Learning Process and Contract Adaptation with Quality Uncertainty: Some Paradoxes in Retailer-Producer relationships

Armelle Maze
e-mail: maze@inapg.inra.fr

Paper prepared for presentation at the X^th^ EAAE Congress
'Exploring Diversity in the European Agri-Food System',
Zaragoza (Spain), 28-31 August 2002

Xth Congress of the European Association of Agricultural Economists
"Exploring Diversity in the European Agri-Food System
Zaragora, Spain
August 28-31, 2002

Learning process and Contract Adaptation with Quality Uncertainty : Some paradoxes in retailer-producer relationships

Armelle Mazé[1]
(INRA SAD-APT &ATOM)

Summary :
The optimal level of formalisation of contracts and their dynamic is at stake in the economic literature on the optimum design of ex post renegotiation with third party enforcement. Another theoretical interpretation is that contract adaptations may also reflect mutual learning process between contractors. Why transactors write explicit contract that they know cannot be court enforced ? The central idea is that explicit contract terms makes it clearer to the transactors what has been agreed upon, thus are decreasing the cost of private enforcement sanctions (Klein, 1996). Empirical evidences are provided by the diachronic analysis of the full set of tri-partite contracts between one of the top-ten french large retailer and its beef suppliers before and after the BSE crisis (period 1993-1999). The analysis emphasizes also the role of this increased codification of supply contracts with a progressive change in the internal retailer's organization, i.e. increased centralization of decision and supervision mechanisms. Contract design and organizational choices are then strongly interrelated.

Key Words : Contract design, Hold-up problems, beef sector, Self-Enforcement.

---

[1] Address : INRA SAD – 16, rue Claude Bernard, 75 231 Paris cedex 05 – France. Tel : 33 (0) 1 44 08 16 96; Fax : 33 (0) 1 44 08 16 57. E-Mail : maze@inapg.inra.fr

Introduction

The development of consumer's concerns about quality specifications and traceability of information about farmer's practices is a recent, but powerful trend in agro-food sectors. In order to maintain their market shares and consumption levels, some European large retailers developed new branding strategies based on high quality and guaranteed food products. These retailer's brand name introduces two innovations. First, these retailer's branding strategies communicate on a full quality controlled supply chain with an official third party certification. Second, these branding strategies include the design of new forms of contractual arrangement based on tripartite contracts, including agro-food firms and farmer's associations as direct contractors. But regarding the usual idea that large retailers are endowed with overwhelming bargaining power and that they abuse this power in their relations with suppliers, the analysis emphasizes several paradoxes in their relationships with agricultural producers.

This analysis is based on a detailed case study of the organisational and contractual design that support the development of this new branding strategy on beef products by one of the top-10 large retailer in France. It emphasises the role of contract design as a support for quality assurance through the definition of the self-enforcing range of contracts and the management of hold-up problems (Klein, 1992). Empirical data are based on the joint analysis of the full set of 15 contracts between one specific retailer with all its beef suppliers and of their diachronic evolution before and after the BSE crisis in 1996 (period 1993-2000).

Contrasting with a large trend in recent contract theory (see Masten, 1998), we show that contract formalization is not reducible to the use of court enforcement for conflict resolution. The adaptation of contract design and its increased formalisation is also reflecting mutual learning process and the reduction of misunderstandings between the transactors. The central trade-off is not relying, in this specific situation, on the comparison of *ex ante* costs of contract codification and potential *ex post* contract renegotiations or sources of litigation. Rather this codification is improving private enforcement mechanisms of contracts through a reduction of imposing sanctions at two different organizational levels. First, with the specialized suppliers of the retailer. Second, with product-line managers in individual stores. The design of these new contracts aims to counterbalance the loss of information's about farmer's breeding practices and change in the organization of their activity. The rationale is here the threat of a loss of their reputation capital regarding consumers, as well as a relative loss of competencies regarding these dimensions of quality. As a consequence, large retailer just tries to adjust the terms of trade to on-going changes and performance failures (Arrunada, 2000), acting then as a "court of first instance" in their relations with their suppliers.

I – Contract Design as a Support for Quality Assurance.

Facing the recent and successive food safety crisis, consumer demand focuses on the reinforcement of quality guarantees at all stages in agri-food chains, from the individual farmer to the large retailer. Public regulation on quality standards is not only at stake. These structural changes involve also for private firms a threat for their own reputation capital and their commitment to stronger compliance to general liability rules. The role of contract design as a support for quality assurance mechanisms has been widely analyzed in the economic literature. Most of these analyses limit their scope of investigation to the optimal design of incentives contracts with information asymmetries. In other theoretical models (Klein, 1996), the role of explicit contract terms is acting as a support for private enforcement and for mutual learning process between contractors.

1.1 – Hold-Up problems and the self enforcing range of contracts :

The integration of quality assurance concerns in the design of contractual arrangement is mostly motivated by the existence of potential opportunistic behavior by firms or their suppliers, leading to a reduction of the promised quality level or to an imperfect compliance to prescribed production standards. The central hypothesis developed by Klein (1996) is that to assure supplier performances, their contracting partners must credibly commit to provide them with a future quasi-rent stream[2]. The obtaining of this quasi-rent stream acts, first, as an *ex ante* incentives through the delivery of a "price premium" to the suppliers, and second, *ex pos*t as mechanism of sanction through the threat of the loss of this quasi-rent.

The magnitude of this private sanction, here denoted *K*, is a capital cost, i.e. the discounted value of future cost that can be imposed upon the transactor that violates the contractual understanding. Each transacting party will compare the gain of the "hold-up" potential from breaching the contractual understanding, denoted here *H*, with the loss associated this private sanction, *K*. If the "hold-up" potential is less than this loss, i.e the capital cost associated with future returns on transactor specific investments that will be lost upon termination of the relationship and the increased costs of purchasing inputs or supplying services in the market place after the break, then the transactors will engage in "hold-Up".

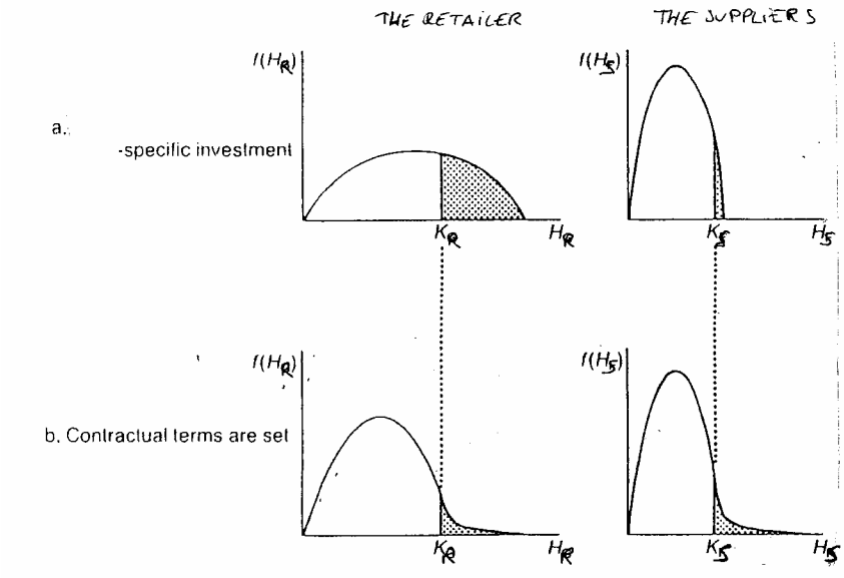
[2] This analytical characterization of the role reputation mechanism was first introduced by Klein-Leffler (1981) on consumer transactions, and extended to the analysis of inter-firms relationship (Kenney-Klein, 1983; Klein-Murphy, 1996). It differs on several points from the one developed by Shapiro (1983).

The “hold-up” potential is represented by the area of the transactor’s “hold-up” probability that is greater than its private enforcement capital. Transactors will attempt to minimize the value of the expected “hold-up” probability, or the sum of the areas in the tails of the two “hold-up” probability distributions where each transactor’s hold-up potential is greater than its private enforcement capital. Regarding the respective hold-up gains of the retailer (*Hr*) and those of the suppliers (*Hs*), That is, transactor will attempt to minimize :

$$[1 - Fc(Kc)] + [1 - Fs(Ks)]$$

The Figure 1 is illustrating the probability distribution of the « Hold-Up » potential for the transactors Private enforcement mechanisms use either bilateral dependency, like “hostage” mechanisms (Williamson, 1983), or economic sanctions, that is a capital cost that can be imposed on a transactor that attempt to hold-up (Klein, 1992). This capital cost consist on two parts : I) the future loss directly associated with the termination of the relationship, ii) the loss associated with the depreciation of the transactor’s reputation on the market place. In fact, Klein (1996) suggests that court enforcement of explicit contract terms complement private enforcement by optimally defining what is called the *self-enforcing range of contracts*.

Figure 1 - Contractual Reduction in Hold-Up probabilities.



The self-enforcing range of contracts defines a "*tolerance zone*", where self-interested contractors will commit themselves to their contractual promises (Klein 1992). Within this self-enforcing range, neither party would attempt a hold-up, that is the possibility that one of the contractor violate the intent of their contractual understanding by expropriating the quasi-rents from specific investments made by the transacting parties. With private enforcement mechanisms, it is possible to transactors to leave some contract terms unspecified and still to reduce potential hold-up risks.

Proposition 1 : *the larger are the transaction-specific investments, the more important will be the contract design to create and maintain over time this quasi-rent stream.*

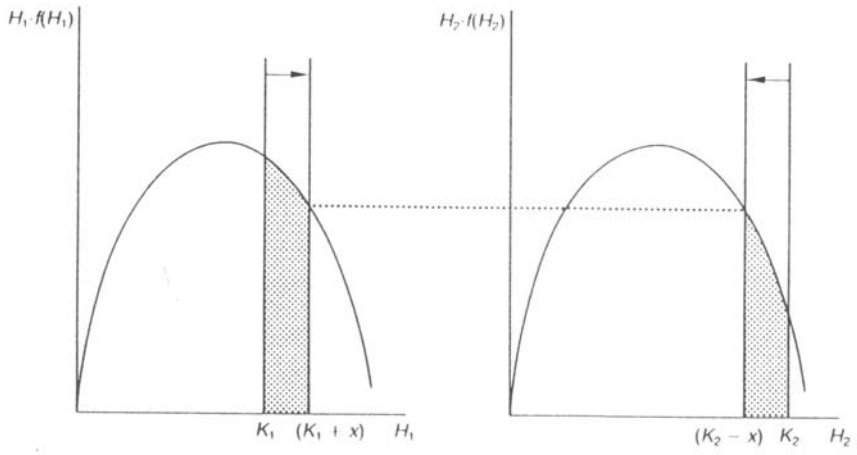
According to Klein (1992), if we assume that these shifts in private enforcement capital from one transactor to another are then transactors attempting to minimise the expected value of the combined « Hold-Up » probabilities of the two transactors, will use the contractual arrangement to shift private enforcement capital of magnitude x , such that the sum of the expected "hold-up" values associated with the tails of the two probability distribution (the two effective "hold-up" areas) is minimised.

Min $H_1\,[1 - F_1\,(K_1 + \mathrm{x})] + H_2\,[1\text{-}\mathrm{F}_2\,(K_2\text{-}x)]$

This implies that $H_1\,.\;f_1\,(K_1 + x) - H_2\,.\,f_2\,(K_2 - x) = 0$

That is, optimum contractual equilibrium will occur where the heights of the expected « hold-up » distributions are the same for the two transactors. The choice of contract terms and its timing may change in different ways this self-enforcing range of contracts (Figure 2). For example, it could be just the contractual determination of which contracting party in making transaction-specific investment.

Figure 2 : Contractual Shift of Private Enforcement Capital.



Thus, contract formalization and private enforcement mechanisms interacts in two directions. First, this formalization reduces the probability of potential Hold-Up by defining verifiable performances to the transaction. It makes easier potential court enforcement. Second, contract terms also define this self-enforcing range through the allocation of quasi-rents to the contracting parties. Hence, the design of contract terms allow to economize on the amount of private enforcement capital needed to create credible threat of sanctions.

1.2 – Measurement Costs and the formalization of contracts.

Most real contracts are imperfect in the sense that they are intentionally structured to leave many elements of intended performance unspecified or unenforceable by the court. In the economic literature, the incomplete nature of contracts is associated with the costs of writing things down, as well as the search and negotiation costs associated with more completely specifying contracts in an uncertain environment. Often passed over by contract theorists, another significant category of costs associated with contractual specifications is measurement costs on quality or performance of goods or services (Barzel, 1982, Allen, 1991). There are always some aspects of performances, that are prohibitively costly and not easily to measure and to specify, even through imperfect proxies or quality standards. Hence, it is still possible that some suppliers try to cheat on quality in spite of a credible commitment of the retailer that promises future premium stream. Quality assurance mechanisms, and the creation of complementarities between private and court enforcement is a main issue.

In this context, the formalization of contract may, according to Klein (1992), also help the transacting partners (and potential future transactors in the market place if the contract is made public) to have a better understanding of what the agreement between the parties consists of. That is, even when courts do not have any role in the enforcement process, explicit contract terms may complement private enforcement by decreasing the costs to transactors of imposing private enforcement sanction. The analysis of Klein (1992) suggests the following proposition.

Proposition 2 : *Writing explicit Contracts terms, whether court enforceable or not, make it clearer to the parties what has been agreed upon, facilitate learning effects.*

At least, two analytical arguments may support this proposition. First, transactors may be substantially more likely to impose a sanction when a written and signed agreement eliminates any possibility of a misunderstanding. It is clearer when a violation (rather than a genuine misunderstanding) has occurred, and whether to impose a private sanction. Second, the efficiency of this private enforcement mechanism is based on the threat of contract

termination if some frauds are detected. But in many situations, termination involves costs of taking action. Given the cost for one of the partner, it is not obvious that the termination will take place. The question is then, for the transactor contemplating the imposition of a private sanction, whether the termination of its non-performing partner will lead to a lower likelihood of future "hold-up" with alternative partners. What are their respective costs of engaging in hold-up and in their willingness to terminate their partners ?

Due to unanticipated events, it is then never defined once for all, and contractors have regularly to adjust the term of the contract term to on-going changes (Klein 1992). The range over which the value of the gain from engaging in a "hold-up" can move (owing to changes in markets conditions) without a hold-up actually taking place. But also, other market participants may not react to information regarding past "hold-up" and refuse to deal with the non performing transactor in the future if it costs anything to avoid such dealings. Thus, court enforcement is not necessarily the primary reason for contract formalization. Learning dimensions associated with initial contract design and its adaptation over time still remain a neglected area in the economic literature. The following section provides a comprehensive, but detailed, analysis of successive contract adaptations implemented by one of the ten-top french large retailer with all its beef suppliers before and after the BSE crisis in 1996. First applied for beef products, this contract design is used as a model for the organization of supply chain for other products (especially GMO-free product,…) and other countries.

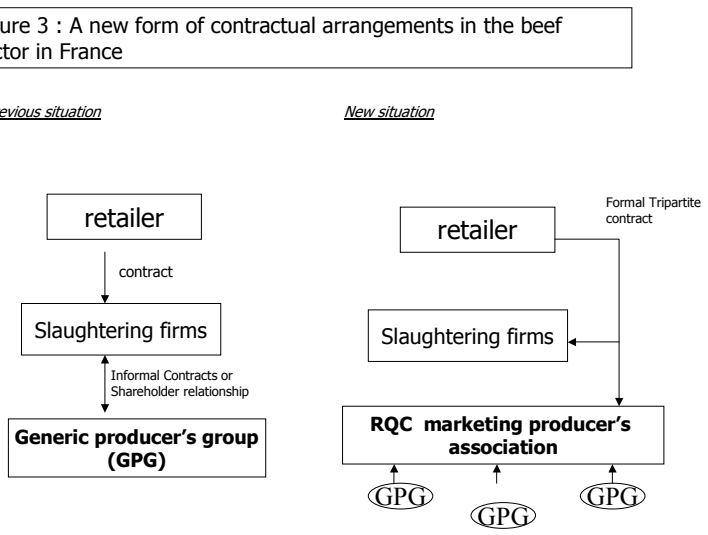
II – A New Retailer's Branding Strategy and its Governance : a case study in the Beef Sector.

Since the BSE crisis in 1996, the development of new branding strategies by french large retailers was primarily motivated by the restoration of consumer's confidence and of consumption level. But the increasing concern about quality assurance lead to a re-organization of retailer's supply chain trough the design of new forms of contracts and the systematic adjunction of an official quality certification. However, the governance of these new forms of supply chain management lead this retailer to several innovations, and also different organizational and contractual adjustments over time. The central idea developed in this section is that these contractual adjustments were first driven by a *test-error* organizational learning process at the retailer level and by unanticipated changes in the self-enforcing range of these new forms of contracts.

2.1 - A contractual innovation : the design of tri-partite contracts

The branding strategy analysed here was initiated in 1993 by one of the main french large retailer, under the own brand name "RQC"[3]. First used on a voluntary basis by local stores and their master butchers, this labeling became compulsory for all beef products after the BSE crisis. A target of 70% of all beef sales under this brand name was assigned to all individual stores. In 1999, this RQC branding strategy was representing almost 7% of all the fresh beef direct sales to consumers in France (i.e around 7000 animals every week). But the main innovation associated with this RQC brand name is the design of contracts with their suppliers, both slaughtering firms and producer's association. Contrasting with the usual dominance of informal contracts in the beef sector (Hobbs, 1997), the contractual innovation relies to the introduction by the retailer of these producer's association as a full co-contractor, tied for slaughtering firms. This contractual arrangement takes the form of a tri-partite contract between the retailer, slaughtering firms and producer's association (Figure 3).

Figure 3 : A new form of contractual arrangements in the beef sector in France



These forward contracts were initiated first through a partnership with a local producer's association, (called FQRN) dedicated to the promotion of a the french breed *(Normande),* mostly located in the region Normandy (west part of France). Since 1996, the diversification of the supply extend to other breeds (mainly *Charolaise*) and other regions. In 1999, the RQC agreement was involving 8 producer's marketing associations regrouping around 23 700 individual breeders. The advantage of these contractual arrangement is, for the retailer, a way to improve its knowledge about farmer's practices and the efficiency of *traceability* systems. As a matter of fact, the formalization of these contracts may be analyzed

[3] Names have been changed in order to preserve the confidentiality of the involved firms.

as an indirect way to control the production technology used by the farmers, one of the main critical point regarding the nature of information delivered to consumers. According to property rights theory, the ones that have the most influence on final quality must bear the consequences of their actions (Barzel, 1982).

The design of new contracts is then part of the control mechanisms over the quality specification that the retailer had to implement with its suppliers. The certification aims thus to complete the contractual mechanisms and to guarantee for the retailer controls all over the vertical chain and over the process. As suggested by Spiller-Zelner (1997), it acts like a *support transaction*, where a more close coordination is needed, but a complete integration inefficient. The other consequence of the design of these tri-partite contracts is also the introduction of more transparency in the quasi-rent sharing systems among the retailer, slaughtering firms and the farmers. As suggested by Klein (1992), "price premium" is acting both as an *ex ante* incentives to the compliance to quality standards and *ex post* commitment not to reduce this effort in the implementation of quality and information standards.

2.2 – The nature of contract terms and their formalization.

The creation and allocation of quasi-rent is central for the definition of self-enforcing contracts between the contracting parties. The contractual equilibrium has to solve to different problems. First, regarding the level of investment needed to support a brand name reputation, the definition of adequate contractual guaranties in order to avoid a classical situation of under-investment (Klein-Crawford-Alchian, 1978). Second, the definition of an equitable sharing of quasi-rents among all the different actors involved in the supply chain. Unstead of analyzing contract terms as a whole, the analysis have to focus on the specific properties of each of these clauses, before their general architecture and equilibrium.

◆ First, the same model of contract is applied for all the suppliers, with some evolutions. This tripartite contract is composed of three distinct parts. One is dedicated to the quality specifications to be applied (product presentation, labeling rules, traceability specifications). A second one to the commercial blanket contract (reception control, ordering system, payment delays), and the last to the control planning on quality specifications. Several contractual clauses were successively added by the retailer between 1993 and 1999, i.e before and after the BSE crisis, in the blanket contract (see below **table 1**).

Table 1: Successive adjustments included in the initial 1993 blanket contract

the structure of the contract	After 1994	After 1996	After 1997
List of quality specifications			*Implementation of a Quality Improvement cycle*
Commercial contracts	*- the complete pricing formula*	*- Price promotions* *- Live commercial animation with RQC producers*	*- Price premium level for the breeders*
Control planning			*Formalization of the control planning*

◆ Second, the retailer uses for the governance of these contracts two other informal rules. A) an internal *exclusivity rule* for easiness of coordination, and traceability : One store is working with one slaughtering firm. This exclusivity rule in not included in contracts but is defined by the central bureau for allocating the different stores to the accredited suppliers. Stores cannot choose other suppliers. B) the retailer signs one contract with one producer's association and one individual slaughtering firm. If one slaughtering firms is working with other involved producer's associations, this slaughtering firms sign several RQC contracts. Associated with the *exclusive dealing* arrangement, this facilitate the report of quality or service defects, as well as the planning of quantities needed for the individual stores.

◆Third, another innovation is the nature of the pricing rule, i.e a « cost-plus » price system based on the reference of local cattle market prices (Table 2 below). The advantages and limitations of this "cost-plus" system has been widely analysis by economists. Price determination is usually one of the major source of dispute with breeders (Hobbs,1997). Since the price paid to the farmers is indexed on local markets, the price adjustments are realized automatically, and don't need to be renegotiated for each individual transaction. The counterpart for the slaughtering firms is the obligation of more transparency on their slaughter cost (based on accounting reports). The achievement of a price premium provides strong incentives and motivations for the participation of individual producers.

Table 2 : The pricing rule : a cost-plus pricing system indexed on market prices

Final Price paid by the Retailer includes three parts : one regarding producer's payment, a compensation for FQC producer association, and one for the slaughtering firm
$P = [X + PP] + [AC] + [SC + TC + M]$

With X = indexed regional or national cattle market price for the considered type of animals, I;e the reference price is calculated on weighted average of R grade cows and O grade cows (corresponding to smaller and light animals). Young bulls are prohibited[4]

PP = a price premium for the cattle farmer (between O,8 ct/kg and 1 F/kg).

AC = a compensation attributed for the costs supported by the RQC producer's association (based on about 10 cts/kg]

SC = the slaughtering costs supported by the slaughtering firm calculated according to the real cost accounts.

TC = a compensation attributed to the slaughtering firms for the special traceability costs supported for the RQC beef products (about 0,10 ct/kg).

M = a negotiated margin for the slaughtering firm (%), based on cost accounting

The detailed analysis of this contract design and its adaptation over time show the role of contract formalization, not only as a support for court enforcement, but also as a support for mutual learning process for the implementation of quality standards. Unstead of using the threat of contract termination, the retailer developed closer informal relationships by participating to committees and meetings with each producer's associations. The aim was explicitly to involve all the contracting partners in a continuous improvement cycle in the compliance to these new traceability and quality standards. However, this specific pricing rule doesn't eliminate any possible exit of the self-enforcing range of contract, and then sources of conflicts between the retailer and some of these producer's associations.

2.3 – The limits of adaptations mechanisms : the BSE crisis in 1996.

In the analytical framework developed by Klein (1992), one principal source of hold-up problems is due to unanticipated events that may change the balance between the contracting parties. The BSE crisis in 1996 with its drastic drop of consumption level induced a change in the self-enforcing range of these contracts, i.e a change in the stream of quasi-rent due to this branding strategy. This change was also linked to some adjustment in the branding strategy of the retailer. First, RQC branding was adopted by individual store on a voluntary basis. It

[4] These prices apply even if animals effectively delivered are heifers or steers, for which market prices are usually higher. Hence, slaughtering firms have high incentives to sort animals corresponding exactly to the retailer requirements. Bundling strategies of heterogeneous products is central for the economy of this sector, and met similar problems to those analyzed by Kenney-Klein (1983) or Gallick (1984).

became mandatory for all the 133 individual stores of this large retailer. Moreover, a performance target of 70% of the beef sale under this brand name was assigned to the product line managers. These changes lead to a drastic increase of sale's volumes in a very short period of time. In such situation, a contract renegotiation is needed. In the case of our French retailer, the main historical producer's association *FQRN* refused this renegotiation,. This is a typical hold-up situation…. at the expense of the retailer.

The exit of the self-enforcing range of contract came from its misalignments induced by a change in market price differentials regarding the type and characteristics of cattle. As a matter of fact, the indexed pricing rules was dependent of the type of the animal (cow, heifer, steer), and most important to its breed (*Normande, charolais*,…). Usually mixed breed like the *Normand* encountered lower market prices than for specialized meat breed like *Charolaise* or L*imousine* reared in the central area of France. Originally, this difference was central in the economic calculus of the retailer for the design of RQC supply chain, allowing as well as the payment of a higher price premium to producers. But, with the BSE crisis in 1996, this comparative price advantages disappeared for two reasons.

First, the general reduction of price levels that affects french cattle market after march 1996 was more important for specialized breed (*Charolaise* or *Limousine*) than for dairy or mixed breeds[5]. This is a typical adverse selection effect (Akerlof, 1970). The former breeds, due to differences in feeding practices, presented a lower probability of having contracted the BSE disease, but nevertheless encounter lower market prices during a some period of time.

Second, the extension of the branding strategy of the retailer had also an unexpected effect on local reference market prices. This *Normande* breed is mostly reared in a delimited regional area in the west part of France. The extension of the RQC branding strategy at a large scale creates a *rationing phenomena* on local cattle market places in this region.

So, the retailer ask for a renegotiation of its contracts, and more specifically for a reduction of the price premium given to the individual producers. One association refused this renegotiation. But unstead of using court enforcement or even an unilateral termination of contract as a threat, the retailer tries first to renegotiate with this association. The rationale here is that imposing this sanction would have been to costly for the retailer, because of the absence of alternative suppliers organized to deliver the volumes and qualities required by the

[5] Contrasting with other European countries like Germany or Italy, beef consumption patterns in France are more oriented toward cow meat, rather than toward young bulls. Before 1996, France was the first net importers of cow carcasses from Great Britain. After the BSE crisis, the restrictions on importation from Great Britain increase momentarily the market price of cow carcasses in France.

retailer. The progressive expansion after 1996 of accredited RQC's producer association reduces this pressure. At this condition, the threat of termination became credible.

III – Learning, Contract formalisation and Organisational changes.

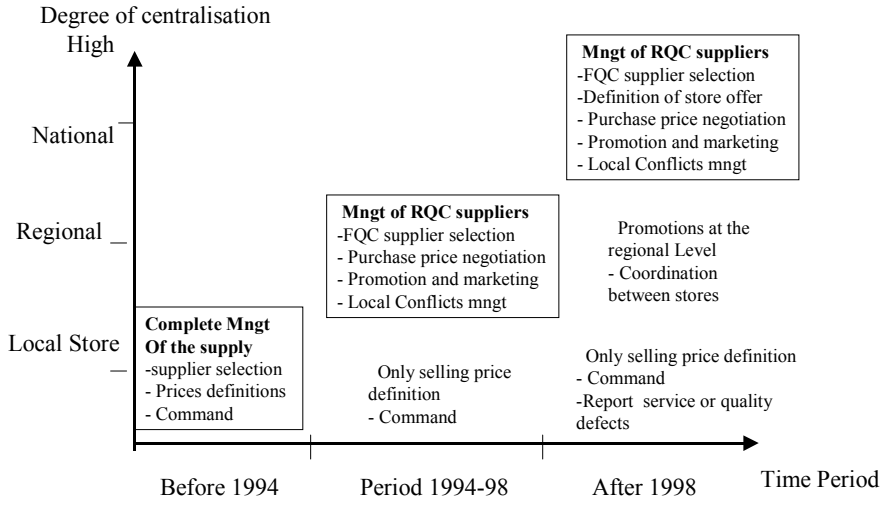
In the theoretical framework developed by Klein (1996), learning is still analysed in a very limited meaning by considering its effects on contract enforcement. As suggested by Foss (1993), the firm as a repository of tacit knowledge and competencies has been neglected in contractual analysis. The scarcity of performance indicators relative to organisational decisions, as well as the lack of conceptual models may impede the ability of managers to draw causal inference and learn from past experience (Masten, 1993). However, the codification of information involves other changes in organisational choices.

3.1 – Quality standardisation : incentives to manager and reduction of agency costs

The centralization .of decision mechanisms in large retailer's organization is a general trend observed in other European countries (Arrunada 2000). This centralization of decision mechanisms change the tasks of both store managers and beef product-line manager. The aim of the store manager is therefore to implement these decisions at minimum cost, and for the beef product line manager to care about performance. Through this new general organization, the individual stores don't participate in tariff negotiations any longer. Since 1998, the central national bureau defines and supervises the overall procurement strategy for RQC beef products, i.e. the selection of new suppliers, the definition of quality specifications, the negotiation of prices, the planning of commercial animations by breeders in local stores.

This centralization process takes place gradually over time (Figure 2). The first step was a transfer of decisions from the basic organizational unit (the store) to a regional level (called "*bassin"*). The creation of the intermediate organizational structure (*the "bassin*") had a central role in the additional training of the master butchers to these new RQC beef products, as well as increasing homogeneity and standardization among individual stores in order to sustain the reputation of RQC beef products with the consumers. The second step organized this transfer from this regional level to the central national level.

Figure 3 The Centralisation of decisions : the case of RQC organisation



The adoption of RQC beef product still depends of the decision of the master butcher depending of its own performance objectives, i.e. net margin level and annual turnover. The achievement of this margin rate is strongly dependent on the specific know-how of the master butcher regarding the optimization of cuts for mixed or specialized meat breeds. Prior 1994, they had a large, or even complete, autonomy of decision over the selection of their beef suppliers[6]. The development of this retailer branding strategy increases the need to secure its reputation capital and its credibility to consumers. Potential frauds on quality and opportunistic behavior of its store manager may affect the reputation of the retailer's brand name and its credibility to consumers.

When these division manager are subject to high powered incentives and there are no mechanisms to control long term effects, these manager are tempted to take decisions that boost their apparent performance (Arrunada, 2000)[7]. Hence, a decentralized decision-making may induce some misalignment between the optimal behavior of the decision makers and the behavior that is optimal for the company as a whole. The centralization of decisions is then a tendency which reduces the importance of these dysfunctional phenomena.

---

[6] At the beginning the sales of RQC beef product relies only on a voluntary and contractual basis for the product-line manager. These stores had only to sign a chart where they committed to : (1) the use of full cut carcasses only, (2) an « exclusive dealing clause » with a specific supplier, even during the promotional offers, (3) a respect the maturation delay included in the list of specifications. These requirements are mostly related to general traceability rules and the reduction of potential frauds due to a substitution between certified and non-certified products at the store level.

[7] Arrunada (2000) analyses these agency problems and shows that when store managers have no longer the authority to influence payment process, an improvement of the situation of suppliers may be observed.

3.2 –Third party certification as a support for quality control and enforcement

The efficiency of this centralization process may be constraint by the bounded rationality of top-managers and potential management mistakes. The nature of this trade-off was analyzed by Williamson (1967) for defining the optimal size of the firm. The gains from an increased market power due an integration process may be overcome by economic loss due to possible mistakes by managers having a bounded rationality. The centralization process is then limited by a trade-off of the reduction of these agency costs and the loss of flexibility and the mal-adaptations in planning activities. In agro-food sector, perishable products are subject to such limits, with some differences according to the type of products.

The nature of the uncertainties regarding quality products and their potential impact on the reputation capital of the retailer is one of the reason for this cooperative attitude. The use of an official quality certification may be analyzed as a way to reduce the lack of knowledge about production process.[8]. The performances of highly skilled master butchers relies mostly on professional experiences and the embodiment of tacit knowledge about meat packing, and less about breeding practices. Thus, the advantages of this quality certification for the retailer relied on an increased codification of quality specifications and on secured quality controls at the farm level[9]. The codification of quality standards does not mean standardization, defined as an increase uniformity of products.

Another point about the advantage of this certification is that when there are strong interdependencies between a set of connected transactions for the elaboration of final quality , individual responsibilities may be difficult to disentangle, thus reducing the ability of incentives and monitoring to curve opportunistic behavior or mistakes. The use of this third party certification allow to choose the cheapest point in the production process to realize these measurement, rather than making them *ex post* at the time of the exchange (Barzel, 1982). The retailer deposit in 1999 its own certification demand to become the official beneficiary of the certification.

---

[8] Barzel (1982, p.37), suggests that quality "standards appear to be the substitute for brand name, and the usage of the two will be negatively correlated. It is expected that the fewer the dimensions of a commodity amenable to standardized measurement, the greater the emphasis on brand name. Even for commodities that can be cheaply measured, however, brand name helps to assure that the measurement are correct for consumers (p.37).

[9] See Ménard (1996) for more details on some recent evolutions in the legal rules supporting the organization of private certification systems in the french and european agro-food sector.

Conclusion: Negotiation Power or Efficiency considerations

Regarding the usual idea that large retailers are endowed with overwhelming bargaining power and that they abuse this power in their relations with suppliers, the analysis emphasizes several paradoxes.

- First, the design of these tripartite contracts appears as a mean to bypass slaughtering firms as the only contractor and to introduce more t*ransp*arency in the vertical chain regarding quality guarantees and rent sharing. Their development relies on a *coalition* between the retailer and producers, at least at the beginning, to the immediate prejudice of slaughtering firms. The initial objective for the retailer was to improve the motivation of producers in implementing quality specifications through higher price premium.
- Second, with the BSE crisis in 1996, the retailer experienced at its costs an unexpected change in the self-enforcing range of these new forms of contract, thus submitting himself to an hold-up problems by one of its major supplier. This hold-up problem leads for the retailer to an expropriation of part of the quasi-rent associated to its brand name reputation capital. Contrasting with usual bargaining power interpretations, the solution adopted by the retailer relies either on court enforcement nor on an unilateral termination of the contract. In order to adjust contract terms and to maintain this partnership, the retailer privileged dispute prevention and dialogue within the producer's associations.
- Third, the adaptation and increase formalisation of contract, including the codification of quality specifications, reflect mutual learning process between contractors. According to Benjamin Klein (1992), writing explicit contract terms, whether court enforceable or not, makes it clearer to the transacting parties what has been agreed upon, thus decreasing the cost of private enforcement sanctions. The design of these new contracts counterbalances the loss of information's about farmer's breeding practices and change in the organization of their activity. It aims to improve guarantees on the effective implementation of quality specifications.

In contrast with the usual idea that suppliers are expropriated by large retailers as a consequence of specific investments, we show that the retailer just try to adjust the terms of trade to on-going changes and performance failures. The rationale here is the threat of a loss of their reputation capital regarding consumers and its ability to maintain a continuity in the relationship with its suppliers. This analysis supports the idea of Arrunada (2000) where a quasi-judicial function of large retailer is proposed, i.e. a situation where the retailer is acting as "courts of first instance" in their relations with their suppliers.

Bibliographie

Allen, D., 1991. What are transaction Costs ? *Research in Law and Economics*, 14, 1-18.
Arrunada, B., 2000. The Quasi-judicial Role of Large Retailers: an efficiency Hypothesis of their relation with suppliers. Revue d'Economie Industrielle. Vol. 92, pp. 277-296.
Barzel, Y., 1982. Measurement Cost and the Organization of Markets. Journal of Law and Economics. Vol. 25, pp. 27-48.
Barzel, Y., 1989. The Economics of Property Rights. Cambridge University Press.
Foss, N., 1993. Theories of the Firm: Contractual and Competence Perspectives. Journal of Evolutionary Economics. Vol. 3, pp. 127-144.
Gallick, E., 1984. Exclusive Dealing and Vertical Integration: the efficiency of contracts in the tuna industry. In: S. Masten (eds), Case Studies in Contracting and Organization, Oxford University Press, 1996.
Hobbs, J., 1997. Measuring The Importance of Transaction Costs in Cattle Marketing. American Journal of Agricultural Economics. Vol. 79, pp. 1083-1095.
Kenney, R. and B. Klein, 1983. The Economics of Block Booking. Journal of Law and Economics. Vol. 26, pp. 497-540.
Klein, B., 1992. Contracts and incentives : the role of contract in assuring performance. In: L. Werin and H. Wijkandre (eds), Contract Economics, Cambridge, Blackwell, pp.149-172.
Klein, B., 1996. Why Hold-Ups Occur: The Self-Enforcing Range of Contractual Relationships. Economic Inquiry. Vol. 34, pp. 444-463.
Klein, B. and K. Leffler, 1981. The Role of Market Forces in Assuring Contractual Performance. Journal of Political Economy. Vol. 89, pp. 615.
Klein, B. and K. Murphy, 1988. Vertical Restraints as Contract Enforcement Mechanisms. Journal of Law and Economics. Vol. 31, pp. 265-297.
Masten, S., 1993. Transaction Cost, Mistakes and Performance : Assessing the Importance of Governance. Managerial and Decision Economics. Vol. 14, pp. 119-129.
Masten, S., 1998. Contractual Choice. In: B. Bouckaert and G. De Geest, Encyclopedia Contract Theory. Edwar Elgar.
Saussier, S., 2000. Transaction Costs and Contractual Incompletness : the case of Electricité de France. Journal of Economic Behavior and Organisation, pp. 189-206.
Shapiro, C., 1983. Premiums for High Quality Products as Returns to Reputation. Quaterly Journal of Economics. Vol. 98, pp. 659-679.
Spiller, P. and B. Zellner, 1997. Product Complementarities, Capabilities and Governance : A Dynamic Transaction Perspective. Industrial and Corporate Change. Vol. 6, no 3, pp. 561-594.
Williamson, O., 1967. Hierarchical Control and the Optimum Firm Size. Journal of Political Economy. Vol. 75, pp. 123-138.
Williamson, O., 1996. The Mechanisms of Governance. Oxford University Press.