

Retailers' branding strategies: Contract design, organisational change and learning

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Abstract

This article analyses the recent development by some large retailers in France of dedicated Quality Supply Chains for their food products. The major contractual innovation rests on the design of *tripartite* contracts between a retailer, agro-food firms and farmers' associations. In contrast to mainstream contract literature, we demonstrate that contract adaptations may reflect a mutual learning process between transactors: why do transactors write explicit contracts that they know cannot be court enforced? Empirical data are based on the joint analysis of a full set of contracts between one retailer and all its beef suppliers, and their diachronic evolution before and after the BSE crisis (the period 1993-2000). Contract design and organisational changes at the retailer level are shown to be strongly interrelated.

Key Words : Contract design, hold-up problems, beef sector, self-enforcement

J.E.L. : D23, D83, O31, Q13, L15, L14, L22, L42, L81

1. Introduction

The development of consumers' concerns about quality specifications and the traceability of information about farmers' practices is a recent, but powerful trend in agro-food sectors. 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 retailers' brand name strategies have introduced two innovations. First, they communicate information to consumers on a fully quality-controlled supply chain with an official third-party certification. Second, these branding strategies include the design of new forms of contractual arrangements based on tripartite contracts, which include agro-food firms and farmers' associations as direct transactors. The implementation of these new forms of contracts and their evolution over time introduce several paradoxes with regard to the usual idea that large retailers are endowed with overwhelming bargaining power and that they abuse this power in their relations with their suppliers.

One of the major theoretical issues associated with these new branding strategies in agro-food sectors is the formalisation of contracts and their role for guaranteeing the implementation of quality specifications. Informal contracting has long been dominant in many agricultural markets. This formalisation of contracts is often interpreted

as a trend towards more vertical integration and an instrument to reduce inefficiencies created by information asymmetries all along the production process (Hennessy, 1996). Other theoretical interpretations are proposed by contract theories, especially transaction cost economics (TCE) (Klein, 1992; Williamson, 1996). In contrast to some analyses that focus on contract formalisation as a support for court enforcement and *ex post* conflict resolution, the idea developed in this article is that, as suggested by Klein (1992), contract formalisation may also serve as a mutual learning process, and thus may reduce misunderstandings between transactors.

Empirical data are based on the joint analysis of the retailers' organisation and the full set of 15 contracts between one of the top-ten large retailers in France and its beef suppliers, including their diachronic evolution before and after the BSE crisis in 1996 (the period 1993-2000). We show that this evolution is explained, for the retailer, by the threat of losing its reputation capital among consumers, as well as the need to counterbalance the loss of information about farmers' breeding practices and to codify the tacit knowledge and competencies involved for the evaluation of quality. As a consequence, the retailer may just have tried to adjust the terms of trade to on-going changes and performance failures (Arrunada, 2000), acting then as a "court of first instance" in its relations with suppliers.

¹This analysis is based on the main results of my Ph.D. dissertation on contract design and enforcement in the French beef industry. For this specific case study, research assistance was provided by Cecile Choimet. Thanks also to E. Valceschini for facilitating access to data and to an anonymous referee.

2. Sustaining brand name reputation

In European agro-food sectors, the demand of consumers for a reinforcement of quality guarantees at all stages of the supply chains, from the individual farmer to the large retailer, is becoming a main concern for many private firms. First, it may represent a direct threat to their reputation capital among consumers when a “crisis” arises (Klein and Leffler, 1981). Second, it may also involve, depending on the country, liability and possible legal proceedings (Buzby and Frenzen, 1999). Instead of being a new form of vertical integration, the formalisation of contracts provides guarantees and tie-ins for quality controls, and it clarifies the individual responsibilities of the concerned contractors.

Measurement costs and the formalisation of contracts

The development of private branding strategies by international or national firms is now widespread in many agro-food sectors. It is one of the major instruments to deal with the demand for consumer information. These strategies are often considered in the literature as an alternative to state regulation of labelling requirements, or even to specific collective certification systems developed in some European countries (especially France and Italy). In general, marketing strategies require large investments to support the creation of reputation capital that individual farmers, or even small collective producers’ groups, are often unable to achieve². Recent empirical studies demonstrate that successful branding strategies were often based on the creation of cooperative behaviour among all the economic operators in the vertical chains. Cooperative behaviour does not mean that there are no conflicts or sources of litigation. Rather, one of the major issues is the design of adequate governance mechanisms for dealing with bilateral or multilateral dependencies without going as far as integration (Williamson, 1996).

The formalisation and the design of contracts are a central part of these governance mechanisms. The integration of quality assurance concerns in the design of contractual arrangements is mostly motivated by the existence of potential opportunistic behaviour by firms or their suppliers, leading to a reduction of the promised quality level or to imperfect compliance to prescribed production standards. The intensity of contractual problems then depends on the type of commodities and the ability to reduce measurement costs (Barzel, 1982; Allen, 1991). In this case, *adverse selection* or *moral hazard* phenomena are just specific cases of a more

general problem created by measurement costs and the combination of two attributes: their *variability* and their *alterability*.

First, many commodities, especially raw materials like fruit and vegetables or beef, may have highly variable quality attributes. This *variability* reduces the ability of a brand name to serve as a support for reputation mechanisms (Klein and Leffler, 1981). A second source of problems arises with the potential *alterability* of quality attributes, and the temptation for the producer to reduce the level of quality proposed to the consumers, when quality attributes cannot be immediately observed at the time of the exchange. The gains of such alterations are potentially higher for high-quality products than low- or standard-quality products, or for products that have non-observable or non-verifiable attributes. Incentives for possible non-compliance or even fraud in disregarding contractual quality specifications are then stronger. The combination of these two dimensions is summarised in the table below.

Table 1. A typology of measurement problems for the quality attributes of products.

Alterability of quality attributes	Variability or heterogeneity of goods	
	Low	High
Low	Only information problems	Sorting and safeguard costs for dealing with this variability
High	Ex ante and ex post quality controls and safeguard costs	Both sorting and quality control problems

Source: Allen (1991)

The economic literature suggests that branding strategies may work as a credible signal to consumers for standardised products, which have a low variability of quality attributes. However, for non-standardised products, other mechanisms of quality control or safeguards have to be implemented (Klein and Leffler, 1981, Barzel, 1982). This is a possible explanation for the limited development of branding strategies for beef products, at least in France, despite some successful attempts (like the brand name *Charal* for processed beef). Another possibility is that these restrictions

²This analytical characterisation of the role reputation mechanism was first introduced by Klein and Leffler (1981) on consumer transactions, and extended to the analysis of inter-firms relationship (Kenney and Klein, 1983; Klein and Murphy, 1998). It differs on several points from the one developed by Shapiro (1983).

to the development of quality strategies in the beef sector are the result of non-cooperative behaviour in the vertical chain and of obstacles to defining new forms of contractual arrangements to support these quality strategies.

It is traditional for transaction cost economics to stress the diversity of contractual arrangements and the nature of enforcement mechanisms (Williamson, 1996). The question of contract design has two sides: who is the contracting party making investments in reputation capital and information to the consumers and what are the quality specifications that have to be applied all along the vertical chain? Considering that the investing party is the retailer, contract design as a support for quality assurance mechanisms has to deal with two contractual problems.

First, it has to define efficient contractual safeguards to secure the retailers' investments for their own brand names and their reputation capital, by reducing the risk of losing the quasi-rents generated by this strategy of differentiation, or at least, by maintaining their market share in a context of declining beef consumption. Without these contractual safeguards, these investments in communication and consumer information will not be realised, leading to inefficiencies and potential *under-investment* situations in the competitive structure of the market (Klein et al., 1978).

Second, it has to propose an *equitable sharing* of these quasi-rents between the retailer and its suppliers, that fulfills two conditions: the suppliers must agree to participate in these dedicated quality supply chains, and they must accept mitigation of potential sources of litigation and conflicts that are costly to manage and that may impede the efficiency of quality assurance mechanisms (Klein, 1996). This equitable sharing has both a subjective dimension (what is the definition of a *fair trade*?) and an objective dimension associated with the existence of measurement costs (Barzel, 1982).

Often passed over by other contract theorists, measurement costs related to the performance of goods or services are a significant category of transaction costs associated with contractual specifications (Klein, 1992). This point has been largely neglected in the analysis of governance mechanisms (Williamson, 1996)³. Among the alternative mechanisms that contribute to the reduction of these measurement costs, quality standardisation, or at least the codification of quality specifications, is a facilitator for market functioning and the definition of inter-firm contracts. The formalisation of contracts, including these quality specifications, may be interpreted less as a trend towards

more vertical integration, than as an alternative to it. Moreover, contract formalisation may not serve only *ex post* court enforcement purposes.

As suggested by Klein (1992), the writing of a formal contract may help the transacting partners (and potential future transactors in the marketplace if the contract is made public) gain a better understanding of what the agreement between the parties consists of. The learning effects are related both to the observation of past contractual behaviour of the partners, as well as of their ability to implement the required quality specifications. The continuity of the relationships may help the partners develop a tacit understanding of their mutual expectations. In return, one of the major problems associated with increased formalisation of contracts that contractors have to deal with is the potential *ex post* costs of a misalignment of contract terms due to unforeseen events (Masten, 1993). Contract adaptation is a central issue in improving their capacity to adjust to unanticipated disturbances.

Hold-up problems and the self-enforcing range of contracts

Nevertheless, 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 (Masten, 1998). For many transactions, private enforcement of the contract is central when resorting to the courts appears to be expensive, too complex or involves too many delays in the expected gains of the contractors. Agro-food sectors are concerned with these issues.

As suggested by Klein (1996), contract terms complement private enforcement by optimally defining what is called the *self-enforcing range of contracts*. The self-enforcing range of contracts defines a "*tolerance zone*", to which self-interested contractors will commit themselves in their contractual promises and within which misalignments (e.g. acceptable fluctuation of prices, demand volumes...) can be absorbed (Klein 1992). Within this self-enforcing range, neither party would attempt a hold-up, that is, that one of the contractor violates the intent of the contractual understanding by expropriating the quasi-rents from specific investments made by the transacting parties.

The choice of contract terms and timing is central for the delimitation of this self-enforcing range. The contracting parties have to evaluate *ex ante* the nature and scope of potential contractual hazards, in order to define acceptable

³This situation may be explained by the paradigmatic dimension of the "make or buy" question for transaction cost economics, and the central role of asset specificity as the major explaining factor (Williamson, 1996).

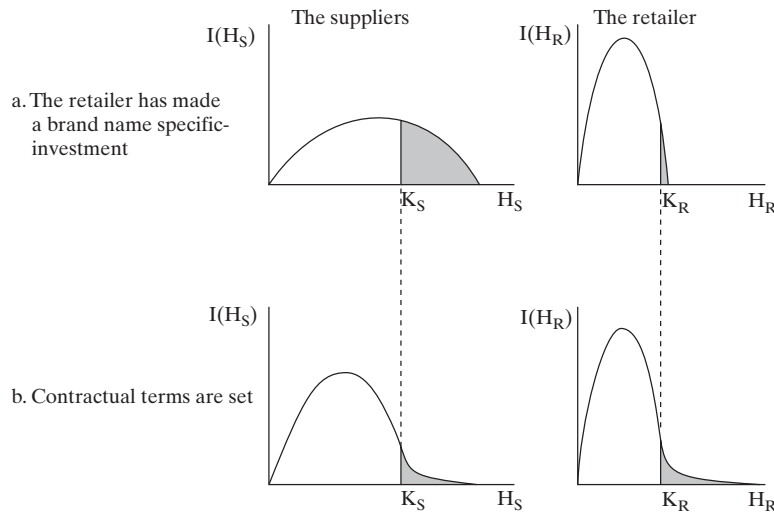


Figure 1. Contractual reduction in hold-up probabilities.

terms of trade for both parties⁴. Figure 1 illustrates the probability distribution of the hold-up potential for the transactors in a situation in which a retailer is trying to secure its own branding strategy and its supply contracts in order to restore consumer confidence about quality. For simplicity, the analysis only considers bilateral contracts. During the first period, the retailer makes specific investments to support its dedicated branding strategy with the objective of restoring consumer confidence. Once the contract terms are set, a new equilibrium is defined.

The hold-up potential is represented in Figure 1 by the area in the hold-up probability distribution where the expected gains are greater than the private enforcement capital. The respective hold-up gains of the retailer (H_r) and those of the suppliers (H_s) will be equivalent to:

$[1 - F_S(K_S)] + [1 - F_R(K_R)]$. The global objective for the contracting parties, once the contract terms are set, is to minimise 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. The magnitude of this private sanction, here denoted as 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 as H , with the loss associated with 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 marketplace after the break, then the transactors will engage in hold-up. Following the demonstration of Klein (1992), contract formalisation operates as a private enforcement mechanism in two fundamental ways. First, this formalisation reduces the probability of potential hold-up by defining verifiable performances in the transaction. As this makes potential court enforcement easier, it will *prevent* contractors from trying to engage in hold-up activities. Second, the choice of contract terms⁵, including non-price mechanisms, may introduce some shifts in private enforcement capital from one transactor to another. These shifts may be intentional. A more equitable sharing of the quasi-rents may promote more cooperative behaviour, compared to the search for a complete appropriation of the quasi-rents by the retailer.

Proposition 1: *Writing explicit contract terms, whether court enforceable or not, makes it clearer to the parties what has been agreed upon, and thus favours learning effects.*

In this perspective, the performance of suppliers is also influenced by the fact that their contracting partners must

⁴ For TCE, the source and the scope of contractual hazards are influenced by the degree of asset specificity, including the availability of substitute suppliers/customers, the importance of this product line to their business, the competitive structure of the market and what competitors are doing... (Williamson, 1996).

⁵ These contract terms include non-price mechanisms that may influence the level of quasi-rents, and thus the self-enforcing range of contracts and their efficiency (Klein, 1996). These are including take-or-pay provisions, territorial exclusivity, resale price minimum, block booking arrangements,... (Masten, 1993).

credibly commit to providing them with a future quasi-rent stream. Obtaining this quasi-rent stream acts, first, as an *ex ante* incentive through the delivery of a "price premium" to the suppliers, and second, *ex post* as a mechanism of sanction through the threat of the loss of this quasi-rent. However, this self-enforcing range is never permanently defined, owing to changes in market conditions (Klein, 1992). Adaptation is then a central issue for the design of contracts (Williamson, 1996). In addition, when actions are not fully observable or verifiable, especially with regard to quality specifications, the *monitorability* of these contracts is also at stake. Here, explicit attention has to be given to the internal organisation chosen by the contractors for the governance of their inter-firms contracts.

Adaptation mechanisms and the costs of organisation

Court enforcement is not necessarily the primary reason for contract formalisation. Learning dimensions associated with initial contract design and its adaptation over time still remain a neglected area in the economic literature. The incomplete nature of contracts has been mostly 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. The central trade-off relies on the comparison of the *ex ante* costs of writing contracts with the reduction of potential *ex post* contractual hazards (Masten, 1993). The formalisation of contracts also results in a codification of information, which will affect in return the internal costs of organisation involved in the governance of inter-firm contracts.

Within formal organisations, rules, procedures of evaluation and vertical command, as well formal authority in the allocation of decision mechanisms develop the capacity of parties to measure relative performance, and enhance the capacity of firms to deal with disturbances. As quoted by Masten et al. (1991), Ronald Coase asserted that "*the costs of organising and the losses through mistakes will increase with an increase in the spatial distribution of the transaction organised, in the dissimilarity of transactions, and in the probability of change in the relevant prices*" (Coase, 1952). In other words, internal organisation costs are likely to be higher for transactions that are differentiated from other activities in which the firm is engaged and for which there is a greater degree of uncertainty. Supervision and management of employees will be more difficult when managers are unfamiliar with the production process, while more complex or uncertain transactions demand a greater share of the management's limited attention and would also be more expensive to administer.

Proposition 2: *As the codification of information and quality specifications creates greater similarity among transactions, a centralisation of decision and supervision mechanisms for the contractors is facilitated.*

Just as the optimal determination of contract duration, the formalisation of contracts may involve the design of adaptation mechanisms in order to reduce the potential loss of *ex post* flexibility in contract terms (Masten, 1993). Three dimensions are important for the governance of contracts, even if they are rarely considered simultaneously:

- *Intensity of incentives*, including both price and non-price mechanisms that affect the level of appropriable quasi-rents (exclusivity rules, RPM...);
- *Modes of controls*, including bilateral information disclosure and substantiation, input or output monitoring, and third-party certifications;
- *Adaptation mechanisms*, with a distinction between *autonomous or mechanical clauses* (like indexed prices, penalties if deadlines are not met) and *cooperative mechanisms* which require the formal acceptance of the parties.

Crucial to our understanding then is the fact that these contracts are embedded in governance structures defined as a general framework, within which partners will develop specific features to deal with necessary adjustments (Williamson, 1996; Ménard, 1996). The codification improves private enforcement mechanisms of contracts through a reduction of the costs of monitoring and by imposing sanctions when fraud or simple contract breaches for whatever reason are detected. Most empirical case studies consider, for analytical simplicity, one specific clause or dimension of the contract (Masten, 1998). The attempt here is to consider contract design and its governance as a whole, including both contract design and organisational patterns for their governance.

The following section provides a comprehensive, but detailed, analysis of successive contract adaptations implemented by one of the top-ten large retailers in France with all its beef suppliers before and after the BSE crisis in 1996. First applied for beef products, these new forms of contract design are used as a model for the organisation of supply chains for other products (especially GMO-free products) and other countries.

3. A retailer's branding strategy and its governance: a case study in the beef sector

Since the BSE crisis in 1996, the development of new retailers' branding strategies was primarily motivated by the desire to restore consumer confidence and maintain consumption level. But the increasing concerns about quality assurance demand drastic changes in the organisation of

retailers' supply chains. One of them is the design of new forms of contracts and the extensive use of a private, third-party quality certification. These new forms of contractual arrangements introduce several organisational and contractual innovations, regarding specific governance mechanisms for their adjustments over time. The central idea developed in this section is that these contractual adjustments were first driven by a *test-error* organisational learning process for the retailer facing unanticipated changes in the self-enforcing range of these new forms of contracts.

A contractual innovation: the design of tripartite contracts

The branding strategy analysed here was initiated in 1993 by one of the main French large retailers under its own brand name "RQC"⁶. First used on a voluntary basis by local stores of the retailer and its master butchers, this labelling 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 represented almost 7% of all the fresh beef direct sales to consumers in France (around 7000 animals every week). But the main innovation associated with this RQC brand name is the design of forward contracts with suppliers, both slaughtering firms and a producer association. In contrast to the usual dominance of informal contracts in the beef sector (Hobbs, 1997)⁷, the contractual innovation relies on the introduction by the retailer of these producers' association as a full co-contractor, tied to

slaughtering firms. This contractual arrangement takes the form of a tripartite contract between the retailer, a slaughtering firm and a specific producers' association (Figure 2).

This new contractual architecture was initiated first through a partnership with a local producers' association (FQRN) dedicated to the promotion of a specific French breed (*Normande*), mostly located in the Normandy region of France. In 1999 this association represented about one third of the total beef sales of the retailer. After 1996, a change was introduced towards a diversification of the beef supply to other breeds (mainly *Charolaise*) and to other regions (see Annex). In 1999, the RQC agreements involved 8 producers' marketing associations regrouped around 23,700 individual breeders, and 6 slaughtering firms with 11 slaughtering plants. One slaughtering firm is the leader in France and covers half of the RQC beef supply. Three other firms deliver about 10-15% each. These RQC producers' associations play a central role, both *ex ante* for the definition and the negotiation of quality specifications, and *ex post* for the prevention of conflicts with other contracting parties, including both the retailer and the slaughtering firms.

The advantage of these contractual arrangements is that they provide the retailer a way to improve its knowledge about farmers' practices and the efficiency of *traceability* systems, in a context involving a large number of individual farmers. As a matter of fact, the formalisation of these contracts may be analysed as an indirect way to control the production technology used by the farmers, one of the main



Figure 2. New forms of contractual arrangements in the beef sector in France.

⁶ Names have been changed in order to preserve the confidentiality of the involved firms.

⁷ In France in 1994-1995, cattle marketing was organised mostly through market intermediaries, like producers' groups (32%), private middlemen (34%), marketplaces (19%) and direct relationships with slaughtering firms (10- 15%). Bilateral forward contracts with individual breeders were exclusively used by producers' groups for the finishing of young bulls. Less than 2-3% of the transactions were realised through local auction markets.

critical points regarding the nature of information delivered to consumers. According to property rights theory, those who have the most influence on final quality must bear the consequences of their actions (Barzel, 1989).

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

The nature of contract terms and their formalisation

The creation and allocation of quasi-rents is central for the definition of self-enforcing contracts between the contracting parties (Klein, 1996). Instead of considering the specific properties of each contract clause, the analysis must also consider their general architecture and the equilibrium between them.

- First, the same model of contract is applied for all the suppliers, with some evolution over time. This tripartite contract is composed of three distinct parts. One is dedicated to the quality specifications to be applied (product presentation, labelling rules, traceability specifications); a second one is dedicated to the commercial blanket contract

(reception control, ordering system, payment delays), and the last is dedicated to the planning of the controls realised by the certifying organisations with the agreement of the suppliers. Several contractual clauses were successively added to the blanket contract by the retailer between 1993 and 1999, thus before and after the BSE crisis (Table 2).

- Second, the retailer uses for the governance of these contracts two other informal rules. A) An internal *exclusivity rule* for ease of coordination and traceability: one store works with one slaughtering firm. This exclusivity rule is not included in the contracts, but is defined by the central bureau for allocating the different stores to the accredited suppliers. Stores cannot choose others suppliers. B) The retailer signs one contract with one producers' association and one individual slaughtering firm. If one slaughtering firm works with other RQC producers' associations, this slaughtering firm signs several RQC contracts. One of the objectives of this *exclusive dealing* arrangement is to improve the reporting of quality or service defects by the local stores to the central bureau of the retailer, 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" system based on the reference to local cattle market prices (Table 3). The advantages and limitations of this "cost-plus" system have been widely analysed by economists. Price determination is usually one of the major sources of dispute with breeders (Hobbs, 1997). Since the price paid to the farmers is indexed on local markets, the price adjustments are realised automatically, and need not be renegotiated for each individual transaction. The slaughtering firms are then also obligated to provide more transparency on their slaughtering cost (based on accounting reports). Their own rewards are based on these slaughtering costs, a negotiated margin (around 2%), and a compensation

Table 2. Successive adjustments included in the initial 1993 blanket contract.

Structure of the contract	After 1994	After 1996	After 1997
List of quality specifications			Implementation of a quality improvement cycle
Commercial contract	<ul style="list-style-type: none"> • Complete pricing formula 	<ul style="list-style-type: none"> • Price promotions • Live commercial animation with RQC producers 	<ul style="list-style-type: none"> • Price premium level for the breeders
Control planning			Formalisation of the control planning

Table 3. The pricing rule : a cost-plus pricing system indexed on market prices.

Final Price paid by the Retailer includes three parts: one regarding producers' 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^a.

PP = a price premium for the cattle farmer (between 0.10 and 0.15 euro/kg carcass).

AC = a compensation attributed for the costs supported by the RQC producers' association (based on about 0.2 euro/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 0.02 euro/kg carcass)

M = a negotiated margin for the slaughtering firm (2-3%), based on cost accounting

^aThese 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, which meets similar problems to those analysed by Kenney-Klein (1983) or Gallick (1984).

for specific traceability costs⁸. The achievement of this price premium provides strong incentives and motivations for the participation of individual breeders.

The detailed analysis of this contract design and its adaptation over time show the role of contract formalisation, not only as a support for court enforcement, but also as a support for a mutual learning process for the implementation of quality standards. Instead of using the threat of contract termination, the retailer developed closer informal relationships by joining the committees and meetings of each producers' association. The objective was explicitly to involve all the contracting partners in a continuous improvement cycle regarding the implementation of these new traceability and quality standards. In a way, the design of this "cost-plus" pricing system contributes to this objective through the introduction of an automatic adaptation mechanism to changes in market prices, thus reducing *ex post* renegotiation problems. However, it does not eliminate any radical changes in the self-enforcing range of contracts, and thus the emergence of potential sources of conflicts between the retailer and some of these producers' associations.

The limits of adaptation mechanisms: the BSE crisis in 1996

In the analytical framework developed by Klein (1992), one main source of hold-up problems is linked to unanticipated events that may change the balance between the contracting parties, rather than to informational asymmetries. The BSE crisis in 1996 with its drastic drop of consumption level may have played such a role with two consequences. First, it caused a change in the branding strategy of the retailer with the decision to extend these RQC labelling to most of the beef products sold by its stores. At the beginning, the adoption of RQC by individual master butchers was settled only on a voluntary basis. After 1996, it became mandatory for all 133 individual stores of this large retailer, and a performance target of 70% of the beef sales under this brand name was assigned to the product line managers. Second, the retailer required a huge increase of the production volumes in a very short period of time. The main historical producers' association, FQRN, was first asked to deal with these adjustments in volumes, without eliminating completely the risk of shortage. Thus it was decided to diversify the suppliers, and to create an opening for new types of breeds, like the *Charolaise*, that had previously provided a less favourable profitability ratio for the retailer.

⁸ The market reference used in this pricing rule is, for all contracts, based on the average market price of R and O (EUROP carcass grading system) cows, even if animals delivered are heifer or steers (which are usually more expensive). Young bulls are not allowed. Hence, slaughtering firms receive strong incentives to correctly sort animals and their products before their delivery to the retailer.

These adjustments in the retailers' strategy led to a change in the self-enforcing range of contracts, creating the need for an *ex post* renegotiation of the contracts. One reason was the spreading of branding strategies, and a reduction of the differentiation level with other competitors. Another reason was a change in the market price differentials regarding the type and characteristics of cattle. In the RQC contracts, the indexed pricing rule is based on the type of animal (cow, heifer, steer), and most importantly on its breed (*Normande*, *Charolaise*). Usually, mixed breeds, like the *Normande*, encountered lower market prices than specialised meat breeds, like *Charolaise* or *Limousine*, reared in the central region of France. Originally, this difference was central in the economic calculations of the retailer for the design of the RQC supply chain, which allowed a higher price premium to be paid to producers. This comparative price advantage disappeared with the BSE crisis in 1996 for two reasons.

First, the general reduction of price levels that affected the French cattle market after March 1996 was more important for specialised breeds (*Charolaise* or *Limousine*) than for dairy or mixed breeds. This phenomenon may be interpreted as a typical "*adverse selection*" effect in a context of uncertainty (Akerlof, 1970)⁹. The former breeds, due to differences in feeding practices, presented a lower probability of having contracted the BSE disease, but nevertheless encountered lower market prices for a limited period of time.

Second, the extension of the branding strategy of the retailer had the unexpected effect of raising local market prices. This *Normande* breed is mostly reared in a limited regional area in the western part of France. The extension of the RQC branding strategy on a large scale created a *rationing phenomenon* at local cattle marketplaces in this region.

All these interactions induced a change in the self-enforcing range of RQC contracts and the created stream of quasi-rents in a context of a reduction of the consumption level. The retailer asked for a renegotiation of its contracts, and more specifically for a reduction of the price premium given to the individual producers. The unexpected result was that the main historical producers' association, FQRN, refused to allow this renegotiation. In a way, this is a typical hold-up situation at the expense of the retailer. Instead of using court enforcement or even a unilateral termination of contract as a threat, the retailer tried first to renegotiate with this association. Following Klein (1992), the rationale here was probably that imposing a sanction would have been too costly for the retailer, because of the absence of alternative suppliers organised to deliver the required

volumes and qualities with minimal delays, and the risk of losing potential future suppliers. Another point is that these adjustments in contract terms rest on changes in the internal organisation of the retailer.

4. Learning, contract formalisation and organisational changes

In the theoretical framework developed by Klein (1996), learning is still analysed in a very limited way 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). For the development of its RQC branding strategy, the retailer had to deal not only with its suppliers, but also with coordination with and between all its individual store managers.

Quality standardisation: incentives to managers and reduction of agency costs

The centralisation of internal decision mechanisms by large retailers is a general trend observed in other European countries, even for manufactured products (Arrunada 2000). One possible explanation for this trend may be the strategy of internationalisation of some major large retailers and the extension of their activities to other countries, requiring a stronger control over decentralised retail units. However, this general trend contrasts, for example, with the large autonomy of the hired master butchers in individual stores. As the development of this RQC branding strategy increased the need for the retailer to secure its reputation capital and its credibility to consumers, some restricting rules and organisations were defined over time. Potential fraud related to quality and opportunistic behaviour of its store managers may affect the reputation of the retailers' brand name and its credibility to consumers. For large firms, this situation may arise because of substantial delegation of decisions. In the case of RQC supply chains, a centralisation process of decision mechanisms took place gradually over time (Figure 3). The first step was a transfer of decisions from the basic organisational unit (the store) to a regional level (called "*bassin*"). The creation of the intermediate organisational structure (the "*bassin*") played a central role

⁹ Compared to 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 importer of cow carcasses from Great Britain. After the BSE crisis, restrictions on importation from Great Britain created a temporary increase of market prices for cow carcasses in France.

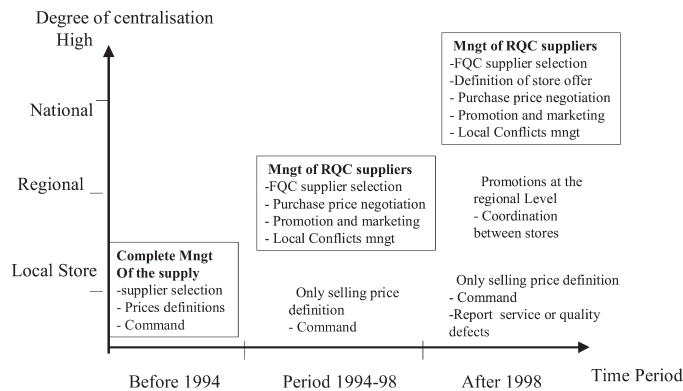


Figure 3. The Centralisation of decisions: the case of an RQC organisation.

in the additional training of the master butchers related to these new RQC beef products, as well as in increasing homogeneity and standardisation among individual stores in order to sustain the reputation of RQC beef products among the consumers. The second step involved the transfer from this regional level to the central national level.

Through this new general internal organisation, the individual stores no longer participate in tariff negotiations. 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, and the planning of commercial animations by breeders in local stores. The consequence is a change in the allocation of tasks both for individual store managers and their beef product-line managers. The aim of the store manager is therefore to implement these decisions at minimal cost, and the beef product-line manager is concerned about performance, i.e. net margin level and annual turnover. The achievement of this margin rate depends strongly on the specific know-how of the master butcher regarding the optimisation of cuts for mixed or specialised meat breeds¹⁰. The adoption of RQC beef products was met with some resistance among individual master butchers. In the previous organisation, they had extensive, or even complete, autonomy over the selection of their beef suppliers. Some authors, like Arrunada (2000), argue that when these division managers are subjected to high-powered incentives

and there are no mechanisms to control long-term effects, they are tempted to take decisions that boost their apparent performance¹¹. Hence, decentralised decision-making may induce some misalignments between the optimal behaviour of the store managers and the behaviour that is optimal for the company as a whole. In this theoretical perspective, the centralisation of decisions appears to be a solution for the reduction of these dysfunctional phenomena. However, some limitations to this centralisation may be defined by the bounded rationality of top-managers and by potential management mistakes.

Third-party certification as a support for quality control and enforcement

The organisational changes implemented by the retailer reflect both changes in incentives at the intermediate level of the hierarchy, and the need for new competencies for managing the relationships with their suppliers. Some may wonder about the limits to this centralisation process. For example, Williamson (1967) demonstrated that the gains from increased market power induced by such an integration process might be overcome by the economic loss due to possible mistakes by managers having a bounded rationality. This trade-off defined the optimal size of the firms. Another point to consider is the formalisation and the codification of information and quality specifications as a mean to facilitate this centralisation of decision processes. Based on a clarification of individual performance targets and of

¹⁰ At the beginning, the sale of RQC beef products was only on a voluntary and contractual basis for the product-line manager. These stores had only to sign a contract in which they committed themselves to: (1) the use of fully cut carcasses only, (2) an “exclusive dealing clause” with a specific supplier, even during the promotional offers, (3) respecting the maturation delay included in the list of specifications. These requirements are mostly related to traceability rules and the reduction of potential fraud by substitution of certified with non-certified products at the store level.

¹¹ Arrunada (2000) analyses these agency problems and shows that when store managers no longer have the authority to influence the payment process, an improvement of the situation of suppliers may be observed.

information systems, the centralised governance of this RQC contract is easier. Hence, the optimal level of the centralisation process is influenced by a trade-off between the reduction of agency costs, described in the previous section, and the costs of mistaken decisions in a very uncertain environment.

In agro-food sectors, perishable products are subject to such limits, with some differences according to the type of product. A lower level of centralisation must be observed compared to other products (Arrunada, 2000). Our case study demonstrates that, even for very sensitive products like fresh beef products, some retailers are adopting a centralisation of their decision processes in their own organisations. One argument in favour of this is that the uncertainties of quality products may have a strong impact on the reputation capital of the retailer. The use of an official quality certification may be analysed as a way to improve information and to reduce the retailers' lack of knowledge about the production process and all its details. The performance of highly skilled master butchers depends mostly on professional experience and tacit knowledge about meat packing, rather than about breeding practices. The main advantages of this third-party certification for the retailer are linked to the specific codification of quality specifications and the implementation of quality controls at the farm level¹². Breeders' practices are the focus of the food safety concerns of consumers. Another point 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 curb opportunistic behaviour or mistakes. One of the benefits of this third-party certification is probably the access to checked methodologies of controls, and the implementation of controls at the cheapest point in the production process, instead of making them *ex post* at the time of the exchange (Barzel, 1982).

The point here is that this increased formalisation of contracts, including quality specifications, was intended in part to counterbalance the retailer's (and its local product-line manager's) loss of direct knowledge about individual breeding practices at the farm level. Amazingly, the retailer was not, until 1999, the official holder of this product certification. The retailer had thus no direct access to the results of the auditing activities carried out by the certifying organisations, nor to the sanctions applied to the suppliers that were not implementing all detailed quality specifications. Information disclosure became possible only when the retailer officially registered its own list of quality

specifications with the French Ministry of Agriculture. This list of quality specifications is very close to the one proposed by the producers' organisations. The codification of quality standards does not mean standardisation, defined as a higher uniformity of products, but rather an explication of tacit information about the production process.

This loss of knowledge is the result of the global re-organisation of vertical relationships that took place in the French beef industry during the 1970s. The result for most retailers was a complete delegation of the management of their relationships with the breeders to the slaughtering firms. The codification of breeding practices was not, at this time, a major issue, even for farmers. The other contractors did not even know them. The general objective was much more to keep such specific know-how in the tacit domain. The current trend towards more codification and monitoring of quality specifications in the beef industry is thus breaking up past organisational models adopted in this sector.

5. Conclusion: negotiation power or efficiency considerations

With regard to 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 emphasises several paradoxes.

- First, the design of these tripartite contracts appears to be a means to bypass slaughtering firms as the only contractor and to introduce more *transparency* in the vertical chain regarding quality guarantees and rent sharing. The development of these contracts relies on a *coalition* between the retailer and producers, at least at the beginning, to the immediate disadvantage of slaughtering firms whose negotiation power is reduced in their relationship with breeders. The initial objective for the retailer in this study was to improve the motivation of producers in implementing quality specifications through a higher price premium.
- Second, with the BSE crisis in 1996, the retailer experienced an unexpected and disadvantageous change in the self-enforcing range of these new forms of contracts, thereby facing some hold-up problems caused by one of its major suppliers. These hold-up problems led the retailer to expropriate part of the quasi-rents associated with its brand name reputation capital. Contrary to usual bargaining power interpretations, the retailer did not use the threat of a unilateral termination of the contract. To adjust contract terms and maintain this partnership, the retailer chose dispute prevention and dialogue within the producers' associations.

¹² See Ménard (1996) for more details on some recent evolutions in the legal rules supporting the organisation of private certification systems in the French and European agro-food sectors.

• Third, the adaptation and increased formalisation of contracts, including the codification of quality specifications, reflect a mutual learning process between contractors, both for the retailer and the farmers. As suggested by many studies on quality management, the extraction of tacit knowledge or know-how about the production process, and above all its codification, is central for the creation of a learning process for this production process. Writing explicit contract terms may then appear to be a way to clarify what the parties agreed upon. It may also decrease the cost of private enforcement sanctions by defining a stronger commitment of producers' organisations, while at the same time preserving the relative contractual freedom of individual breeders.

Contrary to the usual idea that suppliers are expropriated by large retailers as a consequence of specific investments, we showed that the retailer first tried to adjust the terms of trade to on-going changes and performance failures induced by events not anticipated in the initial contract design. This analysis supports the idea of Arrunada (2000) in which a quasi-judicial function is proposed for the large retailer, i.e. a situation in which the retailer acts as a "court of first instance" for its suppliers. However, the centralisation process engaged by the retailer for its own internal organisation appears to question the nature of this new equilibrium.

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Annex: Statistics of production and geographic localisation of RQC associations.

Breed		Year	Geographic region in France	No. of farmers	No. of basic members	% RQC vol.
Normande	N°1	1993	Normandie	6990	27 + 8	32.2 %
<i>Montbéliarde and Abondance</i>	N°2	1994	Jura, Doubs	4032	4 coop	13.3 %
	N°3	1996	Savoie Alpes	892	3 assoc.	2.7%
<i>Charolaise</i>	N°4	1996	Bourgogne	3127	5 coop	14.5 %
	N°5	1996	Bourgogne, Auvergne	2780	?	14.1 %
	N°6	1996	Pays de la Loire	1612	4 coop	5.9 %
<i>Limousine Charolaise</i>	N°7	1996	Poitou-Charentes	1800	4 coop	14 %
<i>Blonde d'Aquitaine</i>	N°8	1997	Sud-Ouest	1950	5 coop	3.3 %