critical factors in development. *Agribusiness perspectives papers, Australian Agribusiness Perspective Papers*. Agribusiness Association OnLine Publishing www.agribusiness.asn.au, nº 61.
- xx. Feng, L. and Hendrikse, W.J. (2012). Chain interdependencies, measurement problems and efficient governance structure : cooperatives versus publicly listed firms. *European Review of Agricultural Economics*, 39: 241-255
- xxi. Federación de Cooperativas Agrarias de Cataluña (FCAC) (2018). Anuari socioeconòmic 2017. Barcelona, FCAC
- xxii. Fulton, M. and Gibbins, J. (2000). Response and Adaptation: Canadian Agricultural Co-operatives in the 21st Century. Centre for the Study of Co-operatives, University of Saskatchewan.
- xxiii. Fulton, M. and Hueth, B. (2009): "Cooperative Conversions, Failures and Restructurings: An Overview". *Journal of Cooperatives*, 23: i-xi.
- xxiv. Gertler, M. (2001). Rural Co-operatives and Sustainable Development. Centre for the Study of Co-operatives, University of Saskatchewan.
- xxv. Guillouzo, R. and Ruffio, P. (2005). Internationalization of European dairy co-operatives. *International Journal of Co-operative Management* 2(2), 25-32.
- xxvi. Grashuis, J. and Su, Y. (2018). A review of the empirical on farmer cooperatives: performance, ownership and governance, finance and member attitude. *Annals of Public and Cooperative Economics*, 90 (1), 77-102
- xxvii. Hailu, G. and Goddar, E. (2009). Sustainable Growth and Capital Constraints: The Demutualization of Lily dale Co-operative Ltd. *Journal of Cooperatives*, 23: 116-129.
- xxviii. Hansmann, H. (1996). *The Ownership of Enterprise*. Boston: Harvard, University Press.
- xxix. Hendrikse G. And Feng L. (2013). Interfirm cooperatives. In Grandori A. (ed), *Handbook of economic organization. Integrating economic and organization theory*. Massachusetts: Edward Elgar Publishing, Cheltenham

- xxx. Hueth, B. And Marcoul, P. (2015). Agents Monitoring Their Manager: A Hard-Times of Producer Cooperation. *Journal of Economic and Management Strategy*, 24(1), 92-109
- xxxii. Huggins R and Thompson P, (2014). Culture, Entrepreneurship and Uneven Development: A Spatial Analysis. *Entrepreneurship & Regional Development*, 26, 726-752.
- xxxii. ICA (1995). Statement on the Co-operative Identity. Retrieved from: <http://www.co-op.org/ica/info/enprinciples.html>
- xxxiii. Iliopoulos, C. and Cook, M. (2013). Property Rights Constraints in Producer-Owned Firms: Solutions and Prerequisites for Successful Collective Entrepreneurship. Paper presented at International Conferences on Economics and Management of Networks, 21-23 november. Agadir, Morocco.
- xxxiv. Instituto de Estadística de Cataluña (IDESCAT) (2018). Cens agrari. <http://www.idescat.cat/> (Consult december 2018)
- xxxv. Juliá, JF., Meliá, E and García, G. (2013). Modelos y casos de éxito del cooperativismo agroalimentario en la Unión Europea, in Baamonde, E. (coord): *El papel del cooperativismo en la Economía Mundial, Mediterráneo Económico* (24): 139-154.
- xxxvi. Langreo, A. (2007). El arroz en España y en el mundo. Situación y perspectivas. *Distribución y consumo*, 17, 112-120
- xxxvii. Majee, W. and Hoyt, A. (2009). Building community trust through cooperatives: A case study of a worker-owned homecare cooperative. *Journal of Community Practice*, 17, 444-463.
- xxxviii. Majee, W. And Hoyt, A. (2011). Cooperatives and Community Development: A Perspective on th Use of Cooperatives in Development. *Journal of Community Practice*, 19, 48-61.
- xxxix. Meliá, E; Juliá, JF and Martínez, A. (2010). Mergers of agrifood cooperatives and their effects: from expectation to results. An empirical study in four Spanish Autonomous Regions. *Spanish Journal of Agricultural Research*, 28, 39-47
- xl. Meliá, E. and Marí, S. (2013). Anecoop. Ejemplo de éxito de gestión cooperativa y global; en *Tamaño y competitividad. Experiencias de crecimiento en las cooperativas agroalimentarias españolas*. Almería: Cajamar, Economía.
- xli. Ministerio de Agricultura, alimentación y medio ambiente (MAGRAMA). Arroz. <http://www.magrama.gob.es/es/agricultura/temas/producciones-agricolas/cultivos-herbaceos/arroz/> (consult: may 2018)
- xlii. Mooney, PH. (2004). Democratizing Rural Economy: Institutional Friction, Sustainable Struggle and the Cooperative Movement. *Rural Sociology* 69(1), 76-98.
- xliii. Nilsson, J. (2001). Organizational principles for co-operative firms. *Scandinavian Journal of Management*, 17: 329-356.
- xliv. Nilsson, J.; Ollila, P. (2013). Cooperative Values in Internationalized Operations. *Agribusiness: an International Journal*, 29 (1): 1-2.
- xlv. Nilsson, J.; Svedsen, G. L. H., and Svedsen, G. T. (2012). Are large and complex agricultural cooperatives losing their social capital? *Agribusiness: an International Journal*, 28(2), 187-204.
- xlvi. Novkovic, S. (2008). Defining the co-operative difference. *The Journal of Socio-Economics*, 37: 2168-2177.
- xlvii. Novkovic, S. and Power, N. (2005). Agricultural and Rural Cooperative Viability: A Management Strategy Based on Cooperative Principles and Values, *Journal of Rural Cooperation*, 33:67-78.
- xlviii. Oczkowski, E., Krivokapic-Skoko, B. And Plummer, K. (2013). The meaning, importance and practice of the co-operative principles: Qualitative evidence from Australian co-operative sector. *Journal of Co-operative Organization and Management*, 1: 54-63.
- xlx. Oijen, A. A. Van and Hendrikse, G. W. (2002): Governance structure, product diversification, and performance. (ERIM Report Series ERS-2002-51-ORG). Rotterdam School of Management, Erasmus Universiteit Rotterdam, Rotterdam, Netherlands.
- i. Österberg, P. and Nilsson J. (2009). Members Perception's of Their Participation in the Governance of Cooperatives: The Key to Trust and Commitment in Agricultural Cooperatives. *Agribusiness: an International Journal*, 25: 181-197.
- ii. Ozkaya, H.E.; Droge, C.; Hult, G.T.M.; Calantone, R., & Ozkaya, E. (2015). Market orientation, knowledge competence, and innovation. *International Journal of Research in Marketing*, 32, 309-318.
- iii. Porter, P. and G.W. Scully (1987). Economic Efficiency in Cooperatives. *The Journal of Law & Economics* 30(2): 489-512.
- liii. Sánchez, C. (2012). Arroz, baile de marcas. *Alimarket*, 257: 66-74
- liv. Sánchez, C. (2014). Arroz: Un mercado dual. *Alimarket*, 275: 80-86.
- lv. Sánchez, C. (2019). Informe 2019 del sector de Arroz en España. Recoger lo sembrado. *Alimarket*, 334, 1-9
- lvi. Spear, R. (2000). The co-operative advantage. *Annals of Public and Cooperative Economics* 71: 507-523.
- lvii. Urde, M.; Baumgarth, C. and Merrilees, B. (2011). Brand orientation and market orientation— From alternatives to synergy. *Journal of Business Research*, 66(1), 13-20.
- lviii. Valentinov, V. (2004). Why are cooperatives important in agricultures? An organizational economics perspective. *Journal of Institutional Economics*, 3(1): 55-69.
- lix. Valentinov, V. and Iliopoulos, C. (2012). Economic Teories of Nonprofit and Agricultural compared: New Perspectives for Nonprofit Scholar. *Nonprofit and Voluntary Sector Quarterly*, 42(1): 109-129.

- Ix. Van Bekkum, O. and Bijman, J. (2006). Innovations in Cooperative Ownership: Converted and Hybrid Listed Cooperatives. In 7th International Conference on Management in AgriFood Chains and Networks. Ede, Netherland
- Ixi. Van der Krogt, D.; Nilsson, J. And Host, V. (2007). The impact of cooperatives risk aversion and equity capital constraints on their inter-firm consolidation and collaboration strategies with and empirical study of the European dairy industry. *Agribusiness: an International Journal*, 23(4): 452-472.
- Ixii. Vitaliano, P (1983). Cooperative Enterprise: an alternative conceptual basis for analyzing a complex institution. *American Journal of Agricultural Economics*, 65: 1078-1083.
- Ixiii. Wilson, F. And Maclean, D. (2012). The big society, values and co-operation. *Work, Employment and Society*, 26(3): 531-541.
- Ixiv. Woolcock, M. And Narayan, D. (2000). Social Capital: Implications for development theory, research and policy. *World Bank Research Observer*, 15(2): 225-251-
- Ixv. Zeuli, KA., Freshwater, D., Markley, D. And Barkley, D. (2005). Cooperatives in rural Community development: A new framework for analysis. *Journal of the Community Development Society*, 35: 21-39.