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33. Coordination Efficiency: Proposals for a Framework.

An Illustration with the Fresh Tomato Sector in France

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1 Introduction

The study of vertical coordination in agribusiness has benefited greatly from the field of new institutional economics. Concepts and categories enable researchers to better understand the diversity and complexity of vertical institutional arrangements. Nevertheless, many questions remain unsolved. One of them is the coexistence of very heterogeneous and dissemblable arrangements in the same sector. This question is a way to highlight the question of coordination efficiency. What are the thought processes – and therefore the tools – useful to analyze, compare and assess different coordination mechanisms? Or, to put it in another perspective, is it possible to assess coordination efficiency with a simple and unified framework?

Our research is divided into two parts. The first part will develop, mainly from a critical review of the literature, an original framework for the assessment of coordination efficiency. The second part will test the proposed framework for two ways of vertical coordination in the fresh tomato sector.

2 Analytical Framework: Hybrid Forms, Coordination and Efficiency

2.1 Hybrid Forms and Coordination

For Williamson, a governance structure is “the institutional matrix in which the integrity of a transaction is decided. Three discrete structural alternatives are commonly recognized: classical, hybrid contracting, and hierarchy” (Williamson, 1996: 378).

Calling on the work of Williamson, Ménard defines the hybrid organizational form as “a specialized governance structure for dealing with bilateral dependency without going as far as integration”. For Ménard, the key idea is that of a bilateral dependency strong enough to require close coordination, but not strong enough to justify full integration. He adds “the most usual explanation for such a situation refers to the existence of specific assets that creates some lock-in among agents while it generates appropriate quasi-rents. If it is so, continuity of the relationship is a source of added value, but simultaneously generates a dependency that also invites opportunistic behavior, since the concerned assets are not redeployable, or are redeployable at only very high costs” (Ménard, 1996: 156).

Finally, Williamson (1991: 294) gives the main axis of a research agenda applied to complex organizational forms. For him, “the hybrid form of organization is not a loose amalgam of market and hierarchy but possesses its own disciplined rationale; its logic (as well as the logic of other governance structures) is revealed by the dimensionalization and explication of governance herein developed”.

Before addressing an approach in terms of organisational form, it would be helpful to define the idea of coordination. For Ménard, coordination corresponds to “procedures which render compatible plans of elementary units, or which oblige the modification of these plans over time” (Ménard, 1995a: 118).

Thus, in a transactional schema, three types of organisational form are likely to be present to assure the coordinating procedure. In the case of the hierarchical form, internal authority is what assures

coordination. The market form achieves the same objectives by using a system of pricing. In the case of hybrid forms, coordination is assured by intermediary mechanisms, associating to varying degrees, authority, tacit rules, incentives and control. Jacquemin stresses elsewhere that “intermediary forms are susceptible, in certain conditions, to reducing the transaction costs which would have been incurred if the transaction had been done through the market, and at the same time, avoiding certain organisational costs which would have been present if the transaction had been completely internalised within the company” (Jacquemin, 1985: 139).

Hence, the style of vertical coordination selected is inseparable from the given organisational form. More often than not, the choice reflects the constraint of costs (transactional and organisational) as much as the players’ strategies. Besides, pressure from the external environment exerts itself in the form of final market trends, of direct and indirect competition.

The question arises as to how and why, in the same environment, different organisational forms can subsist and how to evaluate this effectiveness. This approach centres on this logic of constitution; one takes it as read that a principle of effectiveness exists. What does this principle actually consist of? From now on, it would be useful to reflect on the steps to follow when looking into the mechanisms of coordination, and on the steps to follow in analysing it.

2.2 Effectiveness, Efficiency: the Different Analyses

First, it is essential to define the ideas of effectiveness and efficiency. According to Le Moigne, when speaking of efficiency, “it’s about evaluating the capacity of a system to do more with less; put more formally, efficiency is the ratio evaluating the activity of a system taking into account the resources consumed and the resources produced” (Le Moigne 1990: 138). Le Moigne ably explains the difference between efficiency, as defined above, and effectiveness, using a simple example. He takes the example of a driver whose car takes 5 litres of fuel for every 100 km. It can be said that this car is efficient. But if the driver sets out on a mission to Rouen and finds himself at Reims, then whatever his efficiency, his effectiveness is of poor quality. “Effectiveness is evaluated by a multidimensional vector linking the behaviour of a system to its outcomes” (Le Moigne 1990: 138).

These definitions are retained for the pursuit of this work, which allows for the identification of two levels of analysis which will be explained later.

Several authors have lent towards the idea of efficiency of firms and organisations from the angle of retained criteria used for its evaluation. Traditionally, the efficiency of a firm has been put on evidence when maximum production has been achieved under the constraint of minimising costs. However, this criteria is much too simple to reflect the reality of a situation, and over some fifteen years now, several researchers have tried to define the criteria for efficiency; the multitude of criteria which can be used reveals a very complex situation.

Liebenstein (1975) equally poses the question to know why some enterprises are more efficient than others, even when the combination of factors of production are identical. He suggests that the efficiency is due to the organisational quality or to the incentives and agreements in the organisation leading to an intensification of effort.

Apart from Gomez, it’s not possible to find, in authors who are working on the economy of organisations, the analysis of the effectiveness of firms or of organisational forms. However, Ménard (1994: 199) underlines “an organisation cannot multiply over a period, and maintain a minimum efficiency using only hierarchical reports”. There is, necessarily, “common objectives to identify, a setting up of procedures to share acquired experiences, the sharing between partners of a large number of decisions, and the awareness of starting to share”. The idea of a common project among all the actors in the enterprise can be found here without using the term effectiveness.

According to Ménard (1994: 200) these objectives share a double role; ex ante, they are an incentive for a player to enter into an organisation, and ex post give “participants a rationalisation of the choice effected”.

Ménard in a study of the French poultry sector provides an interesting insight into this question. He says: “Therefore, different arrangements within the same family of governance structures, hybrid forms in this case, operating on the same market, seem similarly efficient over a long period of time. This is puzzling, and our study did not provide any adequate explanation of this... It may be that transaction cost economics has to be refined in order to go beyond the explanation of the trade-off among governance structures, into the subtleties of specific arrangements within one such structure” (Ménard, 1996: 169).

The analysis rests on a conventionalist approach and, more particularly, that developed by Gomez (1996).

2.3 The Conventionalist Approach to Effectiveness

2.3.1 General Problems

According to Gomez, it is essential “to learn to observe how an organisation articulates its effectiveness (its goals), its governance (its normative organisation) and its system of measuring (its efficiency). It is the coherence of all of these which explains the continued existence of the firm”. The conventions theory must allow for “the redefinition of the crucial problem of the determination of the measure of performance in function of the conventions which preside over the exchange of goods. The strategic calculations of firms are only found in conventions which contain determining characteristics bearing on the cost of production and, hence, profit” (Gomez, 1996: 167). It would seem appropriate as a first step to be absolutely clear about the idea of convention.

The conventionalist approach seeks to understand how common beliefs are formed and shared in a way which leads to the forming of a convention; it proposes “positive rules of observation which allows the structuring of a complete representation of the organisation according to the level of embodiment of the convention” (Gomez, 1996: 258).

The convention is a social construction, because it only exists in concrete form by the accumulation of mimetic behavioural patterns, in which it gives, like a social mirror, their meaning. Hence, the convention becomes dependent on the rational choice of the players (Gomez, 1995: 145). Put otherwise, the effectiveness (efficiency) are articulated by a given organisational form. The overall coherence will help to explain the permanence over time of the organisations.

The adhesion of an individual to the convention determines itself in relation to the information which it possesses and can treat. If this is sufficiently clear, then the convention will be convincing.

The firm will then be represented as a convention which “defines, governs and measures the efforts of the players in the achievement of a common goal” (Gomez, 1996: 201).

2.3.2 The Articulation of Two Levels of Effectiveness and Efficiency

Three hypotheses are the basis of the conventionalist approach. According to Gomez, this approach:

- “substitutes the hypothesis of the rational of the individual for the hypothesis of rationalization, the concern (...) is not to analyse the socio-economic space according to the principle of the rationality of the players, but to understand how they rationalise, justify and legitimise what they practice”; thus it can be advantageous to take an interest “in the convictions of the players on good practices rather than on improbable efficient practices by themselves”;
- “substitutes the hypothesis of the autonomy of the individual for a hypothesis of rational mimicry”; in this framework, “imitating oneself or imitating what one believes to be normal behaviour is a reasonable solution to uncertainty; this allows the obtention of a behavioural reference from which one can converge or diverge”;
- “substitutes the hypothesis of information between individuals for a hypothesis of screened information; instead of trying to understand innumerable streams of information passing between individuals either trying to hide something or to make it more transparent, this

framework proposes the advantage of screened information, which, by signalling that the norm is being respected, reduces doubts about the behaviour of others” (Gomez, 1997: 67).

These hypotheses allow the provision of a study framework linking the organisational forms and the individual player.

The conventionalist approach developed by Gomez seeks to clarify and distinguish these two ideas. Notably, Gomez proposes an analytical approach to these ideas, clearly redefined in their contents. In this way these ideas appear complementary, which comes back to articulating two distinct levels which all organisations, with more or less joy, are seeking to articulate.

The first level is that of effectiveness. For Gomez, effectiveness corresponds to “the choice of one determined goal rather than another” (Gomez, 1996: 218). It’s possible to ask here what constitutes a rationalisation space for the players, that is to say, from what common objectives can their behaviour take root. A given organisation can set varied objectives, in relation to its track-record, or in a socio-economic context.

The second level is that of efficiency. It is built into the convictions that the common objective has been achieved in a certain way. In order for the convictions built into the common objective to be respected *ex ante* by the players (when they are in the organisation) or *ex post* (when they are in the organisation) to information outcome, the players must submit *ex ante* or *ex post* information which indicates to them (or indicates more easily) what is expected from them. The constant adjustment of the players, one to the other, in reference to given information is the basis of the definition of efficiency.

2.3.3 Methodology: What Criteria to Use for the Study of Effectiveness and Efficiency?

After having looked at the overall framework and the fundamental theories of this approach, it’s time to fix on the criteria suitable for analysing the ideas of effectiveness and efficiency. Centred on the study of coordination, this approach seeks to distinguish the mechanisms retained to favour this coordination between the players and to understand its effectiveness.

Effectiveness: statement of objectives; what is the norm? Each organisation is made unique by the conditions of its constitution. So it’s to these conditions one looks first to try and find the explanation for such and such a specific objective. The elements in this context will point towards a principal explanation of the selection of players. In effect, the organisation at the outset seeks to take on certain types of players who are more receptive to such specific objectives.

The economic environment of the organisation both upstream and downstream constitutes another key element. This contingent situation will, inevitably, strongly influence the existence, or not, of economic partners, particularly in terms of to what degree job integration takes place.

Efficiency: system for information structuring and measuring; what is the deviation from the norm?

Once the objectives are fixed and defined, the next step in this approach is trying to describe the structuring of the associated information system. *A priori*, there exists a host of possible information via a lot of different media. The correct and adopted approach is to fix, as exhaustively as possible, the information which is “screened”, that is to say which reveals and makes clear to others the rules of conduct. By nature some of this information is quantitative and some qualitative. Insofar as it is the choice of objectives which controls the choice of such information it is easy to understand that it is not a fixed method check but an *ad hoc* approach to information collection.

Nevertheless it is possible to distinguish between two types of information (which can be either qualitative or quantitative).

The first type affects behaviour and shows up as a striving for self-discipline and self-adoption. So the rules will be endogenised by the players and adopted by them thanks to the information which the organisation has communicated to them. Here elements can be identified which lead to an understanding of such ideas as the enterprise culture or the identification of a higher principle which contributes strongly to the standardisation of behaviour.

The second type of information, more classical, concerns collected information (and often created), assuring the control of the supervision of behaviour. Besides the pricing system which is the main field of control, other forms of control, like quality for example, are going to link up.

So the information system structures itself around two complementary poles based on self-discipline and control. But the validity of the information system is only assured if it is complemented by other systems, notably sanctions and (re)negotiation. The overall system can then be sufficiently inciting and credible in the eyes of the adopters.

Sanctions constitute in a certain way the means to thwart abnormal behaviour. It expresses a description of the means used and why these means appear credible. It must also be possible to negotiate on the norms. In effect, it is not possible to impose rules on autonomous players without, in return, allowing some come-back on the rules. So the role of negotiation is firstly to open a discussion on the choice of objectives followed up and refined by the organisation, but also to allow a discussion on the functioning of control.

Table 1. Analytical steps for the effectiveness and efficiency of coordination

	Content	Device	Objectives
Effectiveness	Define common, normalised objectives Measure of behaviour with reference to the norm	Conviction and persuasion	Coherence: making coordination stick
Efficiency	System of information and control		Minimising the costs of organisation and coordination

Source: adapted from Gomez (1996).

3 An Example: the Fresh Tomato Sector in France

3.1 Description of Two Hybrid Forms

3.1.1 Savéol

Above all, Savéol is a brandname for tomatoes, developed by S.M.O. (Société Maraîche de l'Ouest). S.M.O. is a commercial company, the capital being held principally by two Breton producer groups, the Brest Market Gardening Group (G.M.B., 36% of the capital) and the Presqu'île Cooperative (36% of the capital). For legal reasons, 20% of the capital is held by a limited company (Shippers Ltd). Two other producer groups share the remaining 8% capital; they are the cooperatives "Val Nantais" and "Le Havre de Vie".

Savéol is the main tomato grower in Brittany with 45,000 tonnes annually. G.M.B. brings together 44 farms (60 producers) producing 25,000 tonnes annually. The Presqu'île Cooperative, for its part, has 45 growers producing 12,000 tonnes of tomatoes. The two cooperatives, "Val Nantais" and "Le Havre de Vie", produce and sell 3,000 and 5,000 tonnes respectively through the intermediary of S.M.O. Unquestionably, the two predominant groups are G.M.B. and the Presqu'île Cooperative. Those two groups between them have formed an Economic Interest Group (G.I.E. Lacroix). Under the aegis of S.M.O., which differentiates it from the structure developed around the auction, is the integration of functions carried out by the shippers. In this way Savéol can sell its products directly to wholesalers. This is made possible because the producer groups are also the packaging cooperatives. The procedure is always the same: S.M.O. identifies the client needs and then transfers the attributes required for each lot to the packing stations.

The main characteristic of S.M.O. which differentiates it from the structure developed around the auction is the integration of functions carried out by the shippers. S.M.O. amalgamates four services

which act on behalf of member groups (quality, communication, technology and computerised information).

Relationships between producers and producer groups. Each grower is tied to a group by a long-term contract (10 years duration). However, membership remains subordinate to the professional skills of the grower (in as far as concerns the high quality of production). Each grower is free to produce the quantity he wishes. But the variety used is determined by the group (in relation to decisions taken by Savéol). That said, for some products (top of the range products or new products), it is the group which decides (always in relation to guidelines from Savéol) what to produce, what variety will be used and the necessary volume.

Packaging is done in such a way that Savéol can control the quality right from the grower to the client. Each grower is individually identified and it is possible to follow up all products until they are put in lots: on each lot, over and above the normal information concerning the variety, size and category of the product, the grower's name and date of harvesting is indicated. Hence the grower is paid in relation to the quality of the product delivered (the price is set ex post).

Relationships between producer groups and Savéol. The relationship which exists is of the "joint venture" type. The two majority groups are heavily represented on the Board of Directors of Savéol. For instance, the 44 farms of G.M.B. have administrators on the Board.

Relationships between Savéol and its clients. There is no written contract between Savéol and its clients. Nevertheless, it has to be said that over a period of time relationships are stable and rely on mutual trust. For the major part, clients are represented by the wholesalers (60%) and by purchasing agencies (30%). The relationship between Savéol and its clients originates from the actual involvement of the different partners. Savéol chooses its clients (in respect of product quality right through to the end-consumer), through regular meetings (which allows a flow of information exchange on product quality). Savéol also selects the transporters and those financially interested. In effect, this is a matter of assuring a quality of transport which satisfies the wholesalers. In conclusion, the involvement of Savéol in downstream channels prepares the ground for the establishment of this mutual trust.

3.1.2 Auction Marketing

Whereas the growers of G.M.B. and the Presqu'île Cooperative have organised the sale of their produce through Savéol, the growers of Kerisnel Ltd and the Cooperative Union of Paimpol and Tréguier (U.C.P.T.) have used another selling technique, auction marketing. Kerisnel and UCPT sell on two different auctions which are linked electronically. This auction sells almost every kind of vegetable grown in Brittany. Tomatoes, however, have only been introduced to the auction market since 1992 (previously there was a sales office in each of the cooperatives). The tomatoes (about 25,000 tonnes) are sold under the brandname "Prince de Bretagne", which is used for all the vegetables sold at the auction.

Contrary to the cooperatives previously studied, Kerisnel and UCPT are not producer groups specialising in tomato production. The number of members is limited. On the other hand, the big difference compared with Savéol is that the buyers in the auction are shippers (30 in number). Thus there is no integration with the primary distribution link. Selling to the shippers has always been available for the cooperatives, long before the setting up of the auction. It was the very high transaction costs in relation to the shippers that led the growers to set up the auction, but without seeking to integrate the role of the shippers. On the other hand, the suppliers on the auction are not producer groups but individual growers, by the intermediary of depots (the procedure is the same no matter what vegetable is put on the auction).

Relationships between producers and producer groups. Each grower is tied to a group by a long-term contract. However, taking into account both the constraints linked to the auction and the low volume of product from each grower, each grower's production of each lot is not singled out. So the lots put on sale by auction are anonymous: each lot representing a variety, a size and a classification. Each grower takes his production to the depot assigned by the group. It is the depot which allots a variety, a size and a classification to each lot. But the variety used is always determined by the group (in relation to

decisions taken by Savéol). However, the grower is free to produce the quantity he wishes (as far as concerns the high quality of production). Each grower remains subordinate to the professional skills of the grower. However, membership remains subordinate to the professional skills of the grower (in as far as concerns the high quality of production).

Relationships between the auction and the shippers. The auction is run by the growers, by the intermediary of the “Association de Mise en Marché” (A.M.M.) (an emanation of producer groups which sell on the auction). For a dealer to be able to buy tomatoes on the auction, he must be agreed by the A.M.M. This agreement is formalised by a contract laying out the obligations of each of the parties. The main obligation stems from the principle of exclusivity: the agreement on the auction presumes that a shipper will buy at least three times a week, and that he will buy all his vegetables by auction (e.g. a dealer cannot buy cauliflowers at auction and supply himself with tomatoes from Savéol). Furthermore, the dealers are obliged to sell the vegetables under the “Prince de Bretagne” brandname (but there’s nothing to stop him placing his own brandname next to it). To function well the auction needs at the same time to be vigilant of both supply and demand on the market, whence the need to contractualise the relationship between the auction market and the dealer.

The Relationship between the Auction Market and the Depot. Legally the depot has the status of a private family business supplying a service to A.M.M. The contract is based on very precise terms of reference. The role of the depot is to collect the production, package into lots of similar size and quality, and the use of packaging. Responsibility for investment is placed on the supplier of the goods. However, considering the investment costs for calibrating tomatoes, it is A.M.M. who have invested in a machine and placed it at the disposal of the depot. Consequently, a strong link exists between A.M.M. and the depot, which works well hereafter with a simple long-term contract. Even if quality control is the mainspring of the depot, outside people sponsored by A.M.M. also come in to control the quality of lots put on sale. The supplier is remunerated, for all of the provision done for A.M.M., based on the volume of production sold at auction and not on the quality of the goods put on sale. There is therefore a strong motivation to sell a maximum amount of tomatoes (conditional on a moderate to good quality).

3.2 Effectiveness and Efficiency: Application of an Analytic Framework to the Study of Coordination

3.2.1 Savéol

Effectiveness: the identification of common objectives.

What are the common objectives recognised by the players involved in the coordination of production and exchanges at Savéol? Right away it is essential to distinguish between the objectives for the different categories of players in the organisation: in the first place the producers, and then the wholesale clients and the volume retailing sector. Secondly the question has to be approached as to the means used to secure maximum adhesion of the players to the objectives.

For the producers, the common objective paramount is to maintain and reinforce the reputation of the “Savéol” brandname. The reputation of this brand is strongly linked to an image of a top-of-the-range tomato, a homogeneous product of constant quality. This common objective is embodied principally in the high level of advertising investment to put the brand in the public eye. In this way, the enterprise culture finds a path of objectivity, a clear reference without any ambiguity for the producers. The other objectives of the organisation are then actually structured around this brandname. The objective of quality of products associated with high technology leads to the assuring of the reputation of this brand close to direct clients, the supermarkets, and the consumers.

For the wholesale clients and the volume retailers, the reputation and follow-up of quality is at the heart of the common objectives. Contrary to what a quick glance might show, the coordination which has been established between Savéol and its clients is not comparable to a pure trading relationship. The convention registering the exchanges which impose on clients an adhesion to common objectives leads to behaviour which is judged normal. This common objective lies in the maintenance of brand

reputation right through to the final consumer. So these clients have to respect the specific rules related to this maintenance of reputation.

Certainly, the first of these rules is a quality follow-up of products in good condition. This objective likewise supposes that, for example, the distributors don't re-use packaging for other things. The adoption of this type of behaviour is therefore at the centre of the information system.

The structuring of Savéol's information system.

Once the common objectives and related behavioural norms are tied up, it is essential to investigate the adopted information system. That this information system can react *ex ante*, in seeking to adopt rules in an endogenous manner, or *ex post* by control and measurement.

The first means used by the organisation to obtain adhesion to these objectives is to select producers willing to join Savéol. This choice is not left to chance. A guarantee of their technological input is assured by choosing producers specialised in the production of tomatoes.

Equally, there are also means within the enterprise culture: internal bulletins, information at meetings, all competing to bring out this enterprise spirit particularly well developed at Savéol. It can also be considered that the advertising campaigns for the brand aimed at the general public also have an internal effect as a source of communication in the direction of the producers, reinforcing their adhesion.

The information system seeks to expose behaviour, the better to control it. The choice to isolate individual producer behaviour from the other producers as a group is an important characteristic of the system. The information collected will then be reported to a specific producer, enabling him to increase his capacity to react favourably to this behavioural situation.

Looking for a quality norm for the tomatoes is first of all governed by the advice and technical support provided by the organisation to individual producers. This technical support helps to limit the potential variability of product quality. Above all, quality is achieved thanks to the laying out and adoption of strict terms of reference. The link between the terms of reference and the system of fixing the price paid to the producer is strongly motivating: the variance from the norm is easily identified. Overall, the producer is controlled over the inputs used (varieties, pesticides, growing method, etc.) and over the final product.

Quality follow-up is also imposed on transporters. In effect, they are selected on the basis of their recognised competence and placed under an incentive contract with a sub-contract regularly renewable.

The wholesale clients and the volume retailers are also at the centre of an information system in relation to selection, follow-up and control of product quality and the use of packaging. Selection is made by the intermediary of the reputation of certain operators. This selection helps to limit the heterogeneity of competences and brings together experts recognised for their professionalism.

So, for Savéol, the measuring system for the norm is soundly based on the combination of control and self-discipline: certain values are inculcated into the producers and they are directed towards a very specific way of working. But this device does not work alone and is reinforced by follow-up and surveillance. Without doubt this combination is the device which leads to the greatest economy on the cost of coordinating production.

3.2.2 Auction Market: Effectiveness and Efficiency of Coordination

Effectiveness: the definition of common objectives.

An attempt is made in this paragraph to reply to the following question: for what reasons does the auction exist? And following from the details already discussed, it should be possible to extricate common objective(s) for effectiveness.

The auction is a social construction the dynamics of which cannot be studied without considering the origins of the auction. Setting up of the auction market is the result of two distinct elements:

- the awareness of some producers (who are also union leaders) of the disorganisation of transactions and the resulting high costs associated with a substantial lowering of profit for all producers;
- the rejection of a buyer-dominated situation, the same buyers supporting a disorganised system of transaction which was a source of extra large profits for the trade.

If one briefly analyses the supply and demand of vegetables at the end of the 1950s, the following points can be noted on the supply side:

- producers obliged to sell their product to shippers, bearing in mind the distances involved between the consumer and production zones;
- the extremely imperfect circulation of information; for both the quantities put on the market and the level of prevailing prices, the high number of producers made it difficult to diffuse information;
- facing this dispersed supply situation, demand represented by the shipping houses was relatively concentrated since there were only 76 shippers.

The situation is that of an oligopsony market type, evidencing an indisputable power on the part of the trade players. This power shows up essentially as the requirements on quantity and purchase price, which can be understood by the study of exchanges (Philippe, 1994). The transaction costs associated with these exchanges are very high and it became indispensable for the producers to reform the market.

The held solution has been to set up an organised market, of the kind where there would be a confrontation of the whole supply and demand situation and where there would be a readjustment of power in the market between the producers and shippers.

All of the elements described above point to a consideration of a common objective for effectiveness as the confrontation of the whole supply and demand situation for vegetables. This is within the framework of a qualifying convention, describing, for each exchange, the particular rules which apply (Gomez 1997: 72). However, not all the producers were convinced of the common objective (probably 30% to 40% were against the setting up of an auction) and the organisation had to set up sanctions to bring the recalcitrants to heel.

Nevertheless, for most of the producers the decision to create an auction was a rational choice (better the auction than the disorganised transactions over the counter with the traders). As Gomez points out, the more individuals persuaded themselves that the auction “offered the only possible solution to the problem because they weren’t out on a limb” (Gomez, 1995: 146). On the other hand, other alternatives were certainly possible.

It is possible to ask if other possible common objectives of effectiveness exist. It seems that those responsible for the cooperatives belonging to the auction have had the common objective of the development of vegetables production both in terms of volume of product and in the widening of the range of vegetables offered at auction. One can suppose this objective because of the numerous financial incentives which have been given to producers to introduce vegetables such as the tomato for example (in the form of subsidies for putting up greenhouses).

Efficiency and its measuring system.

Before the common objective of effectiveness can be referenced, it is necessary, first of all, to explain the normal behaviour of the players who are party to the convention. The three principal players are the producers, the depots and the shippers.

All the producers who are members of the auction are going to put all their vegetables up for sale on the auction through the depots. Similarly, all the trading shippers agreed by the Market Association will get their supplies on the auction, exclusively, for all the vegetables sold on the auction. Finally, the normal behaviour of a depot agent is to sort, calibrate and allot the production which will be sold at auction.

How can the behavioural norms and deviations be referenced (in relation to the stated norms)? It must be part of an information system, notably a control system and incentives for the attending players.

Whereas in Savéol's organisation the producers are selected, the auction accepts all producers and even encourages producers to join the organisation (indirectly by subsidies). In effect, for an auction market to work well, a large volume of products must be presented for sale. The Equalisation Fund run by Cerafel is also a form of incentive for the producers. Elsewhere, the shippers are given aid for their exportations.

Precise terms of reference rule the relationship between the producers and the cooperative they belong to. For instance, the principle of total supply of production on the auction must be respected under the threat of punishment by fines or being expelled from the organisation. At the same time, precise terms of reference (between A.M.M. and each shipper) oblige the shippers to get supplied three times per week from the auction. Besides they must only use the brandname "Prince de Bretagne". Finally, there are also strict rules on the norms of behaviour which can and must be respected (behavioural deviations can be referenced).

To ensure respect for the terms of reference, control is exercised by a team of inspectors depending on the Economic Committee, Cerafel.

It has been stated previously that effectiveness gives a meaning to efficiency; so under the same heading as for Savéol but for other reasons, one can probably talk about the efficiency of the auction, the volume and range of vegetable products sold has increased considerably. And thanks to the auction even more producers are involved (5,000). Finally the price-fixing mechanism better reflects the market price.

Conclusion

The analytic framework presented here for the assessment of coordination efficiency enables an explanation of the diversity and heterogeneity, observed on the ground, in the manner of coordination of the economic players. It is a positive step because it seeks to understand how, in a concrete way, the independent players come to rationalise collectively their coordination procedures and to adjust their practices in relation to this rationalisation.

But this rationalisation, far from being a natural gift, is largely constructed by the organisational forms. So these forms are a point of anchorage for specific conventions which give meaning to behaviour and practices.

Thus, rather than try to understand the choice of coordination style exclusively by costs and calculation, the step rests on the analysis of justification systems of the economic players and the associated measuring systems.

From that there is a coherence between the organisational form, its objectives and the measuring system, though it has to be admitted that different organisational forms can be efficient. A priori no single organisational norm imposes itself.

Though it has to be admitted that different organisational forms can be efficient, it has to be admitted that a single organisational norm does not impose itself. The analytic framework allows an explanation of the diversity and heterogeneity observed on the ground in the manner of coordination of the economic players. The assessment of coordination efficiency for the proposed analytical framework enables coordination efficiency to be assessed with a simple and unified framework.

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