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# **Educational Level and Training of Human Resources in Farm Cooperatives in the Knowledge-Based Society: An Empirical Study**

*by*

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## **Abstract**

This work analyzes the importance of education and training in economic endeavors in the light of the changes brought about by globalization and new technologies. It focuses on the changes that education and training are causing in the organization: specifically in worker profiles and organizational structures. It also justifies the need for education and training in cooperatives because of their particular form of democratic management. An important element in this article is the empirical study, where we analyze the education and training of people involved in olive oil-producing cooperatives in the most important olive oil production area in the world, Jaén, Spain. Prior to our analysis of education and training, we first demonstrate the importance of cooperation in the Spanish olive oil sector. The thesis underlying this work is that the poor level of formal education and the lack of specific training represent a serious obstacle to the business development of these societies. After looking at the central problem of this study, we analyze the formal education of the various groups making up cooperatives (members, elected boards, managers and workers), as well as the specific training (offered by the firm itself or by other bodies), in terms of the number of courses attended or made available to the members. In this article we also pose the following question: are professionalization of the cooperative and education in cooperative values enough to solve the problem of management in cooperatives? Finally, we draw some conclusions from this study.

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\* Winner of the Arco Iris Award in 1997 by the Andalusian Cooperation Council for the best study on cooperation *Organizations and management of olive oil cooperatives: An empirical study*.

## Introduction

Organizations are currently undergoing deep internal changes while they adapt to the major developments taking place, such as economic and social globalization, information and communication technology (ICT), and the crisis in the Fordist model of work organization and labor relations (Chacón, 1996). These changes are bringing forth a new type of firm, one that needs human resources to be permanently qualified in order for it to be competitive, thereby making the ongoing education of employees vital.

ICT is having important repercussions on the aforementioned organizational transformations and on the increasing need for staff training, and is becoming of vital importance to companies, job positions and staff alike (Ilzkovitz and Mogensen, 1999). This is because we are moving from an industrial era to one in which the competitiveness of individuals, organizations and nations depends on an intelligent handling of information. Thus, the development of the economy and of work towards a new economy and a knowledge-based society implies a constant change, adaptation and updating of the skills required for activities and job positions (Mamolar, 2001; Peraita, 2000). This is leading to major changes in the concept of work and in the labor market, and to a greater demand for professional training (Brunet and Belzunegui, 1999).

Thus, the life-long education of all the people involved is vital to any kind of organization – and hence also to cooperatives – a point stressed by the Rochdale pioneers, and subsequently echoed by the International Cooperative Alliance (ICA), in their principle of education, training and information, one of the pillars of cooperation.

## Objectives and methods

The influence of democratic participation in the running of cooperatives means that a sufficient educational level of the people involved is possibly of more importance to cooperatives than to other types of organizations. Given that the members of cooperatives participate in decision-making through assemblies, for a better management they must also have an educational level that gives them the qualities necessary to function as decision-makers (Aranzadi, 1989; Vargas, 1995; Mozas Moral, 1999). The poor educational level in Spanish cooperatives, especially in the agricultural sector, of members as well as managers, goes a long way to explaining the aura of business ineptitude that envelops cooperatives (López, 1982; Aranzadi, 1989; Juliá Igual, 1986; Domingo and Lomas-Ossorio, 1991; Pereira, 1993).

The present article focuses on olive oil cooperatives, and has the general aim to demonstrate that their general poor educational level represents a serious brake on business development. More specifically, our goals are as follows: first, we stress the importance of education and training for organizations in modern societies; second, we study the management of education and training in cooperative societies; third,

we analyze the importance of olive oil production in Spain, as well as the predominance of cooperatives in this industry; and finally, we look at how the principle of education and training is applied in these cooperatives by means of an empirical study.

The method followed in this research has meant dealing with a large number of documents, books and articles on the topic, but the most significant part of the study has been the fieldwork. Using a structured questionnaire, we carried out personal interviews of more than 86 percent of the chairmen of olive oil cooperatives in the oil production area of Jaén, Andalusia (southern Spain). The technical specifications of this empirical analysis can be seen in Appendix 1; the questions from the questionnaire are shown in Appendix 2.

## **Education and training of human resources in the knowledge-based society**

From a historical perspective, the system of worker job qualifications has remained stable throughout long periods of time, due to a relative stability in the evolution of knowledge. Free state education concentrated in one period of a person's lifetime corresponds to a Fordist model and does not satisfy current educational needs. Nevertheless, education has developed markedly in the advanced economies thanks to technological changes and information systems (Castells, 1997). In the postfordist organizational model, manual labor has decreasing importance compared to any work involving data handling – more characteristic of an information technology society, and requiring a better-trained and more multi-skilled staff. The educational requirements are therefore very different to those of the previous model (Chacón, 1996).

Technological innovations have had great impact on these structural changes, and have made inter-business competitiveness ever greater; but at the same time, the need to be more competitive stimulates the use of new technologies (Gladstone and Ozaki, 1994). Consequently, the educational level of employees has become more important in recent years. The new situation regarding education and training is that there is a vital need for lifelong updating of skills<sup>1</sup>.

Thus, information and communication technology (ICT) and new forms of work organization (NFWO) have led to the following changes:

1. The idea of process becomes primary, so that individual efficiency gives way to group efficiency (Stolovich *et al.*, 1995);
2. The content, nature and division of jobs become more abstract, more intellectual, more self-sufficient and with more responsibility, so that, as Loranca (2002) points out, the new organizational structures have a direct effect on the type of competence and skills required;

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<sup>1</sup> The Comisión de las Comunidades Europeas (1993) expresses itself in these same terms.

3. There is a greater need to consider employees as a strategic factor in achieving organizational objectives, so that, as Stankiewicz (1991) maintains, a human resources strategy is necessary, with the entire staff taking part and engaging in the development of the company, and sharing the same company culture;

4. Flexibility takes on a new dimension, which is necessary in the structuring of organizations, production systems and the staff. However, achieving “flexibility in organizations and in labor force, education and training is much more difficult than achieving the traditional flexibility in the supply of labor. In fact, the ICT paradigm requires a change in the type of education and training, probably greater than in any other technological paradigm” (Freeman and Soete, 1996);

5. Changes take place in job profiles, which disappear or change substantially in their contents.

Human resources add value to the firm through the knowledge they possess; therefore, those organizations that know how to manage the knowledge of their employees can obtain competitive advantages. However, given the fact that not all knowledge is of equal importance to a company from a strategic point of view, it is necessary to distinguish between explicit and implicit knowledge. Explicit knowledge is imitable, transferable and not scarce (Barney, 1991; Grant, 1991; Peteraf, 1993). Implied knowledge, on the other hand, is non-formalized knowledge, which is processed differently in each person, and cannot be acquired by the same methods as explicit knowledge. This makes it very difficult for it to be imitated, as each person internalizes it in its own way. Human resources with this kind of knowledge become a key resource in achieving sustainable competitive advantages.

For an organization to be successful it has to have an ongoing interaction between both types of knowledge (Nonaka and Takeuchi, 1995). Thus, the ability of an organization to learn, accumulate knowledge from its experience and re-apply that knowledge is in itself an ability or competence that may provide a strategic advantage (Zack, 1999). In this way companies which know how to manage education and training as a strategic capacity will achieve competitive advantages in greater measure.

One of the critical issues with regard to education and training lies in its financing. The conventional theory of human capital (Becker, 1983) points out that in perfectly competitive labor markets, companies will only finance the specific training of its staff that will be of use to the company; therefore the cost of general education will be the responsibility of the individual employee. However, later theoretical developments (Peraita, 2000) show that companies may be willing to finance the general education of their workers in case the labor market is imperfect, or if there is a strong institutional intervention, or alternatively if the structure of salaries is very tight and distorted. Besides, determining who receives training in the company is related to the cost and performance of that investment in human capital (Peraita, 2000), such that the employees who take part in training activities are those who will thereby give the company the greatest increase in productivity for the longest period of time possible. Thus, factors such as age, gender, general educational background, position, and seniority in the company are significant when choosing which employ-

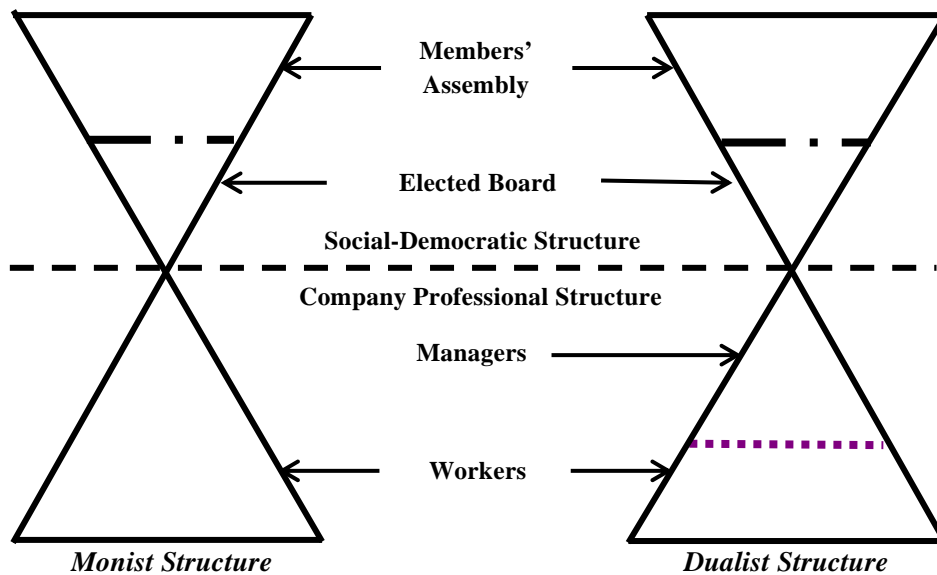
ees to send on training courses.

Yet greater employee interest in their own education and training is also needed, since many organizations, as Maté points out (1999), expect their employees to take responsibility for their own ongoing development, extending their personal knowledge. Members of organizations need to train for their work and such conditions can be found in the contracts that define their job specifications.

### Importance of education and training in farm cooperatives

The various laws pertaining to cooperatives in Spain<sup>2</sup> allow them to choose their own organizational structure. There are two possible choices of organization: the monist structure and the dualist structure (Figure 1).

**Figure 1: Diagram of the two types of organizational structure that cooperative societies may opt for**



Source: *Mozas Moral (1999)*.

<sup>2</sup> At present there are in Spain 14 laws on cooperative societies. Of the 17 autonomous communities (regions) into which Spain is divided territorially, 13 have exercised their right to introduce their own regulations as regards cooperatives. In addition, a national law regulates those cooperatives in autonomous communities still without their own laws. This law also affects those cooperatives whose activities extend beyond the limits of their own region.

In both structures two distinct parts can be distinguished: the democratic and the professionalized. Unlike capitalist firms where the power of decision lies with the managers and the board of directors, in cooperative societies the power of decision lies with their members. Thus, we must superimpose another structure (the democratic one) on top of that of the standard capitalist firm (the professionalized structure). The difference between the monist and the dualist structures is the following: in both structures it is the members (in general assemblies) who decide on the strategies to be adopted. Further to the general assemblies, the elected board (made up of members democratically elected in assemblies) is charged with carrying out these decisions. However, in the monist structure there are no managers to advise the elected board and the members' assembly on the advantages or disadvantages of a particular strategic decision. So, there are no positions created for people with competence in business management for providing this advice. It is therefore up to the members and the elected board to manage the cooperative themselves. In contrast, in the dualist structure there are people with competence in business management. In this case, positions of responsibility are created in the firm (general manager, departmental managers, etc.), and are filled by professionals from various areas. These professionals can aid and advise the members and the elected board when they take their decisions. Subsequently they will be responsible for implementing these decisions. Both structures have advantages and disadvantages, as shown in Table 1.

**Table 1: Main advantages and disadvantages of the monist and dualist structures**

<b>STRUCTURES</b>	<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
MONIST	<ul style="list-style-type: none"> <li>• Members are the real decision-makers.</li> <li>• Democracy is not distorted.</li> </ul>	<ul style="list-style-type: none"> <li>• Few members are capable of running a business in the present trade environment because of their poor educational level.</li> <li>• There is no professionalization.</li> <li>• Development of the business is made difficult.</li> <li>• The survival of the firm is at risk.</li> </ul>
DUALIST	<ul style="list-style-type: none"> <li>• Members are advised by professionals.</li> <li>• Business development is facilitated.</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of a loss of democracy in co-operatives.</li> <li>• Possible interference of functions between democratic and professional bodies.</li> <li>• Members risk losing control of society due to poor educational level.</li> </ul>

Source: *The Authors*.

The majority of olive-oil cooperatives in Spain have opted for the monist system. This fact, together with the poor educational level evident among the members, has caused these organizations to be managed by inexpert elected boards. Moreover, these organizations face a situation in agriculture where there is increasingly less protection, where the effects of economic globalization are becoming more evident, and where the new technologies available are inaccessible to them because of their poor educational level. All this adversely affect their ability to compete. For cooperative societies, therefore, education and training become increasingly important.

The need to adopt an agriculture that is less aggressive to the environment – including perhaps organic farming – and the need to comply with the ever-increasing regulations on quality, are just some of the challenges that agricultural workers face nowadays. However, cooperativists need to learn more about other areas of specific knowledge: first, they need to learn how to participate efficiently in democratic decision-making, in an ever more turbulent and globalized environment (ILO, 1991; Markaide, 1990; Herrera and Sanchis, 1993) and second, they need to learn the principles and values of cooperation, which, once learned, help to distinguish managing a cooperative from managing a common company.

In this context, Desruisseaux (1969), Aranzadi (1989), Vargas Sánchez (1995) and Peris (1990) point out that if a person has to take part in decision-making, then education, training and information are obviously of importance. They stress that the education and training must be of two types: on the one hand, cooperative education that would give the group more cohesion, inculcate an understanding of the need for participation, and harmonize the values and beliefs of the individuals making up the organization; on the other hand, education and training in those areas where the member assumes responsibility. As a businessman/woman, the member must be educated and trained in business management, new technologies etc.; as an agricultural worker and provider of primary goods, the member must also learn, for example, about improving quality, adopting a more environment-benign agriculture, or improving food safety, etc. The importance of education and training for members is such that many researchers have pointed out that the low level of participation of members in the management organisms is due to their being poorly educated (Aznar, 1986; Peris, 1990; Briganti, 1991; Morales, 1996). It has also been empirically demonstrated that a poor educational level effectively bars the member from management (Mozas Moral, 1999).

Education and training for the employees of cooperatives is also fundamental. The use of new technologies in all areas of activities has meant that organizations require a more qualified personnel, with differentiated skills, enabling them to be more flexible. The general education of the employees is important, but specific training is becoming increasingly more so. The extreme specialization of job positions has modified the profile of the people needed to fill them, so that the human factor has become strategic. Moreover, employees need also to be trained in specifically cooperative areas. They are working in differently run organizations, and



should learn to work with democratic processes and the differentiated decision-making bodies they find in cooperatives.

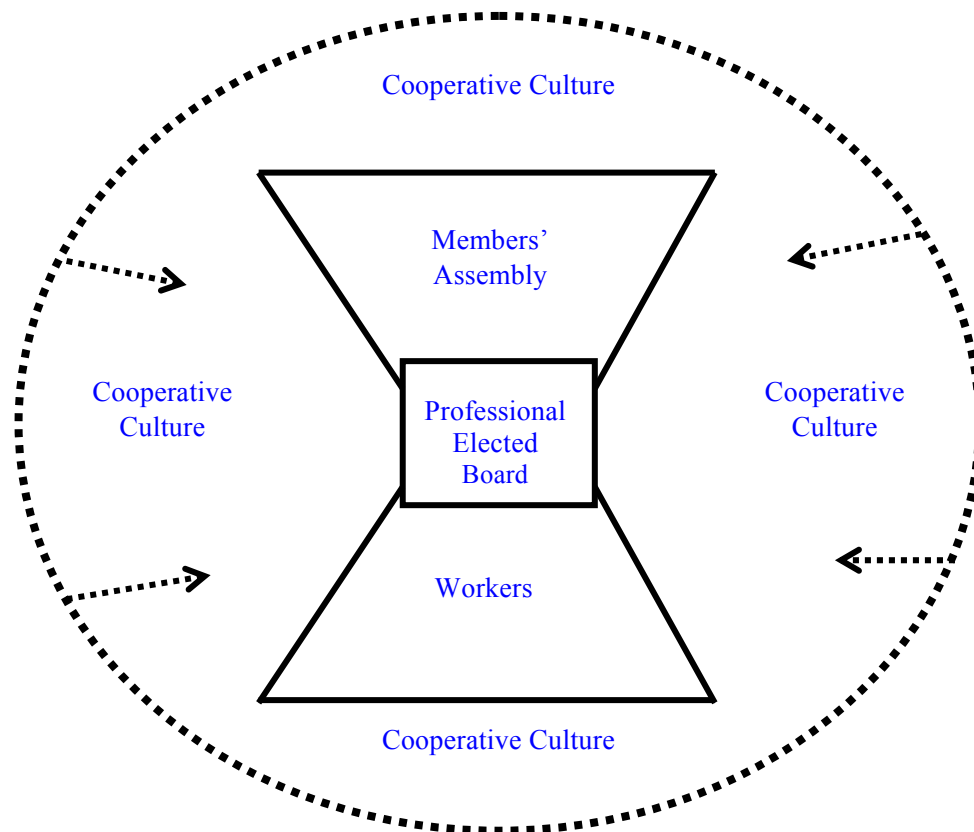
In the literature there are two studies that focus on the failures of management in cooperatives caused by the poor educational level and the lack of participation of members in their democratic bodies. Davis (1999) and Parnell (1995) propose two management models for cooperatives in which the educational level of decision-makers is fundamental.

Parnell (1995) considers it fundamental to develop the business activity according to the needs of the members. He focuses more on the business aspect, separating the social from the economic. He delegates the management to the professionals, although at the same time submitting their management to the approval of both the elected board and the members' assembly. The real power is therefore to be held by the members, although on an *ex-post* decision basis. Thus the strategies, the course of action and the direction taken by the cooperative, would be decided upon by the professionals, with the members approving or not.

Davis (1999), for his part, considers cooperative management from the point of view of values. He proposes seven principles (pluralism, mutualism, individual autonomy, fair wages, natural justice, concentration on people and multiple work roles), which the elected board and the professionals should adhere to, and these latter should form a single management body. He argues that the professionals should have a service vocation to the members and to the cooperative, and should be provided with special education in cooperative values. This management body should satisfy the needs expressed by the members, for these are the owners and controllers of the organization, on whose future they decide in assemblies (*ex-ante* decisions).

We are inclined to support the latter model, adding that the elected board should ideally be professionalized: in this case, ownership would coincide with professionalized management (Figure 2). We believe that the success of a cooperative is to a large extent due to education and training, and that if the ICA principle of cooperative education were applied among all the groups concerned, this could be a strategic weapon empowering them with cohesion – something difficult for other organizations to imitate and/or learn to implement.

**Figure 2: Cooperative structure in which professionalized management and ownership coincide**



Source: *The Authors*.

### **The importance of cooperatives in the Spanish olive oil sector**

In this section, we show the importance of cooperatives in the olive oil sector in Spain, and provide data on its scope.

Spain is the world's biggest olive oil producer (it produces 40 percent of world production, and 50 percent of EU production). The region of Andalusia (southern Spain) provides 80 percent of the national olive oil production. In this context, the cooperative olive oil mills take on a key role, since they market more than 70 percent of the Spanish production, and around 75 percent of the Andalusian production (Torres *et al.*, 2000).

In Spain, according to the Olive Oil Agency (Agencia para el Aceite de Oliva, 2003), in the 1999-2000 campaign there were 1,837 oil mills authorized to receive

production grants, the majority of these in Andalusia. Olive oil farmers have generally opted for the cooperative formula – 45.5 percent of the mills in Andalusia – which means that there are around 400 olive oil cooperatives operating in this region (Mozas Moral, 1999).

Furthermore it is estimated that there are some 297,000 olive oil farmers who are members of cooperatives in Spain, of whom more than 200,000 are in Andalusia (Junta de Andalucía, 2002a; Mozas Moral, 1999).

In 2002 revenue from agriculture was 9,044.84 million euros in Andalusia, of which olive oil production contributed 2,378.96 million euros (Junta de Andalucía, 2002b). These figures make olive oil production the second most important sector after fruit and vegetables.

This data clearly shows the importance of cooperatives in the agricultural sector in general, and in the olive oil sector in particular, where the cooperative has been the type of organization chosen by the majority of olive oil farmers in order to solve their problems of milling, storing and selling their oil.

One of the most interesting questions relating to the olive oil sector in Spain is the following paradox: Spain is the most important olive oil producing country in the world, but the olive oil sector has been very scarcely market-oriented, in that it has a very limited presence in the bottled oil market. This passive commercial behavior, with little market orientation, which implies being distanced from the final markets, limits the possibilities of generating added value, and therefore of increasing income for the producers. This is the so-called “marketing problem”. Clearly, this means that a vast proportion of the olive oil mill production is simply raw material for other industries.

In short, cooperative olive oil mills dominate virgin olive oil production, but with very few exceptions, do not have the weight in the final markets comparable to their production potential. The poor educational level of the managers of these cooperatives is the principal reason for this situation.

### **Educational level and training in olive oil cooperatives**

Having considered the importance of education and training in cooperatives, and their importance in the olive oil sector, let us turn to the management of education and training in the production of olive oil. We shall base our analysis on an empirical study carried out in the province of Jaén. We interviewed 86 percent of the chairmen of the olive oil cooperatives. We wanted to know, on the one hand, if the educational level of the individuals in the cooperatives was adequate for current requirements, distinguishing between democratic and professional bodies. On the other hand, we looked at the specific training given by the cooperatives. Finally, we looked at who finances this training.

### **Educational level**

We begin by analyzing the general educational level of both members and employees of cooperatives, following the organizational framework shown in Figure 1: democratic structure and professionalized structure.

In the democratic structure we find members' assemblies and the elected board. It is difficult to estimate the general educational level of the agricultural workers that make up the cooperatives. In our study we have not attempted to do this, but earlier studies indicate that "the great majority of cooperative members have only completed primary school or have incomplete primary level studies. Some members of farm cooperatives could be classified as illiterate" (Salinas Ramos, 1987:86). The other democratic organ is the elected board. This is also made up of cooperative members, democratically elected in assemblies.

In our study we were interested to find out the general educational level of the chairmen of cooperatives, these being the chief representatives of these organizations and the formal heads of the elected board (Table 2).

**Table 2: Education level of olive oil cooperatives' chairmen  
(Chairmen interviewed: N=159)**

<b>Education level</b>	<b>Frequency</b>	<b>Percentage</b>
No Studies	71	44.7
Primary Studies	22	13.8
High School	32	20.1
University Studies	31	19.5
Don't Know / Won't Answer	3	1.9
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: *Mozas Moral (1999)*.

From Table 2 it can be seen that almost 60 percent of the chairmen of cooperatives do not possess the minimum level of education that would be considered necessary given their participation in decision-making. This would not be too serious if the olive oil cooperatives had a clear separation between ownership and management, thus enabling professional managers educated in business administration to run the cooperative. However, this does not occur in the majority of cases. On the contrary, it is the chairman of the cooperative who frequently assumes managerial functions. Hence, the importance of education and training for chairmen, as the main promoters of change occurring in cooperatives (Carazo, 1985; Aznar, 1986; Juliá Igual, 1986; Aranzadi, 1989; Navas Vega, 1991; Pereira, 1993).

As to the professional structure, this is composed of managers (non-members) and the rest of the employees who participate in the production process. It should be pointed out that cooperatives have in the majority of cases opted for the monist struc-

ture, so that there are in general no managerial posts filled by professionals. We also noted that in 20 percent of the cooperatives taking part in this study, duties not undertaken by the elected board, such as accounts, tax or labor affairs, are outsourced, to mean that in these cooperatives no employees were found in the offices.

Given the near inexistence of managers in the professional structure, we have divided employees working in the cooperatives into two groups: in the first, those that carry out work in cooperative offices; in the second group are those who take part in the manufacturing process. Table 3 shows the positions found among employees carrying out work in the offices, and their educational level.

**Table 3: Educational level of office employees by position held (N)  
(Chairmen interviewed: N=159)**

Education level	Manager	Chief administrative officer	Secretary	Assistant secretary	Office clerk	Total
No Studies	0	0	2	3	0	5
Primary Studies	0	1	1	2	1	5
High School	4	13	36	18	8	79
University Studies	3	3	22	7	5	40
Do not know the education level of their employees	0	3	7	11	6	27
Total	7	20	68	41	20	156

Source: *The Authors*.

Various points are especially interesting. The first is the scarcity of managers (only 7) found in the cooperatives. The second is that among the 159 cooperatives surveyed only 156 task bearers were found carrying out work in an office, meaning that roughly only one person per cooperative works in the office. Third, we note the predominance of a number of non-managerial positions (chief administrative officer, secretary, assistant secretary and office clerk). Fourth, we note that many of the people running the offices lack any educational background. Finally, we note the total ignorance among chairmen of the level of education of more than 17 percent of this category of employees.

We have shown that all of the office employees (managers, chief administrative officer, secretary, assistant secretary or office clerk) carry out only administrative tasks (Mozas Moral, 1999) (see Table 4). The elected board maintains the maximum responsibility in managing the firm: investments, finance, human resource management and marketing.

**Table 4: Tasks carried out by office employees, by position  
(Chairmen interviewed: N=159)**

Tasks	Manager	Chief administrative officer	Secretary	Assistant secretary	Office clerk	Total
Accounts	5	7	28	5	5	50
Tax clearing	4	5	21	7	3	40
Processing subsidies	4	3	43	8	5	63
Payslips, Social Security, etc.	6	4	46	13	5	74
Payments to members	7	6	10	21	11	55
Negotiating sale price	1	-	1	-	-	2
Adoption of brands	-	-	1	-	-	1
Controlling productive process	2	-	9	-	-	11
Financial planning	-	-	2	-	-	2
Investment planning	-	-	2	-	-	2
Recruitment, staff selection	1	-	1	1	1	4

Source: *The Authors*.

According to Barea and Monzón (1992), the educational level of managers of farm cooperatives in Spain is as follows: no studies: 17.3 percent; with primary level: 23.5 percent; secondary level: 30.5 percent; university level: 28.7 percent. Other research in the olive oil sector in Andalusia points to the poor potential of the human resources of these cooperatives. Thus, Domingo and Loma-Ossorio (1991) consider that only 5 percent of farm cooperatives possess personnel sufficiently educated and trained for management. Meanwhile Morales (1996) stresses the low level of education in rural environments and in Andalusian cooperatives. The most significant shortfalls in terms of training for more than 40 percent of the cooperatives are in the areas of administration, production/manufacturing and management.

Our study shows that 70 percent of those carrying out work in the offices possess an insufficient educational level. This is in part due to the fact that in the selection of personnel to fill these posts social or family criteria predominate (it is important for the candidate to be a member or the relative of a member, an acquaintance or a trusted person) over professional criteria (educational level, experience, competence)<sup>3</sup>. This is partly due also to the desire of the elected board to maintain power.

<sup>3</sup> An analysis of the process of selection of human resources in farm cooperatives can be found in Mozas Moral *et al.* (1997).

All this is a serious obstacle to the professionalization of management and the development of these cooperatives.

The preference of the democratic structure of cooperatives for employing “trusted people” means that they do not seek the collaboration of management professionals. Thus, the elected board – which generally lacks the required educational level – cannot find among the personnel of the cooperative the support it requires. This fact has been denounced not only because of the failure of cooperatives to apply their own cooperative principle with regard to the need for an adequate education, but also because of the massive changes that are taking place in the business environment, changes that make people trained to deal with them more necessary than ever (ILO, 1991; Rosembuj, 1985; Herrera and Sanchís, 1993; Markaide, 1990).

Finally, we look at the general educational level of the workers who take part in the productive process (Table 5).

**Table 5: Educational level of production workers.**  
(Chairmen interviewed: N=159)

Education level	Numbers of workers	Percentage
No Studies	47	8.79
Primary Studies	9	1.68
High School	6	1.12
University Studies	4	0.75
Does not know the educational level of their employees	469	87.66
Total	535	100.00

Source: *The Authors*.

In the majority of cooperatives the level of education of the workers is unknown: a sign of the oversight or lack of interest of the people running the organization. We could very rarely be informed of the real level of education of the workers. When we were, we noted a predominance of workers without previous studies or in possession only of primary level education.

### **Training**

Another area we were interested to study is the specific training received by members, elected boards and personnel in the offices and factories.

In order to find out about training activities in the olive oil cooperatives we asked about the courses that had taken place in the previous three years and made available to the above-mentioned groups.

The first result that points to the lack of direction with regard to training is the fact that 67 cooperatives (42.1 percent) had not organized a single training course in

that period, claiming that it was an unnecessary expense. Only 92 cooperatives (57.9 percent) had organized courses in that period.

In those cooperatives where there had been courses, in the majority of cases the course was concerned with obtaining quality oils. There were no courses on cooperative culture, new technologies or business administration. Finally, the choice of who was to attend the course depended more on who had more time to attend than on whether that person needed the course in order to carry out the work.

With regard to the interest of the cooperative members in training, the results obtained in Table 6 demonstrate that they do not, in general, request training courses from their cooperatives. Especially striking is the fact that in 146 cooperatives (91.8 percent of the total) *not a single member* had ever requested a training course, for him/herself or for their children.

Thus, only 8.1 percent of the interviewees mentioned members having shown interest in improving their knowledge, but generally the number of people interested was so small that the courses were not actually ever carried out.

**Table 6: Members requesting training courses**  
(Chairmen interviewed: N=159)

<b>Members requesting training courses from their cooperative</b>	<b>No. of cooperatives</b>	<b>Percentage</b>
No members	146	91.8
Less than 10 %	11	6.9
From 10 to 25 %	0	0.0
From 25 to 50 %	1	0.6
From 50 to 75 %	0	0.0
From 75 to 90 %	0	0.0
More than 90 %	1	0.6
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: *The Authors*.

### ***Funding of training courses***

Given that in Spain cooperatives must by law maintain a fund for training and for the promotion of cooperation, we were interested to find out to what extent this law is observed. Only in two of the 92 cooperatives that held training courses were funds maintained for the training of their personnel. The generalized flouting of this law is yet an additional proof of the very limited concern most olive oil cooperatives in Jaén show for training.

In the face of the practical absence of investment in training by cooperatives, it is interesting to know who finances the training of their personnel. The results we ob-



tained are shown in Table 7. What stands out most from this data is, on the one hand, that training is financed by Federations of cooperatives<sup>4</sup>, 2<sup>nd</sup> level cooperatives and official bodies; and on the other, that it is never financed by the individuals concerned, which demonstrates the lack of interest that these show in their own employability<sup>5</sup>.

**Table 7: Who finances the training?**  
(Chairmen interviewed: N=92)

Options	No. of cooperatives	Percentage
Federations of cooperatives	59	64.13
Employees	0	0.00
2 <sup>nd</sup> level cooperatives	21	22.82
Official bodies	13	14.13
Others	32	34.78

Source: *Mozas Moral (1999)*.

## Conclusions

The education and training of human resources in the present business environment is especially important for gaining competitive advantages. Cooperative societies should not remain excluded from this development. In this context, we stress the need for general education and specific training in farm cooperatives, among members as well as employees. Nevertheless, especially among olive oil cooperatives, the main feature is the poor educational level, added to the lack of training, as well as the lack of any interest in education and training.

If we look at the general educational level, such as the education to which all people have access, we must conclude that it is insufficient. Among the members of cooperatives and on the elected boards this fact is logical, since they are agricultural workers, who in general have not received a free state education. However, it is especially striking to note their lack of interest in acquiring specific knowledge about improvements in agriculture, the management of cooperatives, or cooperative culture, bearing in mind that they generally adopt monist structures. In this study we point out that the participative democracy which runs these organizations, together

<sup>4</sup> Federations are political associations of cooperatives. Their main role is to represent the interests of the cooperatives to the public authorities. The cooperatives do not provide capital to the federations, nor do they own them: they only pay a membership fee for the service provided (information about regulations to follow, law service, accounting and tax consultancy and information about subsidies).

<sup>5</sup> How appropriate are the employees for their current position (and future positions) in terms of their skills and knowledge, their attitude towards training and personal development.

with the low level of education and training among individuals, means that decision-making tends to be very conservative. Thus, few important changes in management are undertaken when the members do not understand the need for them, or when they feel they cannot control them.

With regard to the rest of the employees who occupy posts in the offices as well as in the production process, we point out that the poor educational level and the lack of interest in specific training is equally a most significant feature.

We conclude by indicating that the poor educational level, added to the lack of specific training – shortcomings that afflict the majority of olive oil cooperative societies – are major determinants of the low level of economic development of these organizations.

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## Appendix 1: Technical Specifications

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### *POPULATION*

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<b>Sample Units:</b>	Olive-oil cooperatives
<b>Total population:</b>	184 Cooperatives
<b>Sample Elements:</b>	Chairmen
<b>Geographical scope:</b>	Province of Jaén (Spain)
<b>Period:</b>	From 1 April to 17 October 1996

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### *SAMPLE*

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<b>Type:</b>	Random Sample
<b>Sample size:</b>	162 interviewed.
<b>Valid replies:</b>	159
<b>Random sample error:</b>	2.94%, for $p = q = 0.5$ and confidence level of trust of 95.5% and correction factor

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## Appendix 2: Questionnaire to First-Level Olive-oil Cooperatives

### 1. Educational background of chairmen

- Without studies
- Primary studies
- Secondary studies
- University diploma. Subject.....
- University degree. Subject .....

### 2. Employee positions, educational background and number of people

Place of work	Category of position in decreasing order of importance	Number of people occupying post	Educational background qualifications, courses	Tasks
Office	Manager			
	Chief administrative officer			
	Secretary			
	Assistant secretary			
	Office clerk			
Production	Workers			

### 3. Do you organize training courses in your cooperative (training)?

- Yes
- No

### 4. Who benefit fundamentally from the courses (training)?

- Members
- Elected boards
- Managers
- Workers

### 5. Study materials used:

Members .....

Elected boards .....

Managers .....

Workers.....

### 6. In the cooperatives: % of members who ask for training courses (Mark an X for the approximate percentage)

None	Less than 10%	From 10-25%	From 25-50%	From 50-75%	From 75-90%	More than 90%
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### 7. Who funds the training?