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# Performance measurement systems and management accounting in supermarket chain sector: analysis in an Italian complex business entity

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## Abstract

The paper aims to analyse the way in which management accounting is organised within companies which have a strategic need to centralise some functions and decisions, while simultaneously decentralising others. These characteristics are found above all in the supermarket chain sector, where a pressing need to centralise logistical and purchasing functions goes hand-in-hand with the need to respond to demands arising from the individual outlets' local requirements.

In 2005, with a market share of almost 18%, Coop was Italy's largest food retailing group. Coop's distinctive organisational feature is that it consists of a total of 140 cooperatives, nine of them large-sized, grouped together in three district associations. The Adriatic District is the largest of these, accounting for about 40% of Coop's total sales. The unique characteristic of this type of organisational model is the high degree of autonomy enjoyed by each individual cooperative, deriving from its independent corporate structure, with no particular ownership constraints. In spite of this, it may still be beneficial to centralise a number of corporate functions, in order to obtain full benefits from economies of scale with regard to specific management policies. However, if this centralisation is not carefully calculated, it runs the risk of not yielding its full potential in terms of results.

The cooperatives in the Adriatic District have responded to these needs by establishing *Centrale Adriatica*, assigned the task of performing coordination, marketing and logistics functions. This has made it necessary to acquire management accounting tools capable of planning and controlling the decisions affecting the parameters which are governed at the centralised level, but the effects of which are inevitably felt by each individual cooperative.

The definition of selling and purchase price policies, promotion and advertising, and logistics management, form the starting-point for systems for the centralised planning and control of the trading margins of the individual cooperatives. By this mechanism, the cooperatives themselves implement a system of delegation of powers which places management of the main factors for the achievement of their strategic and financial objectives in *Centrale Adriatica*'s hands. The cooperatives continue to handle the acquisition of data and their communication to *Centrale Adriatica*, together with the planning and control of all the activities performed within the individual outlets, which are still managed entirely by the specific cooperative concerned.

**Keywords:** Performance measurement system; Management accounting; Planning and Controlling; Supermarket chain sector; Complexity

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## **1. Introduction**

Management accounting systems are of fundamental importance in enabling corporate managements to fulfil their task of running a business. The assistance provided by operating mechanisms of this kind is vital in all classes and categories of enterprises, providing the company with the information needed to shape its strategic and operating policies (Anthony, 1965a; Anthony, 1965b; Horngren, 1978; Kaplan, 1982).

Over time, the literature has analysed distinctive features and elements of management accounting systems useful for defining operating models and tools for application inside companies and capable of supplying the management with coherent data for use when taking decisions and monitoring the company's performance (Zimmerman, 1995). The emphasis has variously been placed on the impact of management accounting's own operating mechanisms on the way in which firms are organised (Bruns and Waterhouse, 1975; Otley, 1987) or on the definition of the strategic guidelines for future plans of action (Simmonds, 1981); on the forecasting mechanisms available to managers when deciding future actions (Otley, 1978), or on the study of the cost configurations which can be identified within enterprises (Kaplan and Cooper, 1998).

At the same time, it is clear that these tools in particular are subsystems developed within each individual corporate system, and that although they may be based on common assumptions and contain common structural elements, they must respond to and interpret the specific needs developed within each company, which inevitably has its own individual needs with regard to information and management.

The approach adopted in this survey is the "contingency approach", based on the hypothesis that there is no one management accounting system valid and definable in absolute terms, which can be applied appropriately and in a standardised manner to all enterprises and in all circumstances; on the contrary, it is argued, there are operating mechanisms which must be adapted to contextual parameters determined in various ways, and which will allow the development of coherent planning and development strategies (Bruns and Waterhouse, 1975; Waterhouse and Tiessen, 1978; Chenhall, 2003; Otley, 1980; Jermias and Gani, 2004).

Therefore, companies which operate in different sectors inevitably acquire different needs with regard to information, and must therefore equip themselves with management accounting systems structured in a way which will respond effectively to these requirements.

At the same time, and even more obviously, appropriate management accounting systems will have different degrees of sophistication depending on the management and organisational complexity of the individual companies concerned. It is in fact logical that as corporate size increases, the size of the body of information to be processed will increase in proportion, and so will the number of intermediate levels of which the information system itself consists. Apart from the dimension parameter, the degree of complexity of the company's organisation and management will also affect the structural complexity of the management accounting systems established to provide guidance in running the enterprise.

With these factors in mind, this work aims to study the management accounting system adopted within an Italian business group of particular interest in terms of type of business and organisational complexity: the retail Cooperatives in the Adriatic District.

The paper consists of six sections. After an initial introductory section, the second sets out the research method used in the study. The third section explains the factors involved in deciding the structure of a management accounting system, placing them within a framework which can be

adapted to the specific characteristics of individual firms, while the fourth provides a more specific analysis of the management accounting system created within the Adriatic District Cooperatives. The fifth section contains a comparative analysis of the management accounting system developed within the Adriatic District Cooperatives performed with the aid of the framework produced earlier; the final section contains some brief concluding comments.

## **2. Research method**

As already stated, the aim of the paper is to analyse the characteristics and component elements of a management accounting system by means of a case study. While we are aware that generalisation is not possible on the basis of an individual case study, we believe that the research method applied may provide some innovative features with regard to management accounting systems, of assistance in improving understanding of the way in which these systems are used. Studies using similar tools on the subject of management accounting have already been performed, amongst others, by Otley (Otley, 1990), Merchant and Riccaboni (Merchant and Riccaboni, 1990), Berry (Berry, 1991), Archer and Otley (Archer and Otley, 1991), and Moon and Fitzgerald (Moon and Fitzgerald, 1996). The literature contains studies focusing on the utility or otherwise of using case studies or interviews in the approach to questions concerning the implementation and structuring of management accounting systems (Scapens, 1990; Llewellyn, 1992; Modell, 2005; Lillis and Mundy, 2005)), while also highlighting their advantages and shortcomings. One recent study by Otley and Berry, in particular, has revealed that the case study method may be not only advisable but extremely useful, in a wide range of contexts, provided the method adopted and the results obtained are both clearly described and presented (Otley and Berry, 1998).

The analysis which follows is the outcome of a study performed within a business group characterised by a high degree by some of the most significant parameters which may profoundly affect the structure of a management accounting system, such as the type of business and the organisational complexity.

This is the group of retail Cooperatives in the Adriatic District, all cooperative enterprises involved in the distribution of products through the network of hypermarkets and supermarkets within the broader system of the Coop Italia retailing organisation.

The study was performed by first creating a framework defining the factors involved in the construction of a management accounting system, derived from a survey of the national and international literature.

Once these aspects had been defined, attention was concentrated more specifically on the case study, with an initial survey of the public documents made available by the Cooperatives in order to provide a context for the subsequent analysis and information-gathering stages.

On the basis of this initial study, we decided that the direct, semi-structured interview would be the most effective means of investigating the process by which the structure of the management accounting system established within the Cooperative group was decided.

Given the special nature of the investigation, the interview plan was drawn up in such a way as to involve the main managers in charge of the functions considered to have a direct or indirect influence on the structure of the management accounting system.

The interviews were conducted at the headquarters of Centrale Adriatica, a consortium which is the

marketing organisation for the Adriatic District Cooperatives, in the presence of the two authors, who recorded the entire interviews after obtaining the interviewees' consent.

The interview plan drawn up for the study was as illustrated below. It involved the heads of the management accounting, sales, logistics and personnel functions, and followed the schedule stated in the table.

TABLE 1: Time-sheet of direct interviews

<b>Person interviewed</b>	<b>Total time spent on interviews (hours)</b>
Head of management accounting	14
Head of sales function	4
Head of logistics	8
Head of personnel	6
<b>Total</b>	<b>32</b>

The aim of this paper is therefore to interpret the results emerging from the case study in the light of the theoretical bases of the analysis, concluding with an outline of the differences, comments and special features arising.

### **3. Performance measurement systems and management accounting: a literature review**

As already mentioned, management accounting systems have been studied in various ways in the literature. After the first studies performed early in the last century (McKinsey, 1922), subsequent analyses had considerable influence in the various contexts in which these systems were investigated.

The factors of greatest importance for the purposes of this section of our study are the conceptual elements which, in the light of the findings of the literature, may allow the construction of an interpretative model, a framework capable of defining the configuration of management accounting systems applicable to different corporate contexts. Obviously, the elements in the framework thus constructed must be correctly proportioned and configured to suit the varying characteristics of the corporate structures to which the systems are to be applied, which may be of different levels of complexity depending on the combination of variables inherent to the type of business and the company's own organisational structure.

These are basically the aspects which the "contingency approach" defines as contingent variables, meaning factors and elements distinctive to the company under observation, deriving from the individual technical and operational means by which it carries out its business, together with the external environment in which it works. At the same time, it is clear that these contingent variables inevitably affect each firm's structure and processes, thus allowing the definition of management accounting systems with different organisational structures and different performance measurement systems.

As key to the interpretation of the phenomena studied, the model taken as reference for analysis of the characteristics of the structure applicable to management accounting systems takes as reference

two parameters considered extremely significant for this undertaking:

1. type of business;
2. organisational complexity.

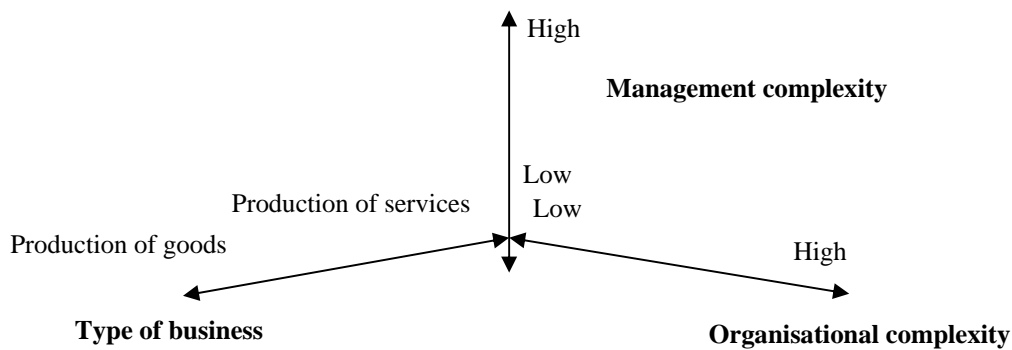
With regard to the first of the two variables, one significant classification sets out to define the type of business, by distinguishing the type of product offered, with an initial differentiation between the production of goods and services. Basically, the aim is to distinguish between the types of management accounting system structure which may be established for industrial firms from those which can be found in the service sector, which have unique specific features.

With regard to the organisational structure variable, the aim is to describe the differences between the structures and configurations of the management accounting systems of single companies and those adopted by companies which still have a single management but have been formed by combining several business entities.

The model defined must then be completed by adding a further classification factor, which aims to categorise different corporations' "management" complexity by combining the variables already mentioned. This factor sets out to represent the level of complexity generated by the specific combination of aspects affecting the type of production operation in which the company engages, such as the number of products produced, the level of technology involved in the production process, and so on.

The three-dimensional matrix used for the study can therefore be represented as shown below.

FIGURE 1: Proposed matrix of analysis of management accounting systems



There has been a great deal of investigation of the management accounting systems of industrial companies, in view of the complexity of the management of companies of this kind, which arises from the industrial processes which they carry out. In such companies, a coherent management accounting system is essential in order to understand the industrial costs incurred and impute them correctly to the individual processes performed, by means of a logical structure organised around cost centres.

Investigating the structure of the management accounting systems of companies engaging in the production of services is necessarily an undertaking of a different nature. This category of companies includes firms which provide consulting services to third parties, including research and

development, corporate consulting, transport services, and so on. Other service companies operate in the commercial sector, trading for example in goods and services.

In the specific case of companies whose business consists of the production of services, it is obvious that different levels of “management” complexity may arise as a result of the different combinations of factors affecting the type of service provided.

The most significant factors for companies of this type are as follows:

- 1 Number of products offered for sale;
- 2 Number of customers served;
- 3 Number of suppliers;
- 4 Complexity of the service provided.

The extent to which the above factors apply affects the degree of complexity of the management of the company concerned.

Within this category of firms, large retail firms are one extremely interesting type of company with unique organisational and reporting characteristics. Considering the factors taken as reference when defining the degree of complexity of a service sector company’s management, in a firm which operates a major chain of supermarkets all the aspects specified have a high level of impact:

1. large number of products offered for sale;
2. large number of customers;
3. large number of suppliers;
4. high degree of complexity of the services supplied, due to the absolute need to combine different strategies in management of procurement and selling policies, since each deals with business partners (suppliers or customers) with profoundly different characteristics in terms of structures and requirements: on the purchasing side, industrial firms and producers of consumer goods, and on the other hand, the final consumers, who are ordinary individuals.

More specifically, such firms’ unusual complexity and distinctive organisational characteristics derive from the nature of the system which establishes the prices which can be charged to the firms themselves, and the high degree of interrelation with marketing costs and policies.

In the literature, it is clear that studies of managing accounting methods have not developed at the same rate in all sectors. Sophisticated methods have been developed for the production area, aiming to produce efficient systems for the use of industrial technologies, but in the commercial area greater difficulties have been encountered and the number of surveys has been lower, mainly as a result of the market dynamics, the difficulty in identifying the relationships of cause and effect between commercial actions and market results, the difficulties in forecasting competitors’ moves, and the countless different sales policies implemented, which it is difficult to fit into preconceived categories (Wilson, 1999).

With reference to the second of the two parameters included in the three-dimensional matrix illustrated above, the level of “organisational” complexity (or the complexity of the corporate structure) has an equally significant effect on the structural characteristics of a management accounting system, the configuration of which must inevitably consider the disparate or aggregate nature of the data collected at the different levels within the company.

Obviously, the most complex management accounting systems are found in companies organised in divisions, or, at the highest level, those organised in group form. Without a doubt, the most complex aspect of these business organisations is the need to coherently combine the data produced, gathered and available for use at the decentralised level with the equally necessary, essential data which can be obtained and used by the management at the centralised level in order to guide the policies of the corporate organisation as a whole.

The literature on management accounting systems within groups, and within networks of companies in general, is plentiful and wide-ranging. In particular, some authors have examined the relationship between business diversification and corporate performance (Smith and Weston, 1977), while others have focused on the aspects relating to the methods by which decision-making is centralised, and the simultaneous need to manage and allow for diversity (Goold and Campbell, 1994).

As a footnote to the comments made so far, it is interesting to note that the management accounting system is of primary importance when deciding the company's organisational structure. A good corporate organisational structure should include three closely-linked, coordinated systems which allow decision-making power to be shared across the individuals it comprises, and then make it possible to measure and thus evaluate their performance (Jensen and Meckling, 1992; Brickley *et al.*, 1997).

One of the main functions of a company's administration is the process by which the decision-making powers concerning its business are assigned. The type of knowledge required to perform specific activities plays a key role in this process. Jensen and Meckling (1992) classify knowledge as either specific or general. While transfer of the former is complex and expensive, the latter can be transferred easily and at virtually no cost. Since knowledge is an essential factor in decision-making, knowledge and decision-making power should generally come together in those individuals responsible for making choices concerning the company's operations. If this were not the case, it would be necessary to define a way of linking knowledge and decision-making power. According to Jensen and Meckling, there are two ways in which knowledge and decision-making power can come together simultaneously in the same individual. The first is the transfer of knowledge towards those assigned to make decisions, while the second is to assign decision-making power to those who have knowledge. Whether or not this transfer takes place will depend on the type of knowledge to be transferred, and thus on the costs associated to the transfer itself. The degree of centralisation and decentralisation thus depends on the connection between knowledge and decision-making power, and how the latter is assigned within the company.

If, as is often the case, decision-making power is delegated and decentralised, control is needed to measure and thus evaluate the performances deriving from the decentralised activities.

The performance measurement system works by applying both objective and subjective parameters, or a combination of the two. The objective parameters include explicit, verifiable measurements, such as financial indicators, while the subjective parameters focus on multiple factors which it is difficult to measure. The results measurement system must be absolutely independent from the individuals whose performances are being measured, in order to guarantee that the information is as objective and independent as possible. As we have already observed, the system by which decision-making power is distributed assigns the responsibilities for specific activities undertaken by the company to specific individuals. It is thus the task of the performance measurement system to measure the performances generated by the decision-making power assigned to the individuals concerned.



Another particularly important factor in establishing the organisational structure is the performance evaluation system. Once measured, performances have to be evaluated in order to assess the way in which decision-making power has been exercised. In many cases, the individuals who exercise decision-making power are considered responsible for the outcomes, and they are therefore evaluated solely on the results generated by their decision-making power. It could therefore be argued that the results they have achieved should only be judged on the basis of what is under their direct control, and not on the factors over which they have no influence as well. However, the strict application of this principle might have two possible negative consequences. Holding decision-makers responsible only for the variables under their direct control would give them no incentive to act on the consequences of uncontrollable events, and would also overlook the relative nature of the performances measured, forfeiting the opportunity of obtaining a general view.

The essential feature of the three systems just described is their close interdependency, which means that they therefore require coordination. The performance measurement system must be able to measure individuals' performances in sectors where they have been assigned decision-making power. Similarly, the evaluation system must only evaluate performances in the areas where they have been measured.

The role of the management accounting system within the various factors which determinate the archetype of the company's organisational structure is absolutely clear. Decision-making power can be shared and assigned thanks to the ability of the management accounting system to first define and then measure the performances achieved. Measurement of performances then makes it possible to evaluate them, laying the bases for rewarding behaviours considered synonymous with activities deriving from the capability to make the best use of the decision-making power assigned.

#### **4. Performance measurements and Management Accounting Systems in the Cooperatives of the Adriatic District**

The previous section defined a possible framework for analysing management accounting systems within firms of different kinds. Below, we now aim to illustrate the configuration of this system within the complex, variegated organisation formed by the Cooperatives of the Adriatic District.

The Adriatic District Cooperatives make up a cooperative organisation covering the Italian regions along the Adriatic Sea (specifically, Abruzzo, Emilia Romagna, Friuli-Venezia Giulia, Marche, Puglia, Trentino Alto-Adige and Veneto).

First and foremost, referring to the first of the two contingent variables set at the basis of the framework developed earlier, when it comes to business type the Cooperatives of the Adriatic District operate within the retail sector, running and supplying supermarkets and hypermarkets.

The last few years have been a period of intense change in this sector, with a radical transformation in the competitive equilibriums and corporate organisation, as well as the prevalent forms of retailing adopted. This "commercial revolution" has led to the development of new competition mechanisms, and the multiplication of selling formulae. The resulting retail sector is increasingly concentrated, and oriented towards the development of its own marketing activities, not subordinated to those of the industrial sector.

This has added a vertical dimension to competitive relationships, defined by the nature of industry-retail relationships, with fundamental effects on the efficacy and success of producers' marketing

policies within the retail distribution channels, and an extreme focus on cost-cutting on the part of retail firms. At the same time, a unique relationship has developed with regard to sales and marketing in relation to consumers themselves; attracting them in terms of market shares involves continuous monitoring and constant readjustment of the levers available in the areas of prices, quantities sold and discount policies.

At present, in Italy there are just under a million points of sale (ACNielsen survey, 2005) comprising retail shops, wholesalers, and traders in the market and special categories; in Italy, the last decade has witnessed a decrease both in the number of retail outlets (-5%) and also, much more significant, in wholesale points of sale (-39%).

The major reduction in wholesale outlets has been the natural consequence of the concentration of the retail sector further to the modernisation of this area, with a rise in the number of larger-sized points of sale. While a fragmented retail sector requires a dynamic wholesale sector to ensure efficient distribution, a more concentrated, modern sector, organised in chains or purchasing groups, is able to integrate wholesaling with in its own operations, causing a natural shrinkage of the wholesale area.

The business of the Adriatic District Cooperatives lies within this context, and features all the consequent complexities in terms of management already partly described previously. In particular, retailing is complex not in terms of the production processes performed or large investments in fixed assets, but rather due to its unique business relationships, with a mass of diversified variables such as discounts and promotional policies in relationships both upstream, with industry, and downstream, with the final consumers, all of which demand a coherent management accounting system for the constant monitoring of the operating results achieved. This complexity is particularly obvious when viewed in the light of the requirements of the retail chain sector, where a pressing need to centralise logistical and purchasing functions goes hand-in-hand with the need to respond to demands arising from the individual outlets' local requirements. The centralisation of some corporate functions seems a logical step, in order to allow full exploitation of the economies of scale deriving from specific management policies, especially with regard to purchasing and marketing strategies, but it is important not to hinder activities or leverages which must necessarily be applied at the local level, by the individual points of sale, which are closer to the final consumer and thus have greater awareness of his or her needs.

When it comes to the second of our two variables, the degree of complexity of the structural organisation adopted, the Adriatic District Cooperatives consist of a group of cooperative firms which belong in turn to a highly complex structure headed by the National League of Cooperatives and Friendly Societies (Legacoop), the oldest of Italy's cooperative organisations. The relationships which form the "glue" of this organisation are based not only on economic aims but also, and above all, on social and cooperative objectives.

The complexity of the cooperative system we are examining is therefore considerably increased by its relationships with the broader movement whose aim is to promote the principles and values of cooperation, headed by the ANCC-Coop, which represents the cooperative movement at the highest levels and guides its policies.

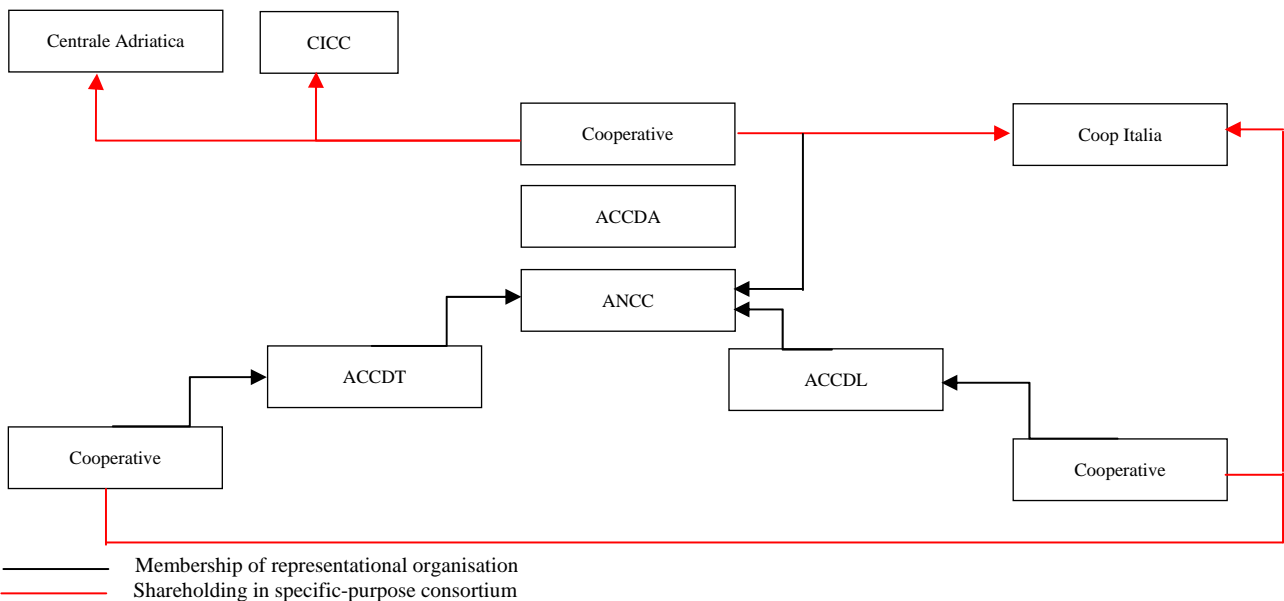
In 2005, with a market share of almost 18%, the ANCC-Coop was Italy's largest food retailing group. Overall, the ANCC-Coop system consists of 140 cooperatives, nine of them of large size, grouped together in three district associations: Adriatic District, Tyrrhenian District and North-West District.

As in the other districts mentioned, the Cooperatives which combine to form the Adriatic District are an informal grouping of companies linked not by controlling interests or shareholdings, but by a single shared purpose, mainly the satisfaction of the needs of the consumer members. The District is therefore a geographically based political and mutual association, its objective being to promote and safeguard the cooperative movement and its operations in relation to local government and institutions. The Adriatic District is the largest district in the ANCC-Coop system, accounting for about 40% of the system's total sales.

The high degree of competition has made it necessary for the Adriatic District to add economic objectives to its political and social ones, in order to continue to satisfy the cooperatives' members' needs. In this situation, the district's Cooperatives felt the need to create an entity capable of performing functions previously managed by the individual cooperatives in a centralised, more economically advantageous way.

Therefore, 2003 saw the creation of Centrale Adriatica, a specific-purpose consortium which carries out activities such as centralised purchasing and marketing functions; Centrale Adriatica's shareholders are the Adriatic District's member cooperatives, with capital shares proportional to their size (large, medium and small). Centrale Adriatica thus extends downstream the functions performed at a national level by Coop Italia, which has been purchasing and distributing products nationally for all the individual cooperatives since 1967. Therefore, Centrale Adriatica currently performs the commercial functions of the Adriatic District Cooperatives, and during the next few months it will also take over the logistics functions now managed by the C.I.C.C. Therefore, the organisational structure of the Adriatic District cooperative system comprises a network of businesses within which, unlike a conventional corporate group where the holding company is at the summit of the chain of control, the absolute need to centralise management decisions is legitimised by a process of the delegation of power from the bottom upwards, in a kind of "upside-down decision-making pyramid".

FIGURE 2: Coop system organisational structure



After describing the configuration of the contingent variables within the corporate system of the Adriatic District Cooperatives, below we make a more detailed analysis of the role played by the management accounting system in determining the archetype of this system's organisational structure.

The externalisation of the cooperatives' commercial functions and their assignment to Centrale Adriatica led to a change in the distribution of decision-making power. The redistribution process was conducted in such a way that decision-making power was allocated on the basis of knowledge and competencies. Thus decision-making with regard to marketing functions was assigned to a place where the greatest knowledge in this field was concentrated, in order to benefit from more bargaining power and a higher level of professional expertise.

By this process, Centrale Adriatica was assigned responsibility for negotiating with suppliers with regard to all factors not covered by the national agreements established by Coop Italia, setting sales prices, and managing promotional policies, while the individual cooperatives retained all decisions concerning aspects linked to the individual points of sale, such as personnel management, investments in commercial facilities and other variables relating to specific local operations.

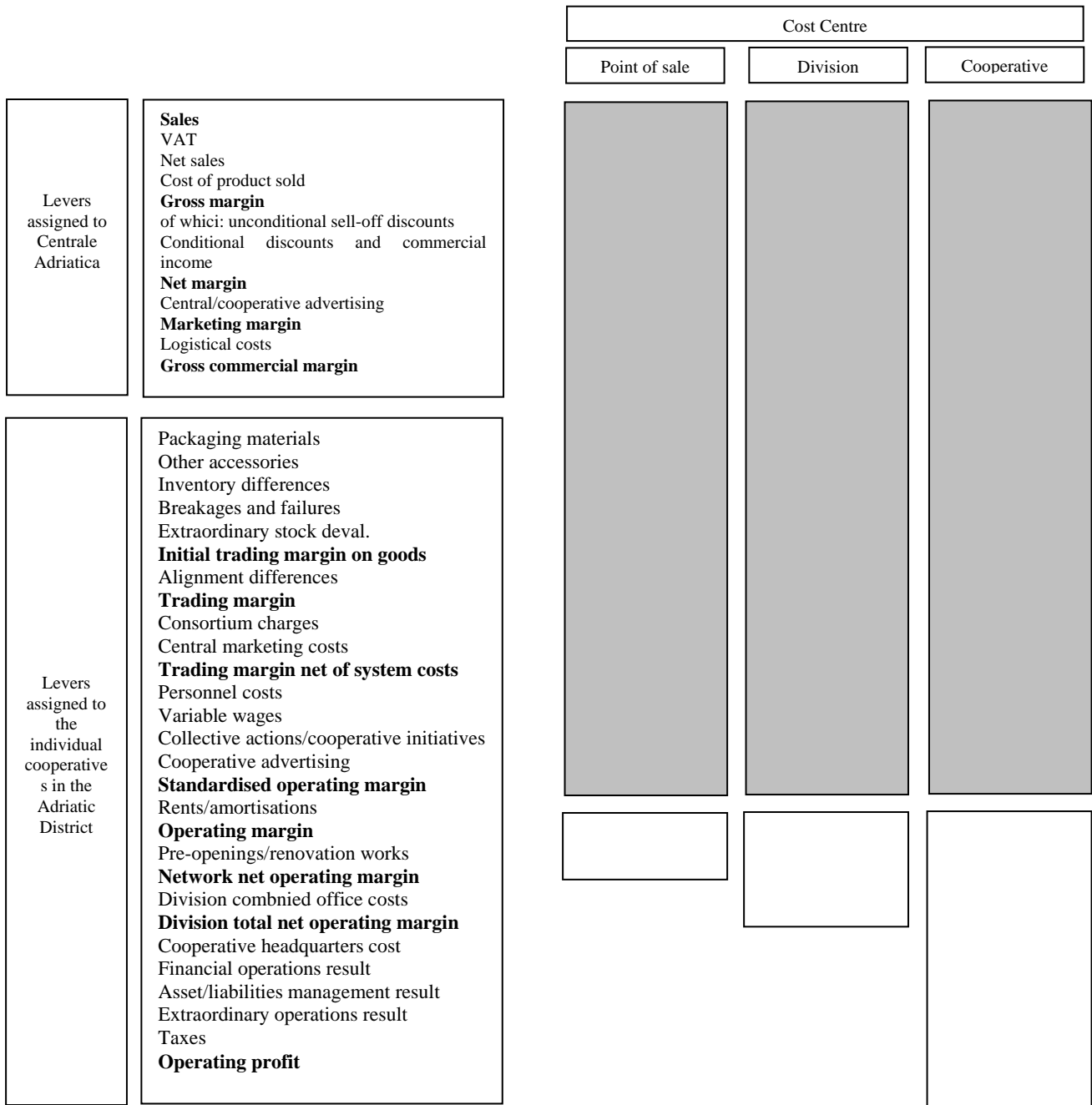
The individual cooperatives are also still responsible for setting targets for operating margins and strategic positioning at the local level, while Centrale Adriatica uses the decision-making powers conferred on it to work to achieve these targets with the levers at its disposal. Observing the architecture of the management accounting system, it is therefore clear that decision-making power has been assigned where the most knowledge is concentrated and where it can be used in the shortest times and in the most effective ways.

However, the process of the delegation and centralisation of some of the main functions has not led to the delegation of the management accounting process itself, which is still decentralised and performed by the individual cooperatives. This means that each cooperative still has absolute responsibility for monitoring its own economic performance; it conducts a regular dialogue with Centrale Adriatica concerning the achievements of the targets set, through a continuous exchange of information.

A key role in this sharing of decision-making powers is played by the performance measurement system, established immediately after the foundation of Centrale Adriatica in order to allow comparison between all the cooperatives' economic data. This system operates through the transfer of various data, such as the setting of sales prices and agreements with suppliers, which originate with Centrale Adriatica and which it transmits to the IT systems of the individual cooperatives. Combined with the figures on the quantities of products entering and leaving the individual points of sale, these data allow the calculation of the value of the business transactions performed. By this method, the points of sale of the individual cooperatives feed the IT system with data while still having sole responsibility for monitoring their own economic performance.

The data collected in this way are combined in a single profit and loss account which records intermediate results for the areas in which Centrale Adriatica and the individual cooperatives have decision-making power.

FIGURE 3: Structure of the Profit and Loss Account of the Adriatic District Cooperatives



The chart above therefore illustrates the distribution of the decision-making powers within the management accounting system thus defined, which also provides the basis for the planning system used to establish systems for evaluating the performances achieved. The budget drafting process sets the targets to be attained, thus establishing the parameters to be considered when assessing performance. For the planning process, the shared acceptance by all those involved in the process,

Cooperatives and Centrale Adriatica, of guidelines developed in response to the general economic context, sales trends, the margins achieved, ongoing plans and above all feedback from members/consumers, is an essential factor. On the basis of this information, the Cooperatives' top management decide the sales targets, promotional pressure, trading margin and competitive positioning they intend to achieve during the next year. These same targets are adopted by Centrale Adriatica, which will be responsible for achieving them using the powers assigned to it. It should be remembered that while Centrale Adriatica retains sole responsibility for achieving trading margin and competitive positioning targets, the achievement of sales volumes is considered to be a joint target, for which both the Cooperative and Centrale Adriatica are responsible.. The setting of the various targets thus leads to the drafting of the operating budget, with the Centrale contributing the items for which it is responsible and the Cooperatives those under their exclusive jurisdiction.

Once the targets have been decided, the management accounting system will make it possible to check their achievement, supplying the framework needed to assess the work done. Achievement of targets is linked to an incentives plan which awards bonuses to those who have contributed in various ways to the attainment of the wished-for results. Specifically, part of the remuneration of all the players involved in Centrale Adriatica's operations is performance-linked. This bonus plan comes into effect provided that the individual targets assigned are achieved, after verification that the essential conditions enabling Centrale Adriatica to achieve the targets in terms of sales, margin and competitive positioning agreed with the Cooperatives during drafting of the budget have actually occurred. The results will be calculated on the basis of the mean of the results achieved by all the Cooperatives during the year.

## **5. Management Accounting Systems in the Cooperatives of the Adriatic District: a critical review**

After the above description of the unique features of the management accounting system established within the Adriatic District, below we make a number of brief comments aiming to make a comparison with the tools outlined previously for the creation of a coherent management accounting system structure.

With regard to the decentralisation of a number of functions, the Adriatic District Cooperatives have assigned decision-making powers to those levels in the structure where the functions concerned can be carried out with the highest levels of expertise and knowledge. It should also be remembered that this decentralisation has been achieved without damaging the relationship of collaboration between those assigning and those receiving the powers concerned. This might be due to the founding characteristics of all cooperative organisations, where there is certainly a stronger sense of belonging and solidarity than in other enterprises, since the sense of social purpose generates a natural willingness to share targets, and a greater tendency for all those involved to take the corporate objectives on board.

It is significant that in some situations, when distributing decision-making powers it has not proved possible to set a clear, precise definition of the limits and competences of the various players. With regard to sales volumes, Centrale Adriatica's decisions concerning the marketing policies to be implemented inevitably come into conflict with the local actions and competences linked to the Cooperatives' management of the individual points of sale. In fact, sales volumes will depend not

only on the decisions concerning the marketing policies to be implemented assigned to Centrale Adriatica, but also on the actions taken by the individual Cooperatives to make their points of sale attractive, welcoming places, capable of attracting potential customers. For some management functions and levers, therefore, there are still levels of overlapping in the decision-making process. It should be noted that performance measurements are made in the areas within which the decision-making power has been assigned, and are thus a useful means of gathering information as to how the power in question has been used. This is demonstrated by the structure of the profit and loss account adopted, which also provides pointers to the share of the results which can be attributed to Centrale Adriatica and the individual Cooperatives, in terms of representation.

Compliance with the principle by which the person or organisation who monitors results must be different from the person or organisation whose results are being monitored also emerges. In fact, each individual Cooperative is responsible for monitoring the trend in the variables for which it has assigned decision-making powers to Centrale Adriatica.

Our observations indicate that the managing accounting system is absolutely complete with regard to monitoring and measurement tools, with particular reference to economic and financial indicators correctly managed at both the central level and by the individual point of sale. One aspect which continues to be critical at present is the management of performance indicators which do not necessarily derive solely from economic and financial factors but are more concerned with qualitative factors which still affect the company's results, such as customer satisfaction or customer loyalty indicators. These indicators reflect specific local conditions, but although they are present at this level, the relative data are not gathered and centralised. This means that their further use by Centrale Adriatica is not possible, although this would provide the latter with more information about the effectiveness of the actions deriving from the decisions assigned to it. This aspect is viewed as particularly important by the District's Cooperatives, and is currently receiving considerable attention from the management.

With regard to the performance evaluation system, although the organisation has an incentives system based on the achievement of preset performance targets, all the critical factors relating to the specific allocation of responsibility mentioned earlier still persist. In fact, some factors essential for the evaluation of performance, such as the level of sales, are partially outside Centrale Adriatica's decision-making power and jurisdiction. This means that Centrale Adriatica has absolutely no control, at the centralised level, over factors which are then taken into consideration when evaluating its performance, although they can necessarily only be managed and monitored at the local level.

As we have already seen, the performance evaluation system currently adopted envisages the award of bonuses to the individual Centrale Adriatica function managers on achievement of the set targets, provided the Cooperatives return a profit. It is of vital importance here to note that this profit is calculated on the basis of the mean of the results achieved by all the District's Cooperatives, thus meaning that these bonuses will be awarded even if some cooperatives return a loss, provided this is compensated by larger profits on the part of other District members.

However, these critical factors may seem less significant when viewed in their specific context, in which, as already mentioned, economic factors are strongly interwoven with social and cooperative considerations.

The specific type of enterprise under consideration might also explain why there is no system of penalties linked to the failure to achieve results. At the same time, it is possible that the failure to

establish this system may also be due to the fact that a regular sequence of operating profits has meant that no real need for a process of this type has as yet been felt.

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