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**RE-VISITING AGRICULTURAL POLICIES IN THE LIGHT OF  
GLOBALISATION EXPERIENCE: THE INDIAN CONTEXT**

**Edited by  
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Linking Strategic Orientations with Performance Levels:  
A Case of Greek Agricultural Cooperatives

I

INTRODUCTION

Agricultural cooperatives (co-ops), are trying to adapt to the rapid market changes in order to remain competitive. Strategic re-structuring is one fundamental weapon for market access and increasing financial indicators (Cechin *et al.*, 2013; Salavou *et al.*, 2013; Bijman *et al.*, 2009). However, the serious capital constraints as well as the inefficient decision-making procedures create obstacles towards the adoption of the appropriate strategic attributes (Kalogeras *et al.*, 2013; Karantininis *et al.*, 2007). For this reason, the board of directors (BoD) of several agricultural co-ops decided to move from the traditional characteristics towards more “re-engineered” ones (Kalogeras *et al.*, 2007; Chaddad *et al.*, 2004).

According to Salavou *et al.* (2013), traditional co-ops in Greece should change their organizational attributes and strategic orientation and move towards more re-engineered models following differentiation and focus strategies in order to become more competitive. However, despite their efforts to become more flexible, their marketing approaches continue to be generally weak, with products far less differentiated than those of large, competitive, private food firms.

The main objective of this paper is to extend the co-op literature by examining how the organizational attributes are related with the strategic orientation, the performance and the size of the co-op. We approach this question by using Porter’s original model of three distinctive generic business-level strategies (low cost, differentiation and focus). Data for this study were collected from a survey conducted in 15 agricultural co-ops in Northern Greece in 2012. During 2011, a new legal Act (no 4015) was enforced in Greece that further permitted the re-engineering of co-op attributes.

The paper is divided into five major sections. After the introductory section, the research framework is presented, followed by a part for the sample and the data used in this study. The fourth section presents the analysis and the results. The final section concludes with implications for researchers and practitioners.

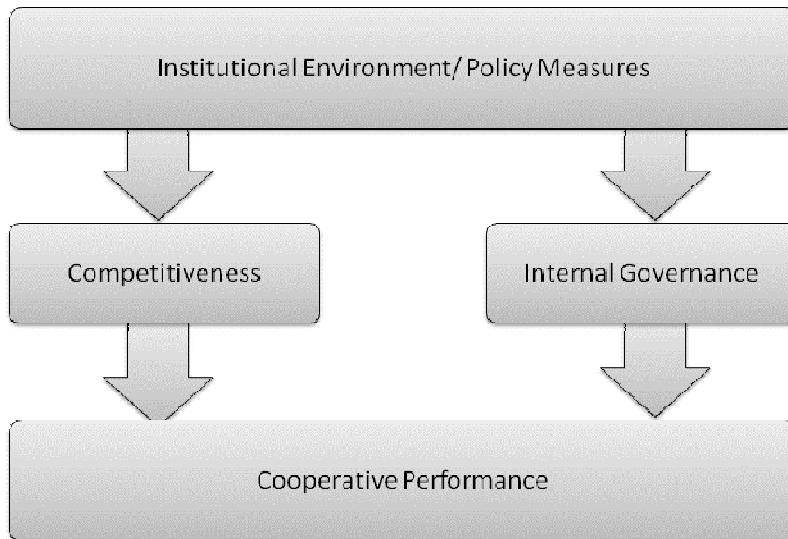
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## II

## RESEARCH FRAMEWORK

The theoretical framework of this research is that there are at least three main factors that determine the success of co-ops (performance) in the market. These factors are related to (a) the institutional environment, (b) the competitiveness and (c) the internal governance.



Source: adopted from Bijman et al., (2012, p. 8).

Figure 1. Interrelation between Core Concepts for Cooperative Performance.

The Institutional environment refers to the social (e.g. social capital and trust), cultural, political and legal (e.g. taxation and competition laws) framework in which co-op operates and which seems to facilitate or create obstacles to the co-op's performance. Competitiveness refers to the strategic attributes that the co-op follows in order to retain or improve its position in the food chain. Internal governance refers to the organizational structure, the decision-making process as well as the allocation of control rights to members, BoD and professional management. Table 1 presents the main intra-organisational attributes (control, ownership, and cost/benefit) of Traditional (TC) and Re-engineered (RC) co-ops.

Regarding the strategic attributes of traditional and re-engineered co-ops, Ohlsson (2004: p.14) states that "...Traditional co-operatives have collective internal structures. They generally engage mainly in primary processing, selling undifferentiated products. They follow the cost leadership strategy, thus volumes are large and economies of scale are maximised. For the Re-engineered co-ops Ohlsson (2004: p.16) refers that "...they have a more individualised internal structure than

*traditional cooperatives. The degree of unallocated capital is very low. This leads to an incentive structure for shareholders that makes collective traits less predominant or even negligible*". Moreover, they usually adopt a highly commercial attitude with elements mainly from differentiation strategy (Salavou *et al.*, 2013). Therefore, the organisational attributes are strongly related with the strategic attributes of co-ops.

TABLE 1. STRUCTURAL FACTORS AND OF COOPERATIVE MODELS

Organisational Attributes (1)	Traditional Co-op (2)	Re-engineered Co-op (3)
1. Control (Governance)		
Voting rights	Only members	Minority of non-members
Voting principle	Democratic control	Proportional
2. Ownership (Investments)		
Quality of stocks	Only members	Non-members as minority
Type of equity	Collective	Individualized i.e. shares
Entry fees	Limited fees	Proportional
Equity redemption	Nominal value	Tradeable shares or regular redemption plans
Net income allocation	Through prices	Prices and personal shares
3. Cost/Benefit Allocation (Transactions)		
Pricing policy	Equal	Equitable
Costs allocation	Volume neutral	Volume related

*Source:* adopted from Kyriakopoulos *et al.*, (2004, p. 382).

Table 2 summarises Porter's generic strategy, market characteristics along with the main organisational structure attributes of the Traditional and Re-engineered co-ops.

Based on this theoretical framework the present study addresses three questions:

- What is the direct effect of organisational attributes on the co-op performance?
- How the organisational attributes are related with the size of the co-op?
- How the organisational attributes are related with the strategic orientation of the co-op?

Answering these questions is crucial, since Greece has limited empirical evidence on strategic issues in relation with organisational attributes for the agri-food sector. Several researches empirically examine the strategic and organisational preferences of agricultural co-ops and their relation with performance and size (Bijman *et al.*, 2012). However, despite the fact that the re-engineered co-ops outperform traditional ones, less than 20 per cent of the European co-ops use some of the organizational or strategic elements of the re-engineered co-ops (e.g. a holding structure, proportional voting or professional managers serve on the BoD). Kalogeras *et al.* (2013) argues that despite the fact that organisational attributes are very important for co-ops performance level, there also exist other attributes that determine co-op and member performance. Additionally, there is no "a best organisational form" for co-ops since organisational structure depends on several attributes: the member enterprise, the institutional environment, the nature of the market and the external conditions that affect market structure.

TABLE 2. MATCHING OF CO-OP ORGANISATIONAL STRUCTURE, STRATEGY AND MARKET CHARACTERISTICS

Strategy (1)	Traditional co-ops	Re-engineered co-ops		Market characteristics (5)
	Service at cost (2)	External investor cooperative (3)	Member-investor cooperative closed membership (4)	
Overall cost leadership	Good prospects due to large volumes and simple operations (economies of scale)	Investors would hardly accept volume maximisation as a target as the profits become too small.	The co-op's volume hardly reaches satisfactorily competitive level.	- Collection of primary products, primary processing - Large market with stable demand, fluctuating prices - Economies of scale
Differentiation	Governance problems and capital problems may occur.	Good prospects for diversified business due to large capital for high investments.	Not sufficient capital to act on large markets (capital constraints)	- Further processing, value-added products - Large, dynamic markets - Large need of investment per produced unit - Market adjustment
Focus	The cooperative has mostly property rights problems	A focus strategy is appropriate but only for a minor part of the cooperative's business operation(s). (Waste of resources)	Good prospects for success in niche markets	- Further processing, value added products - Limited, dynamic markets - Smaller need of investment per produced unit -Market adjustment

Source: *adopted from Nilsson and Bjorklund (2003, p. 60).*

### III

#### SAMPLE AND DATA COLLECTION

The sample consists of fifteen agricultural co-ops established and operating in Northern Greece (see Table 3).

TABLE 3. SAMPLE CHARACTERISTICS

Co-op (1)	Member co-ops (2)	Members- farmers (3)	Permanent personnel (4)	Seasonal personnel (5)	Products (6)
Kilkis	67	-	60	5	Bread, pastry, flour
Chalkidiki	60	6.500	24	36	Durum wheat, table olives, olive oil
Rodopi	83	6.442	77	58	Feta cheese, feeding stuff, tomatoes
Axiopouli	47	3.800	13	4	Seeds, feeding stuff, tobacco, processed tomatoes
Didimoticho	39	3.700	30	10	Seeds, cotton
Kavala	46	8.300	55	200	Table olives, olive oil, asparagus, kiwis, vegetable oils, rice, beans, legumes

*Contd.*

TABLE 3. CONCLD.

Co-op (1)	Member co-ops (2)	Members- farmers (3)	Permanent personnel (4)	Seasonal personnel (5)	Products (6)
Arnea	29	2.210	10	3	Forrestral products
Orestiada	43	4.532	55	27	Cereal, corn, asparagus, sugar beets, garlic
Paggeo	37	2.840	19	0	Corn, barley, wheat, olive oil, nuts, grapes
NEOGAL	70	220	12	4	Dairy, meat
Xanthi	78	5.800	30	72	Cereal, kiwis, pomegranates, tomatoes, tobacco
Giannitsa	82	9.000	58	600	Cotton, cotton oil, peach juice and sweets, horticultural products
Evros	93	8.000	39	39	Cheese, spirits, table olives, cotton
Serres	180	10.500	60	150	Feeding stuff, rice, cotton, vegetable oils, cereal, processed tomatoes
Drama	122	1.289	36	40	Potatoes, wheat, corn

## IV

## DATA ANALYSIS AND RESULTS

The main scope of this research is to examine and acquire a more fundamental understanding of the interrelationship between organisational attributes, strategic orientation, performance and size through a qualitative study. It uses a case study approach in line with Sterns *et al.* (1998), Cotterill (2001) and Kalogeras *et al.* (2009). Our analysis is held in three key themes which are presented in details further down.

*First Step: Co-ops Classification as Traditional or Re-Engineered*

In order to examine the effect of organisational structure on co-op performance, we categorised each cooperative in “traditional” or “re-engineered” according to the degree of adoption of the organisational attributes presented in Table 1. If a co-op scores more than half of the organisational attributes of Table 1 it is characterised as Re-engineered (RC) while less than half it is characterised as Traditional (TC).

According to this categorisation, eight co-ops are characterised as “Re-engineered” and the rest seven as “Traditional”. Examining the profile of the re-engineered co-ops, six of them use the “proportional voting” and only three of them the “rights transferability”. Almost one third of all co-ops have introduced preferred shares and issued penalties for those members that do not follow their delivery agreements. More than half of the fifteen co-ops have established subsidiaries. Additionally, almost half co-ops have exit barriers. Finally, commitment issues are enhanced by several attributes. As a concluding remark, the majority of them have adopted specific re-engineered elements in order to come not only closer to the market but also to the members’ needs. From the members’ side this situation constitutes condition for the reinforcement of trust, commitment and reciprocity in their relationship.

*Second Step: The Effect of Organizational Attributes on Co-op Performance and Size*

Performance was measured both objectively (based on accounting data from balance sheets and income statements) of each co-op and subjectively by using a single item scale in the questionnaire distributed to members of the BoD, scaled from 1 up to 7 (Table 4). One means very poor and seven very good. TC stands for Traditional co-ops while RC for re-engineered co-ops.

TABLE 4. SUBJECTIVE PERFORMANCE AND SIZE INDICATORS OF CO-OPS

Co-op (1)	Type (2)	Subjective performance (3)	Sales <sup>a</sup> (4)	Total assets <sup>a</sup> (5)	Net profit <sup>a</sup> (6)
Kilkis	TC	4	5,236,293	6,567,027	-1,305,992
Chalkidiki	TC	4	4,299,956	5,832,370	-258,217
Rodopi	TC	3	18,528,920	15,648,661	-5,140,017
Axiopouli	RC	1	1,832,145	45,600	-48,568
Didimoticho	RC	3	6,519,747	385,032€	-617,711
Kavala	RC	5	30,651,787	1,348,300	49,520
Arnea	TC	3	1,906,964	30,500	84,052
Orestiada	RC	3	19,338,788	690,000	-1,049,440
Paggeo	RC	6	1,053,757	3,300,293	27,431
NEOGAL	RC	5	17,107,610	25,405,249	428,229
Xanthi	RC	4	--	--	--
Giannitsa	TC	3	13,843,585.76	26,902,616.67	-1,918,823
Evros	TC	1	2,309,500.16	3,340,229.29	-1,963,992
Serres	TC	6	10,842,844	26,622,238	5,863
Drama	RC	5	13,052,318	18,350,445	26,644

<sup>a</sup> in Euro for 2010.

The findings demonstrate that in terms of both subjective and objective performance the evidence is mixed. When profitability is taken into account, in general their financial performance is quite low, often negative, as it has been proven also by other studies (i.e. Sergaki and Semos, 2006). Our results indicate that although the highest profitability is illustrated by the highest re-engineered co-op (NEOGAL, Kavala, Paggeo, Drama), there also exist re-engineered co-ops that fail to have a good performance (Orestiada, Didimoticho, Axioupouli). Regarding the group of traditional co-ops, only one co-op seems to perform well, while the others perform relatively poor. These results are also in line with the subjective (perceived) performance. Of course, perceived performance is not always matched with profitability figures, yet, it seems that overall, reflects the actual objective performance to a good extent.

In addition an ANOVA analysis was performed in order to examine if there are any statistically significant differences among size (sales and total assets) indicators and performance (Table 5). Our results indicate that both traditional and re-engineered co-ops are facing poor performance with re-engineered co-ops a better net profit index even though a negative one.



TABLE 5. ANOVA ANALYSIS FOR CO-OPS' SIZE INDICATORS AND PERFORMANCE

(1)	Organisational attributes (2)	Mean value (3)	(4)	Df (5)	F (6)	Sig. (7)
Sales	Traditional	8,138,295	Between groups	1	.988	.34
	Re-engineered	12,793,736	Within groups	12		
	Total	10,466,015	Total	13		
Total assets	Traditional	10,934,120	Between groups	1	.779	.39
	Re-engineered	6,970,066	Within groups	12		
	Total	8,621,755	Total	13		
Net profit	Traditional	-1,499,589	Between groups	1	1,359	.26
	Re-engineered	-175,495	Within groups	12		
	Total	-837,542	Total	13		
Net profit /sales	Traditional	-0.21	Between groups	1	4,739	.05
	Re-engineered	-0.017	Within groups	12		
	Total	-0.11	Total	13		

These findings demonstrate that in terms of their size the largest co-ops have applied re-engineered attributes in their management. However, this is not a clear trend since there are quite large co-ops that insist on traditional management.

### *Third Step: Organisational Attributes and the Co-Ops' Strategic Orientation*

Table 6 presents the different competitive strategies applied by the co-ops in Greece. The findings indicate that co-ops that apply “differentiation” strategy are more likely to adopt re-engineered management attributes.

Most traditional co-ops in Greece are not focusing on differentiation strategy through the “brand building” strategy and the “advertisement” strategy as main attributes of their strategy. Traditional co-ops are trying to forecast demand and market growth (followers of low cost strategy) for the markets they operate in an effort to identify and maintain their market shares. At the same time cooperative exports are rather low for all co-ops.

Co-ops (both Traditional and Re-engineered) participating in this study focus on quality through the ISO certification. This could imply that co-ops are trying to differentiate their products through their quality. However, it is our belief that this is a defensive technique in order to maintain their customers that demand this certification and at the same time to comply with the European Legislation that imposes ISO certification (ISO 22000) for food and feed companies. In this survey only one co-op produces local specialty products (under the PDO and PGI – Geographical Identification – schemes promoted by the European Union).

Over all, by inspecting the differences among strategies implemented by both co-op types, our findings infer that the vast majority of co-ops indeed maintained a defensive focus by applying cost-leadership strategies.

TABLE 6. STRATEGIC ATTRIBUTES OF THE PARTICIPATING CO-OPS

Co-op (1)	Type (2)	Exports <sup>a</sup> (3)	Focus on brands and advertising <sup>b</sup> (4)	Focus on quality (ISO) <sup>b</sup> (5)	Focus on customer <sup>b</sup> (6)	Forecasting demand and market growth <sup>b</sup> (7)	Specialty local products (8)	Strategic orientation <sup>c</sup> (9)
Kilkis	TC	0.0 per cent	6	4	6	2	No	Low cost
Chalkidiki	TC	60.0 per cent	2	2	1	5	No	Focus low cost
Rodopi	TC	0.0 per cent	3	6	7	5	No	Low cost
Axiopouli	RC	0.0 per cent	3	6	4	2	No	Focus low cost
Didimoticho	RC	0.0 per cent	3	6	6	3	No	Differentiation
Kavala	RC	30.0 per cent	3	4	2	6	No	Differentiation
Arnea	TC	0.0 per cent	1	1	1	1	No	Low cost
Orestiada	RC	20.0 per cent	3	5	4	6	No	--
Paggeio	RC	0.0 per cent	2	6	5	2	No	Differentiation
NEOGAL	RC	0.0 per cent	6	6	6	1	No	Differentiation
Xanthi	RC	20.0 per cent	6	1	6	3	No	Focus low cost
Giannitsa	TC	90.0 per cent	2	6	1	6	No	Low cost
Evros	TC	0.0 per cent	2	4	1	2	No	Low cost
Serres	TC	5.0 per cent	3	2	3	5	No	Differentiation
Drama	RC	10.0 per cent	6	6	6	5	Yes (1 product)	Low cost

<sup>a</sup> as a percentage of their sales, <sup>b</sup> 7 item scale ranging from 1 (min) to 7 (max), <sup>c</sup> According to Porter's typology. The answers were gathered from the oral interviews with BoD.

TABLE 7. CROSS-TABULATION BETWEEN ORGANISATIONAL ATTRIBUTES AND STRATEGIC ORIENTATION.

Organisational attributes (1)	Strategic Orientation (according to Porter's typology)			Total (5)
	Low Cost (2)	Differentiation (3)	Focus on low cost (4)	
Traditional	5 (35.7 per cent)	1 (7.1 per cent)	1 (7.1 per cent)	7
Re-engineered	1 (7.1 per cent)	4 (28.4 per cent)	2 (14.2)	7
Total	6	5	3	14

## V

## CONCLUSIONS

In this study an effort was made to identify the generic strategies followed by the agricultural co-ops in Greece by using Porter's typology of strategies. The findings

demonstrate that substantial efforts have been made to re-engineer their structure but still it is very difficult to change their strategy. The majority of them prefer to apply defensive strategies (cost leadership) than offensive (differentiation, focus) mainly as a result of the lack of a well-developed strategic focus (market-driven) plan. However, this strategic orientation does not seem to influence positively co-ops performance.

In terms of size, the largest co-ops have applied re-engineered attributes in their management. Similarly, the most profitable co-op has achieved the highest re-engineered score. The identified relation between re-engineered attributes and aggressive strategies supports the assumption that co-ops are challenged to adapt to market changes by re-engineering their structure and strategic behavior.

Greek co-ops have to adapt their organisational attributes and strategic orientation in a coherent way. Otherwise, it is very difficult to correspond successfully to the market challenges and to compete with the private food firms. In any case, agricultural co-ops should survive because their role in the Greek economy is important as they promote the economic organizations of farmers, contributing actively to the economic viability in rural areas, especially for the less favored regions in Greece (Salavou *et al.*, 2013).

This study explores and inspects the nature of the relationships among co-ops structure, strategy, size and performance by using several empirical observations derived from both archived sources and survey questions. Nevertheless, an empirical study accounting for casual influences among these relationships is needed in order to illustrate co-ops structure and strategic behavior over time.

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