The Role of Co-operatives in the Competitiveness of the Horticultural Sector

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Abstract

The current distribution and demand in the European food market implies a greater protagonism of co-operatives in farming centres in terms of growth, profitability or value added. This fact, together with the characteristic economic risk of the agricultural market, is leading to changes in strategic management of marketing co-operatives in sectors such as fresh fruit and vegetables. Taking a sample of horticultural co-operatives from Andalusia (Spain) as reference, this paper carries out a comparative analysis contrasting economic and financial indicators. The results obtained reveal the incidence of the aforementioned factors in the activity of co-operatives, showing different tendencies to those traditionally conceived (social economy), and in their contribution to the competitiveness of the sector.

1. Introduction

There is increasing interest in competitiveness analyses of different industries or productive activities within the framework of globalisation and commercial liberalisation together with the tendencies, in our case, of economic organisation in the European Union (EU). In this economic environment the specialisation level constitutes an increasingly important factor in acquiring a relatively successful position in the market. In other words, the concentration of demand by the distribution chains and the worldwide commercial liberalisation give greater relevance to certain business sectors in the agricultural and foodstuff market. In this context, marketing co-operatives are particularly prominent: they tend to sell directly to distribution chains, and they are closely connected to farming activity. In the case of produce for fresh consumption, co-operatives enjoy a relatively competitive position with regard to other kinds of marketing firms. This is due mainly to their high level of profitability and their capacity to recover the value added

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incorporated to the final product (Juliá, 1994).

The new conditions of the food market have imposed changes in the management attitude of marketing co-operatives (built around farmers' associations) both in Spain and in neighbouring countries (Chomel, 1993). Spain's entry in the European Economic Community meant adapting co-operativism to new circumstances more in line with the business reality of European agricultural co-operation. That is to say, they had to play a leading role in the business sector. This protagonism is having an important impact on the fruit and vegetable sector, since directly or indirectly agricultural policy confers more importance on producer associations. Furthermore, in this sector the development of co-operatives is being promoted within the foodstuff market due to a greater capacity to meet the demand of purchasing centres and distribution firms. As a result, a greater possibility to make profit and to incorporate utility added to the product, which is traditionally carried out at other stages of the commercial chain.

Considering the aforementioned, from the management point of view, the better suitability of co-operatives to the market is a result, above all, of a change in business attitude. There has been a shift towards a more commercial tendency, rather than the natural one of social economy that gave rise to this kind of farmers' organisation.

Generally speaking, the social economy is related to entities where capital is not the basic component, entities for which the profit motive is not a main aim and whose fundamental purpose is the rendering of services to their associates. These firms emerge as an answer to new social demands that have not been properly met by public companies or traditionally commercial companies (Juliá, 1994). The present study will focus on those co-operatives that specialise in rendering marketing services, due to the above-mentioned interest.

Although there are few studies related to the competitiveness of agricultural co-operatives in the Spanish context, we should take into account the following: Caballer et al (1987), carried out a management analysis on the agricultural co-operatives from Valencia (east Spain); Simon and Alonso (1995) studied the economic-financial structure of agricultural co-operatives from the Community of Navarre (north Spain), determining competitiveness factors related to

profitability and development; and Segura and Oltra (1995) focused on changes in business attitude in order to achieve efficiency. Also of interest in a more general context, Jahn (1991) carried out an analysis based on the strategic adjustments of agricultural and food firms in Europe. Ernest & Young (1993) studied the level of competitiveness of the food and beverage sector in Spain. They focused their analysis on the competitiveness structure, showing the significance of the aforementioned factors on a European scale.

The data analysed in the present study are taken from the annual accounts and reports of co-operatives dedicated to horticultural marketing. These co-operatives are located within the Andalusian region, which produces and commercialises 28 per cent of the national total (Spanish Ministry of Agriculture, Fisheries and Food MAPA, 2001). Nevertheless, in our opinion the results of the study are relevant to co-operatives within the economic context of the country as a whole. The situation regarding the marketing sector for Spanish fruit and vegetables will be analysed using the data provided by the Bank of Spain. The study covers the period 1993-1998.

2. Current European food distribution and its incidence on marketing co-operatives

The agricultural and food system currently comprises a complex framework of relationships among farmers, the agricultural and food processing industries, distributors and end consumers. This situation has been induced by both economic and sociological factors basically. On the one hand, we have facts of economic nature such as cost saving in agricultural and foodstuff distribution or the creeping liberalisation of international commerce. On the other hand, we must bear in mind sociological forces, such as new family habits, socio-demographic changes, etc (Lamo de Espinosa and Fiel, 1994). Due to these factors, food marketing has been characterised in recent years by the introduction of new elements to the demand function. Thus the incorporation of added values to the final product constitutes a basic element of competitiveness.

The configuration of food distribution

Regarding the economic factors related fundamentally to the changes in the structure of the food market system, a considerable process of concentration and internationalisation has been noted over recent years. Scale economies operate, therefore, leading to an ever greater share of sales for supermarkets and hypermarkets. Although the presence of small establishments that attend specific sectors of demand is still strong, most studies point to a clear decline in the number of establishments of these characteristics (A C Nielsen Co, 2002). In the scope of the EU it can be observed that the increase in concentration through distribution chains, which started in northern and central countries of the EU, has gradually spread to the rest of the continent.

Table 1. Evolution of the hypermarkets' and supermarkets' share in foodstuff sales (in the main consumer countries of Spanish fruit and vegetables).
Source: AC Nielsen Company SA.

Country	1985	1990	1995	2001
France	76	82	81	92
Germany	60	66	72	80
Great Britain	55	66	74	88
Spain	36	55	65	69
Italy	31	40	45	56

It can be observed that between 60 and 85 per cent of food consumption in EU households is controlled by large distribution chains. These distribution firms are rapidly converting the trade system in agricultural and food products, characterised now by more direct purchasing from farming centres, and bypassing traditional dealers.

There is a tendency towards a clear demand concentration and a decrease in the number of agents within the trade chain. Cost reduction in the distribution process is estimated by experts at about 30 per cent, which constitutes a considerable change compared to the traditional distribution methods of a sector such as fresh fruit and vegetables (Galdeano and De Pablo, 1996).

In the Spanish market this tendency has been characterised by the presence of large distribution groups, a major development of supermarket chains and an internationalisation of strategic distribution decisions as a result of integration into the European chains and purchasing centres. It is also worth noting the considerable growth of hypermarkets in Spain within recent years. Their market share increased from 6.2 to 25.5 per cent in the period 1991-1999 (Table 2).

Table 2. Market share of food sales in Spain.
(*) Corrected for inflation.
Source: MAPA (2000).

	1991		1999	
Establishment	**Market share**	**Sales(*) total (millions of euros)**	**Market share**	**Sales(*) total (millions of euros)**
Traditional shops	40.2	17,588	21.1	10,376
Supermarkets	26.7	11,687	39.8	19,572
Hypermarkets	6.2	2,713	25.5	12,540
Total	**100.0**	**43,777**	**100.0**	**49,176**

The increasing demand for added values

In order to understand the significance of co-operatives in this new environment, we must consider that, on the one hand, the agricultural and food system comprises a group of activities (farming, processing, distribution and food consumption) articulated around agriculture. The interrelations among these activities are increasingly important, and the change of a variable at any point of the process is transmitted forward or backward along the complete chain (Molle, 1992). On the other hand, we must bear in mind one of the basic economic problems in agricultural production, namely profitability loss over time.[1] This factor, together with the demand requirement, creates the need to add new values to agricultural products in the first stages of the food chain. Co-operativism, in this wider context, is helping to improve the profitability of farmers,

without neglecting its social element. It is also to increasing the economic importance of agricultural activity compared to the activities of food processing and distribution (Juliá, 1994).

Current market requirements determine more and more utilities or added values for the basic product. These added utilities have increased not only in quantity but also in diversity.

Among the variables that have brought about this situation we should highlight technological advances and their easy access for consumers. Particular attention should also be given to sociological forces, such as the higher incorporation of women to the work force, new family habits or socio-demographic changes (Lamo de Espinosa and Fiel, 1994).[2] These factors mean that consumers have different needs to previous generations. Moreover, the increase in income in developed countries, changes in consumption habits and maintenance of prices of agricultural products in real terms, are causing a decrease in the percentage of expenditure on food. Nevertheless, in the case of fresh fruit and vegetables this percentage was maintained during the nineties and it even increased in some periods, both in the Spanish market and in many European countries. This indicates the consolidation of the healthy 'Mediterranean diet' and a greater demand for fresh produce (MAPA, 2001).

Food marketing has generally been characterised in recent years by the introduction of new elements to the demand function. The end product includes a series of features, some of which are the object of growing demand (quality, standardisation, affordability, etc) in conditions of relatively high income and price elasticity (Rodríguez-Zúñiga and Soria, 1991).

Moreover, these added utilities represent the main elements for the maintenance of profitability in traditional agricultural activity, which has an increasingly smaller share within the food market in favour of activities such as distribution (Table 3).

Table 3. Share of the agricultural and food system in the Spanish economy (1989-1999).

Source: MAPA (1999). Spanish Institute of Statistic (1989).

The aforementioned changes to the current food system have contributed to technological innovations orientated more towards market problems and the marketing improvement of

agricultural products, especially the promotion and distribution components. This fact implies a necessary specialisation and professionalisation of horticultural co-operatives, both in trade and production, which are increasingly linked to one another.

In short, the protagonism of co-operatives in this context is characterised by:

Activity branches	Percentage in the Gross Added Value 1989	Percentage in the Gross Added Value 1999
Agriculture (farming)	5.1	3.2
Agricultural and food processing	4.8	4.1
Agricultural and food distribution	12.8	16.5

- The need to increase the bargaining power of centres of production.
- The need to offer more product volume and more planning, which leads to the increasing interrelation between production and marketing.
- The direct transfer of demand requirements to the farming centres. This implies the need to increase investment in relation to quality, maintain continuous innovation and generally to intensify product specialisation.
- The removal of traditional dealers and the possibility to introduce more added values into the farming centres.
- These factors result in a change in management-style of co-operatives, which is necessary in order to compete with traditional trading companies within the sector. In the following epigraph we concentrate on this aspect.

3. Economic-financial comparative analysis of horticultural co-operatives: taking as reference the Andalusian producers' organisations

In general terms, horticulture differs from other sectors due to the variety of products and the perishable nature of most of

them, which implies the need for fast marketing and reduced storage time. In the case of the European Union there is also a tendency towards less intervention and a marked decentralisation of market regulation which corresponds to a large extent to producers' organisations (Commission of the European Communities, 1994).[3]

The significance of the European co-operative sector in this agricultural and foodstuff context is considerable due to its growth in the last three decades, above all, in countries such as Germany, Austria, France, Greece or Spain.[4] This sector accounts for some 45,000 co-operatives, with a turnover worth a total of approximately 260,000 million dollars (Fuentes and Veroz, 1999). The Andalusian region represents 20 per cent of the Spanish co-operative sector, with about 786 agricultural co-operatives and a turnover of 2,625 million euros.

Table 4. Agricultural co-operative sector of Andalusia in the national context.

Source: Confederation of Agricultural Co-operatives in Spain (2001).

Horticultural activity accounts for 28 per cent of Andalusian agricultural co-operatives. There are 250 co-operatives in Andalusia, mainly located in Huelva and Almería. These provinces have the highest production and represent 64 per cent of fruit and vegetables exports from the region (Fuentes and Veroz, 1999). In this sector the co-operatives have been strengthened by the actual COM, as well as by new regional legislation. In particular the Law of Co-operatives 2/1999 of the Andalusian Autonomous Community provides regulation, which is more in line with the new environment of said entities.

Andalusian horticultural co-operatives (OPFVs) are the basis for this analysis. They carry out activities of handling

	Co-operatives	Turnover (million euros)	Farmers in partnership
Andalusia	786	2,625	240,630
National total	3,926	12,013	977,916

and/or processing and subsequent marketing of the fruit and vegetables produced by their farmer members. They have proved to be a key element in the processes of quality improvement and development of environment-friendly

practices in the horticultural sector (Galdeano, 2000). This situation has been stimulated in part by European Community aid (through Operative Programmes) and especially by the need to adapt to the requirements of current foodstuff demand, while also taking into account the characteristics of small scale family-sized farms.

Table 5. Organisations of Producers of Fruits and Vegetables (OPFVs) in Andalusia based on EC Regulation 2200/96.
Source: Andalusian Council of Agriculture and Fishing (2002)

This analysis has been developed using the balances and income statements from 49 Andalusian OPFV for the period 1993-1998. This sample represents 45 per cent of the production volume of Andalusian horticultural co-operatives, taking the average of the period under study. It is characterised by the intensive horticultural system of the associate farmers and the existence of common markets and clients.

For the comparative study we also used the Commercial Performance Information from the Bank of Spain on the "trade of fruits and vegetables" for the same period. This information is on a national scale and we have used it to make comparisons with the sample of the Andalusian co-operatives. Since the data from the Bank of Spain are given in aggregate form, the study has been carried out comparing the medium-sized firms of each group.

Province	Article 11	Article 14	Article 13	TOTAL
Almería	55			55
Cádiz	4			4
Córdoba	5	1		6
Granada	6		3	9
Huelva	23	3	1	27
Jaén	4	1	2	7
Málaga Sevilla	5	6		11
Total Andalusia	**102**	**11**	**6**	**119**

Ratios of the economic-financial structure

The most significant ratios have been chosen from the

available information (Table 6), paying attention to the characteristics of these firms.

Table 6. Structure and financial ratios (average of the period 1993-1998)

The *ratio of lock-up of assets* (net fixed assets/total assets) shows a higher level of lock-up in the Andalusian horticultural co-operatives compared to the national marketing firms (56 per cent and 37 per cent respectively). Regarding *debt ratio* (liabilities/assets), this index shows that the Andalusian co-operatives have a lower percentage of liabilities than of assets in total financing, due to a greater tendency to capitalisation nowadays.[5] For the national horticultural firms, however, the opposite occurs. With regard to *debt structure* (long-term debt/short-term debt), it must be emphasised that the value obtained for the average of the national marketing firms shows lower stability in liabilities compared to the Andalusian horticultural co-operatives (0.11 and 0.58 respectively).

The *total solvency ratio* (total debt/total assets) should be calculated taking the real values which would be obtained by the sale of the total assets, but the difficulty to obtain these data leads to the use of ledger values for its calculation. In our case, the percentages obtained (54 per cent and 51 per cent) reveal higher solvency in the Andalusian co-operatives. The relatively high ratio of the co-operatives contradicts the

Structure Ratios	**National horticultural trade firms**	**Andalusian co-operatives**
Ratio of lock-up of assets	0.37	0.56
Financing ratio of fixed assets	1.39	1.33
Debt ratio	1.20	1.45
Debt structure	0.11	0.58
Financial Ratios		
Total solvency	0.54	0.51
General liquidity	1.29	1.55
Cash	0.42	0.54
Redemption policy	0.49	0.71

general belief that entities that follow a social economy tend to be less solvent. The *general liquidity ratio* (current assets/ current liabilities) for the co-operatives reveals a better result (1.55) than for the average of the national horticultural firms (1.29). The high values obtained for both samples are mainly due to the stationary nature of the trade of horticultural products, which requires high credit levels. Regarding the *cash ratio* (liquid/short-term debt), the average of the Andalusian horticultural co-operatives is also better than that of the Spanish marketing firms. Liquid debt accounts for 54 per cent of short-term external financing for the former, as opposed to only 42 per cent for the latter. With regard to the *redemption policy* (redemption endowment/cash flow), the ratio obtained presents relatively high values in the Andalusian co-operatives (0.71) compared to the national horticultural firms (0.49). This result is unexpected, in principle, in entities of social economy. However, if we take into account the significance of the fixed assets in the Andalusian co-operatives and the lower value obtained for the cash flow in relation to the national horticultural firms, the results for this ratio stand to reason.

In general, it can be noted that on the basis of the calculated ratios, from both an economic and a financial point of view, the Andalusian co-operatives compare favourably to the fruit and vegetables marketing firms in the whole country. This is especially true if we consider the better debt or liquidity values, and rather high solvency indicators. Additionally, this may be indicative of a more commercial functioning than had been considered natural for this type of entity.

Profitability analysis

On the basis of the data on economic and financial profitability, the effects of the sales margin (M), turnover ratio (t) and gearing (Ep-i)*L will be split in order to know the strong and weak points in the profit creation of the sector studied.

Table 7. Profit measurements (average of the period 1993-1998).

M = sales margin (PBIT = profits before interests and taxes / sales); **t** = turnover ratio (Ep/M); **Ep** = economic profitability (PBIT/total assets); **i** = Average cost of debt (financing costs/

liabilities with explicit costs); **(Ep-i)*L** = capital gearing; **L** = debt ratio (liabilities/assets); **Fp** = profits before taxes/capital.

Firstly we find, as may be expected for entities within the social economy, that the sales margin is slightly lower for the Andalusian co-operatives than for the national trade firms (1.65 and 1.99 respectively). In principle, it can be deduced that the difference in said margin would be absorbed in the organisations of producers by a larger liquidation to the partners, supposing that the efficiency of the production process is similar for all firms.

The average data show higher economic profitability for the Andalusian horticultural co-operatives (6.04) in relation to the average of the marketing firms nationwide (4.96), suggesting greater efficiency in the former. As regards turnover ratio, the difference is greater. Andalusian horticultural co-operatives show greater economic efficiency than the national marketing firms in the application of total resources per sale currency unit, with average results of 3.66

Measurements	National horticultural	Andalusian co-operatives
M	1.99	1.65
t	2.51	3.66
Ep	4.96	6.04
i	12.33	9.52
(Ep-i)*L	-9.35	-5.05
L	1.20	1.45
Fp	12.86	13.49

and 2.51 respectively.

All average data of samples studied reveal negative capital gearing rates, which indicate a higher cost of liabilities than the profitability obtained by investment or assets. For these reasons we can deduce that increases in the debt rate will worsen financial profitability. Nevertheless, there is an important difference in the results obtained for the Andalusian co-operatives and for the national horticultural firms. The

former present lower negative values in the gearing (-9.52) compared to the latter (-12.33). This difference may be explained in the aforementioned lower[6] debt ratios. In spite of these differences, financial profitability before taxes tends to show less disparity among the studied entities. This may be caused by the lower percentage of financial lock-ups in the Andalusian horticultural co-operatives with regard to the national marketing firms, and may compensate to a certain extent the more favourable financial indicators of the co-operatives.

In general the results of profitability are usually high for the Andalusian co-operatives in relation to the national horticultural marketing firms. We can deduce a high level of efficiency and additional evidence of clear business attitude in co-operatives.

Analysis of business risk

In this section we will evaluate the results concerning the risks of the different firms under study. There are generally three different types of risks:

- The financial risk is defined as the variability of the earnings per share, whose origin is the variability of the profit before interests and taxes (PBIT). This notion identifies with the elasticity of the financial profit (PBT= profit before taxes = PBIT - FE [financial expenses]) with regard to the PBIT (Yagüe, 1987)
    - $|^{E}$ PBT, PBIT| = |PBIT/(PBIT - GF)| (1)
- The economic risk, defined as the variability of the profit before interests and taxes (PBIT) caused by changes in the quantities sold (q) or the sale prices (p). Therefore, this risk is measured through two elasticities: profit before interests and taxes with regard to the quantities sold (^{E} PBIT, q) and PBIT in relation to prices (^{E} PBIT, p). Thus, since PBIT = (p - c) * q - F, where c = changing unit cost and F = fixed costs, we can be obtain
    - $|^{E}$ PBIT, q| = |(PBIT + F) / PBIT| (2)
    - $|^{E}$ PBIT, p| = |SALES / PBIT| (3)
- The business risks (or joint risks) defined as the

combination of financial and economic risks. This elasticity measures the influence on PBT of changes in the quantities sold and the sale prices as follows (Yagüe, 1987)

- $E_{PBT_q} = E_{PBT_{BAIT}} * E_{PBIT_q}$ (4)
- $E_{PBT_p} = E_{PBT_{BAIT}} * E_{PBIT_p}$ (5)

Table 8. Economic, financial and economic-financial risk (average of the period 1993-1998)

The elasticity values for the financial risk show little difference between the two groups of entities. Thus, a percentage variation of one point in the PBIT causes a change in the financial profit of 1.73 per cent for the Andalusian horticultural co-operatives and 1.50 per cent for the national marketing firms.

For the economic risk it can be noticed that the effect of fluctuations in prices is quite more significant than the effect of the quantities sold, which reveals the high price risk already verified in several studies on the horticultural sector (Galdeano and Jaén, 1995)[7]. In the economic risk related to quantities sold, we find that a variation of 1 per cent in the quantities will cause an alteration of 1.62 per cent in the PBIT for the national horticultural firms and of 1.51 per cent in the case of the Andalusian co-operatives. Nevertheless, there is an important difference in the elasticity of the PBIT with regard to prices. For the Andalusian horticultural co-operatives a percentage variation of one point in price means an alteration of 60.86 per cent in the PBIT compared to 45.50 per cent for the average of the national marketing firms.

The joint risk obtained regarding the quantities sold is not too high in general (like the previously determined elasticities) although it is relatively higher for the Andalusian co-operatives. The price variability of the profit before taxes

Risk Measurements	National horticultural trade firms	Andalusian co-operatives
Financial risk	1.44	1.73
Economic risk related to quantities sold	1.62	1.51
Economic risk related to prices	45.50	60.86
Economic-financial risk related to quantities sold	2.32	8.45
Economic-financial risk related to prices	76.98	186.10

(PBT), above all, is noticeable for the Andalusian co-operatives. A percentage price change of one point leads to a variability of 76.98 per cent in the PBT of the national horticultural trade firms. However, this variation is much higher in the Andalusian co-operatives with an average value of 186.10 per cent, which once more suggests the high risk level of prices in the Andalusian horticultural sector.

Analysis of the profitability-risk relationship

The aim of this section is to ascertain whether there is a strategic attitude on the part of the co-operatives to confront business risk. Traditionally, the risk level, the assets' endowment and the capacity to carry out strategies (Porter, 1979) have been considered among the determinants of a firm's profit. Thus, one of the most interesting factors to explain differences in profitability among firms is the risk profile in each one, since both variables are quite related in certain cases. Based on the utility theory and on classic financial theory, the existence of a positive relationship between profitability and risk is considered as a hypothesis, since rational individuals (investors, managers, administrators, etc) are "adverse risks". This implies that they will always require higher compensation in order to assume more considerable risks. Therefore, the tendency to keep wide profit margins and high levels in created income when there are signs of high variability in the firm's financial profit can indicate a suitable business strategy from a rational point of view (Más Ruiz, 1998).

The empirical study will be carried out by means of a regression analysis, whose dependent variable is the profitability average and whose independent variable is the risk average. The system notation for each dimension is:

$$Y_i = \alpha_i + \beta_i X_i + u_i \ (i= 1,2,.....n) \ (6)$$

Where Y_i is an *n x 1* vector which represents the average profitability variable of firm i for the analysed period; X_i is an *n x 1* vector which represents the standard deviation of the profitability from each firm during the studied period. Since we do not have at our disposal the annual accounts of each marketing firm, which makes up the sample from the Bank of Spain, this analysis is only carried out for the Andalusian horticultural co-operatives. We shall use three different measurements of profitability and their corresponding risk measurements.

Table 9. Variables of profitability-risk analysis.

In general terms, for the entities under study, the first profit indicator (M), would be outlined by the liquidation policy to the partners. The economic and financial profitability are efficiency measures; the former relative to the generally invested monetary unit (assets) and the latter relative to the capital contributed by the partners (self-financing earnings).

The results by means of an ordinary least-squares regression are shown in Table 10. In general terms, the positive relationship between profitability and risk is obvious. Nevertheless, the values are not significant if we consider the first dependent variable, the sales margin. This may be due to the fact that, especially in recent years, these entities also have other income items, basically subsidies, which counterbalance the lower M, as a consequence of the liquidation to the producing partners (according to the principles of the social economy). The parameters certainly show a significant relationship between economic profitability and its resulting risk, especially between financial profitability and its associated risk (also with a higher R^2). This may indicate a suitable strategy for the achievement of better profits in the face of the high risk, which the studied entities must confront. Generally, one also deduces results that are

positively or directly related to the economic theory based on the hypothesis of risk aversion.

Table 10. Relationship between profitability and risk in the Andalusian co-operatives (1993-1998).
The values of t-statistic are given in brackets: ** 5% significance level, * 10% significance level.

Variables	**Measurements of profit and risk**	**Definition of variables**
Profitability (Y)	1. Sales margin (M)	PBIT/sales
	2. Economic profitability (EP)	PBIT/total assets
	3. Financial profitability (FP)	PBIT/capital
Risk (X)	1. Risk of sales margin (RM)	Standard deviation of M
	2. Risk of economic profitability (REP)	Standard deviation of EP
	3. Risk of financial profitability (RFP)	Standard deviation of FP

4. Conclusions

Overall, co-operatives (qualified as organisations of producers in the current CMO) have become increasingly important for horticultural marketing. This situation is determined, above all, by a more direct link between farming and food distribution centres. The incidence of this fact, measured by the increase of the value added and its effect on profitability rates, is the main incentive for the development experienced by these entities in the fruit and vegetables sector. Also the fulfilment of demand requirements (quality and added utilities) directly transmitted by the distribution chains, represents a technological renewal and a specialisation tendency, as well as new concepts from the management point of view. These factors are resulting in a better market position and a change in strategic management of many co-operatives compared to the traditional functioning in the social economy.

The results of the different comparative analyses carried

out between the Andalusian co-operatives and the horticultural marketing firms nationwide reveal the facts described to a great extent. Generally, we can establish the following conclusions:

- From the economic and financial point of view we can deduce a more favourable performance of co-operatives within the context of national horticultural marketing firms, on the basis of debt,

Dependent variable	α_i	β_i	R^2
M	0.91** (3.16)	0.51 (1.14)	0.39
EP	1.42** (5.39)	0.62* (1.91)	0.52
FP	2.06** (7.67)	0.75** (4.08)	0.61

solvency and liquidity indicators. This is due to a higher capitalisation and a lower need to finance current assets. The average profitability ratios for this period are generally higher in the Andalusian co-operatives. The effects of negative capital gearing are also smaller in co-operatives compared to the national firms dedicated to the trade of fruits and vegetables.

- Thanks to the efficiency results and situation determined by the ratios, it can be deduced that the co -operatives studied are functioning along the lines of trading firms rather than traditional entities within the social economy. This situation can be considered appropriate if we take into account the major renovation of facilities and especially the higher risk levels of the horticultural sector due to the substantial price fluctuations of the market. We can also observe a management strategy of adapting the profit to the existing risk level of the co-operatives. This is determined by the positive relationship among the economic-financial profitability ratios and their variability indicators.
- All in all, we can confirm that a change is taking place

in the strategic management of the marketing co-operatives for the fruit and vegetables sector, giving more relevance to economic targets. This change in business strategy is leading to a high level of efficiency. This efficiency and the situation in the agricultural and foodstuff chain are resulting in a highly competitive position for co-operatives within the sector.

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Notes

1 A traditional premise in economic theory: Lypsey (1991), Samuelson and Nordhaus (1993), among others.

2 As a result of these new elements, the current consumer will be characterised by the following:
- The demand for more information on containers, better presentation or more demand for value for money.
- The demand for faster access to product and faster preparation of food.
- Commitment to a given brand due to aspects such as low price, warranty and confidence.
- Greater concern for healthcare.
- Greater product differentiation and the appearance of a greater variety of consumer groups.

3 Thus, the current Common Organisation of the Markets COM (according to European Commision EC Regulation 2200/96 and subsequent modifications such as 2699/00) aims for the development of the Organisations of Producers of Fruit and Vegetables (OPFV). This is seen as a fundamental element for the self-regulation of the sector and for greater competitiveness at an international level.

4 Spanish production of fruits and vegetables is approximately 20 per cent of the EU total (MAPA, 2002). There is a wide diversity of produce, including several important export items (tomato, pepper, orange, lemon, strawberry or peach, among others). In regions like Valencia, Murcia or Andalusia the expansion of production has been possible thanks to the development of the trading structures in the producing areas. Here the co-operative is of increasing significance for planning according to the new market requirements imposed

by the large-scale foodstuff distribution.

5 We find here an indication of the change in management strategy of the horticultural co-operatives, in which the aim of capitalising the entity is gaining ground over more traditional ones. This tendency can also be noticed in recent years in other co-operative sectors nationwide (Barceló *et al*, 1995). In the sector under study it is due, among other factors, to the considerable instability of the horticultural market. There is also a greater need to renew investment because of their remarkable share in the agricultural and foodstuff chain, characterised by permanent innovation and adjustment to the increasing requirements of demand.

6 We should also take into account the importance of financing subsidies (through the Institute for the Promotion of Andalusia, among others) during the period of study, which helped to decrease the cost of credit for the Andalusian co-operatives.

7 This situation is due to different factors related to the characteristics of marketing for fresh products. Other factors are also important: reduced variety of produce, lack of concentration of co-operatives and a relatively reduced scale, among others, which imply less market power to negotiate with distribution chains especially.

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to make progress it is essential that we develop a reliable definition of this sector. The failure of existing definitions is itself a handicap to the development and credibility of these enterprises. As a first step we are suggesting the identification of dimensions that play a significant role in our understanding of which enterprises we are interested in studying. What is it about social economy businesses that make them different?

We suggest that the following dimensions help to distinguish the social economy from the dominant economic model under capitalism. We propose these as a list to aid ongoing discussion; although we offer our views of how they define the social economy this is merely as a stimulus to further discussion.

- Ownership
- Control
- Values
- Product
- Source of finance

Ownership is clearly key to any explanation of the social economy. When we talk about this sector we do not have in mind a share-based company where dividends are divided amongst a limited range of shareholders. Nor are we thinking of a business which is a subsidiary of a large multinational grouping. For an enterprise to be identified as forming part of the social economy it must be locally based and owned with a significant proportion of its value owned by its own employees.

Control is another important defining aspect of the social economy. ESOPs can meet the first criterion if a sufficient number of employees buy up shares in their own company, but these employees are never given a significant degree of power in decision-making within the enterprise. Without this ability to exercise control employees are in some ways more subject to control by their employer than those in a traditionally owned firm. Whether through substantial union involvement in decision-making or through electing their own representatives to the board, or through direct democracy of all members of a small co-operative business, employees in a social economy enterprise must have genuine power to

Producer and secondary co-operatives are also seeing something of a renaissance, at least in the Welsh context, where Tower Colliery, the only worker-owned coal-mine in the world and the only remaining deep mine in south Wales, is a shining example. Tower has been operating in a highly competitive sector for eight years, returning a surplus and paying a dividend in most of those years. It also plays an important role in the local community by its multiplier effect: it is estimated that without it the local economy would lose up to £10 million per year (Heath, 2000). To the 239 members of the original co-operative have been added another 61, making a workforce of 300 people, 90 per cent of whom are shareholders. In December 2002 the *Western Mail* published a list of Wales's top 300 companies. Tower Colliery was number 174 on the list, with a £28m turnover, profits of £2.7m and a 26.8 per cent return on capital (for more details see Keenoy *et al*, 2003; Cato, 2004). Wales has also seen a large increase in the number of secondary co-operatives in the agricultural sector, in response to falling stock prices and supermarket power.[2]

In the wider European context Spain is considered to have a thriving social economy, employing 200,000 in Catalonia alone (Holmstrom, 1993). Holmstrom sees the Spanish co-operatives, including Mondragon, as a response to economic failure, although he also considers the cultural background and the economic history of worker control within Republican Spain (1936-9) as part of the explanation for their success. This success is best represented by Danobart, Spain's largest machine-tool firm, which is part of the Mondragon group.

France also has a thriving *économie sociale* made up of three sectors: co-operatives, mutual societies, and social economy associations. The sector is based on the principle of non-profit-making, democratically organised enterprises that are independent of the state and have a concern with human development. As in the Spanish case, the decision to become a co-operative is often a defensive one. An example is LACOM, a manufacturer of phone equipment which was created from a bankrupt company in La Manche. It is now the third largest company in its field. At a conference comparing the social economies of the UK and France

> A shared hope was identified: that as an alternative to rampant individualism, collective self-employment could be a basis for employment, and that the institutions of the social economy could anchor capital. (Wilson, 1996: 15)

One result of the marginality of co-operatives in discussions of the economy is the paucity of literature providing either measurement or theoretical discussion of their development. The latest analysis was provided by the Co-operatives Research Unit of the Open University (Hobbs, 1989) and relates to 1988. Their findings are presented in Table 1, which indicates the absolute number of co-operatives in each UK region, together with an indication of their prevalence in the various regions.

Table 1. Regional distribution of co-operatives in the UK
Source: Hobbs, 1989; ONS 2001 census.

In spite of the fact that the movement towards the co-operative form is often a defensive one, the successes of the co-operative movement should not be underestimated. Once businesses do organise themselves along co-operative lines they are often very successful by standard economic indicators, which is particularly impressive given the fact that they may have been created only as an alternative to bankruptcy. ICOM figures indicate that local initiatives through Co-operative Development Agencies and local authorities in the UK in 1983-4 created 2,000 new jobs at a cost of £1,500 per job. This compares favourably with many of the inward investment projects that have created jobs in Wales in recent years: the average cost per RDA (regional development agency) job given in the report is £3,510, while the cost of keeping a person on the dole is £7,000 (Taylor, 1986).

Credit Unions

Because of their specific legal status, credit unions are another social economy institution that enjoys a specific definition:

> A credit union is a co-operative society offering its

bureaucratic and failing to respond to local need, but which have also faced a long history of underfunding (UK funding to the public health sector is around 7 per cent of GDP compared with an EU average of between 8 and 9 per cent: Appleby and Boyle: 2002).

However, the idea of the mutual provision of public services is distinct, mainly because it will blur the division between public provision and non-profit or charitable provision. Mayo and Moore (2001) see what they call 'the mutual state' as a new form of social contract that will not only ensure more responsive, diverse public services but also have a wider positive effect of engaging citizens with the democratic system they have grown disillusioned with. They offer examples such as Greenwich Leisure, which was hived off from local authority control and increased its income threefold in six years while providing better leisure services to local people. Other commentators are more sceptical and see the move towards 'mutualisation' of public services as a form of creeping privatisation that will inevitably lead to competition and inequality between hospitals (see former Labour Health Secretary Frank Dobson, 2002). Just as the ideological support for the charitable sector during the Thatcher years undermined that sector's ability to function freely, so the hijacking of the term mutualism by a government with failing popularity and its attachment to a failing sector may handicap the further development of the social economy.

The role of the academic is to report developments in the social economy and provide some sense of its size and scope. Such measurement is impossible without a rigorous definition of that sort that has been missing so far. As a first step in the following section we suggest the pragmatic development of an operational definition to guide further analytical and audit-based work in this field. In order to proceed to assess how many social-economy enterprises we have, and how they function, we need to have a rule-of-thumb for defining them. The next section proposes how we might develop such a definition, along various dimensions that are at the heart of this discussion.

Development of an operational definition

For those of us committed to researching the social economy

Region	No	Co-operatives per 100,000
East	88	1.633212
East Midlands	144	3.451434
London	390	5.437786
North East	95	3.776617
North West	167	2.4815
Northern Ireland	10	0.593378
South East	77	0.962434
South West	99	2.008742
Scotland	99	1.955744
Wales	82	2.824581
West Midlands	105	1.993417
Yorks/Humbs	141	2.839972

> members loans out of the pool of savings built up by the members themselves. A union is formed by a group of people with a common interest or 'bond' - working for the same employer, living in the same area or belonging to the same church, club, or ethnic group. By agreeing to save regularly they build up a fund from which they can borrow at favourable interest rates … The common bond between members is intended to minimise the risk of default on loans. A credit union is a non-profit organisation, controlled by its own membership. (Berthoud, 1989: 1)

Here we see some overlap with other definitional categories, particularly co-operatives, of which credit unions may be considered a subset, and non-profit organisations.

Credit unions have had very different histories in different countries, in terms of their growth in numbers and assets. They first developed in Germany and Italy in the 1850s and 1860s and spread rapidly in North America during the first half of the 20th century. The USA now has more than 16,000 credit unions with a membership of 54 million. In Canada a quarter of adults belong to a credit union. In Ireland there are 388 covering a membership of 654,000 (Berthoud, 1989). In the USA some 36 per cent of the population are members of a credit union and in Ireland the figure is as high as 44 per cent (Balkenhol, 1999). In Great Britain[3] credit unions have not taken off to the same extent. The first was founded in

The distinction between public service provision and non-profit provision to fill the gaps in it appears to be being blurred by the development of a new form - or at least a new definition - that of 'public interest companies'. (Maltby, 2002). The Institute for Public Policy Research defines such companies as organisations which:

- do not have shareholders, or if they do have shareholders are restricted in the ability to receive dividend payments and sell their holding for profit;
- are to some degree independent from the state;
- deliver what could be termed 'a public service' (Maltby, 2002: 8).

The report sees this type of organisation as a response to two factors: the demutualisation of Industrial and Provident Societies on the one hand; and the restrictive nature of charity legislation on the other.[4] Its author admits that there has been some confusion between public interest companies and non-profit companies, especially because such companies tend to fill a similar role in other countries such as the USA and Germany. However, it is keen to keep the distinction for reasons that are, as much else in the definitions in this field, are political as much as academic.

> In our view the term not-for-profits as a description of these organisation is unsatisfactory. It is neither accurate (all of these organisation will want to generate surpluses) nor helpful (it would be unwise to make these organisations sound like they have a limited commercial orientation to the financial markets). (Maltby, 2002: 7)

In some ways the latest proposal for reorganisation in the NHS can be seen as related to these public interest companies. The 'foundation hospitals' planned by Health Secretary Alan Milburn to be functioning by April 2004, will be turned into not-for-profit businesses. They will have contracts with local organisations rather than through central government planning, but will still be subject to inspection by government watchdogs and expected to meet national targets (Parker, 2002). This is another attempt to solve the perceived problem of public services in the UK, which are seen as over-

1964 and their existence was encouraged by the passing of the Credit Union Act in 1979, leading to the foundation of 70 new credit unions by 1982. ABCUL, the main trade association for credit unions in Britain currently has 483 members and lists the total number for the UK as 685. Although credit unions are still marginal in Great Britain, they have experienced recent growth, especially in Wales, where their development is being supported by the Wales Co-operative Centre with funding from the Welsh Assembly.

Employee Share Ownership Plans

Employee Share Ownership Schemes (ESOPs) represent one means of spreading the ownership of firms more widely amongst employees and they have been considered by some to form part of the social economy. ESOPs work by using future company earnings to pay off company-guaranteed debt and then leverage capital to acquire company shares which are then sold to employees. US family-owned business Cargill, for example, used an ESOP in 1992 to acquire 17 per cent of its shares, enabling the heirs to liquidate their assets while keeping financial control of the company within the wider family of the company and its employees. ESOPs can also be used to obtain capital to fund acquisitions. Employees can be asked to 'buy their own jobs' and may see substantial shareholder returns in a good economic climate, although the schemes involve no management power or increased role in decision-making.

In the USA, where the idea was developed, the financial impact has been huge: some 9 per cent of the more than $8 trillion of corporate equity was owned by employees in the late 1990s, with a market value of $750 million (Gates, 1999). However, the inherent instability of the schemes is made clear by the realisation that recent Wall Street falls will now have reduced this value of stock to closer to $400 million, with employees seeing their share values halved. Spain has a similar scheme known as SAL (salt), standing for Sociedad Autonomina Laboral (autonomous workers' society). In such schemes, at least 85 per cent of permanent employees must be shareholders and a single shareholder cannot own more than 25 per cent of the shares (with the exception of the state

or a local authority, which is limited to 49 per cent). As in the case of most co-operative businesses the value of the enterprise is kept in an indivisible reserve fund (Holmstrom, 1993).

ESOPs have developed as a mechanism for giving employees a stake in the success or failure of their own company, and thus of improving incentives. Operating a share ownership scheme links the individual employee with the profit of the firm and is then expected to increase productivity. Supporters of such schemes as a way of 'sharing capitalism' consider that 'principled employee ownership offers a promising starting point', with ESOPs being equally important in 'spreading capitalism among the general population' as stock brokers (Gates, 1999: 60). These schemes form part of a whole raft of measures to reinvigorate US capitalism sometimes referred to as the Universal Capitalism Movement. For the employee there can be a significant down side. Effectively, by buying the shares of the company she or he works for, the employee is sharing the risk of the entrepreneur for what is probably a lower share of the potential profits. She or he is also putting all his or her eggs in one basket, by relying on selling the shares to cover future retirement income. If the company folds (the most spectacular recent example was Enron) or the general economic climate worsens, there may be little or no income in old age.

Mutual Public Services

One response to the failure of the public provision of services has been the gap-filling role played by the social economy, often in the form of charitable enterprises, as described above. According to a survey of community enterprises in Scotland (McGregor, 1997):

> As the public sector has retrenched the Third Sector has moved into areas of service provision that it does not pay the private sector to exploit.

Non-charitable voluntary provision has also been found in areas where the state has failed to recognise a need, the foremost example being the hospice movement.